When you have decided a biologic is the next step
Choose ENBREL for appropriate moderate to severe RA patients

Indication
ENBREL is indicated for reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in patients with moderately to severely active RA. ENBREL can be initiated in combination with methotrexate (MTX) or used alone.

Important Safety Information
ENBREL has been shown to increase the risk of serious infections leading to hospitalization or death, including tuberculosis (TB), bacterial sepsis, invasive fungal infections (such as histoplasmosis), and infections due to other opportunistic pathogens, and should be discontinued if a patient develops a serious infection or sepsis.

Test for latent TB (if positive, start treatment for TB prior to starting ENBREL) and monitor for active TB during treatment.

Lymphoma and other malignancies, some fatal, have been reported in children and adolescents treated with tumor necrosis factor (TNF) blockers, including ENBREL. Please see additional Important Safety Information and Brief Summary of Prescribing Information on the adjacent pages.

TEMPO was a 3-year, multicenter, double-blind, clinical trial of 682 patients with moderately to severely active RA (mean disease duration: 7 years), who had an inadequate response to at least 1 DMARD excluding MTX. At baseline: patients were ≥18 years of age, MTX-naïve, had an ESR ≥28 mm/hr or CRP ≥20 mg/L, and were in ACR functional class I, II, or III. 1,2

Call ENBREL Support™ after you prescribe: 1-888-4ENBREL
www.enbrel.com/rheumpro

ENBREL provided rapid and sustained efficacy in patients with moderate to severe RA

ACR 20 Responses at Week 2, Year 1, and Year 3 (NRI) were:
- 44%, 75%, and 52% for ENBREL + MTX*
- 19%, 59%, and 33% for MTX only

*P < 0.001 vs MTX at all timepoints

NRI=Nonresponder imputation

Visit us at booth 707
IMPORTANT LOCATIONS

ACR Office .................................................. 102A; Telephone: (202) 249-4001
Attendee Lounge ................................................. Ballroom Pre-Function
Business Center .................................................. L Street South Lobby (under escalator)
Career Connection ............................................... Exhibit Hall (Hall A), Booth 945
Child Care .......................................................... Call for Location; Telephone: (202) 249-4008
CME/Internet Center ............................................. Concourse (near entrance to Hall A)
Coat/Baggage Check ............................................ Registration (Salons G-H-I)
Exhibit Hall .......................................................... Hall A
First Aid ............................................................ Exhibit Hall (Hall A, bottom of escalator)
Graffiti Walls ..................................................... Exhibit Hall (Hall A) & Grand Lobby
Hotel Reservations ............................................... Registration (Salons G-H-I)
Industry-Supported Symposia Information .................. L Street South Lobby (under escalator)
Innovation Theater ............................................... Hall A, Booth 1451
Lost and Found ................................................... ACR Office (102A)
Membership Booth ............................................... Registration (Salons G-H-I)
Newsroom .......................................................... 203A-B; Telephone: (202) 249-4005
Nursing Mothers’ Room ........................................ Salon D
Poster Hall .......................................................... Hall B
Prayer Room ....................................................... Salon E (East Building, Street Level)
Recharge Areas ................................................... Exhibit Hall (Hall A, main aisles), Attendee Lounge (Ballroom Pre-Function) and large meeting rooms
Registration ....................................................... Salons G-H-I (Level 1)
Resource Center .................................................. L Street Bridge (Level 2)
Restaurant Reservations ........................................ Grand Lobby

Rheumatology Research Foundation
5K Run/Walk Registration ...................................... Registration (Salons G-H-I)
Rheumatology Research Foundation Booth ................ L Street Bridge (Level 2)
Rheumatology Research Foundation
Donors’ Lounge ............................................... East Overlook (2nd Floor)
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♿️ Special Needs
If you require special arrangements, please contact the ACR Office (102A); Telephone: (202) 249-4001.

Emergency Contact Information
Space is provided on the back of your badge to list name and telephone numbers of your emergency contacts. Please complete this information before inserting your badge in your badge holder.
ABOUT THE ANNUAL MEETING

Participation Statement
This annual meeting is sponsored by the American College of Rheumatology for educational purposes only. The material presented is not intended to represent the only or the best methods appropriate for the medical conditions being discussed, but rather is intended to present the opinions of the authors or presenters, which may be helpful to other healthcare professionals at arriving at their own conclusions and consequent application. Attendees participating in this medical education program do so with full knowledge that they waive any claim they may have against the College for reliance on any information presented during these educational activities. The College does not guarantee, warrant or endorse any commercial products or services.

The ACR’s CME purpose is to provide comprehensive education to improve the knowledge and performance of physicians, scientists and other health professionals. The ACR will offer evidence-based educational activities designed to enhance practice performance and improve the quality of care in those with or at risk for arthritis and rheumatic and musculoskeletal diseases.

Global Learning Objectives
At the conclusion of the 2012 ACR/ARHP annual meeting, participants should be able to:

• identify recent developments in the diagnosis and management of patients with rheumatic diseases
• outline new technologies for the treatment of rheumatologic problems
• describe potential challenges in the delivery of care to patients with rheumatic diseases and to specify possible solutions
• utilize new research data to improve the quality of care of patients with rheumatic diseases
• summarize recent rheumatology research findings

The program is the result of a planning process that identified educational needs to change or enhance the knowledge, competence or performance of rheumatology professionals. The program’s content was derived from both needs assessment and practice gap analysis that took professional activities, practice setting, ABIM recertification requirements and physician attributes into account.

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Start your visual exploration of rheumatology today at http://images.rheumatology.org!

Stop by the ACR Resource Center, located on the L Street Bridge (Level 2), and speak with staff to learn more about the Rheumatology Image Bank and all it can offer you.

COPYRIGHT MATERIALS POLICY

The annual meeting is a private event. Programs presented at the meeting are for the education of attendees and purchasers of recorded presentations as authorized by the ACR. The information and materials displayed and presented during this meeting are the property of the ACR and the presenter and cannot be photographed, copied, photocopied, transformed to electronic format, reproduced, or distributed without written permission of the ACR and the presenter. Any use of the program content for commercial purposes, which includes, but is not limited to oral presentations, audiovisual materials used by speakers, and program handouts without the written consent of the ACR is prohibited. This policy applies before, during and after the meeting. The ACR will enforce its intellectual property rights and penalize those who infringe upon it.

The names, insignias, logos and acronyms of the ACR, the ARHP and the RRF are proprietary marks. Use of the names in any fashion, by any entity, for any purpose, is prohibited without the express written permission of the ACR.

MEDIA

Credentialed media attend the annual meeting to cover stories for consumer, trade and other media outlets, and are easily identified by their black press ribbons. Media has access to all general sessions and limited access (at the discretion of speakers) to meet the Professor and Workshop sessions. Media may use hand-held audio recorders and still cameras; moving video recording is also permitted with the permission of the presenter(s). The exception to this policy is that no photos or video are allowed in the exhibit hall. Press who would like general photos of the exhibit hall can obtain these after the meeting from the ACR. Attendees who have questions about the ACR’s media policies should contact Suzanne Forte at sforte@rheumatology.org.

EMBARGO POLICY

Accepted abstracts are made available to the public online in advance of the meeting and are published in a special supplement of Arthritis & Rheumatism. Information contained in those abstracts may not be released until the abstracts appear online. Academic institutions, private organizations and companies with products whose value may be influenced by information contained in an abstract may issue a press release.
to coincide with the availability of an ACR abstract on the ACR website. However, the ACR continues to require that information that goes beyond that contained in the abstract (e.g., discussion of the abstract done as part a scientific presentation or presentation of additional new information that will be available at the time of the meeting) is under embargo until 4:30 PM Eastern Time on Saturday, November 10, 2012. Violation of this policy may result in the abstract being withdrawn from the meeting and other measures deemed appropriate. Authors are responsible for notifying financial and other sponsors about this policy.

MEETING INFORMATION

Cell Phones, PDAs & Other Electronic Devices
As a courtesy to meeting attendees, electronic devices must be operated in silent/vibrate mode within educational sessions; devices that beep, ring, etc. are prohibited. Cell phone conversations are not permitted in meeting rooms.

Children
For safety reasons, strollers are not permitted in the exhibit hall and all children must be accompanied by an adult. Only registered attendees will be permitted into meeting rooms.

Child Care
KiddieCorp is providing child care services for our attendees during meeting hours. If you did not reserve space in advance, you can inquire about space availability by calling (202) 249-4008.

Nursing Mothers’ Room
During scientific session hours, a staffed Nursing Mothers’ room will be available in Salon D. This room will have a private seating area, a refrigerator and a bulletin board for information exchange, advice and suggestions.

Exhibit Hall
The 2012 exhibit hall is located in Hall A. See page 331 for more information.

Exhibit Hall hours:
Sunday, November 11. ............... 10:00 AM – 5:00 PM
Monday, November 12. ............... 10:00 AM – 5:00 PM
Tuesday, November 13. ............... 10:00 AM – 5:00 PM

Meeting Room Capacity/Important Fire Safety Information
Attendance at scientific sessions is on a first-come, first-served basis. Rooms which have reached the maximum capacity may be closed according to local fire and safety regulations. Standing in the aisle or against the walls is not permitted. If overcrowding occurs, staff/security personnel will close the session. If space does not permit you to attend a session, the session may be available on SessionSelect or replayed in the SessionSelect Lounge located in the West Overlook (2nd Floor) of the convention center.

Photography and Videotaping
Photographers will be present at the meeting. Registration and attendance at, or participation in, ACR meetings and other activities constitutes an agreement by the registrant for the ACR’s use and distribution (both now and in the future) of the registrant or attendee’s image or voice in photographs, videotapes, electronic reproductions, and audio tapes of such events and activities. Visual reproduction of sessions is prohibited without prior written permission of the ACR. The ACR reserves the rights to audio and video reproduction at the 2012 ACR/ARHP Annual Meeting. See copyrighted materials policy for more information on page 11.

Name Badges
For security reasons, your badge will be required for admittance to all sessions, exhibits, social events and shuttle buses. Please wear your badge so it can be easily seen at all times. Lost badges should be reported to the registration staff immediately.

No Smoking
All meeting facilities at the convention center, hotel meeting rooms and other venues have been designated as non-smoking areas.
MEETING NAVIGATION GUIDE
Use the following track icons to help you identify the most relevant content based on your specialty.

Basic Science
Business/Administration
Clinical Practice
Clinical Science

SESSION FORMATS

Basic Science Symposia provide an update of the most recent scientific developments in the field of rheumatology.

Clinical Symposia provide instruction to improve patient care. Developments from other specialties and practical patient management skills will be emphasized. Included are Clinical Reviews.

Concurrent Sessions offer educational programs of interest to various health professionals. Concurrent sessions include invited speakers; peer-reviewed programs and lectures; research and special interest abstract sessions.

Exhibits and Industry-Supported Sessions provide attendees with an opportunity to learn about the latest technological advances in the treatment of rheumatic diseases within the exhibit hall via various exhibitions and non-CME sessions in the Innovation Theater, as well as evening and post-meeting symposia.

Meet the Professor Sessions provide an opportunity for interaction and consultation with highly respected professionals who have expertise in a particular area. A separate registration is required.

Networking Events provide unique opportunities to socialize and network with peers in smaller group settings.

Pre-Meeting Courses offer attendees, with a specific interest, a unique learning opportunity. A separate registration is required.

Study Groups bring together attendees with a common interest in one disease, a group of related disorders, or a specialized field of study for discussion and dissemination of information.

Workshops foster hands-on learning, and provide an opportunity for interaction and consultation with highly respected professionals who have expertise in a particular area. A separate registration is required.

ABSTRACT FORMATS

Late-Breaking Session features truly late-breaking research.

Oral Presentations are the main forum for didactic presentation of original research related to rheumatic diseases.

Plenary Sessions highlight abstracts of significant novelty and importance. There will be three theme-based sessions offered.

Poster Presentations feature poster displays of abstracts, while facilitating one-on-one interaction between the presenter and the audience.

Poster Tours are small groups guided by experts in a particular field. Each tour will highlight selected posters of novel or recent developments within an abstract category. There is no additional cost to participate, although a separate registration is required.

PAIN MANAGEMENT

The ACR designates certain sessions for pain management credit as required by the Medical Board of California (AB487). This designation is identified by the icon shown and will be placed next to the session title.

PATIENT SAFETY

The ACR designates certain sessions that will satisfy patient safety/risk management requirements of the Medical Board of Pennsylvania. This designation is identified by the icon shown and will be placed next to the session title.
Within the Resource Center you can:

- Demo popular online products and receive daily giveaways
- Get details about educational activities in 2013
- Speak with key representatives from the ACR and ARHP journals
- Learn about the latest advocacy efforts
- Enroll in the new ACR Rheumatology Musculoskeletal Ultrasound Certification program
- Get answers to your coding and billing questions
- Collect complimentary product brochures, publications and patient education materials
- Speak with ACR staff about health information technology, new initiatives, CME, MOC and much more

Come discover all the College offers you, your patients and your practice at the Resource Center—where the resources you need are all in one place!

Resource Center Hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Saturday, November 10</td>
<td>7:00 AM - 6:30 PM</td>
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<tr>
<td>Sunday, November 11</td>
<td>7:00 AM - 6:30 PM</td>
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<td>Monday, November 12</td>
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<td>Tuesday, November 13</td>
<td>7:00 AM - 6:30 PM</td>
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<tr>
<td>Wednesday, November 14</td>
<td>7:00 AM - 1:00 PM</td>
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</tbody>
</table>

Stop by the ACR Resource Center to see what’s new with the College! We’re located on the L Street Bridge (Level 2).
MEETING SERVICES

My Annual Meeting – Everything You Need, in One Place
Search the program, access syllabi, view abstracts, track your CME and retrieve recorded sessions on SessionSelect. See page 18 for more information on SessionSelect.

Resource Center – The Spot for All Things ACR!

Resource Center Hours:
Saturday, November 10 .............. 7:00 AM – 6:30 PM
Sunday, November 11 .............. 7:00 AM – 6:30 PM
Monday, November 12 .............. 7:00 AM – 6:30 PM
Tuesday, November 13 .............. 7:00 AM – 6:30 PM
Wednesday, November 14 .......... 7:00 AM – 1:00 PM

Stop by the Resource Center, located on the L Street Bridge (Level 2), to learn more about the exceptional services the College has to offer and the exciting new initiatives under way. Staff will demonstrate popular online resources, provide information and answer any questions you may have. The Resource Center has it all in one place! See page 14 for more information.

Look for these specific areas in the Resource Center:
• Advocacy
  Get the most up-to-date information on the legislative and regulatory issues affecting your profession. We have talking points on all ACR legislative priorities and tips on how to get more involved with the ACR’s advocacy efforts. You can also receive information on RheumPAC – the ACR’s political action committee.

• College Showcase
  Throughout the week, recordings of sessions will be replayed. ACR staff will also present interactive demonstrations of educational resources and practice tools.

• Lupus Initiative
  This educational initiative, designed to reduce health disparities in lupus based on gender, race and ethnicity, will offer demonstrations of educational resources for health professionals in training and in practice. Lupus experts are encouraged to drop by to participate in our online discussion.

• Practice Management & Coding
  Visit with ACR certified coders and practice management experts for any coding, billing, insurance or practice management questions. We have all the resources you need for an efficient rheumatology practice. You can also pick up the latest copy of the ACR’s monthly RheumWATCH.

• Publications
  The editorial office staff of the Arthritis & Rheumatism and Arthritis Care & Research journals will be available to answer questions concerning online article submission and article review processes for the journals.

• Quality & Informatics
  Learn how enrollment in the Rheumatology Clinical Registry can benefit you by providing hands-on measurement tools and reports that enable you to comparatively assess the quality and outcome of rheumatologic care you provide. Plan on attending interactive demonstrations of this tool offered throughout the week.

• Recertification
  Need help navigating Maintenance of Certification? We have answers to help steer your route to success with the American Board of Internal Medicine’s Maintenance of Certification program. An ABIM representative will be on-site throughout the week to help answer your questions.

• Musculoskeletal Ultrasound Certification—NEW!
  Interested in certifying in ultrasound? The ACR is providing a voluntary pathway for physicians, physician assistants and nurse practitioners who perform ultrasound as part of their practice in rheumatology to demonstrate competence to patients, peers and payers through its first certification program. Stop by the ACR Rheumatology Musculoskeletal Ultrasound Certification kiosk to enroll in the first exam and learn more about the program.

Membership Booth
Located in the registration hall (Salons G-H-I), this is the place to go if you want to become a member, pay dues, reinstate your membership, learn more about member benefits and awards, or volunteer to serve on a committee.

Lost and Found
Found items should be returned to the ACR Office, room 102A. If you are looking for a lost item, go to the ACR Office or call (202) 249-4001.
Newsroom
Located in room 203A-B, use of the Newsroom is limited to media representatives with press passes.

Attendee Lounge
Across from the Ballroom, attendees are welcome to relax and enjoy seating while networking with colleagues, checking e-mail, and recharging their laptops or smartphones.

Announcement Boards
Located in the Ballroom South Prefunction (attendee lounge), display boards will be available for posting announcements and events of interest. Posted materials are limited to 8.5” x 11” in size. Job postings are not permitted.

Career Connection
Employers and candidates are encouraged to take advantage of the Career Connection located in the exhibit hall (Hall A, Booth 945) to post position openings, search nationwide rheumatology career opportunities and much more.

On Tuesday, November 13, potential employers and candidates can meet in the exhibit hall and enjoy a complimentary boxed lunch (provided to the first 100 participants) while discussing career opportunities. During this time employers can distribute handouts, flyers or business cards to potential candidates.

Career Connection Hours:
Sunday, November 11 ................. 10:00 AM – 5:00 PM
Monday, November 12 ................. 10:00 AM – 5:00 PM
Tuesday, November 13 ............... 10:00 AM – 5:00 PM

Registration
Registration counters are located in the registration hall (Salons G-H-I).

Registration Hours:
Friday, November 9 .................... 6:30 AM – 6:00 PM
Saturday, November 10 ............... 6:30 AM – 6:30 PM
Sunday, November 11 ................ 6:30 AM – 6:00 PM
Monday, November 12 ............... 6:30 AM – 6:00 PM
Tuesday, November 13 ............... 6:30 AM – 6:00 PM
Wednesday, November 14 .......... 7:00 AM – 1:00 PM

Shuttle Bus
Shuttle service will be provided to and from the Walter E. Washington Convention Center and ACR hotels which are designated as non-walking hotels. On Friday, Saturday and Wednesday service operates continuously. On Sunday through Tuesday, service operates from 6:30 – 10:30 AM and 2:30 – 6:30 PM. Special service will be provided on Saturday, November 10 to and from the Opening Event at the Newseum. Full shuttle service information will be posted in ACR hotel lobbies, at the shuttle bus entrance of the convention center and online.

This service is complimentary for attendees and registered guests who booked their rooms through ACR Housing. Attendees who have booked their rooms on their own in contracted or non-contracted ACR hotels may purchase an ACR shuttle bus pass at the ACR registration counter for $40.

Speaker Ready Room
Located in room 156. Check-in is expected of all speakers. Plan to check in 3 hours prior to your presentation time. In the Speaker Ready Room, you can review your presentation and approve the file to be uploaded to the central server. Professional audiovisual technicians will be available to assist you. Computers in the Speaker Ready Room will be configured with hardware and software exactly like the ones in the meeting rooms and will allow you to preview your presentation, identify problems and make corrections as necessary before your presentation.

Speaker Ready Room Hours:
Friday, November 9 .................... 6:30 AM – 6:00 PM
Saturday, November 10 ............... 6:30 AM – 6:30 PM
Sunday, November 11 ............... 6:30 AM – 6:00 PM
Monday, November 12 ............... 6:30 AM – 8:00 PM
Tuesday, November 13 ............... 6:30 AM – 6:00 PM
Wednesday, November 14 .......... 7:00 AM – 12:30 PM

Wi-Fi Way and Recharge Access
Complimentary Wi-Fi access is available in all rooms of the convention center. Recharge areas will be available in the exhibit hall (hall A), poster hall (Hall B), attendee lounge and in large meeting rooms.

Park benches, banquet rounds and cocktail tables comprise seating in the new exhibit hall Wi-Fi Way where attendees can enjoy the flurry of activity while surfing the Internet, checking e-mail and recharging electronic items.

For more information, please visit www.acr.org/conferences.
Visit our Booth
Visit the Rheumatology Research Foundation booth located on the L Street Bridge (Level 2) to find out more about what we are doing to advance treatment and find cures for rheumatic disease. View and order the latest poster in the Rodnan Commemorative Gout Print poster series, learn more about our programs and initiatives, and even receive a gift just for stopping by!

Foundation Booth Hours:
Saturday, November 10 ............ 7:00 AM – 6:30 PM
Sunday, November 11 ............ 7:00 AM – 6:30 PM
Monday, November 12 ............ 7:00 AM – 6:30 PM
Tuesday, November 13 ............ 7:00 AM – 6:30 PM
Wednesday, November 14 ........ 7:00 AM – 1:00 PM

Visit the Donors’ Lounge
Plan to spend time in the Foundation Donors’ Lounge, located in the East Overlook (2nd Floor), and take advantage of special perks! Enjoy a hot breakfast each morning and gourmet afternoon coffee service; catch up on work and check e-mail at one of the private computer stations; or relax by watching some television and catching up with your colleagues.

An official 2012 Donors’ Lounge Access Pass is required for entry and will be distributed to qualified donors at the meeting. A minimum cumulative donation of $500 to the Rheumatology Research Foundation during fiscal year 2012 (July 1, 2011 through June 30, 2012) qualifies.

Donors’ Lounge Hours:
Saturday, November 10 ............  NOON – 5:00 PM
Sunday, November 11 ............  7:00 AM – 6:00 PM
Monday, November 12 ............  7:00 AM – 6:00 PM
Tuesday, November 13 ............  7:00 AM – 6:00 PM
Wednesday, November 14 ........  7:00 AM – 12:30 PM

 Participate in the 5K Run/Walk
Sunday, November 11
6:00 – 7:30 AM
The Yards Park
www.yardspark.org

We invite you to experience D.C.’s newest waterfront destination while supporting rheumatology training and career development. The 5K Run/Walk will take place at the Yards Park, the centerpiece of the Capitol Riverfront neighborhood located just south of Capitol Hill.

Participants may register at the 5K Run/Walk Booth until 5:00 PM on Saturday, November 10. Registration is $40 and subject to space availability. Complimentary shuttle service to and from the park is provided. Participants will receive an official Rheumatology Research Foundation 5K Run/Walk T-shirt.

All proceeds support activities, grants and awards provided by the Foundation.
Maximize Your Learning Opportunities with SessionSelect!

SessionSelect is a comprehensive digital library of presentations from the annual meeting. View hundreds of hours of fully-synchronized presentations with speaker slides and audio—just as if you were actually in the room.

With SessionSelect you can:

• Access sessions online within 24 hours of the live session
• Review all or part of key educational sessions at your own pace
• View content on your mobile device or download MP3 files for listening to audio on-the-go

NEW for 2012!

SessionSelect Lounges
Got some down time between sessions? Kick-back while you replay sessions—on YOUR demand—in the new SessionSelect lounges, located in the West Overlook (2nd Floor) and Exhibit Hall (Hall A).

CME Available
Ten sessions from this year’s annual meeting are available for CME credit. Go to www.ACRannualmeeting.org/SessionSelect for a list of sessions.

To learn more about SessionSelect or to view a demo, stop by the Resource Center located on the L Street Bridge (Level 2).
SPECIAL OFFERS AT THE ANNUAL MEETING

SessionSelect – no need to miss a session!
Within 24 hours of virtually every live session at the annual meeting, video recordings of the presentations, including oral abstracts, will be available through SessionSelect, your source for ACR education, online. As a scientific attendee, you get FREE online access for one year to hundreds of hours of annual meeting content—over $500 of added value.

Select sessions will be recorded and available to view as webcasts during and after the meeting. Therefore, if you missed one of the designated sessions, you can watch it the next day through SessionSelect. You can also catch replays of select sessions from SessionSelect in the new SessionSelect lounges located in the West Overlook (2nd Floor) and inside the exhibit hall, Hall A. Check these specific areas for a tentative schedule of sessions.

Please note, recordings of individual sessions are subject to change. Ticketed sessions and pre-meeting courses are not included in this offer.

What Would Make This Meeting Better?
You’ve got ideas to share, and we’ve made it easy for you to share them.

• Post a suggestion one of the graffiti walls for all to see.
• Tweet your idea using the #ACR2012 hashtag.
• Drop a comment into one of the idea boxes around the convention center.

Medical Bag
Don’t forget to pick up a Medical Bag prior to visiting the exhibits. Each bag contains special offers and invitations from our exhibitors and will be distributed from the exhibition entrance while supplies last.

POSTER SESSIONS
Poster presentations facilitate one-on-one interaction between the presenters and attendees. Posters are grouped by topic and will remain displayed in the poster hall (Hall B) of the convention center from 9:00 AM – 6:00 PM, Sunday, November 11 – Tuesday, November 13. One poster session will be held each day. Presenting authors must be available at their poster from 9:00 – 11:00 AM to answer questions from meeting attendees as well as poster tour participants. There is no poster session on Wednesday. The number on the poster boards refers to the abstract presentation number, and this number will change for each poster session.

Thieves’ market poster sessions will be held on Sunday, November 11 and Monday, November 12.

Poster Session Presenter Instructions
Posters must be mounted by 8:30 AM and dismantled after 6:00 PM during the designated poster session as outlined in the abstract acceptance notification. Posters not picked up after 6:00 PM on Tuesday, November 13 will be recycled. In order to ensure a positive experience for both attendees and poster presenters, it is important to make sure that all posters are properly mounted and presenters are present from 9:00 – 11:00 AM for poster presentations. Poster presenter ribbons will be available in the Speaker Ready Room (room 156). If you elected to have your poster printed by the official ACR/ARHP poster printing service they will hang, take down and store your poster for you.

ACR Poster Presenter No-show Policy
Please note that the ACR will be monitoring posters during presentation hours in an effort to make certain that the ACR is meeting the educational needs and expectations of attendees.

Poster Sessions – Sunday, November 11 through Tuesday, November 13 from 9:00 AM – 6:00 PM (Posters to remain up until 6:00 PM.)

Set Up: ........................................... 7:00 – 8:30 AM
Presentation: ...................................... 9:00 – 11:00 AM
Poster Tours: ..................................... 9:00 – 9:45 AM
10:15 – 11:00 AM
Removal: ............................................. 6:00 – 6:30 PM

Guided Poster Tours
Guided poster tours, led by experts in the field, will guide small groups of attendees during the poster presentation times to highlight novel or recent developments. Selected posters from various abstract categories will be included in the tours. Although there is no fee to participate, pre-registration is required and each tour is limited to 20 registered scientific attendees.

If you would like to participate and have not registered you can check tour availability and request a ticket at registration, located in Salons G-H-I. If you registered in advance of the meeting, your ticket was included with your meeting materials. Once you have your ticket, plan to collect your headset and meet your group 10 minutes before your tour departs from the entrance of the poster hall, located in Hall B.
ACR/ARHP REGISTRATION
6:30 AM - 6:00 PM
Registration Hall (Salons G-H-I)

ACR MUSCULOSKELETAL ULTRASOUND COURSE FOR RHEUMATOLOGISTS - DAY ONE
7:30 AM - 5:30 PM

207 A

Admission to the ACR Musculoskeletal Ultrasound Course for Rheumatologists requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch.

Faculty: Rany Al Haj, MD; David A. Bong, MD; George A.W. Bruyn, MD, PhD; Arnold Ceponis, MD, PhD; Paul J. DeMarco, MD; Amy M. Evangelisto, MD; Janak R. Goyal, MD; Jay B. Higgs, MD; Gurjit S. Kaile, MBBS; Eugene Y. Kissin, MD; Minna J. Kohler, MD; Gary Kunkel, MD; Bethany A. Marston, MD; Esperanza Naredo, MD; Anthony M. Reginato, MD, PhD; Johannes Roth, MD; Jonathan Samuels, MD; Wolfgang A. Schmidt, MD; Richard J. Wakefield, BM, MD; Darren Tabechian, MD; Mihaela Taylor, MD; Nikolay Tzribachev, MD; Alvin F. Wells, MD, PhD

Upon completion of this session, participants should be able to:

- demonstrate proper ultrasound exam technique and procedure guidance applying standardized protocols
- identify and describe normal sonographic anatomy and fundamental pathology for rheumatology indications
- explain the requirements for documentation related to musculoskeletal ultrasound

7:00 - 7:30 AM
Continental Breakfast
Moderator: Amy M. Evangelisto, MD

7:30 AM
Opening Remarks
Amy M. Evangelisto, MD

Break Out Session: Adult Rheumatology
7:45 AM
Principles of Musculoskeletal Ultrasound for Rheumatologists
Wolfgang A. Schmidt, MD

8:15 AM
Introduction to Typical Sonographic Findings in Rheumatology
Esperanza Naredo, MD
8:45 AM Image Acquisition and Ultrasound Technique
Richard J. Wakefield, BM, MD

9:15 AM Hands-on Scanning: Image Acquisition and Ultrasound Technique
Faculty

Break Out Session: Pediatric Rheumatology
7:45 AM Principles of Ultrasound in Pediatric Rheumatology
Johannes Roth, MD

8:15 AM Ultrasound and MRI in Pediatric Rheumatology
Nikolay Tzaribachev, MD

8:45 AM Sonographic Anatomy in Pediatric Rheumatology
Johannes Roth, MD

9:30 AM Hands-on Scanning: Image Acquisition and Ultrasound Technique
Johannes Roth, MD; Nikolay Tzaribachev, MD; Bethany A. Marston, MD

10:00 - 10:15 AM Break

The Shoulder
10:15 AM Lecture: Standard Scans, Sonographic Anatomy, and Basic Sonographic Pathology
Gurjit S. Kaeley, MBBS

10:45 AM Demonstration: Scanning of the Shoulder
Esperanza Naredo, MD

11:00 AM Hands-on Scanning: The Shoulder
Faculty

12:30 - 1:30 PM Boxed Lunch
Moderator: Gurjit S. Kaeley, MBBS

The Elbow
1:30 PM Lecture: Standard Scans, Sonographic Anatomy, and Basic Sonographic Pathology
Amy M. Evangelisto, MD

2:00 PM Demonstration: Scanning of the Elbow
Jonathan Samuels, MD

2:15 PM Hands-on Scanning: The Elbow

ACR CERTIFIED RHEUMATOLOGY CODER COURSE: UNLOCK THE MYSTERY: A ROADMAP FOR RHEUMATOLOGY CODING – DAY ONE
9:00 AM - 5:00 PM

150 B

ACR/ABIM MAINTENANCE OF CERTIFICATION LEARNING SESSION - 2012 UPDATE IN RHEUMATOLOGY
1:00 - 6:00 PM

146 C

November 9, 2012
Upon completion of this session, participants should be able to:
• assess strengths and weaknesses in rheumatology medical base knowledge
• state major developments in rheumatology over the past ten years
• satisfy a self-evaluation requirement for the American Board of Internal Medicine Maintenance of Certification program

Overview and Session I
1:00 PM
Questions from 2012 Update: 1, 9, 15, 16, 18, 19, 22, 26, 28, 29
Carol A. Langford, MD, MHS

2:40 - 3:00 PM
Break

Session II
3:00 PM
Questions from 2012 Update: 2, 8, 11, 14, 20, 21, 23, 24, 25, 27
Mary Chester Wasko, MD, MSc

Session III
4:30 PM
Questions from 2012 Update: 3, 4, 5, 6, 7, 10, 12, 13, 17, 30
Seetha U. Monrad, MD

6:00 PM
Wrap-up

ACR BASIC RESEARCH CONFERENCE:
MESENCHYMAL CELLS IN RHEUMATIC DISEASES: TISSUE EROSION/INVASION VS. FIBROSIS – DAY ONE
1:00 - 5:55 PM

Ballroom A

Admission to the ACR Basic Research Conference requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch.

Moderator: Steffen Gay, MD

Upon completion of this session, participants should be able to:
• describe the role of mesenchymal cells in inflammatory arthritides
• describe the role of mesenchymal cells in fibrosis
• identify the factors modulating the function and development of mesenchymal cells

Session I: The Biology of Mesenchymal Cells
1:00 PM
Mesenchymal Cells
John Varga, MD

1:20 PM
Synovial Cells and the Development of the Synovial Lining
Michael B. Brenner, MD

1:50 PM
Interaction of Synovial Fluid with T cells
David A. Fox, MD

2:15 PM
Mesenchymal Cell Plasticity: EMT and Cancer
Derek C. Radisky, PhD

2:45 - 3:00 PM
Break

3:00 PM
Cellular Plasticity and Lung Fibrosis
Paul Noble, MD

3:25 PM
Biomechanical Sensing and Signaling
Boris Hinz, PhD

Session II: Core Signaling Mechanisms in Fibrosis
3:40 PM
Orbital Fibroblasts in Health and Disease
Terry J. Smith, MD

4:25 PM
Morphogen Pathways or Stem Cell Pathways
Joerg H. W. Distler, MD

5:10 PM
Novel Lipid Mediators and Eicosanoids Relevant in Synovial Biology
Charles Serhan, PhD

5:55 - 7:00 PM
Networking Reception
Networking reception combined with ACR Clinical Research Conference participants.

ACR CLINICAL RESEARCH CONFERENCE:
PAIN RESEARCH: NEW METHODS AND CHALLENGES – DAY ONE OF TWO
1:00 - 6:00 PM

Ballroom C

Admission to the ACR Clinical Research Conference requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch.

Moderator: Daniel J. Clauw, MD

Upon completion of this session, participants should be able to:
• discuss the latest clinical research techniques in the pain field, as well as the strengths and weaknesses of each technique
• stimulate new interdisciplinary relationships, including mentor-mentee relationships in rheumatology community
• disseminate the knowledge gained from this conference

Introduction: State of the Field
1:00 PM
Introductory Remarks
Daniel J. Clauw, MD

1:30 PM
Keynote Speaker: Neurophysiology and Preclinical Models
Clifford Woolf, MB, BCh, PhD
2:20 PM
Panel Discussion/Question and Answer

Clinical Trials
2:45 PM
Academic Prospective
Lesley M. Arnold, MD

3:15 PM
Accelerating the Development of Improved Analgesic Treatments: The ACTTION Public-private Partnership and Evidence-based Clinical Trial Design
Robert H. Dworkin, PhD

3:45 PM
Panel Discussion/Question and Answer

4:00 - 4:15 PM
Break

Special Issues in Pain Research
4:15 PM
Past, Present and Future-Regulatory Perspectives on Analgesics
Sharon Hertz, MD

4:45 PM
Pediatric Pain Research
Laura E. Schanberg, MD

5:15 PM
Ethics
Joseph Ali, JD

5:45 PM
Wrap Up

6:00 - 7:00 PM
Networking Reception
Networking reception combined with ACR Basic Research Conference participants.

ACR/ARHP REGISTRATION
6:30 AM - 6:30 PM
Registration Hall (Salons G-H-I)

ACR MUSCULOSKELETAL ULTRASOUND COURSE FOR RHEUMATOLOGISTS – DAY TWO
7:15 AM - 4:30 PM

Faculty: Rany Al Haj, MD; David A. Bong, MD; George A.W. Bruyn, MD, PhD; Arnold Ceponis, MD, PhD; Paul J. DeMarco, MD; Amy M. Evangelisto, MD; Janan R. Goyal, MD; Jay B. Higgs, MD; Gurjit S. Kaeley, MBBS; Eugene Y. Kissin, MD; Minna J. Kohler, MD; Gary Kunkel, MD; Bethany A. Marston, MD; Esperanza Naredo, MD; Anthony M. Reginato, MD, PhD; Johannes Roth, MD; Jonathan Samuels, MD; Wolfgang A. Schmidt, MD; Richard J. Wakefield, BM, MD; Darren Tabechian, MD; Mihaela Taylor, MD; Nikolay Tzaribachev, MD; Alvin F. Wells, MD, PhD

Upon completion of this session, participants should be able to:
• demonstrate proper ultrasound exam technique and procedure guidance applying standardized protocols
• identify and describe normal sonographic anatomy and fundamental pathology for rheumatology indications
• explain the requirements for documentation related to musculoskeletal ultrasound

6:45 - 7:15 AM
Continental Breakfast
Moderator: Alvin F. Wells, MD, PhD

7:15 AM
Opening Remarks
Amy M. Evangelisto, MD

7:20 AM
Lecture: Billing Coding and Report Generation
Alvin F. Wells, MD, PhD

The Hip
7:50 AM
The Hip - Lecture: Standard Scans, Sonographic Anatomy, and Basic Sonographic Pathology
Wolfgang A. Schmidt, MD

8:20 AM
Demonstration: Scanning of the Hip
Amy M. Evangelisto, MD

8:35 AM
Hands-on Scanning: The Hip
Faculty

9:30 - 9:40 AM
Break

The Knee
9:40 AM
The Knee - Lecture: Scans, Sonographic Anatomy, and Basic Sonographic Pathology
David A. Bong, MD

10:10 AM
Demonstration: Scanning of the Knee
Jay B. Higgs, MD

10:25 AM
Hands-on Scanning: The Knee
Faculty
11:30 AM - 12:30 PM
Boxed Lunch
Moderator: Eugene Y. Kissin, MD

Foot and Ankle
12:30 PM
Foot and Ankle - Lecture: Standard Scans, Sonographic Anatomy, and Basic Sonographic Pathology
Richard J. Wakefield, BM, MD

1:00 PM
Demonstration: Scanning of Foot and Ankle
Paul J. DeMarco, MD

1:15 PM
Hands-on Scanning: Foot and Ankle
Faculty

2:30 - 2:45 PM
Break

Ultrasound Guidance
2:45 PM
Lecture: Evidence-base for Ultrasound Guidance of Procedures
Eugene Y. Kissin, MD

3:15 PM
Lecture: Technique of Ultrasound Needle Guidance
Janak R. Goyal, MD

3:45 PM
Hands-on Scanning: Ultrasound Injection Guidance with Phantoms
Faculty

ACR REVIEW COURSE
8:00 AM - 4:00 PM
Hall D
Admission to the ACR Review Course requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch.

Moderators: Gregory C. Gardner, MD and Virginia D. Steen, MD

7:00 - 8:00 AM
Continental Breakfast

8:00 AM
Review and Update of Ankylosing Spondylitis
Speaker: Desiree M. van der Heijde, MD, PhD

Upon completion of this session, participants should be able to:
• describe to a patient or colleague the current understanding of the pathophysiology of ankylosing spondylitis
• discuss the current criteria for diagnosis and the utility of imaging studies to confirm the diagnosis
• discuss current recommendations for treating ankylosing spondylitis as well as potential agents that are soon to market that might have an impact on the disease
• describe important extra-articular manifestations of the disease

8:45 AM
When Thick Skin is Not a Good Thing
Speaker: Heidi Jacobe, MD, MSCS

Upon completion of this session, participants should be able to:
• describe what clinically distinguishes scleroderma-like diseases including localized scleroderma (morphea), eosinophilic fasciitis, scleredema, scleromyxedema, and nephrogenic systemic fibrosis from systemic sclerosis
• discuss how laboratory testing, magnetic resonance imaging and pathology can help make the diagnosis and determine how active the disease is
• discuss the best therapeutic options and what the role of phototherapy and physical therapy have on the long-term outcomes in these patients

9:30 AM
Inflammatory Myositis: 2012
Speaker: Ingrid E. Lundberg, MD

Upon completion of this session, participants should be able to:
• discuss the best approach to the diagnosis of inflammatory muscle disease and how to differentiate it from other muscle and other connective tissue diseases
• describe the important extra muscular problems in myositis, particularly the skin, joint and lung complications
• recognize which patients are at greatest risk for developing malignancy
• explain the different treatment approaches and the expected outcomes

10:15 - 10:45 AM
Break

10:45 AM
Lupus - More than Nephritis: Treatment of Non-Nephritis Lupus Problems
Speaker: Susan Manzi, MD, MPH

Upon completion of this session, participants should be able to:
• describe the use of the laboratory in the management of non-nephritis lupus
• discuss specific management issues in patients with skin, joint, hematologic, central nervous system, serositis, and lung involvement of lupus
• describe what the different steroid sparing agents are, and when and who they should be used in, and what to expect from them

11:30 AM
Setting the Stage for Rheumatoid Arthritis
Speaker: Hani S. El-Gabalawy, MD

Upon completion of this session, participants should be able to:
• describe the currently understood genetic and environmental factors that impact the development of autoimmunity, the clinical onset of synovitis, and the severity of rheumatoid arthritis
• describe to a patient with rheumatoid arthritis the sub-clinical immunologic events that may have occurred just prior to disease onset and their relationship to their symptoms
• discuss the utility of ACPA, RF, and other biomarkers in the diagnosis and prognosis of early rheumatoid arthritis
• describe the potential utility of very early treatment strategies in changing the trajectory of rheumatoid arthritis, and impacting chronicity and persistence of the disease
12:15 - 1:15 PM
Boxed Lunch

1:15 PM
Hypermobility, Diagnosis, Disease Associations, Treatment
Speaker: Elizabeth B. Russell, MD

Upon completion of this session, participants should be able to:
• evaluate and clinically diagnose hypermobility in patients and know when to proceed with diagnostic testing
• define the spectrum of disorders associated with hypermobility
• describe to a patient with hypermobility the long-term management strategies, including surgical and non-surgical options

2:00 PM
Osteoporosis Update
Speaker: Chad L. Deal, MD

Upon completion of this session, participants should be able to:
• describe the pathophysiology of osteoporosis
• determine when and for how long patients should be treated with the different types of medication
• discuss how the new biologic medications for osteoporosis will change management

2:45 - 3:15 PM
Break

3:15 PM
Is It Central Nervous System Vasculitis or Something Else?
Speaker: Leonard H. Calabrese, DO

Upon completion of this session, participants should be able to:
• describe to a colleague the evaluation for suspected central nervous system vasculitis and the pearls and pitfalls of imaging studies as well as brain biopsy
• describe to a colleague why a patient does or does not have central nervous system vasculitis based on the results of the evaluation
• discuss the conditions that mimic central nervous system vasculitis
• discuss the current recommendations for treatment of central nervous system vasculitis

ACR BASIC RESEARCH CONFERENCE:
MESENCHYMAL CELLS IN RHEUMATIC DISEASES: TISSUE EROSION/INVASION VS. FIBROSIS – DAY TWO
8:00 AM - 4:30 PM

BALLROOM A

Admission to the ACR Basic Research Conference requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch.

Moderator: John Varga, MD

Upon completion of this session, participants should be able to:
• describe the role of mesenchymal cells in inflammatory arthritis
• describe the role of mesenchymal cells in fibrosis
• identify the factors modulating the function and development of mesenchymal cells

7:00 - 8:00 AM
Continental Breakfast

Session III: Fibroblasts as Invaders and Aggressors
8:00 AM
Overview of Synovial Cell Pathobiology
Steffen Gay, MD

8:20 AM
Tumor Metastasis: Molecular Insights and Evolving Paradigms
Scott J. Valastyan, PhD

8:40 AM
Syndecans and Fibroblast Response
Thomas Pap, MD

Session IV: Immunity and Mesenchymal Cells
9:00 AM
Fibroblasts as Tumor Suppressors
Douglas T. Fearon, MD

9:20 AM
TLR Regulation of Fibroblast Function
Cory M. Hogaboam, PhD

9:40 AM
Stromal Cell Modulation by Dendritic Cells
Theresa T. Lu, MD, PhD

10:00 AM
Fibroblasts Maintain Inflammation
Christopher D. Buckley, PhD

10:20 AM
Microparticles and Inflammation
Astrid Jungel, PhD

10:40 - 10:55 AM
Break

Session V: Therapeutic Aspects: Biomarkers and Targeting Fibrosis
10:55 AM
Fibrosis Biomarkers
Robert Lafyatis, MD

11:15 AM
Macrophages and Matrix Remodeling
Jeremy S. Duffield, MD, PhD

11:35 AM
Circulating Fibrocytes in Rheumatoid Arthritis
Eleanor Fish, PhD

12:05 - 12:45 PM
Boxed Lunches

1:40 PM
Transforming Growth Factors Beta
Sheila Violette, PhD
2:05 PM
Methylation and Acetylation in Resetting Fibroblast Function
Gary S. Firestein, MD

2:30 PM
Fibroblast Reticular Cells in Inflammation
Sanjiv Luther, PhD

2:55 PM
Adipokines and Mesenchymal Cell Activation
Ulf Müller-Ladner, MD

3:20 - 3:30 PM
Break

Session VI: Therapeutic Aspects: Biomarkers and Targeting Fibrosis (continued)

3:30 PM
Chemokines and Synovial Cell Activation
Alisa E. Koch, MD

3:50 PM
Mesenchymal Stem Cell Therapy
Darwin J. Prockop, MD, PhD

4:10 PM
Purinergic Receptors Regulating Fibroblasts
Bruce N. Cronstein, MD

ARHP CLINICAL FOCUS COURSE: TREATING THE PATIENT WITH OSTEOARTHRITIS: INTERVENTIONS, INNOVATIONS AND CLINICAL INSIGHTS

7:00 - 8:00 AM
Continental Breakfast

8:00 AM
Introduction
Marie D. Westby, PT, PhD

8:15 AM
Osteoarthritis as We Understand It Today
Carla R. Scanzello, MD, PhD

9:00 AM
Osteoarthritis Assessment: Thinking Outside of the Joint
Charles R. Ratzlaff, BSc(PT), PhD, PT

10:15 AM
2012 ACR Guidelines on Osteoarthritis: A Focus on Pharmacologic Management
Marc C. Hochberg, MD, MPH

11:15 AM
Addressing Risk Factors for Osteoarthritis through the Lifespan: Let’s Start with the Kids!
Kristin M. Houghton, MD

Noon - 12:45 PM
Boxed Lunch

12:45 - 1:30 PM
Breakout Session I
What’s New in Fine Tuning the Care of the Osteoarthritic Hand?
Moderator: Kathryn L. Lowenstein, OTR
Speaker: Virginia O’Brien, OTD, OTR/L, CHT

Neuromuscular Training and Joint Mobilizations: Do We Need Both to Optimize Lower Limb Function?
Moderator: Marie Westby, PT, PhD
Speaker: G. Kelley Fitzgerald, PhD, PT

Managing Pain and Promoting Activity: It’s Not a Stretch to Suggest Complementary Movement Approaches
Moderator: Jessica F. Farrell, PharmD
Speaker: Steffany Moonaz, MFA, PhD

1:45 - 2:30 PM
Breakout Session II
What’s New in Fine Tuning the Care of the Osteoarthritic Hand?
Moderator: Kathryn L. Lowenstein, OTR
Speaker: Virginia O’Brien, OTD, OTR/L, CHT

Neuromuscular Training and Joint Mobilizations: Do We Need Both to Optimize Lower Limb Function?
Moderator: Marie Westby, PT, PhD
Speaker: G. Kelley Fitzgerald, PhD, PT

Managing Pain and Promoting Activity: It’s Not a Stretch to Suggest Complementary Movement Approaches
Moderator: Jessica F. Farrell, PharmD
Speaker: Steffany Moonaz, PhD, RYT-500

2:30 - 2:45 PM
Break

2:45 PM
Using Outcome Measures to Inform Clinical Practice
Gillian A. Hawker, MD, MSc
3:15 PM
Obesity and Osteoarthritis: Clinicians Can Make a Difference in Promoting Healthier Lifestyles
Susan J. Bartlett, PhD

3:45 PM
Osteoarthritis Chronic Disease Management in the Age of the Internet, Apps and Tweets
Patricia D. Franklin, MBA, MD, MPH

4:15 PM
Concluding Remarks
Marie D. Westby, PT, PhD

CORC PRE-MEETING COURSE FOR PRACTICE MANAGERS: HELPING YOU MANAGE A PROFITABLE PRACTICE
8:00 AM - 4:30 PM

152 A
Admission to the CORC Pre-meeting Course for Practice Managers requires a separate registration fee. Fee includes a continental breakfast and boxed lunch.

8:00 AM
Keynote Address: The World’s Best Managers Do Manage Differently-Find Your Strengths for Efficiency!
Moderator: Laura Wright, MBA, CMPE
Speaker: To be announced
Upon completion of this session, participants should be able to:
• identify how to capitalize on the strengths of staff
• develop techniques to help clarify staff roles, keeping them engaged and assisting with high performance
• identify ways to understand and communicate effectively with different personality types
• recognize the seven body language signs to watch for, and what they mean

9:15 AM
Improving Revenue Cycle Management Effectiveness and Optimize Cash Flow
Moderator: Laura Wright, MBA, CMPE
Speaker: Michael Fleischman, FAAHC
Upon completion of this session, participants should be able to:
• identify the most common denials and rejection edits
• review standard spreadsheets that will help managing physicians and practice administrators monitor the accounts receivable for the practice
• establish criteria to assess monthly accounts to streamline process
• discuss tips and techniques to explore training on handling denial codes to save money

10:00 AM - 10:15 AM
Break

10:15 AM
Effective Marketing for Today’s Medical Practice
Moderator: Cindy Gutierrez, MBA
Speaker: Simon Sikorski, MD
Upon completion of this session, participants should be able to:
• discuss the importance of marketing in 2012 and the various marketing styles for physician practices
• discuss the specifics and “do’s and don’ts” of web-based marketing
• identify easy-to-implement tips and techniques to assist physicians in marketing their practices to prospective patients, including tips to increase the efficiency of marketing campaigns

11:00 AM
Transforming the Practice Front End
Moderator: Cindy Gutierrez, MBA
Speaker: Sunjanel Avecilla, EMT-P, CPC, CMC, CMOM, CMIS, CMCO
Upon completion of this session, participants should be able to:
• identify the key issues on patient confidentiality and HIPAA compliance
• discuss the necessity for training on charting and medical record keeping
• identify areas for cross-training to enhance daily workflow
• improve patient experience on scheduling appointments, minimize excessive wait time upon arrival

NOON - 1:00 PM
Networking Lunch

1:00 PM
Deal Breakers in Payer Contract Negotiations
Moderator: Cindy Gutierrez, MBA
Speaker: Herbert S. B. Baraf, MD
Upon completion of this session, participants should be able to:
• identify specific contract language that pertains to areas such as recoupment, carve-outs, limitations and clauses
• evaluate and discuss the best way to negotiate specific requirements that should be included in a contract
• determine when is the right time to begin new negotiations or sever ties with an insurance company
• identify the top 10 “deal breakers” and “must have” in your contract

2:00 PM
Improving Accounts Receivable for Profitability
Moderator: Laura Wright, MBA, CMPE
Speaker: Sunjanel Avecilla, EMT-P, CPC, CMC, CMOM, CMIS, CMCO
Upon completion of this session, participants should be able to:
• identify the most common denials and rejection edits
• discuss how your practice management system tools can directly assist in streamlining outstanding accounts to increase revenue
• identify a tracking mechanism to secure accurate and timely reimbursement
• review claim denials and appeals to minimize leaving money on the table
3:00 - 3:15 PM
Break

3:15 PM
How to Maximize the Use of Your Practice Data
Moderator: Cindy Gutierrez, MBA
Speakers: Heather McComas, PharmD; Steve Ellwing

Upon completion of this session, participants should be able to:
• discuss the importance of how insurance programs are using provider data to drive their decision-making process regarding new payment methodologies
• discuss how physician data is used to rate quality and efficiency in physician practices
• identify how physicians and their staff can access these data from payers
• review how to use the data strategically to ensure practice efficiency and deliver quality patient care

4:00 PM
CORC Pre-meeting Course for Practice Managers - Innovations for the Office
Moderator: Cindy Gutierrez, MBA
Speakers: Larry Garber, MD and Robert W. Warren, MD, PhD

Upon completion of this session, participants should be able to:
• describe how online communication can be used to support a more effective and efficient practice
• employ strategies to encourage patient engagement per the provisions in the CMS EHR Incentive Program, while implementing efficient workflow processes to respond to patient requests for electronic access to health information
• explain privacy and security requirements and best practices to ensure that electronic patient health information is secure

8:30 AM - 4:15 PM
Ballroom C

ACR CLINICAL RESEARCH CONFERENCE:
PAIN RESEARCH: NEW METHODS AND CHALLENGES – DAY TWO

8:30 AM - 4:15 PM

Admission to the Clinical Research Conference requires a separate registration. Registration includes complimentary continental breakfast and a boxed lunch. Pre-conference courses require a separate registration fee.

Moderator: Laura E. Schanberg, MD

Upon completion of this session, participants should be able to:
• discuss the latest clinical research techniques in the pain field, as well as the strengths and weaknesses of each technique
• stimulate new interdisciplinary relationships, including mentor-mentee relationships in rheumatology community
• disseminate the knowledge gained from this conference

7:30 - 8:30 AM
Continental Breakfast

Day Two Introductory Remarks
8:30 AM
Importance of Pain Research in NIH/NIAMS Portfolio
Stephen I. Katz, MD, PhD

8:45 AM
Importance of Pain Research to ACR
David G. Borenstein, MD

From Preclinical Models to Clinical Studies
Moderator: Gary J. Macfarlane, BSc, MBChB, MD, PhD

9:00 AM
Genetic Studies
William Maixner, DDS, PhD

9:30 AM
Epidemiological Studies
John McBeth, PhD

Methods for Phenotyping Pain-1
10:00 AM
Patient Reported Outcome Measures (including PROMIS)
David A. Williams, PhD

10:30 AM
Quantitative Sensory Testing
Roger B. Fillingim, PhD

11:00 AM
Functional, Structural, and Chemical Neuroimaging
Irene Tracey, MA, (Oxon), PhD

11:30 AM
Panel Discussion/Question and Answer

11:45 AM - 1:00 PM
Boxed Lunch

Methods for Phenotyping Pain-2
1:00 PM
Realtime Assessment and Objective Measures of Function
Mark Connelly, PhD

1:30 PM
Using Large Databases
Frederick Wolfe, MD

2:00 PM
Panel Discussion/Question and Answer

2:15 PM
Introduction to Breakout Groups
Gary J. Macfarlane, BSc, MBChB, MD, PhD

2:30 - 2:45 PM
Break

2:45 - 4:15 PM
Break Out Groups

Self-Report Outcomes Including PROMIS Measures
Esi M. Morgan DeWitt, MD, MSCE, David A. Williams, PhD and James P. Witter, MD, PhD

Quantitative Sensory Testing
Roger B. Fillingim, PhD and Steven E. Harte, PhD

Functional, Structural and Chemical Neuroimaging
Dane B. Cook, PhD, Roland Staud, MD and Irene Tracey, Director
Real-time Assessment and Objective Measures of Function
Mark Connelly, PhD, Susan L. Murphy, ScD and Jennifer N. Stinson, PhD, RN, CPNP

Using Large Databases/Epidemiology
Gary J. Macfarlane, BSc, MBChB, MD, PhD and John McBeth, PhD

Genetics
William Maixner, DDS, PhD

Wrap up/Steps Forward
Gary J. Macfarlane, BSc, MBChB, MD, PhD

ACR CERTIFIED RHEUMATOLOGY CODER COURSE EXAMINATION: UNLOCK THE MYSTERY: A ROADMAP FOR RHEUMATOLOGY CODING – DAY TWO OF TWO
11:00 AM - 5:00 PM
150 B

Admission to the ACR Certified Rheumatology Coder Course requires a separate registration. Registration includes CRHC review materials and a boxed lunch. This course is not eligible for CME credit.

Upon completion of this session, participants should be able to:
• exhibit proficiency in adjudicating claims for accurate medical coding for diagnoses, procedures and services in physician-based settings
• display proficiency across a wide range of services, which include evaluation and management, surgical services, radiology, pathology and medicine
• demonstrate knowledge of medical coding rules and regulations including compliance and reimbursement
• distinguish how to integrate medical coding and reimbursement rule changes into a practice’s reimbursement process

Speaker: Melesia Tillman, CPC, CRHC, CHA

ACR/ARHP OPENING LECTURE AND AWARDS
4:30 - 6:15 PM
Hall E

Moderators: James R. O’Dell, MD, ACR President; Audrey B. Uknis, MD, ACR President-elect; Benjamin J. Smith, PA-C, ARHP President

4:30 PM
Presidential Address
James R. O’Dell, MD

4:50 PM
Rheumatology Research Foundation Announcement
David I. Daikh, MD, PhD

ACR/ARHP OPENING EVENT
7:00 - 10:00 PM

Newseum

Admission to the ACR/ARHP Opening Event at the Newseum is ticketed and requires a separate registration. Purchase your tickets in the ACR/ARHP registration area before 6:30 PM (while supplies last) to ensure you have access to this VIP event. Tickets will not be available for purchase at the Newseum.

ACR/ARHP REGISTRATION
6:30 AM - 6:00 PM
Registration Hall (Salons G-H-I)

RHEUMATOLOGY RESEARCH FOUNDATION 5K RUN/WALK
6:00 - 7:30 AM

The Yards Park
See page 17 for more information.

ACR SESSIONS
7:30 - 8:30 AM
146 C

Modifying Causal Risk Factors that Influence the Incidence of Falls by Older Adults
Moderator: Joel A. Block, MD
Speaker: Mark D. Grabiner, PhD

Recognition of 2012 ACR Masters
Recognition of the 2012 Awards of Distinction Recipients
Recognition of Presidential Gold Medal Award Recipient
Recognition of ARHP Merit Awards Lifetime Achievement Award
Recognition of Fellows Awards

5:30 PM
“Straight and Swift to My Wounded I Go”: The Reality of the American Civil War Medicine
Speaker: Robert D. Hicks, PhD

Upon completion of this session, participants should be able to:
• describe the environment of emergency medical care at the outbreak of the American Civil War
• outline the reforms to emergency medical care led by Surgeon General William Hammond and Medical director Jonathan Letterman
• identify the chief tenets of medical ideology of the Civil War era, focusing on physiology and medicines
• describe the nature of and limitations to surgery during the Civil War

SUNDAY, NOVEMBER 11, 2012
Upon completion of this session, participants should be able to:
• summarize current knowledge regarding the prevalence and risk of falling among the elderly and infirm
• discuss current thoughts regarding the neuromuscular basis of falls in the elderly
• review potential therapeutic strategies leveraging recent knowledge about pathophysiology

Hall D
Year in Review
Moderator: Chester V. Oddis, MD

Upon completion of this session, participants should be able to:
• discuss selected recent publications on the pathophysiological basis of rheumatic diseases by literature review of important publications
• describe selected treatment modalities for rheumatic diseases from the recent published literature
• enumerate how these new advances may impact the practice of rheumatology

7:30 AM
Clinical Perspective
David A. Isenberg, MD

8:00 AM
Basic Science Perspective
Daniel L. Kastner, MD, PhD

ACR SESSIONS
7:30 - 9:00 AM

204 A
Genetics as a Tool for Elucidating Autoimmune Disease Pathogenesis
Moderator: Lindsey A. Criswell, MD, MPH

Upon completion of this session, participants should be able to:
• describe genome wide association study designs, including what they can and cannot tell us about genetic susceptibility factors for autoimmune and other complex human diseases
• review the recently established genetic loci for several autoimmune diseases and which biologic pathways are most strongly implicated by these specific loci
• describe the types of investigations that will be required to understand more specifically how specific genes operate, within biologic pathways, to influence disease susceptibility and expression
• review and critique the current evidence that implicates specific genetic variants as predictors of rheumatoid arthritis treatment response

7:30 AM
Biologic Pathways Implicated by Recent GWAS of Systemic Autoimmune Disease
Peter K. Gregersen, MD

8:00 AM
Identification of Genes that Influence Response to Rheumatoid Arthritis Treatment
Robert M. Plenge, MD, PhD

8:30 AM
Functional Studies of Autoimmune Disease Genetic Risk Loci
Patrick M. Gaffney, MD

207 A
Tips for Publishing Your Work in a Peer-Reviewed Medical Journal
Moderator: Michael D. Lockshin, MD

Upon completion of this session, participants should be able to:
• assess whether their study findings are of sufficient novelty and significance to warrant submission for publication
• identify peers and superiors who could provide critical feedback on their manuscripts prior to submission for formal review
• determine the journal to which they should most appropriately submit their work
• review how to prepare their manuscripts according to the journals’ specific requirements

7:30 AM
Publishing in Arthritis & Rheumatism
Joan M. Bathon, MD

8:15 AM
Publishing in Arthritis Care & Research
Marian T. Hannan, DSc, MPH

ARHP SESSIONS
7:45 - 9:00 AM

201
ARHP First-time Attendee Orientation
First-time ARHP annual meeting attendees are invited to an orientation to learn the ‘ins and outs’ of the annual meeting. The ARHP Membership and Nominations Committee will assist you in planning how to get the most out of your first annual meeting. This session is not eligible for CME credit. Coffee and tea will be provided.

Moderator: Nadine T. James, RN, PhD

206
ARHP Moderators Orientation
This session is not eligible for CME credit. Coffee and tea will be provided.

Moderators: Linda Ehrlich-Jones, PhD, RN and Afton Hassett, PsyD

ACR MEET THE PROFESSOR SESSIONS
7:45 - 9:15 AM

Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.
148  
**Behçet's Disease (001)**  
*Speaker:* Hasan Yazici, MD

153  
**Controversies in Sjögren's Syndrome (002)**  
*Speaker:* Alan N. Baer, MD

154 A  
**Infections with Biologics (003)**  
*Speaker:* John J. Cush, MD

154 B  
**Pediatrics: Dermatomyositis (004)**  
*Speaker:* Susan Kim, MD, MPH

155  
**Pediatrics: Difficult to Treat Juvenile Idiopathic Arthritis (005)**  
*Speaker:* Murray H. Passo, MD

158 A  
**Rheumatoid Arthritis: Biological Agents (006)**  
*Speaker:* Edward C. Keystone, MD

158 B  
**Spondylarthropathy: An Update (007)**  
*Speaker:* Robert D. Inman, MD

159 A  
**Systemic Arthritis and Still's Disease (008)**  
*Speaker:* Rayfel Schneider, MBCh

159 B  
**Systemic Lupus Erythematosus: Central Nervous System (009)**  
*Speaker:* Cynthia Aranow, MD

160  
**Vasculitis Mimics (010)**  
*Speaker:* John H. Stone, MD, MPH

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**ACR WORKSHOPS**

**ACR SESSIONS**

9:00 - 10:00 AM

150 B  
**Advances in the Biology of Aging**  
*Moderator:* Peter A. Nigrovic, MD  
*Speaker:* Jan Vijg, PhD

*Upon completion of this session, participants should be able to:*
- review the role of telomere length in cell senescence, and the importance of this biology for the aging of the immune system
- discuss the presence of senescent cells in tissues and this role in aging
- discuss the possible implications of aging biology on rheumatic diseases

147 A  
**CORC FORUM: Achieving Economic Goals in An Era of Healthcare Reform**  
*Moderator:* Edward L. Morris, MD  
*Speaker:* Kevin Lieb

*Upon completion of this session, participants should be able to:*
- identify effective compensation models to improve financial outcomes
- develop key integration strategies for success in the practice
- identify how new payment options will be used in promoting quality, efficiency and improved outcomes

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*Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

*Sessions denoted with an asterisk were sold out as of September 14.*
Hall E

New Therapies for Modulating Signaling in Rheumatoid Arthritis

Moderator: Gregg J. Silverman, MD
Speaker: Mark C. Genovese, MD

Upon completion of this session, participants should be able to:
- define the basic factors and cell types involved in these pathways, and the inflammatory responses they control
- describe the rationale for the development of new agents that target these pathways
- review recent clinical trial results and appreciate the potential benefits and toxicities that have been reported

152 A

The Plasticity of T Regulatory Cells and their Role in Autoimmunity

Moderator: Richard M. Pope, MD
Speaker: Dario A. A. Vignali, PhD

Upon completion of this session, participants should be able to:
- define mechanisms which promote T regulatory cell plasticity
- identify the mechanisms by which T regulatory cells promote immune homeostasis
- identify mechanisms by which alterations of T regulatory cells promote autoimmune diseases such as rheumatoid arthritis and systemic lupus erythematosus

Hall D

Update on Stroke

Moderator: Fernando E. Figueroa, MD
Speaker: Harold Adams, MD

Upon completion of this session, participants should be able to:
- review the main types of acute cerebrovascular disease
- analyze the current diagnostic tools in the management of stroke
- review the contemporary therapies and strategies involved in the treatment of ischemic and hemorrhagic stroke

ACR SESSIONS

9:00 - 10:30 AM

202 B

Extra-articular Involvement in Rheumatoid Arthritis

Moderator: Steven B. Abramson, MD

Upon completion of this session, participants should be able to:
- describe the association between periodontal disease and rheumatoid arthritis
- examine the role of periodontal disease in the pathogenesis of rheumatoid arthritis
- determine the role of specific oral flora in the pathogenesis of periodontal disease and rheumatoid arthritis

9:00 AM

Periodontal Disease as An Initiation or Propagation Factor for Rheumatoid Arthritis

Ted R. Mikuls, MD, MSPH

9:30 AM

Does Rheumatoid Arthritis Start in the Lung?

Kevin D. Deane, MD, PhD

10:00 AM

The Role of ACPA in the Pathogenesis of Rheumatoid Arthritis

Patrick Venables, MD

145 A

Medical Education: The Year in Review

Moderator: Michael J. Battistone, MD
Speaker: Karen Szauter, MD

Upon completion of this session, participants should be able to:
- recognize the major research reports and scholarship in the field of medical education over the past year (2012)
- translate results of educational research to their own educational programs
- formulate ideas for educational research at their own institution

ACR POSTER SESSION A AND POSTER TOURS

9:00 AM - 6:00 PM

Poster presenters will be available from 9:00 - 11:00 AM (abstracts #1 - 724). Poster tours will be held 9:00 - 9:45 AM and 10:15 - 11:00 AM. Morning snacks will be available from 9:00 - 10:30 AM.

Poster Hall (Hall B)

Guided Poster Tours

Guided poster tours allow scientific attendees to ask questions and gain insights from some of the best-known rheumatology leaders. Tours are complimentary; however, registration is required and is limited to scientific attendees. If you pre-registered for a tour, you should have received a ticket with your meeting materials. Once you have your ticket, check in at the tour desk 15 minutes prior to the start of your tour to receive your headset. Your reservation will be held only until 5 minutes prior to the start of the tour. After this time, your reservation is not guaranteed and may be released to standby attendees. If you did not pre-register, tickets may be available in the registration area (Salons G-H-I). Alternatively, you may go directly to the poster tour desk and wait for a standby ticket. Standby tickets will be assigned on a first-come, first served basis 5 minutes prior to the start of each tour. Each tour participant will receive a wireless headset which will be registered against the participants’ registration ID. Participants will be charged $50 if the headset is not returned within 15 minutes of the end of the tour.

9:00 - 9:45 AM

Fellows Only: How to Navigate the Poster Hall (301)
Tour Guide: Calvin R. Brown, MD

Osteoarthritis: Clinical Aspects (302)
Tour Guide: Roy D. Altman, MD

Pediatric Rheumatology: Clinical Aspects (303)
Tour Guide: Carol A. Wallace, MD
Rheumatoid Arthritis: Clinical Aspects (304)
Tour Guide: Inmaculada del Rincon, MD, MSc
Rheumatoid Arthritis: Treatment: Small Molecules, Biologics and Gene Therapy (305)
Tour Guide: S. Louis Bridges, MD, PhD
Systemic Lupus Erythematosus: Clinical Aspects (306)
Tour Guide: Barri J. Fessler, MD

10:15 - 11:00 AM
Osteoarthritis - Clinical Aspects (307)
Tour Guide: Timothy E. McAlindon, MD, MPH
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy (308)
Tour Guide: Martin Aringer, MD
Rheumatoid Arthritis: Clinical Aspects (309)
Tour Guide: Deborah P. Symmons, MD
Spondylarthropathies and Psoriatic Arthritis: Clinical Aspects and Treatment (310)
Tour Guide: Désirée van der Heijde, MD
Systemic Lupus Erythematosus: Clinical Aspects (311)
Tour Guide: David A. Isenberg, MD

ARHP SESSION
9:30 - 10:30 AM

146 C
ARHP Keynote Address: It’s Not Child’s Play: Growing Up With and Mastering Juvenile Idiopathic Arthritis from the Child’s Perspective
Moderator: Linda S. Ehrlich-Jones, PhD, RN
Speaker: Logan Graham

Upon completion of this session, participants should be able to:
• determine how health professionals can make an impact outside of the normal treatment process
• discuss ways health professionals can exploit kids’ abilities for successful treatment
• describe how health professionals can mobilize their “inner child” for better results

RHEUMATOLOGY RESEARCH FOUNDATION SPECIAL SESSION
10:00 - 11:00 AM

Ballroom B
Oscar S. Gluck, MD, Memorial Lectureship: Bone Wasn’t Built in a Day: New Insights into Destruction and Repair in Rheumatic Disease
Moderator: Michael Maricic, MD
Speaker: Ellen M. Gravallese, MD

Upon completion of this session, participants should be able to:
• describe mechanisms of articular bone loss in different rheumatic diseases
• discuss the role of osteocytes in regulating key pathways of bone loss and formation
• identify the potential for repair of articular erosions and the pathways implicated in this process

EXHIBITS
10:00 AM - 5:00 PM

Exhibit Hall (Hall A)
Join your colleagues in the Exhibit Hall for morning and afternoon refreshments from 10:00 - 11:00 AM and 2:00 - 3:00 PM.

(Booth #1451)
Innovation Theater
Non-CME accredited presentations have been planned and will be implemented in accordance with the requirements of the FDA and applicable standards of the PhRMA Code on Interactions with Healthcare Professionals. These presentations will be held from 10:30 - 11:15 AM, 12:30 - 1:15 PM and 2:30 - 3:15 PM. For a complete listing of Innovation Theater presentations, see page 316.

ACR WORKSHOPS
10:30 AM - 12:30 PM

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

144 C
*Adult Musculoskeletal Upper Examinations (205)
Speaker: Arthur M. Mandelin II, MD, PhD

144 B
*Musculoskeletal Ultrasound (206)
Speakers: Eugene Y. Kissin, MD and Amy M. Evangelisto, MD

149 A
*Renal Histopathology in Systemic Lupus Erythematosus and Vasculitis (207)
Speaker: Megan Troxell, MD

ACR PLENARY SESSION I – DISCOVERY 2012
11:00 AM - 12:30 PM

Hall D
Moderators: James R. O’Dell, MD and Benjamin J. Smith, PA-C

11:00 AM
Rheumatology Research Foundation Industry Roundtable Awards

11:10 AM
ACR Abstract Presentation and Commentaries
Methods: We used GFP reporter mice to investigate the tissue distribution of IL-23R+ cells in the main tissues inflamed in spondyloarthropathy: the enthesis, aortic valve and uvea. Flow cytometric analysis and multiphoton microscopy was employed to characterize the location of such cells and the reactivity of this tissue to IL-23 was determined in vitro and in vivo.

Results: Entheses, the aortic root and the uvea all contain a novel tissue resident IL-23R+ T lymphocyte, negative for both CD4 and CD8, which allows the tissue to respond to IL-23. Multiphoton microscopy confirms an extremely precise enthesal localization of the IL-23R+ cell type. These cells are RAG dependent, but express the PLZF transcription factor which confers an ’innate like’ responsiveness on T cells, allowing them to immediately respond to cytokines. Entheses can respond within hours to IL-23 in vitro in the absence of further cellular recruitment. Moreover, IL-23 expression in mice is sufficient by itself to induce hallmark features of spondyloarthopath, with severe inflammation developing very specifically at the enthesis and aortic root. Enthesal bone erosion, new bone formation and periostitis are likewise present.

Conclusion: The highly restricted anatomical distribution of IL-23R+ cells explains both the exclusively precise tissue localization of disease in spondyloarthopath, as well as the known genetic associations with IL-23, and gives a very clear mechanism whereby HLA-B27 and its tendency to cause IL-23 elaboration may predispose to pathology. These IL-23R+ tissue resident cells thus form the point of integration between the specific immunological dysregulations known to be associated with disease, and the very precise anatomical sites affected. The importance of these tissue resident cells is emphasized by the ability of IL-23 to drive enthesitis despite depletion of the conventional IL-23 responsive Th17 cells. Neutralization of IL-23 therefore represents an excellent therapeutic strategy in spondyloarthropathy since it will inhibit a potent molecule associated with known genetic factors, and do so directly at the site of pathology.

Disclosure: J. Sherlock, Merck, 3; B. Joyce-Shaikh, Merck, 3; S. Turner, Merck Pharmaceuticals, 3; C. C. Chao, Merck Pharmaceuticals, 3; M. Sathe, Merck, 3; J. Grein, Merck Pharmaceuticals, 3; D. Gorman, Merck Pharmaceuticals, 3; E. P. Bowman, Merck Pharmaceuticals, 3; T. McClanahan, Merck Pharmaceuticals, 3; J. Yearley, Merck Pharmaceuticals, 3; G. Eberl, None; C. D. Buckley, None; R. Kastelein, Merck Pharmaceuticals, 3; D. LaFace, Merck Pharmaceuticals, 3; D. Cua, Merck Research Laboratory, 3

11:30 AM

726. Dynamic in vivo Imaging of Th17-Mediated Osteoclastic Bone Resorption in Live Bones by Using Intravital Multiphoton Microscopy

Junichi Kikuta and Masaru Ishii, Immunology Frontier Research Center, Osaka University, Osaka, Japan

Background/Purpose: Rheumatoid arthritis (RA) is a chronic autoimmune disease characterized by joint synovial inflammation and progressive cartilage/bone destruction. Although various kinds of cell types, such as T/B lymphocytes, macrophages and synovial fibroblasts, are involved in the pathogenesis of chronic inflammation in RA, bone destruction is considered to be mainly mediated by enhanced activation of osteoclasts. Recently CD4+ T helper 17 (Th17) cells have been reported to express RANKL on the cell surface, which were suggested to be important for osteoclastic bone destruction in arthritic joints. However, the RANKL expressed on the surface of Th17 possesses little ability for inducing differentiation, and the practical function of RANKL and Th17 on bone erosion remained elusive. This study aimed to investigate how the bone-resorptive functions of osteoclasts are regulated in situ and how Th17 cells control the osteoclastic bone resorption in vivo.

Methods: To examine in vivo behaviors of mature osteoclasts and Th17 cells, we utilized advanced imaging system for visualizing live bone tissues with intravital multiphoton microscopy that we have originally established. To identify mature osteoclasts in fluorescent microscopy, we utilized the mice in which GFP is expressed under the promoter of a vascular type H+-ATPase a3 subunit, those are preferentially and abundantly expressed in mature osteoclasts (a3-GFP mice). Polyclonally differentiated Th17 cells were labeled with fluorescent dye and then adoptively transferred into a3-GFP mice. We observed calvaria bone tissues of a3-GFP mice by using intravital multiphoton microscopy.

Results: We succeeded in visualizing live mature osteoclasts on the bone surface in situ. By using this imaging system, we could identify different populations of live mature osteoclasts in terms of their motility and function, i.e., ‘static – bone resorptive (R)’ and ’moving – non resorptive (N)’. Treatment with recombinant RANKL or bisphosphonate changed the composition of these populations as well as total number of mature osteoclasts. We also found that rapid RANKL injection converted the moving (N) osteoclasts to static (R) ones without any changes in total number of osteoclasts, suggesting a novel action of RANKL in controlling mature osteoclast function. Furthermore, we could demonstrate that Th17 cells had potency for inducing rapid N to...
R conversion of mature osteoclasts by RANKL expressed on their cell surface in situ.

**Conclusion:** By visualizing in vivo behaviors of mature osteoclasts, we for the first time identified different functional subsets of live osteoclasts on the bone surface, from ‘static – bone resorptive’ to ‘moving – non resorptive’. Furthermore, RANKL turned out not only to promote the differentiation of osteoclasts but also to regulate the bone-resorptive function of fully differentiated mature osteoclasts. RANKL-bearing Th17 cells were shown to control bone resorption of mature osteoclasts, demonstrating novel actions of Th17 that may be a novel therapeutic target in RA.

**Disclosure:** J. Kikuta, None; M. Ishii, None.

**11:45 AM**

**727. Effects of Odanacatib On BMD and Overall Safety in the Treatment of Osteoporosis in Postmenopausal Women Previously Treated with Alendronate**

Roland Chapurlat¹, Sydney Bonnick², Tobias De Villiers¹, Alberto Odio³, Santiago Palacios⁴, Boyd Scott⁴, Celine Le Bailly De Tilleghem⁵, Carolyn DaSilva⁶, Albert Leung⁷ and Deborah Gurner⁸, ¹Hôpital Edouard Herriot, Lyon, France, ²Cooper Clinic, California Medical Group, Simi Valley, CA, ³Instituto Palacios, Madrid, Spain, ⁴Mediclinic Panorama, Cape Town, South Africa, ⁵Alta California Medical Group, Simi Valley, CA, ⁶Institute Palacios, Philadelphia, PA, ⁷Merck Sharp & Dohme Corp., Whitehouse Station, NJ, ⁸Merck Sharp & Dohme Corp., Brussels, Belgium

**Background/Purpose:** Odanacatib (ODN) is a potent, orally-active cathepsin K inhibitor being developed for the treatment of postmenopausal osteoporosis. This study evaluated the effects of ODN 50mg once weekly (OW) on BMD and biochemical markers of bone turnover in patients previously treated with alendronate (ALN) (closed daily or weekly) for ≥3years, as well as the safety and tolerability of ODN.

**Methods:** This was a randomized, double-blind, placebo-controlled, 24-month study. The primary endpoint was % change in femoral neck (FN) BMD from baseline at Month 24. 243 postmenopausal women ≥60 years of age with low BMD T-score (T-score range ≤–2.5 but >-3.5) at the total hip, FN or trochanter but no history of hip fracture and who had been treated with ALN for ≥3years were randomized in a 1:1 ratio to receive ODN 50mg OW or placebo OW for 24 months. All patients received vitamin D₃ 5600 IU/wk and calcium supplementation (to 1200 mg/day). BMD was assessed by DXA at baseline, 6, 12 and 24 months. Biochemical markers of bone resorption (s-CTX, u-NTx) and bone formation (s-BSAP and s-P1NP) were measured at baseline and 3, 6, 12, 18 and 24 months. This study was not designed and did not have the power to evaluate the effect of ODN on fractures.

**Results:** In the placebo group, FN and trochanter BMD were not significantly different from baseline levels for the first 12 months, but declined significantly from baseline by Month 24 (-0.94% and -1.35%, respectively). BMD at the total hip declined in a linear manner from baseline to month 24 (-1.87% at 24 months). BMD at the lumbar spine (LS) was not significantly different from baseline for the entire 24 months of the study. BMD changes from baseline at 24 months in the ODN group were significant vs placebo at all 3 hip sites and the LS. The changes in BMD for the FN, trochanter, total hip and LS from baseline were 1.73%, 1.83%, 0.83% and 2.28%, respectively. ODN 50mg OW significantly decreased the biomarker of bone resorption, u-NTx/Cr, and significantly increased biomarkers of bone formation, s-P1NP and s-BSAP, compared to placebo. The increase observed for the bone resorption marker s-CTX with ODN treatment was unexpected. AEs were comparable between the 2 treatment arms. The overall safety profile appeared similar between ODN 50mg OW and placebo.

**Conclusion:** In this study osteoporotic women treated with ODN following ALN treatment show incremental gains in BMD. Biomarker results suggest that ODN decreases bone resorption while preserving bone formation.

**ODN effects on BMD**

**ODN effects on biomarkers**

**Disclosure:** R. Chapurlat, Merck Pharmaceuticals, 2, Merck Pharmaceuticals, 5; S. Bonnick, Merck Pharmaceuticals, 5; T. De Villiers, None; A. Odio, Merck Pharmaceuticals, 2; S. Palacios, None; B. Scott, Merck Pharmaceuticals, 3, Merck Pharmaceuticals, 1; C. Le Bailly De Tilleghem, Merck Pharmaceuticals, 3, Merck Human Health, 1; C. DaSilva, Merck Pharmaceuticals, 3, Merck Pharmaceuticals, 1; A. Leung, Merck Pharmaceuticals, 1, Merck Pharmaceuticals, 3; D. Gurner, Merck Pharmaceuticals, 1, Merck Pharmaceuticals, 3.

**NOON**

**728. Does the Use of Angiotensin Converting Enzyme Inhibitors Prior to Scleroderma Renal Crisis Affect Prognosis? – Results of the International Scleroderma Renal Crisis Survey**

Marie Hudson¹, Murray Baroni², Solene Tatibouet¹, De Furst³, Dinesh Khanna⁴ and International Scleroderma Renal Crisis Study Investigators⁵, ¹McGill University, Montreal, QC, ²Jewish General Hospital, Montreal, QC, ³University of California at Los Angeles, Los Angeles, CA, ⁴University of Michigan, Ann Arbor, MI, ⁵Montreal

**Background/Purpose:** Scleroderma renal crisis (SRC) is an infrequent but life-threatening complication of systemic sclerosis (SSc). The outcome of SRC has improved considerably since the advent of angiotensin converting enzyme (ACE) inhibitors. The incidence of SRC has also appeared to have decreased, perhaps in part due to the more liberal use of ACE inhibitors in SSc. However, recent retrospective data suggests that patients with SRC exposed to ACE inhibitors prior to the onset of SRC may have worse outcomes. We undertook a prospective study to verify whether SSc patients with incident SRC on ACE inhibitors at the time of onset of SRC had worse outcomes compared to those who were not on these drugs at that time.
Methods: We designed a prospective, observational cohort study of incident SRC subjects identified through a web-based survey. Every second week, an e-mail was sent to 589 participating physicians from around the world to identify incident cases of SRC. Data on patient demographic and disease characteristics, as well as exposure to ACE inhibitors was collected. A one-year follow-up case report form was sent to all the physicians who identified a case. The primary outcome of interest was death or dialysis at one year after the onset of SRC, comparing patients exposed and unexposed to ACE inhibitors at the time of onset of SRC.

Results: We identified 88 incident cases of SRC, of which 12 were lost to follow up (86% follow up rate). Mean age was 52 years, 67% were women, 76% had diffuse SSC and median disease duration since the onset of the first non-Raynaud’s symptom was 1.5 years. The majority of cases had a hypertensive SRC (n=71/76) and only 5 had a normotensive SRC. Eighteen patients (24%) were on an ACE inhibitor immediately prior to the onset of the SRC. At one year follow up, 27 (36%) SRC patients had died and an additional 13 (17%) remained on dialysis.

The crude one-year cumulative incidence of death in those exposed to ACE inhibitors at the time of onset of SRC compared to the unexposed was 1.56 (95% confidence interval (CI) 0.70-3.47) and the crude one-year cumulative incidence of dialysis was 0.61 (95% CI 0.18-2.09). The crude Cox proportional hazard ratio comparing the time to death of SRC patients exposed to ACE inhibitors prior to the onset of SRC to those unexposed was 1.95 (95% CI 1.05-3.60, p=0.0394). The adjusted Cox proportional hazard ratio comparing the time to death of SRC patients exposed to ACE inhibitors prior to the onset of SRC to those unexposed was 2.52 (95% CI 1.05-6.05, p=0.0394).

Conclusion: SRC was associated with poor one-year outcomes. Exposure to an ACE inhibitor prior to the onset of SRC was associated with an increased risk of death during the first year of follow up after SRC. Clinicians caring for patients with early SSC should use ACE inhibitors cautiously.

Disclosure: M. Hudson, None; M. Baron, None; S. Tatibouet, None; D. Furst, Amgen, Janssen, Roche, and UCB, 2, Amgen, Janssen, Roche, and UCB, 5; D. Khanna, Actelion, BMS, Gilead, Genentech, ISDIN, and United Therapeutics, 2, Actelion, BMS, Gilead, Genentech, ISDIN, and United Therapeutics, 5, Actelion, BMS, Gilead, Genentech, ISDIN, and United Therapeutics, 8.

12:15 PM

729. Apolipoprotein L1 Risk Variants Underlie Racial Disparities in Lupus Nephritis-Induced End-Stage Renal Disease

Robert P. Kimberly1, Barry I. Freedman2, Carl D. Langfeld3, Devin Absher4, Kelly K. Andringa1, Daniel Birmingham5, Elizabeth E. Brown1, Mary E. Comeau6, Karen H. Costenbader7, Lindsey A. Criswell8, Jeffrey C. Edberg9, John B. Harley10, Judith A. James11, Diane L. Kamen12, Joan T. Merrill13, Timothy B. Niewold14, Neha Patel15, Michelle A. Petri16, Rosalind Ramsey-Goldman17, Jane E. Salmon18, Mark Segal19, Kathy Moser Sivils20, Betty P. Tsao21, Bruce A. Julian9 and Lupus Nephritis-ESRD Consortium22, 1University of Alabama at Birmingham, Birmingham, AL, 2Department of Internal Medicine, Wake Forest School of Medicine, Winston-Salem, NC, 3Wake Forest University Health Sciences, Winston-Salem, 4HudsonAlpha Institute for Biotechnology, Huntsville, 5Ohio State University Medical Center, Columbus, OH, 6Wake Forest University Health Sciences, Winston-Salem, NC, 7Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 8University of California San Francisco, San Francisco, CA, 9Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, 10Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 11Oklahoma Medical Research Foundation and Oklahoma University Health Sciences Center, Oklahoma City, OK, 12Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC, 13Oklahoma Medical Research Foundation, Oklahoma City, OK, 14University of Chicago, Chicago, IL, 15SUNY Downstate Medical Center, Brooklyn, NY, 16Johns Hopkins University School of Medicine, Baltimore, MD, 17Northwestern University Feinberg School of Medicine, Chicago, IL, 18Hospital for Special Surgery, New York, NY, 19University of Florida, Gainesville, FL, 20UCLA School of Medicine, Los Angeles, CA, 21Birmingham, AL

Background/Purpose: The G1 and G2 coding variants in the apolipoprotein L1 gene (APOL1; G1: a compound missense allele (glycine-342/methionine-384) and G2: an in-frame deletion (deletion of asparagine-388 and tyrosine-389)), are strongly and reproducibly associated with focal segmental glomerulosclerosis (FSGS), HIV-associated collapsing glomerulopathy, and hypertension-attributed end-stage renal disease (ESRD) in African Americans (AAs) [Genovese G et al. Science 329:841,2010; Tzur S et al. Hum Genet 128:345,2010]. The role of APOL1 in lupus nephritis (LN) related ESRD is unexplored. We tested for association between APOL1 risk variants and LN-ESRD in a national sample of unrelated AAs with systemic lupus erythematosus (SLE).

Methods: The study sample included 668 AA cases with LN-ESRD (456 with kidney biopsy documentation; 212 physician-reported) and 697 AA patients with longstanding SLE lacking LN (mean duration of disease: 10.1 years). Genotyping was performed on a Sequenom platform. Allele frequency differences between LN-ESRD cases and SLE non-nephropathy cases were analyzed using multivariable logistic regression models, adjusting for non-muscle myosin heavy chain 9 gene single nucleotide polymorphism rs4821480 using a recessive genetic model.

Results: In cases with LN-ESRD, 87.1% were female, 89% received cytotoxic therapy, mean ± SD age at SLE onset was 26.6 ± 0.4 years, and duration of SLE to ESRD was 7.2 ± 0.3 years with median of 5 years. In non-nephritics SLE patients, 93.5% were female with age at SLE onset 35.2 ± 0.8 years. Contrasting all cases with and without ESRD, APOL1 risk variants were significantly associated with LN-ESRD (odds ratio 2.35 (1.77-3.3 95% CI); p=4.25E-9); significant differences in association were not observed when comparing cases with or without kidney biopsy documentation to SLE patients without LN. The duration of SLE onset to ESRD for those with the G1/G2 variants was 5.49+/-.54 (median=4) years, while that for those without the variants was 7.78+/-.0.37 (median=6) years, p<0.05.

Conclusion: This study demonstrates strong association between both APOL1 G1 and G2 variants and LN-associated ESRD in AAs. It appears likely that APOL1 G1 and G2 coding variants, which are rare in European populations, contribute to nephropathy progression in LN-ESRD, as well as in FSGS and other non-diabetic etiologies of ESRD. These variants, and their higher...
prevalence in individuals with African ancestry, may explain, in part, disparities in clinical outcomes in LN with there being a higher prevalence of severe LN in AA.

**Disclosure:** R. P. Kimberly, None; B. I. Freedman, None; C. D. Langfeld, None; D. Absher, None; K. K. Andringa, None; D. Birmingham, None; E. E. Brown, None; M. E. Comeau, None; K. H. Costenbader, None; L. A. Criswell, None; J. C. Edberg, None; J. B. Harley, None; J. A. James, None; D. L. Kamen, None; J. T. Merrill, None; T. B. Niewold, None; N. Patel, None; M. A. Petri, None; R. Ramsey-Goldman, None; J. E. Salmon, None; M. Segal, None; K. Moser Sivils, None; B. P. Tsao, None; B. A. Julian, None.

**ARHP SESSIONS**

**11:00 AM - Noon**

206  **Hands: Non-Surgical Management and Bracing - What You Don’t Know Can Hurt You**

**Moderator:** Donna K. Everix, MPA, BS, PT

**Speaker:** Tracey L. Airth-Edblom, OTR, CHT

*Upon completion of this session, participants should be able to:*

- describe why early intervention for conservative treatment is indicated for rheumatologic diagnoses
- define how non-surgical methods can provide pain management techniques
- identify at least five different strategies of a non-surgical comprehensive program for rheumatologic diagnoses

143 A  **New Medication Developments in Rheumatology**

**Moderator:** Linda J. Pine, PharmD

**Speaker:** Kam Nola, PharmD, MS

*Upon completion of this session, participants should be able to:*

- identify new molecular entities submitted and approved by the Food and Drug Administration used in rheumatology practice
- discuss best practices in therapy for new molecular entities
- report changes in safety of new and existing medications in rheumatology practice
- explain medication shortage issues facing rheumatology practice

204 A  **Rheumatic Disease Update: Vasculitis**

**Moderator:** James G. Freeman, MD

**Speaker:** Philip Seo, MD, MHS

*Upon completion of this session, participants should be able to:*

- outline the classification of the major categories of vasculitis
- explain the diagnostic approach to patients with suspected vasculitis
- recognize the wide differential diagnosis and potential mimics of vasculitis
- cite the data supporting the current treatment recommendations for the various forms of vasculitis

201  **The 5A Approach to Physical Activity Counseling for Arthritis Patients**

**Moderator:** Linda S. Ehrlich-Jones, PhD, RN

**Speaker:** Jennifer M. Hootman, ATC, PhD

*Upon completion of this session, participants should be able to:*

- describe the history of the 5A model for brief behavior change
- explain components of the 5A model as applied to physical activity counseling for arthritis patients
- associate counseling strategies for each stage
- identify tools to help incorporate the 5A model into clinical practice

**ACR SESSION**

12:30 - 1:45 PM

202 B  **ACR Knowledge Bowl – Preliminary Round**

**Moderator:** Zsuzsanna H. McMahan, MD, MHS

*Upon completion of this session, participants should be able to:*

- identify key images that are important to recognize in clinical practice
- recall factual information related to various rheumatic diseases
- identify historical facts relevant to the field of rheumatology

**Duke University**
Lisa G. Criscione-Schreiber, MD, Eric Orlowsky, MD and Sara Wasserman, MD

**Ochsner Medical Center**
Robert Quinet, MD, Austin Fraser, MD and Sharon Ing, MD

**University of Colorado**
Jason R. Kolfenbach, MD, Christina Bright, MD and Kristen Demorouelle, MD

**University of Michigan**
David Fox, MD, Nezam Altorok, MD and Shailey Desai, MD

**University of Minnesota**
Bryce Binstadt, MD, PhD, Theresa Wampler, MD and Patricia Hobday, MD

**The University of Pittsburgh**
Marc Levesque, MD, Christine Peoples, MD and Ximena Ruiz, MD

**University of Vermont**
Bonita S. Libman, MD, Narandra Bethina, MD and Tatiana Keck, MD

**ARHP NETWORKING EVENT**

12:30 - 2:15 PM

Renaissance Washington - Renaissance Ballroom, East & West Networking Forum

All ARHP attendees are invited to this kick-off forum for the annual meeting. A box lunch will be provided for the first 250 people. You will have an opportunity to meet and network with other health professionals and the ARHP leadership. This session is not eligible for CME credit.
**ACR MEET THE PROFESSOR SESSIONS**

12:45 - 2:15 PM

Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

148  
**Adult Inflammatory Myopathy (011)**  
**Speaker:** Mary E. Cronin, MD

153  
**Cutaneous Vasculitis (012)**  
**Speaker:** Nicole Fett, MD

154 A  
**Inflammatory Eye Disease/Uveitis (013)**  
**Speaker:** Sergio Schwartzman, MD

154 B  
**Myopathy: Issues in Diagnosis and Treatment (014)**  
**Speaker:** Lisa Christopher-Stine, MD, MPH

155  
**Osteoporosis: Novel Treatments (015)**  
**Speaker:** Michael J. Maricic, MD

158 A  
**Pediatrics: Periodic Fevers in Children (016)**  
**Speaker:** Daniel L. Kastner, MD, PhD

158 B  
**Polymyalgia Rheumatica (017)**  
**Speaker:** Bhaskar Dasgupta, MD

159 A  
**Pregnancy in Rheumatic Diseases (018)**  
**Speaker:** Eliza F. Chakravarty, MD

159 B  
**Systemic Lupus Erythematosus: Novel Treatments (019)**  
**Speaker:** Mary Anne Dooley, MD, MPH

160  
**Vitamin D and Bone Health (020)**  
**Speaker:** Nancy E. Lane, MD

**ACR SESSIONS**

1:00 - 2:00 PM

204 A  
**Endoplasmic Reticulum Stress Unfolded Protein Response in Immunity and Inflammation**

**Moderator:** Robert Lafyatis, MD  
**Speaker:** Randal J. Kaufman, PhD

*Upon completion of this session, participants should be able to:*  
- describe the molecular pathways activated by the unfolded protein response  
- explain the relationship between endoplasmic reticulum stress and apoptosis  
- identify recent advances linking the endoplasmic reticulum stress to inflammation and immunity

146 C  
**Mechanisms of Pain in Rheumatic Diseases**

**Moderator:** Anne-Marie Malfait, MD, PhD  
**Speaker:** Clifford Woolf, MB, BCh, PhD

*Upon completion of this session, participants should be able to:*  
- classify different types of pain, and how these relate to rheumatological diseases  
- review the neurobiology of pain  
- describe potential for targeting arthritis-related pain

**Hall E**

**Preoperative Assessment and Perioperative Management of the Patient with Rheumatic Disease: What Every Rheumatologist Should Know (Clinical Review)**

**Moderator:** Elana J. Bernstein, MD  
**Speaker:** Linda Russell, MD

*Upon completion of this session, participants should be able to:*  
- describe the important components of preoperative assessment of the patient with rheumatic disease undergoing elective surgery  
- discuss preoperative and perioperative management of biologic and non-biologic DMARD therapy  
- discuss preoperative and perioperative management of anti-platelet and anticoagulant therapy  
- identify perioperative complications of common orthopedic procedures

**ACR WORKSHOPS**

1:15 - 3:15 PM

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.
149 B

Designing a Website for Your Practice (208)

Speaker: Peter J. Embi, MD, MS

144 A

Muscle Involvement in Rheumatic Diseases (209)

Speaker: Sakir Humayun Gultekin, MD

144 C

Physical Examination Skills for Improved Detection of Synovitis and Cervical Thoracolumbar Disorders (210)

Speaker: Edward C. Keystone, MD

149 A

Renal Histopathology in Systemic Lupus Erythematosus and Vasculitis (211)

Speaker: Megan Troxell, MD

ACR SESSIONS

2:30 - 4:00 PM

Ballroom A

Complementary and Alternative Medicine: Evidence-based Options for Arthritis Patients

Moderator: Sharon L. Kolasinski, MD

Upon completion of this session, participants should be able to:
• contrast traditional physical therapy with alternative exercise options
• evaluate the literature supporting the use of alternative therapies
• appreciate the role of tai chi and yoga among exercise options for patients

2:30 PM

Overview of Complementary and Alternative Medicine

To be announced

3:00 PM

Tai Chi for Arthritis

Chenchen Wang, MD, MSc

3:30 PM

Role of Yoga in the Management of Arthritis

Susan J. Bartlett, PhD

Salon B

Prospects for Prevention and Cure of Rheumatoid Arthritis

Moderators: Robert M. Plenge, MD, PhD and Peter A. Nigrovic, MD

Upon completion of this session, participants should be able to:
• define key limitations in our understanding of rheumatoid arthritis
• consider diverse and novel approaches to the exploration of rheumatoid arthritis
• review potential new points of intervention in the biology of rheumatoid arthritis

2:30 PM

ACPs and the Prospects for Immunotherapy for Rheumatoid Arthritis

Lars Klareskog, MD, PhD

3:00 PM

Is Rheumatoid Arthritis a Preventable Disease?

V. Michael Holers, MD

3:30 PM

Novel Approaches to Rheumatoid Arthritis

Michael B. Brenner, MD

Hall D

The Great Debate: In 2012 What are the Roles of Cyclophosphamide versus Rituximab in ANCA-Associated Vasculitis

Moderator: Robert F. Spiera, MD

Upon completion of this session, participants should be able to:
• describe the safety issues with cyclophosphamide versus rituximab in ANCA-associated vasculitis
• identify what is known about remission induction and relapse with cyclophosphamide versus rituximab in ANCA-associated vasculitis
• outline the advantages and disadvantages of cyclophosphamide versus rituximab in ANCA-associated vasculitis

2:30 PM

Does Cyclophosphamide Continue to Have a Role in Severe ANCA-Associated Vasculitis

Carol A. Langford, MD, MHS

3:15 PM

Should Rituximab be the First Treatment of Choice in Severe ANCA-Associated Vasculitis?

Ulrich Specks, MD

Hall E

Update on Treatment of Systemic Lupus Erythematosus

Moderator: Virginia D. Steen, MD

Upon completion of this session, participants should be able to:
• describe the types of cutaneous manifestations of lupus and how to treat them
• discuss how management of lupus nephritis has changed over the last five years
• demonstrate the ability to use the newer treatments used in the management of lupus

2:30 PM

Cutaneous Problems in Lupus

David Fiorentino, MD, PhD

3:00 PM

Update on Lupus Nephritis

James E. Balow, MD

3:30 PM

Other Treatments in Lupus, the Role of New Agents

Bevra H. Hahn, MD
ACR CONCURRENT ABSTRACT SESSIONS

2:30 - 4:00 PM

150 B  Biology and Pathology of Bone and Joint: Osteoarthritis
Moderator: Hiroshi Asahara, MD and Mary B. Goldring, PhD

2:30 PM
730. Disease Modifying Effect of Strontium Ranelate in Experimental Dog Osteoarthritis: Inhibition of Major Catabolic Pathways
Jean-Pierre Pelletier, Mohit Kapoor, Daniel Lajeunesse, Hassan Fahmi and Johanne Martel-Pelletier, Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Notre-Dame Hospital, Montreal, QC

2:45 PM
731. A Systems Biology Approach to Elucidating Pathways Active During the Development of Osteoarthritis
Richard F. Loeser1, Amy L. Olex2, Brian Westwood2, Margaret A. McNulty3, Cathy S. Carlsson2, Michael Callahan4, Cristin Ferguson5 and Jacquelyn S. Fetrow2, 1Wake Forest School of Medicine, Winston-Salem, NC, 2Wake Forest University, Winston-Salem, NC, 3University of Minnesota, St. Paul, MN, 4Wake Forest School of Medicine, Winston-Salem

3:00 PM
732. Changes in Subchondral Bone Provide a Sensitive Marker for Osteoarthritis and Its Progression: Results From a Large Osteoarthritis Initiative Cohort
Michael A. Bowes1, Christopher B. Wolstenholme1, Devan Hopkinson1, Graham R. Vincent1 and Philip G. Conaghan2, 1Imorphics Ltd, Manchester, United Kingdom, 2University of Leeds, Leeds, United Kingdom

3:15 PM
733. Intra-Articular Injection of Adipose-Derived Stem Cells Inhibits Activation of the Synovium and Protects Against Cartilage Damage and Enthesophyte Formation in Murine Experimental Osteoarthritis
Peter L.E.M. van Lent1, Menno C. ter Huurne1, Arjen B. Blom1, Rick Schelbergen1, Louis Castella1, Thomas Vogl1, Johannes Roth2, Roxane Blattes3, Christian Jorgensen4 and Wim B. van den Berg1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2INSERM U1031, Toulouse, France, 3University of Muenster, Munster, Germany, 4Hospital Lapeyronie, Montpellier, France

3:30 PM
734. Chemokine (C-C Motif) Receptor 2 Signaling Mediates Persistent Pain in Experimental Osteoarthritis
Rachel E. Miller1, Phuong Tran1, Rosalina Das1, Nayereh Ghoreishi-Haack1, Richard J. Miller2 and Anne-Marie Malfait1, 1Rush University Medical Center, Chicago, IL, 2Northwestern University, Evanston, IL

3:45 PM
735. Mass Spectrometry Assays of Plasma Biomarkers to Predict Radiographic Progression of Knee Osteoarthritis
Susan Y. Ritter3, William M. Reichmann1, Jamie E. Collins1, Alejandra Garces1, Bryan Krastins2, David Sarracino2, Mary Lopez3, Elena Losina2 and Antonios O. Aliprantis1, 3Brigham and Women’s Hospital, Boston, MA, 1Thermo Fisher Scientific BRIMS Center, Cambridge, MA

147 A  Cytokines, Mediators, and Gene Regulation I

Moderators: Erik Lubberts, PhD and Hendrik Schulze-Koops, MD, PhD

2:30 PM
2011 Lee C. Howley, Sr. Prize for Arthritis Research Introductory Talk I
Speaker: Andrew D. Luster, MD, PhD

2:45 PM
736. Inhibition of Interleukin-17 Signaling Via De-Ubiquitination
Sarah L. Gaffen and Abhishek Garg, University of Pittsburgh, Pittsburgh, PA

3:00 PM
737. Citrullination of ENA-78/CXCL5 Results in Conversion From a Non-Monocyte Recruiting to a Monocyte Recruiting Chemokine
Ken ‘Yoshida1, Olex Korchynskyj2, Paul P. Tak3, Takeo Isozaki3, Jeffrey H. Ruth1, Phillip Campbell1, Dominique L. Baeten1, Danielle M. Gerlag1, M. Asif Amin1 and Alisa E. Koch3, 1University of Michigan, Ann Arbor, MI, 1Institute of Cell Biology, Lviv, Ukraine, 2GlaxoSmithKline U.K. and Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 3Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 4University of Michigan Medical School, Ann Arbor, MI

3:15 PM
738. A Novel Orally Active Phosphatidylinositol 3-Phosphate 5-Kinase (PIKfyve) Inhibitor Ameliorates Mouse Psoriasis-Like Model by Inhibition of Interleukin-12 and Interleukin-23 Production From Macrophages
Ayatoshi Andou, Evirvanti Agung, Yukie Seki, Yoichiro Shima, Sen Takeshita, Takashi Yamamoto and Hiroyuki Eda, Ajinomoto Pharmaceuticals Co., Ltd., Kanagawa, Japan

3:30 PM
739. The Serine Arginine Protein SF2/ASF Is a Novel Regulator of IL-2 Transcription and Restores IL-2 Production in T Lymphocytes From SLE Patients
Vaishali R. Moulton, Alexandros P. Grammatikos and George C. Tsokos, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

3:45 PM
740. Select Soluble Inflammatory Mediators Are Detected Prior to and Increase At Systemic Lupus Erythematosus Classification
Melissa E. Munroe1, Jourdan R. Anderson1, Julie M. Robertson1, Timothy B. Niewold2, George C. Tsokos1, Michael P. Keith1, John
202 B
Epidemiology and Health Services Research I: Epidemiology and Outcomes in Rheumatic Disease

Moderators: Liron Caplan, MD, PhD and Cheryl Barnabe, MD, MSc

2:30 PM
741. Increased Risk of Recurrent Gout Attacks During Hospitalization
Yuqing Zhang1, Clara Chen2, Hyon K. Choi3, Christine E. Chaisson2, David J. Hunter4 and Tuhina Neogi5, 1Boston University, Boston, MA, 2Boston University School of Public Health, Boston, MA, 3Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA, 4Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA, 5University of Sydney, Sydney, Australia, *Boston Univ Schl of Med, Boston, MA

2:45 PM
742. Utility of HLA-B5801 Genotyping and Renal Dosing of the Starting Dose of Allopurinol in Preventing Allopurinol Hypersensitivity Syndrome: A Cost-Effectiveness Analysis
Yanyan Zhu1, Ada Man2, Tuhina Neogi3 and Hyon K. Choi4, 1Boston University School of Medicine, Boston, MA, 2Boston University School of Public Health, Boston, MA, 3Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA, 4Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA

3:00 PM
743. Anemia and the Onset of Gout in a Population-Based Cohort of Adults: Atherosclerosis Risk in Communities Study
Mara McAdams DeMarco1, Janet W. Maynard2, Josef Coresh1 and Alan N. Baer3, 1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3Johns Hopkins University School of Medicine, Division of Rheumatology, Baltimore, MD

3:15 PM
744. Racial Differences in Reported Knee Pain Severity Persist Even After Adjustment for Knee Examination and Radiographic Findings: Data From the Osteoarthritis Initiative
Paige Luneburg1, Laura Yerges-Armstrong2, Braxton D. Mitchell2 and Marc C. Hochberg1, 1University of Maryland, Baltimore, MD, 2University of Maryland School of Medicine, Baltimore, MD

3:30 PM
745. Soft Drink Intake and Progression of Radiographic Knee Osteoarthritis: Data From the Osteoarthritis Initiative
Bing Lu1, Jeffrey Driban2, Tim McAlindon3 and Charles Eaton4, 1Brigham and Women’s Hospital, Boston, MA, 2Tufts Medical Center, MA, 3Tufts Medical Center, Boston, MA, *Warren Alpert Medical School at Brown University, RI

3:45 PM
746. Increased Risk of Acute and Chronic Renal Comorbidity in Ankylosing Spondylitis: Results From a Population-Based Study
Walter P. Maksymowycz1, Shelagh Szabo2, Sumati Rao3, Mary A. Cifaldi4 and Adrian R. Levy5, 1University of Alberta, Edmonton, AB, 2Oxford Outcomes, Vancouver, BC, 3Abbott Laboratories, Abbott Park, IL, 4Oxford Outcomes Ltd, Vancouver, BC

145 A
Miscellaneous Rheumatic and Inflammatory Diseases: Periodic Fever Syndromes

Moderators: Kristine M. Lohr, MD, MS and Katherine K. Temprano, MD

2:30 PM
747. Familial Mediterranean Fever: Inhibition of IL-6 Signalling As a New Therapeutic Option in a Frequent Autoinflammatory Syndrome.
Nicoa Stein1, Matthias Witt1, Michael Baeuerle2, Fabian Proft2, Hendrik Schulze-Koops3 and Mathias Gruenke1, 1Medizinische Klinik und Poliklinik IV, Klinikum der Universität München, Munich, Germany, 2Klinikum Nürnberg, Nuernberg, Germany, 3University of Munich, Munich, Germany

2:45 PM
748. Efficacy and Safety of Canakinumab in Patients with Cryopyrin Associated Periodic Syndrome: Results From Meta-Analysis of 5 Studies
Helen J. Lachmann1, Jasmin B. Kuenmerle-Deschner2, Toshio Heike3, Toshiro Har4, Shumpei Yokota5, Phil Mckernan6, Albert Widmer7, Nicole Davis8 and Eric Hachulla9, 1University College London Medical School, London, United Kingdom, 2Division of Pediatric Rheumatology, Department of Pediatrics, University HospitalTuebingen, Tuebingen, Germany, 3Department of Pediatrics, Graduate School of Medicine, Kyoto University, Kyoto, Japan, 4Department of Pediatrics, Graduate School of Medical Science, Kyushu University, Fukuoka, Japan, 5Department of Pediatrics, Yokohama City University, Graduate School of Medicine, Yokohama, Japan, 6Novartis Pharma AG, Basel, Switzerland, 7Novartis Pharmaceuticals Corporation, East Hanover, NJ, 8Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France

3:00 PM
749. Efficacy and Safety of Canakinumab in Patients with TNF Receptor Associated Periodic Syndrome
Marco Gattorno1, Laura Obici2, Antonella Meini3, Vincent Tormey1, Ken Abrams4, Nicole Davis5, Christopher Andrews2 and Helen J. Lachmann6, 1Istituto Giannina Gaslini, Genova, Italy, 2IRCCS Policlinico San Matteo, Pavia, Italy, 3Pediatric Immunology and Rheumatology, Brescia, Italy, 4Galway University Hospitals, Galway, Ireland, 5Novartis Pharmaceutical Corporation, East Hanover, NJ, 6Novartis Pharmaceuticals Corporation, East Hanover, NJ, 7Novartis Pharmaceuticals UK Limited, Surrey, United Kingdom, 8University College London Medical School, London, United Kingdom
and O. Kasapcoglu, Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey; Istanbul University, Cerrahpasa Faculty of Medicine, Istanbul, Turkey; Novartis Pharma Corp, East Hanover, New Jersey, USA; Novartis Pharma, Istanbul, Turkey

3:30 PM

751. Whole Transcriptome Analysis in Erdheim-Chester Disease: A Multicenter Collaborative Study of 58 Patients

Laurent Arnaud1, Julien Haroche1, Lorenzo Dagna2, Augusto Vaglio3, Bruno Faivre4, Karim Dorgham4, Baptiste Hervier5, Fleur Cohen-Aubart6, Guy Gorochov7 and Zahir Amoura8, Hospital Pitié-Salpêtrière, AP-HP & UPMC Univ Paris 06, Paris, France; 3Vita-Salute San Raffaele University School of Medicine and San Raffaele Scientific Institute, Milano, Italy; 4University of Parma, Parma, Italy; 4Institut National de la Santé et de la Recherche Médicale, INSERM UMR-S 945, Paris, France

3:45 PM

752. IFNγ Production Is Intimately Associated with Clinical and Laboratory Features of CpG-Induced Secondary Hemophagocytic Lymphohistiocytosis (sHLH)/Macrophage Activating Syndrome (MAS) in Mice

Vanessa Buatois, Laurence Chatel, Laura Cons, Maureen Deehan, Cristina de Min, Marie Kosco-Vilbois and Walter Ferlin, Novimmune S.A., Geneva, Switzerland

2:30 PM

753. Progress Report On Development of Classification Criteria for Adult and Juvenile Idiopathic Inflammatory Myopathies

Anna Tjärnlund1, Matteo Bottai2, Lisa G. Rider3, Victoria P. Werth4, Clarissa A. Pilkington5, Hermine I. Brunner6, Nicolino Ruperto2, Pierre Quartier7, Tamás Constantin2, Nico Wulffraat8, Robert Ruperto9, and the International Myositis Classification Criteria Project10, 1Rheumatology Unit, Department of Medicine, Karolinska University Hospital, Solna, Karolinska Institutet, Stockholm, Sweden, 2Institute for Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 3Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 4NIH, Bethesda, MD, 5University of Pennsylvania and Philadelphia V.A. Medical Center, Philadelphia, PA, 6Great Ormond Street Hospital for Children NHS Trust, London, United Kingdom, 7Department of Neurology, Academic Medical Centre, Amsterdam, Netherlands, Amsterdam, Netherlands, 8Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 9Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 10Department of Neurology, University of Kansas Medical Center, Kansas City, USA, Kansas City, MO, 11Brigham & Women's Hospital, Boston, MA, 12University of Alabama at Birmingham, Birmingham, AL, 13Karolinska Institutet, Stockholm, Sweden, 14University of California Los Angeles, Los Angeles, CA, 15Mayo Clinic Rochester, Rochester, MN, 16Mayo Clinic Rochester, Rochester, MN

2:45 PM

754. The Functional Index-3 in Adult Dermatomyositis and Polymyositis: Validity and Reliability of an Outcome Measure for Muscle Endurance

Christopher Chong1, Orla Ni Mhuircheartaigh1, Helene Alexanderson2, Tanaz A. Kermani3, Cynthia S. Crowson4, Abigail B. Green5, Ann M. Reed6 and Flaranne C. Ernst7, 1Mayo Clinic, Rochester, 2Karolinska Institute, Stockholm, Sweden, 3University of California Los Angeles, Los Angeles, CA, 4Mayo Clinic, Rochester, Rochester, MN, 5Mayo Clinic Rochester, Rochester, MN

3:00 PM

755. Sifalimumab, an Anti-IFN-Alpha Monoclonal Antibody Shows Target Suppression of a Type I IFN Signature in Blood and Muscle of Dermatomyositis and Polymyositis Patients

Brandon W. Higgs1, Wei Zhu2, Chris Morehouse3, Wendy White3, Philip Brohawn1, Charles Le4, Anthony A. Amato5, David Fiorentino5, Steven A. Greenberg2, Laura Richman1, Warren Greth1, Bahija Jallal2, and Yihong Yao3, 1MedImmune, LLC, Gaithersburg, MD, 2Brigham and Women’s Hospital and Harvard Medical School, Boston, MA, 3Stanford University School of Medicine, Redwood City, CA, 4MedImmune, Gaithersburg, MD

3:15 PM

756. Effect of B Cell Depletion Therapy with Rituximab On Myositis Associated Autoantibody Levels in Idiopathic Inflammatory Myopathy

Rohit Aggarwal1, Chester V. Oddis2, Andriy Bandos3, Danielle Goudeau2, Diane Koontz1, Qi Zengbiao4, Ann M. Reed5, Dana P. Ascherman4 and Marc C. Levesque1, 1University of Pittsburgh, Pittsburgh, PA, 2Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 3Mayo Clinic, Rochester, MN, 4University of Miami, Miami, FL

3:30 PM

757. Beneficial Role of Rapamycin in Experimental Autoimmune Myositis

Nicolas Prevel1, Yves Allenbach2, David Klatzman1, Benoit Salomon1 and Olivier Benveniste1, 1UPMC Université Paris 06, UMR 7211, Paris, France, 2Pitié-Salpetrière Hospital, Paris, France

3:45 PM

758. Cutaneous Ulceration in Dermatomyositis: Association with MDA-5 and Interstitial Lung Disease

Neera Narang1, Livia Casciola-Rosen2, Antony Rosen3, David Fiorentino1 and Lorinda Chung4, 1Stanford Univ Medical Ctr, Stanford, CA, 2Johns Hopkins University, Baltimore, MD, 3The Johns Hopkins University, Baltimore, MD, 4Stanford University School of Medicine, Redwood City, CA, 5Stanford Univ Medical Center, Palo Alto, CA

2:30 PM

207 A

Pediatric Rheumatology: Clinical and Therapeutic Disease I: Juvenile Idiopathic Arthritis I

Moderators: Rayfel Schneider, MBBC and Angelo Ravelli, MD

2:30 PM

759. Efficacy and Safety of Canakinumab in Patients with Active Systemic Juvenile Idiopathic Arthritis and Fever: Results From Two Pivotal Phase 3 Trials

Hermine I. Brunner1, Nicolino Ruperto2, Pierre Quartier3, Tamás Constantin2, Nico Wulffraat3, Gerd Horneff3, Riva Brik3
Liza McCann1, Huri Ozdogan2, Lidia Rutkowska-Sak3, Rayef Schneider1, Yakov Berkun4, Inmaculada Calvo5, Mueret Erguven6, Laurence Goffin7, Michael Hofer7, Tilmann Kallinich8, Karine Lherynier6, Ken Abrams3, Andrea Stancati1, D. J. Lovell2 and Alberto Martini2, 1Pediatric Rheumatology Collaborative Study Group (PRCSG), Cincinnati, OH, 2Paediatric Rheumatology International Trials Organisation (PRINTO)-Istituto Gaslini, Genova, Italy, 3Necker-Enfants Malades Hospital, Paris, France, 4Novartis Pharma AG, Basel, Switzerland, 5Novartis Pharmaceutical Corporation, East Hanover, NJ, 6Cincinnati Children’s Hospital, Cincinnati, OH

2:45 PM
760. Catch-up Growth During Tocilizumab Therapy for Systemic Juvenile Idiopathic Arthritis: 2-Year Data From a Phase 3 Clinical Trial
Fabrizio De Benedetti1, Nicolina Luperto2, Gariela Espada3, Valeria Gerloni4, Berit Flato5, Gerd Horneff6, Barry L. Myones7, Karen Onel8, James Frane9, Andrew Kenwright10, Terri H. Lipman11, Kamal. N. Bharucha12, Alberto Martini12 and D. J. Lovell12, 1IRCCS Ospedale Pediatrico Bambino Gesù, Rome, Italy, 2Paediatric Rheumatology International Trials Organisation (PRINTO), Genova, Italy, 3Paediatric Rheumatology International Trials Organisation–IRCCS (PRINTO), Genova, Italy, 4Centre of Pediatric Rheumatology, Santk Augustin, Germany, 5Paediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, 6Genentech, South San Francisco, CA, 7Roche, Welwyn Garden City, United Kingdom, 8University of Pennsylvania School of Nursing, Philadelphia, PA, 9Cincinnati Children’s Hospital, Cincinnati, OH

3:00 PM
761. Analysis of Biomarkers in Systemic Juvenile Idiopathic Arthritis Patients On Canakinumab Therapy
Nicolo Wulfraat1, Hermine I. Brunner2, Nicolina Luperto2, Pierre Quertet3, Riva Brik4, Liza McCann5, Huri Ozdogan1, Lidia Rutkowska-Sak1, Rayef Schneider6, Valeria Gerloni2, Liara Harel7, Maria Hilairo8, Kristin Houghton9, Rik Joos9, Daniel Kingsbury9, Arndt Brachat10, Stephan Bek10, Martin Schumacher9, Marie-Anne Valent11, N.R. Nirmala12, Hermann Gram2, Ken Abrams3, Alberto Martini12 and D. J. Lovell12, 1Paediatic Rheumatology International Trials Organisation (PRINTO), Genova, Italy, 2Pediatric Rheumatology Collaborative Study Group (PRCSG), Cincinnati, OH, 3Necker-Enfants Malades Hospital, Paris, France, 4Novartis Institutes for Biomedical Research, Basel, Switzerland, 5Novartis Institutes for Biomedical Research, Cambridge, MA, 6Novartis Pharmaceuticals Corporation, New Jersey, 7Cincinnati Children’s Hospital, Cincinnati, OH

3:15 PM
762. Potentially Fatal Pulmonary Complications in Systemic Juvenile Idiopathic Arthritis
Yukiko Kimura1, Jennifer E. Weiss1, Kathryn L. Haroldson1, Tzielan C. Lee2, Marilyn G. Punaro4, Sheila K. Feitosa de Oliveira5, Ega C. Rabinovich5, Meredith P. Riebschleger6, Jordi Anton7, Peter R. Blier8, Valeria Gerloni1, Melissa M. Hazen9, Elizabeth Kessler1, Karen Onel12, Murray H. Passo13, Robert M. Rennebohm14, Carol A. Wallace15, Patricia Woo16, Nico M. Wulfraat17 and CARRA.net Investigators, 1JM Sanzari Children’s Hospital, Hackensack University Medical Center, Hackensack, NJ, 2Stanford Univ School of Med, Stanford, CA, 3Texas Scottish Rite Hospital, Dallas, TX, 4Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, 5Duke University Medical Center, Durham, NC, 6University of Michigan Health System, Ann Arbor, MI, 7Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy, 8Baystate Children’s Hospital, Springfield, MA, 9Gaetano Pini Chair of Rheum, Milan, Italy, 10Children’s Hospital Boston, Boston, MA, 11Medical College of Wisconsin, Milwaukee, WI, 12University of Chicago, Chicago, IL, 13Medical University of South Carolina, Charleston, SC, 14Alberta Children’s Hospital, University of Calgary, Calgary, AB, 15Seattle Childrens Hospital, Seattle, WA, 16University College London, London, United Kingdom, 17University Medical Center Utrecht, Utrecht, Nethelands, 18Durham
3:00 PM

**767. Patients with Early Inflammatory Arthritis Who Fulfil the 2010 American College Rheumatology/European League Against Rheumatism Classification Criteria for Rheumatoid Arthritis Have Increased Mortality Compared to Those Who Do Not: Results From the Norfolk Arthritis Register**

Jh Humphreys1, Suzanne Verstappen2, Mark Lunt1, Jackie Chipping3, Kimmie Hyrich1, Tarnya Marshall10 and Deborah Symmons2, Arthritis Research UK Epidemiology Unit., Manchester, United Kingdom, 2University of Manchester, Manchester Academic Health Sciences Centre, Manchester, United Kingdom, 3Arthritis Research UK Epidemiology Unit, The University of Manchester, Manchester, United Kingdom, 4Norfolk Arthritis Register, School of Medicine Health Policy and Practice Faculty of Health UEA, Norwich, United Kingdom, 5Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, 6Norfolk and Norwich University Hospitals Trust, Norwich, United Kingdom, 7University of Manchester, Manchester Academic Health Sciences, Manchester, United Kingdom

**3:15 PM**

**768. An Easy to Use Referral Model for Arthritis From the Rotterdam Early Arthritis Cohort**

C. Alves1, Jolanda J. Luime2, Darian P. Shackleton3, P.J. Barendregt4, A.H. Gerards5 and Johanna M.W. Hazes6, Erasmus MC, Rotterdam, Netherlands, 2Erasmus MC - University Medical Center, Rotterdam, Netherlands, 3Medisch Centrum Parklaan, Netherlands, 4Maastricht University, Maastricht, Netherlands, 5Maasstad Hospital, Rotterdam, Netherlands, 6Erasmus Medical Centre, Rotterdam, Netherlands

**3:30 PM**

**769. 2010 ACR/EULAR Rheumatoid Arthritis Classification Criteria Predicts Radiological, but Not Clinical Outcomes At 18 Months Into Disease in a Canadian Early Arthritis Cohort**

Ariel Masetto1, Arthur J. Fernandes2, Patrick Liang3, Pierre Cossette4 and Gilles Boire5, CHUS, Fleurimont, QC, 2Universite de Sherbrooke, Sherbrooke, QC, 3CHUS, Sherbrooke, QC, 4CHUS - Sherbrooke University, Sherbrooke, QC

**3:45 PM**

**770. Is Late Onset Rheumatoid Arthritis (LORA) Really a Distinct Entity of RA? Results From the Swiss Observational Cohort**

Ruediger Mueller1, Toni Kaegi1, Axel Finckh2 and Johannes von Kempis3, 1MD, St. Gallen, Switzerland, 2Geneva University Hospitals, Geneva, 4Switzerland

**Renaissance Washington - Grand Ballroom North**

**Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Comparative Efficacy and Novel Treatment Strategies in Rheumatoid Arthritis**

**Moderators:** Joseph A. Markenson, MD and Mark C. Genovese, MD

**2:30 PM**

**771. Discontinuation of Adalimumab without Functional and Radiographic Damage Progression After Achieving Sustained Remission in Patients with Rheumatoid Arthritis (the HONOR study): 1-Year Results**

Yoshiya Tanaka, Shintaro Hirata, Shunsuke Fukuyo, Masao Nawata, Satoshi Kubo, Kunihiro Yamaoka and Kazuyoshi Saito, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan

**2:45 PM**

**772. Tocilizumab Monotherapy Compared with Adalimumab Monotherapy in Patients with Rheumatoid Arthritis: Results of a 24-Week Study**

Arthur Kavanaugh1, Paul Emery2, Ronald F. van Vollenhoven3, Ara H. Dikranian4, Rieke Alten5, Micki Klearman6, David Musselman7, Sunil Agarwal8, Jennifer Green9 and Cem Gabay10, 1UCSD School of Medicine, La Jolla, CA, 2University of Leeds, Leeds, United Kingdom, 3Karolinska Institute, Stockholm, Sweden, 4San Diego Arthritis Medical Clinic, San Diego, CA, 5Schlosspark Klinik, University Medicine Berlin, Berlin, Germany, 6Genentech Inc, South San Francisco, CA, 7Welwyn Garden City, United Kingdom, 8Geneva University Hospitals, Geneva, Switzerland

**3:00 PM**

**773. Remission Rates with Tofacitinib Treatment in Rheumatoid Arthritis: A Comparison of Various Remission Criteria**

J. S. Smolen1, D. Aletaha2, D. Gruben3, J. D. Bradley4, S. H. Zwillich5, S. Krishnaswami6, B. Benda7 and C. Mebus8, 1Medical University of Vienna, Vienna, Austria, 2Pfizer Inc., Groton, CT, 3Pfizer Inc., Collegeville, PA

**3:15 PM**

**774. A CD4+ T-Cell Gene Expression Signature Predicts Drug Survival On Methotrexate Monotherapy in Early Rheumatoid Arthritis**

Arthur G. Pratt1, Philip M. Brown2, Simon J. Cockell3, Gillian Wilson4 and John D. Isaacs5, 1Newcastle University, Newcastle Upon Tyne, United Kingdom, 2Newcastle University, Newcastle-upon-Tyne, United Kingdom, 3Freeman Hospital, Newcastle-upon-Tyne, United Kingdom, 4Musculoskeletal Research Group, Institute of Cellular Medicine, Newcastle University and Newcastle upon Tyne NHS Foundation Trust, Newcastle Upon Tyne, United Kingdom

**3:30 PM**

**775. Long-Term Outcomes of Early Rheumatoid Arthritis Patients Initiated with Adalimumab Plus Methotrexate Compared with Methotrexate Alone Following a Targeted Treatment Approach**

Roy Fleischmann1, Ronald F. van Vollenhoven2, Josef S. Smolen3, Paul Emery4, Stefano Frenentius5, Suchitrita S. Rathmann6, Hartmut Kupper7 and Arthur Kavanaugh8, 1University of Texas Southwestern Medical Center, Dallas, TX, 2Karolinska Institute, Stockholm, Sweden, 3Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 4Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 5Abbott, Rungis, France, 6Abbott, Abbott Park, IL, 7Abbott GmbH and Co. KG, Ludwigshafen, Germany, 8UCSD School of Medicine, La Jolla, CA

**3:45 PM**

**776. A Multicenter, Randomized, Controlled, Open-Label Pilot Study of the Feasibility of Discontinuation of Adalimumab in Rheumatoid Arthritis Patients in Stable Clinical Remission**

Katerina Chatzidionysiou1, Carl Turesson2, Annika Telemann3, Ann Knight4, Elisabet Lindqvist5, Per Larsson6, Lars Cöster7, Barbro
Ballroom B
Spondyloarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Spondyloarthritis I

Moderators: Michael M. Ward, MD and Lianne S. Gensler, MD

2:30 PM
777. Effect of Certolizumab Pegol On Signs and Symptoms of Ankylosing Spondylitis and Non-Radiographic Axial Spondyloarthritis: 24 Week Results of a Double Blind Randomized Placebo-Controlled Phase 3 Axial Spondyloarthritis Study
Robert B. M. Landewé1, Martin Rudwaleit2, Désirée van der Heijde3, Maxime Dougdos4, Walter P. Maksymowych5, Jurgen Braun6, Atul A. Deodhar7, Christian Stach8, Bengt Hoepken9, Geoffroy Coteur10, Danuta Kielan11, Andreas Fichtner12, Terri Arledge13, and Joachim Sieper1
1Academic Medical Center/University of Amsterdam & Atrium Medical Center, Amsterdam, The Netherlands, 2Endokrinologikum Berlin, Berlin, Germany, 3University Medical Center, Leiden, Netherlands, 4Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 5University of Alberta, Edmonton, AB, 6Rheumazentrum Ruhrgebiet, Herne, Germany, 7Oregon Health & Science University, Portland, OR, 8UCB Pharma, Monheim am Rhein, Germany, 9UCB Pharma, Brussels, Belgium, 10UCB Pharma, Rtp, NC, 11Charité Universitätsmedizin Berlin, Berlin, Germany

2:45 PM
778. Spinal MRI Has Little Incremental Diagnostic Value Compared with MRI of the Sacroiliac Joints Alone in Early Spondyloarthritis
Ulrich Weber1, Veronika Zubler1, Zheng Zhao2, Robert GW Lambert3, Stanley Chan4, Susanne Juhi Pedersen5, Mikkel Ostergaard6 and Walter P. Maksymowych7
1Balgrist University Hospital, Zurich, Switzerland, 2Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, Beijing, China, 3University of Alberta, Edmonton, AB, 4Glostrup Hospital, Copenhagen, Denmark, 5Copenhagen University Hospital at Glostrup, Glostrup, Denmark

3:00 PM
779. Changes in Active Inflammatory Lesions Assessed by Magnetic Resonance Imaging: Results of the Infliximab As First Line Therapy in Patients with Early Active Axial Spondyloarthritis Trial
Joachim Sieper1, Jan Lenaerts2, Jürgen Wollenhaupt3, Vadim Mazurov4, L. Myasoutova5, Sung-Hwan Park6, Yeong W. Song7, Ruji Yao8, Denesh Chitkara9 and Nathan Vastesaeger2
1The Karolinska Institute, Stockholm, Sweden, 2Lund University, Malmö, Sweden, 3Department of Rheumatology, Spenshult Hospital, Öskarstrom, Sweden, 4Institution for Medical Sciences, Uppsala University, Uppsala, Sweden, 5Section for Rheumatology Lund University, Lund, Sweden, 6Karolinska University Hospital, Stockholm, Sweden, 7University Hospital Linköping, Sweden, 8Kårnsjukhuset, Skövde, Sweden, 9The Karolinska Institute, Stockholm, Sweden, 10Abbott Scandinavia, Stockholm, Sweden

State Medical University, Kazan, Russia, 1Catholic University of Korea, Seoul, South Korea, 2Seoul National University, Seoul, South Korea, 3Merck Sharp and Dohme, Kenilworth, NJ, 4Merck Sharp and Dohme, Brussels, Belgium

3:15 PM
780. The Relationship of Inflammation, Fatty Degeneration and the Effect of Long-Term TNF-Blocker Treatment On the Development of New Bone Formation in Patients with Ankylosing Spondylitis
Xenofon Baraliakos1, Frank Heldmann2, Joachim Listing1, Johanna Callhoff3, Juergen Braun1 and EASIC4, 1Rheumazentrum Ruhrgebiet, Herne, Germany, 2Rheumazentrum Ruhrgebiet, Herne, Ghana, 3German Rheumatism Research Center, Berlin, Germany, 4Herne, Germany

3:30 PM
781. Ankylosing Spondylitis Is Associated with an Increased Risk of Osteoporotic Fractures: A Population-Based Cohort Study
Juan Muñoz-Ortego1, Peter Vestergaard2, Josep Blanch3, Paul Wordsworth4, Andrew Judge5, M. Kassim Javaid6, Nigel K. Arden7, Cyrus Cooper8, Adolfo Díez-Pérez9 and Daniel Prieto-Alhambra10
1Hospital Sagrat Cor, Barcelona (Spain), 2Hospital, Barcelona, Spain, 3Aarhus University Hospital THG, Aarhus, Denmark, 4Aarhus, Denmark, 5Hospital del Mar, Parc de Salut Mar, Barcelona, Spain, 6Nuffield Orthopaedic Centre, Oxford, United Kingdom, 7Oxford University, Oxford, United Kingdom, 8Oxford NIHR Musculoskeletal Biomedical Research Unit, University of Oxford, Oxford, UK, 9Oxford, United Kingdom, 10University of Oxford; Southampton General Hospital, Southampton, United Kingdom, 11Hospital del Mar-IMIM, Universitat Autònoma de Barcelona, Barcelona; and RETICEF, ISCIII Madrid; Spain, Barcelona, Spain, 12URFOA-IMIM, Parc de Salut Mar; Idiap Jordi Gol; University of Oxford; University of Southampton, Barcelona, Spain

3:45 PM
782. Anti-TNF Therapy Slows Radiographic Progression of Ankylosing Spondylitis
Nigil Haroon1, Robert D. Inman2, Thomas J. Leach1, Michael H. Weisman3, Michael M. Ward5, John D. Reveille6 and Lianne S. Gensler7
1University Health Network, Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, 3Cedars-Sinai, Los Angeles, CA, 4Cedars-Sinai Medical Center, Los Angeles, CA, 5NIAMS/NIH, Bethesda, MD, 6Univ of Texas Health Science Center at Houston, Houston, TX, 7UCSF, San Francisco, CA

146 C
Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics

Moderators: John Varga, MD and Maria Trojanowska, PhD

2:30 PM
783. The Wnt Inhibitors DKK1 and SFRP1 Are Downregulated by Promoter Hypermethylation in Systemic Sclerosis
Clara Dees1, Inga Schlottmann1, Robin Funke1, Aliyfa Distler1, Katrin Palumbo-Zerr2, Pawel Zerr2, Oliver Distler1, Georg A.
Schett2 and Joerg HW Distler2, 1Department of Internal Medicine
3 and Institute for Clinical Immunology, University of Erlangen-
Nuremberg, Erlangen, Germany; 2Department of Internal
Medicine III and Institute for Clinical Immunology, University of
Erlangen-Nuremberg, Erlangen, Germany, 3University Hospital
Zurich, Zurich, Switzerland

2:45 PM
784. Neutralization of PlasminogenActivator Inhibitor-1
Resolves Skin Fibrosis and Vascular Injury in a Murine Model of
Human Scleroderma
Raphael Lemaire1, Tim Burwell1, Tracy Delaney1, Cindy Chen1,
Julie Bakken1, Lily Cheng1, Philip Brohawn1, Isabelle de Mendez2,
Dominic Corkill2, Anthony Coyle3, Ronald Herbst1 and Jane
Connor1, 1MedImmune LLC, Gaithersburg, MD, 2Medimmune,
LLC, Cambridge, England, 3Pfizer, Inc., Cambridge (formerly at
MedImmune LLC, Gaithersburg, MD, USA)

3:00 PM
785. Resident Lung Fibroblast Gene Expression Signatures
Predict Susceptibility or Resistance to Experimental Lung
Fibrosis
Emma Derrett-Smith1, Rachel Hoyles1, Korsa Khan1, David J.
Abraham1 and Christopher P. Denton2, 1UCL Medical School,
London, United Kingdom, 2UCL, London, United Kingdom

3:15 PM
786. Crosstalk Between Integrins
and TGFβ in the Pathogenesis
and Treatment of Multiple Presentations of Scleroderma
Elizabeth E. Gerber1, Fredrick M. Wigley2, Elaine C. Davis3, David
L. Huso1 and Harry C. Dietz1, 1Johns Hopkins University School of
Medicine, Baltimore, MD, 2Johns Hopkins University, Baltimore,
MD, 3McGill University, Montreal, QC

3:30 PM
787. Aberrant Adipogenesis in the Pathogenesis of Scleroderma
Roberta Goncalves Marangoni, Jun Wei, Monique E. Hinchcliff,
Feng Fang, Warren Tourtellotte and John Varga, Northwestern
University Medical School, Chicago, IL

3:45 PM
788. Tenofovir, a Potent Anti-Viral Agent, Is an Ecto-
5’Nucleotidase (CD73) Inhibitor That Prevents Dermal Fibrosis
in a Murine Model of Scleroderma
Jessica L. Feig1, Doreen Tivon1, Miguel Perez-Aso1, Timothy
Cardozo1 and Bruce N. Cronstein2, 1New York University School of
Medicine, New York, NY, 2NYU School of Medicine, Division of
Rheumatology, New York, NY

• provide the basic knowledge and associated materials needed
to integrate multiple aspects of cognitive-behavioral therapy
into practice
• describe various forms of exercise and the evidence base for
their use in the treatment of fibromyalgia
• outline the basic knowledge and associated materials needed
to educate patients in regard to exercise and enhance exercise
persistance

2:30 PM
Cognitive-behavioral Therapy You Can Use
David A. Williams, PhD

3:15 PM
Exercise Options and Motivating Persistence in Fibromyalgia
Kim D. Jones, PhD

204 A
Practice Managers: Improving Access and Website
Marketing (Practice Management Series)
Moderator: Laura Wright, MBA, CMPE

Upon completion of this session, participants should be able to:
• recognize the importance of regular patient visits for viability
of practice
• evaluate practice strengths and weaknesses of a growing
practice
• outline ways to minimize barriers and opportunities by
improving access and website marketing
• determine how to effectively reach optimal patient target
audiences
• develop strategies for delivering advertised products (e.g.,
expertise, specialty, atmosphere, value)
• outline a viable plan for maintaining and improving quality of
services to new patients

2:30 PM
Marketing
Chris Alonzo and John O’Toloe, BA

3:15 PM
Improving Access
Michelle Hirschman

206
Rheumatic Disease Update: Inflammatory Eye
Disease
Moderator: Deborah K. McCurdy, MD
Speaker: Gary N. Holland, MD

Upon completion of this session, participants should be able to:
• discuss the associations between rheumatic disorders and
inflammatory eye disease
• recognize anatomical lesions of the eye as they relate to
diagnosis
• identify appropriate therapy options

ARHP SESSIONS
2:30 - 4:00 PM

143 A
Non-pharmacological Management of Fibromyalgia:
Your Toolbox
Moderator: Dane B. Cook, PhD

Upon completion of this session, participants should be able to:
• discuss the basic components of cognitive-behavioral therapy
for chronic pain and the evidence base for associated
effectiveness

2:30 - 4:00 PM
**2:30 - 4:00 PM**

**140 A**

**Foot and Gait Disorders**

**Moderators:** Shngpui Betty Chow, PT and Smita Rao, PhD, PT

**2:30 PM**

**789. Foot Disorders Associated with Over-Pronated and Over-Supinated Foot Types: The Johnston County Osteoarthritis Project**

Yvonne M. Golightly1, Marian T. Hannan2, Alyssa B. Dufour1, Howard J. Hillstrom4 and Joanne M. Jordan3, 1University of North Carolina, Chapel Hill, NC, 2Hebrew SeniorLife & Harvard Med Sch, Boston, MA, 3Hebrew SeniorLife & Harvard Med School, Boston, MA, 4Hospital Special Surgery (HSS), New York, NY, 5University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC

**2:45 PM**

**790. Biomechanical Function Agrees with Clinical Implications of Foot Disorders in a Population-Based Study**

Thomas J. Hagedorn1, Alyssa B. Dufour2, Jody L. Riskowski1, Howard J. Hillstrom1, Virginia A. Casey1 and Marian T. Hannan2, 1Hebrew Senior Life, Boston, MA, 2Hebrew SeniorLife & Boston Univ, Boston, MA, 3Hebrew SeniorLife & Harvard Med School, Boston, MA, 4Hebrew SeniorLife & Boston Univ, Boston, MA, 5Hebrew SeniorLife & Harvard Med Sch, Boston, MA

**3:00 PM**

**791. Leg Muscle Mass Is Not Affected by Foot Pain, Structure or Function: The Framingham Foot Study**

Alyssa B. Dufour1, Marian T. Hannan2, Patricia P. Katz3, Jody L. Riskowski1, Thomas J. Hagedorn1, Virginia A. Casey1 and Robert R. McLean2, 1Hebrew SeniorLife & Boston Univ, Boston, MA, 2Hebrew SeniorLife & Harvard Med Sch, Boston, MA, 3University of California San Francisco, San Francisco, CA, 4Hebrew SeniorLife & Harvard Med School, Boston, MA, 5Hospital Special Surgery (HSS), New York, NY, 6Hebrew SeniorLife & Harvard Medical School, Boston, MA

**3:15 PM**

**792. Associations of Foot Structure and Function to Low Back and Lower Extremity Pain**

Jody L. Riskowski1, Alyssa B. Dufour1, Thomas J. Hagedorn1, Howard J. Hillstrom2, Virginia A. Casey3 and Marian T. Hannan1, 1Hebrew SeniorLife & Harvard Medical School, Boston, MA, 2Hebrew SeniorLife & Boston Univ, Boston, MA, 3Hebrew SeniorLife & Boston Hosp, Boston, MA, 4Hospital Special Surgery (HSS), New York, NY, 5Hebrew SeniorLife & Harvard Med Sch, Boston, MA

**3:30 PM**

**793. Associations of Foot Forces and Pressures to Regional Foot Pain: The Framingham Foot Study**

Jody L. Riskowski1, Thomas J. Hagedorn1, Alyssa B. Dufour1, Virginia A. Casey1 and Marian T. Hannan1, 1Hebrew SeniorLife & Harvard Med School, Boston, MA, 2Hebrew SeniorLife, Boston, MA, 3Hebrew SeniorLife & Boston Univ, Boston, MA, 4Hebrew SeniorLife, Boston, MA

**3:45 PM**

**794. How Many Steps/Day Are Associated with a Community Level Gait Speed Among Older Adults with or At High Risk of Knee OA?**

Daniel K. White1, Roger Fielding2, Tuhina Neogi2, Michael P. LaValley3, K. Douglas Gross1, Michael C. Nevitt4, C.E. Lewis3, James Torner5 and Catrine Tudor-Locke6, 1Boston University, Boston, MA, 2Tufts Medical Center, 3Boston Univ School of Medicine, Boston, MA, 4Boston University School of Public Health, Boston, MA, 5MGH Institute of Health Professions, Boston, MA, 6University of California-San Francisco, San Francisco, CA, 7University of Alabama, Birmingham City, AL, 8University of Iowa, Iowa City, Iowa City, IA, 9Pennington Biomedical Research Center, Baton Rouge

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**Osteoarthritis**

**Moderators:** Charles G. Helmick, MD and Uyen Sa D.T. Nguyen, DSc, MPH

**2:30 PM**

**795. Racial Differences in Pain Coping Efficacy in Patients with Hip and Knee Osteoarthritis**

Kelli D. Allen1, Hayden B. Bosworth1, Cynthia Coffman1, Jennifer H. Lindquist1, Nina R. Sperber2, Morris Weinberger1 and Eugene Z. Oddone1, 1Duke and Durham VA Medical Center, Durham, NC, 2University of North Carolina at Chapel Hill & Durham VA Medical Center, Durham, NC, 3University of North Carolina at Chapel Hill & Durham VA Medical Center, Durham, NC

**2:45 PM**

**796. African American Adults Less Willing to Undergo Joint Replacement Surgery: The Multicenter Osteoarthritis Study**

Julie J. Keyser1, Huan J. Chang2, Tianzhong Yang3, Cora E. Lewis4, James Torner1, Michael C. Nevitt1 and David T. Felson2, 1Boston Univ Sargent College, Boston, MA, 2The Journal of the American Medical Association, Chicago, IL, 3Boston Univ School of Medicine, Boston, MA, 4University of Alabama, Birmingham City, Birmingham, AL, 5University of Iowa, Iowa City, Iowa City, IA, 6University of California-San Francisco, San Francisco, CA

**3:00 PM**

**797. Clinical and Biomechanical Characteristics of Total Hip Arthroplasty Responders and Nonresponders**

Genna Waldman1 and Kharma C. Foucher1, 1Rush Medical College, Chicago, IL, 2Rush University Medical Center, Chicago, IL

**3:15 PM**

**798. A Rich Description of Clinical Exam Features in Patients with Knee Osteoarthritis and Their Correlation with Functional Outcomes**

Maura D. Iversen1, Kelli Sylvester2, Abigail Grader2, Michelle A. Frits4, Marie Boneparth3, Megan Whitmore4, Jane Lucas2, Fatima Shahzad1, Jeffrey B. Driban4 and Chenchen Wang6, 1Northeastern University, Department of Physical Therapy, and Brigham & Women's Hospital, Harvard Medical School, Boston, MA, 2Department of Physical Therapy, Northeastern University, Boston, MA, 3Brigham and Women's Hospital, Boston, MA, 4Tufts Medical Center, Boston, 5Back Bay Physical Therapy, Boston, 6Tufts Medical Center, Boston, MA
3:30 PM  
799. Does Unpredictable Intermittent Knee Pain Limit Functional Ability and Walking Frequency in Knee OA?  
Daniel K. White\(^1\), Gillian A. Hawker\(^2\), David T. Felson\(^3\), K. Douglas Gross\(^4\), Jingbo Ni\(^5\), Michael C. Nevitt\(^6\), C.E. Lewis\(^7\), James Torner\(^7\) and Tuhina Neogi\(^8\), \(^1\)Boston University, Boston, MA, \(^2\)Women’s College Research Institute, University of Toronto, Toronto, ON, \(^3\)MGH Institute of Health Professions, Boston, MA, \(^4\)Boston Univ School of Medicine, Boston, MA, \(^5\)University of California-San Francisco, San Francisco, CA, \(^6\)University of Alabama, Birmingham City, AL, \(^7\)University of Iowa, Iowa City, Iowa City, IA

3:45 PM  
800. BMI, Occupational Activity, and Leisure-Time Physical Activity: an Exploration of Risk Factors and Modifiers for Knee Osteoarthritis  
Kathryn Remmes Martin\(^1\), Diana Kuh\(^2\), Tamara B. Harris\(^3\), Jack M. Guralnik\(^4\), David Coggon\(^5\) and Andrew K. Wills\(^6\), \(^1\)NIA/NIH, Bethesda, MD, \(^2\)Medical Research Council, London, United Kingdom, \(^3\)University of Maryland, Baltimore, \(^4\)University of Southampton, Southampton, United Kingdom, \(^5\)University of Bristol, Bristol, United Kingdom

ACR WORKSHOPS ☑️
4:00 - 6:00 PM

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

144 A  
Dermatopathology of Rheumatic Diseases (212)  
Speaker: Daniel Miller, MD

144 B  
Musculoskeletal Exam Skills II: Regional Musculoskeletal Examination of the Neck and Low Back (213)  
Speakers: George V. Lawry, MD and Paul C. Utrie, MD

144 C  
Speaker: Stuart L. Silverman, MD

149 A  
Synovial Fluid Analysis and Crystal Identification (215)  
Speakers: Brian F. Mandell, MD, PhD, Lan Chen, MD, PhD, and Gilda M. Clayburne, MLT

ACR SESSIONS
4:30 - 6:00 PM

Ballroom C  
Classification and Treatment of Sjögren’s Syndrome 🔄

Moderators: Lindsey A. Criswell, MD, MPH and Frederick B. Vivino, MD

Upon completion of this session, participants should be able to:
- describe how Sjögren’s syndrome has been both over diagnosed and under diagnosed
- summarize the new ACR classification criteria for Sjögren’s syndrome
- discuss the burden of illness in Sjögren’s syndrome
- describe current efforts to develop clinical practice guidelines for Sjögren’s syndrome

4:30 PM  
2012 ACR Classification Criteria for Sjögren’s Syndrome  
Steve Shiboski, PhD

4:55 PM  
Rationale and Procedures for Guideline Development in Sjögren’s Syndrome  
Ann L. Parke, MD

5:20 PM  
Preliminary Clinical Practice Guidelines for Sjögren’s Syndrome  
Steven E. Carsons, MD

5:45 PM  
Questions & Answers

143 A  
Metabolic Abnormalities in Autoimmunity 🔄

Moderator: Andras Perl, MD, PhD

Upon completion of this session, participants should be able to:
- describe the close interconnection of metabolic responses with T cell function and autoimmunity
- explain the scientific basis of therapeutic targets such as mammalian target of rapamycin that are under development
- summarize how metabolic biomarkers of T cell function may contribute to a scientific understanding of disease exacerbation and remission

4:30 PM  
Metabolic Control of T cell Differentiation  
Jonathan Powell, MD, PhD

5:00 PM  
The Biology of Reactive Nitrogen Intermediates in Systemic Lupus Erythematosus  
Jim Oates, MD

5:30 PM  
Metabolic Control of Systemic Autoimmunity  
Andras Perl, MD, PhD
207 A  
**Puberty, Adolescence and Rheumatologic Disease**

**Moderator:** Kenneth N. Schikler, MD

**Upon completion of this session, participants should be able to:**
- recognize the psychosocial issues expected for early, middle, and late adolescents
- describe the effects of neuro-hormonal maturation on cognitive as well as somatic and pubertal physiologic growth
- explain the challenges of dealing with the obstacles and challenges chronic diseases present to the adolescent and normative psychosocial development
- demonstrate clearly and become adept at dealing with reproductive health issues of this population

**4:30 PM**

*I’m Not a Little Kid Anymore and How and Why I Am Changing*

Frank M. Biro, MD

**5:00 PM**

**Adolescent Sexuality**

Margaret Blythe, MD

**5:30 PM**

**Reproductive Health Issues for Adolescents with Rheumatologic Disorders**

Susan Paige Hertweck, MD

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Hall D  
**Thieves’ Market: Show Me Your Best Cases**

**Moderator:** Diane L. Kamen, MD, MS, Zsuzsanna H. McMahan, MD, MHS and Robert F. Spiera, MD

**Upon completion of this session, participants should be able to:**
- describe unique and challenging diagnostic dilemmas
- discuss the differential diagnosis
- review methods used to identify the underlying diagnosis
- develop a treatment plan specific to the underlying diagnosis

**4:30 PM**

*Temporal Arteritis with a “Twist”*

Ashima Makol, MD

**4:45 PM**

*A Devastating Rash*

Andreea M. Harsanyi, MD

**5:00 PM**

*Gout of Lumbar Spine*

Sangeetha Pabolu, MD

**5:15 PM**

*Steroid-Resistant Systemic Lupus Erythematosus*

Cristina Arriens, MD

**5:30 PM**

*A Boy with Monoarthritis*

Philip J. Hashkes, MD, MSc

**5:45 PM**

*An Old Friend Revisited*

Shawn Rose, MD, PhD

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Hall E  
**Update on Psoriatic Arthritis and the Spondylarthropathies**

**Moderators:** Shelly P. Kafka, MD and Philip Mease, MD

**Upon completion of this session, participants should be able to:**
- review updated information on the assessment and treatment of psoriatic arthritis
- describe the rationale and value of the new classification criteria for the spondylarthropathies including the new assessment criteria for axial spondylarthropathies and its utility in “treating to target”
- identify the bone and enthesial pathology, including erosion, enthesial calcification, and syndesmophyte formation in spondylarthropathies, treatment implications, and the role imaging modalities

**4:30 PM**

*Current State of the Art and Future Directions in the Assessment and Management of Psoriatic Arthritis*

Philip Mease, MD

**5:00 PM**

*New Approaches for the Classification and Assessment of the Spondylarthropathies*

Desiree Van Der Heijde, MD, PhD

**5:30 PM**

*The Paradox of Pathologic Bone Erosions and Bone Formation in the Spondylarthropathies: Clinical Implications*

Christopher T. Ritchlin, MD, MPH

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**ACR CONCURRENT ABSTRACT SESSIONS**

4:30 - 6:00 PM

202 B  
**Fibromyalgia and Soft Tissue Disorders I**

**Moderators:** Daniel J. Clauw, MD and Dane Cook, PhD

**4:30 PM**

*801. Symptom Improvement in Fibromyalgia Patients Is Related to Reduced Network Connectivity As Measured by EEG Coherence*

Jeffrey B. Hargrove1, Robert M. Bennett2, Daniel J. Clauw3, George Mashour3, and Lauren Briggs4, 1Kettering University, Flint, MI, 2Oregon Health & Science Univ, Portland, OR, 3University of Michigan, Ann Arbor, MI, 4Grand Valley State University, Allendale, MI

**4:45 PM**

*802. Milnacipran Reduces Brain Activity During Pain in Fibromyalgia*

Anson E. Kairys, Richard E. Harris, Eric Ichesco, Johnson P. Hampson, Steven Harte, Daniel J. Clauw and Tobias Schmidt-Wilcke, University of Michigan, Ann Arbor, MI

**5:00 PM**

*803. Frontal Brain Connectivity to the Default Mode Network Is Associated with Subjective Fatigue Irrespective of Pain and Depression*

Johnson P. Hampson1, Daniel J. Clauw1, Jieun Kim2, Vitaly Napadow3 and Richard E. Harris4, 1University of Michigan, Ann Arbor, MI, 2Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, 3Martinos Center for Biomedical Imaging, Charlestown, MA
5:15 PM  
804. A Comparison of the Nociceptive Flexion Reflex, Pressure Algometry and Summated Widespread Pain in the Diagnosis of Fibromyalgia  
Robert M. Bennett1, Kim D. Jones1 and Janice Hoffman1, 1Oregon Health & Science Univ, Portland, OR, 2Oregon Health Sciences University, Portland, OR, 3Oregon Health & Science University, Portland, OR

Salon B  
Imaging of Rheumatic Diseases I: Ultrasound and X-ray  
Moderators: Ralf G. Thiele, MD and Wolfgang A. Schmidt, MD

4:30 PM  
807. Predictors of Rheumatoid Arthritis: Quantitative and Semiquantitative Sonographic Measurements of Peripheral Joints  
Flavia S. Machado, Rita N.V. Furtado, Rogerio D. Takahashi, Ana Leticia P. de Buosi and Jamil Natour, Universidade Federal de São Paulo, São Paulo, Brazil

5:00 PM  
809. Ultrasoundography Predicts Achievement of Deeper Remission After DAS28-Based Clinical Remission of Rheumatoid Arthritis  
Ryusuke Yoshimi, Maasa Hama, Daiga Kishimoto, Reikou Watanabe, Takeaki Uehara, Yukiko Asami, Atsushi Ihata, Atsuhisa Ueda, Mitsuhito Takeno and Yoshiaki Ishigatsubo, Yokohama City University Graduate School of Medicine, Yokohama, Japan

5:15 PM  
810. Assessment of Omeract Global Power Doppler Ultrasoundography 44-Joint Scoring System and Reduced Joint Scoring Systems in Rheumatoid Arthritis Patients Treated with Abatacept Plus Background Methotrexate  
MA D’Agostino1, R. Wakefield2, H. Berner Hammer3, O. Vittecoq4, M. Galeazzi5, P. Balint6, E. Filippucci7, I. Moller8, A. Iagnocco9, E. Naredo10, Mikkel Ostergaard11, C. Gaillez12, K. Van Holder13, M. Le Bars14 and OMERACT-Ultrasound Task Force14, 1AP-HP Ambroise Pare Hospital, Boulogne-Billancourt, France, 2University of Leeds, Leeds, United Kingdom, 3Diakonhjemmet Hospital, Oslo, Norway, 4University Hospital, Rouen, France, 5University of Siena, Siena, Italy, 6National Institute, Budapest, Hungary, 7University Politecnica delle Marche, Ancona, Italy, 8Instituto Pooal, Barcelona, Spain, 9Sapienza Università di Roma, Roma, Italy, 10Hospital Severo Ochoa, Madrid, Spain, 11Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 12Bristol-Myers Squibb, Rueil Malmaison, France, 13Bristol-Myers Squibb, Braine-l’Alleud, Belgium, 14Paris

5:30 PM  
811. The Relationship Between Power Doppler Ultrasoundography Outcomes and Clinical Efficacy in Abatacept-Treated Patients with Rheumatoid Arthritis and in Inadequate Response to Methotrexate  
MA D’Agostino1, R. Wakefield2, H. Berner Hammer3, O. Vittecoq4, M. Galeazzi5, P. Balint6, E. Filippucci7, I. Moller8, A. Iagnocco9, E. Naredo10, Mikkel Ostergaard11, C. Gaillez12, K. Van Holder13, M. Le Bars14 and OMERACT-Ultrasound Task Force14, 1AP-HP Ambroise Pare Hospital, Boulogne-Billancourt, France, 2University of Leeds, Leeds, United Kingdom, 3Diakonhjemmet Hospital, Oslo, Norway, 4University Hospital, Rouen, France, 5University of Siena, Siena, Italy, 6National Institute, Budapest, Hungary, 7University Politecnica delle Marche, Ancona, Italy, 8Instituto Pooal, Barcelona, Spain, 9Sapienza Università di Roma, Roma, Italy, 10Hospital Severo Ochoa, Madrid, Spain, 11Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 12Bristol-Myers Squibb, Rueil Malmaison, France, 13Bristol-Myers Squibb, Braine-l’Alleud, Belgium, 14Paris

5:45 PM  
812. Intravenous Golimumab Inhibits Radiographic Progression and Maintains Clinical Efficacy and Safety in Patients with Active Rheumatoid Arthritis Despite Methotrexate Therapy: 1-Year Results of a Phase 3 Trial  
Michael Weinblatt1, Clifton O. Bingham III2, Alan Mendelsohn3, Lenore Noonan4, Shihong Sheng5, Lilianne Kim6, Kim Hung7, Jiandong Lu4, Daniel Baker8 and Rene Westhoven9, 1Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 2Johns Hopkins University, Baltimore, MD, 3Janssen Research & Development, LLC, Spring House, PA, 4University Hospital KU Leuven, Leuven, Belgium

152 A  
Metabolic and Crystal Arthropathies: Clinical  
Moderators: Michael A. Becker, MD and Fernando Perez-Ruiz, MD, PhD

4:30 PM  
813. Rilonacept for Gout Flare Prophylaxis in Patients with Chronic Kidney Disease: Analysis of 3 Clinical Trials  
Robert Terkeltaub1, Robert R. Evans2, Steven P. Weinstein2, E. Naredo10, Mikkel Ostergaard11, C. Gaillez12, K. Van Holder13, M. Le Bars14 and OMERACT-Ultrasound Task Force14, 1AP-HP Ambroise Pare Hospital, Boulogne-Billancourt, France, 2University of Leeds, Leeds, United Kingdom, 3Diakonhjemmet Hospital, Oslo, Norway, 4University Hospital, Rouen, France, 5University of Siena, Siena, Italy, 6National Institute, Budapest, Hungary, 7University Politecnica delle Marche, Ancona, Italy, 8Instituto Pooal, Barcelona, Spain, 9Sapienza Università di Roma, Roma, Italy, 10Hospital Severo Ochoa, Madrid, Spain, 11Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 12Bristol-Myers Squibb, Rueil Malmaison, France, 13Bristol-Myers Squibb, Braine-l’Alleud, Belgium, 14Paris

5:00 PM  
814. A Comparison of the Nociceptive Flexion Reflex, Pressure Algometry and Summated Widespread Pain in the Diagnosis of Fibromyalgia  
Robert M. Bennett1, Kim D. Jones1 and Janice Hoffman1, 1Oregon Health & Science Univ, Portland, OR, 2Oregon Health Sciences University, Portland, OR, 3Oregon Health & Science University, Portland, OR

4:15 PM  
815. Posterior Insula Combined Glutamate and Glutamine Is Associated with Pain in Fibromyalgia: A Replication Study  
Eric Ichesco, Tobias Schmidt-Wilcke, Anson E. Kairys, Johnson P. Hampson, Steven E. Harte, Daniel J. Clauw and Richard E. Harris, University of Michigan, Ann Arbor, MI

5:15 PM  
816. Abatacept Plus Background Methotrexate  
MA D’Agostino1, R. Wakefield2, H. Berner Hammer3, O. Vittecoq4, M. Galeazzi5, P. Balint6, E. Filippucci7, I. Moller8, A. Iagnocco9, E. Naredo10, Mikkel Ostergaard11, C. Gaillez12, K. Van Holder13, M. Le Bars14 and OMERACT-Ultrasound Task Force14, 1AP-HP Ambroise Pare Hospital, Boulogne-Billancourt, France, 2University of Leeds, Leeds, United Kingdom, 3Diakonhjemmet Hospital, Oslo, Norway, 4University Hospital, Rouen, France, 5University of Siena, Siena, Italy, 6National Institute, Budapest, Hungary, 7University Politecnica delle Marche, Ancona, Italy, 8Instituto Pooal, Barcelona, Spain, 9Sapienza Università di Roma, Roma, Italy, 10Hospital Severo Ochoa, Madrid, Spain, 11Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 12Bristol-Myers Squibb, Rueil Malmaison, France, 13Bristol-Myers Squibb, Braine-l’Alleud, Belgium, 14Paris
4:45 PM
814. Familial Aggregation and Heritability of Gout in Taiwan: A Nationwide Population Study
Chang-Fu Kuo1, Matthew J. Grainge1, Lai-Chu See2, Kuang-Hui Yu3, Shue-Fen Luo2, Ana M. Valdes1, Weiya Zhang1 and Michael Doherty1, 1University of Nottingham, Nottingham, United Kingdom, 2Chang Gung University, Taoyuan, Taiwan, 3Chang Gung Memorial Hospital, Taoyuan, Taiwan, 4St. Thomas’ Hospital, King’s College London, London, United Kingdom

4:45 PM
820. In Rheumatoid Arthritis Incident Fractures Are Associated with an Increased Risk of Cardiovascular Events
Orla Ni Mhuircheartaigh, Cynthia S. Crowson, Sherine E. Gabriel, Veronique L. Roger, L. Joseph Melton III and Shreyasee Amin, Mayo Clinic, Rochester, MN

5:00 PM
821. Association of Serum Uric Acid and Incident Fractures in Elderly Men
Nancy E. Lane1, Neeta Parimi2, Barton Wise3, Peggy Cawthon4, Eric Orwell5 and MrOS Investigators Group6, 1UC Davis School of Medicine, Sacramento, CA, 2CPMC Research Institute, SF, CA, 3UC Davis, School of Medicine, Sacramento, CA, 4CPMC Research Institute, San Francisco, CA, 5Portland, OR, 6Sacramento, CA


4:30 PM
819. Trajectories of Change in Physical Function: Effects On Fractures and Mortality
Kamil E. Barbour1, Li-Yung Lui2, Deborah E. Barnes3, Kristine E. Ensrud4, Anne B. Newman5, Kristine E. Ensrud6, Jacques P. Brown7, Michael R. McClung8, Andrea Wang9 and Cesar Libanati10, 1Duke University Medical Center, Durham, NC, 2California Pacific Medical Center, San Francisco, CA, 3University of California San Francisco, San Francisco, CA, 4University of Minnesota and Minneapolis VAHS, Minneapolis, MN, 5University of Pittsburgh, Pittsburgh, PA, 6San Francisco Coordinating Center, CPMC Research Institute, San Francisco, CA

5:00 PM
824. Progressive Improvements in Cortical Mass and Thickness throughout the Hip Were Observed with Denosumab Treatment in the Freedom Trial
Ken Poole1, Graham Treece1, Andrew Gee1, Jacques P. Brown2, Michael R. McClung3, Andrea Wang4 and Cesar Libanati5, 1University of Cambridge, Cambridge, United Kingdom, 2CHU-CHUL Research Centre, Quebec City, QC, 3Oregon Osteoporosis Center, Portland, OR, 4Amgen Inc., Thousand Oaks, CA
4:45 PM
826. Predictors of Return to Work During 3 Years After Start of First Tumor Necrosis Factor Antagonist in a National Cohort of Biologics-Treated Patients with Rheumatoid Arthritis
Tor Olofsson1, Ingemar F. Petersson1, Jonas Eriksson1, Martin Englund2, Pierre Geborek1, Lennart T.H. Jacobsson1, Johan Asling1 and Martin Neovius1, 1Department of Clinical Sciences Lund, Section of Rheumatology, Lund University, Lund, Sweden, 2Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden, 3Clinical Epidemiology Unit, Department of Medicine, Karolinska Institutet, Stockholm, Sweden, 4Department of Rheumatology and Inflammation Research, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden

5:00 PM
827. Sustained Development of Cardiovascular Disease in Rheumatoid Arthritis Despite Cardioprotective Treatment: The 10-Year Prospective Carre-Study
Alper M. van Sijl1, Inge A.M. van den Oever1, Mike J.L. Peters2, Vokko P. van Halm1, Alexandre E. Voskuyl1, Yvo M. Smulders2 and Mike T. Nurmohamed1, 1Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 2VU University Medical Center, Amsterdam, Netherlands, 3Academic Medical Centre, Amsterdam, Netherlands

5:15 PM
828. Association between Anti-Tumor Necrosis Factor Therapy and the Risk of Ischemic Stroke in Subjects with Rheumatoid Arthritis. Results From the British Society for Rheumatology Biologics Registers-Rheumatoid Arthritis (BSRBR-RA)
Audrey S. Low1, Mark Lunt2, Louise K. Mercer2, James B. Galloway3, Rebecca Davies4, Kath D. Watson2, British Society for Rheumatology Biologics Register (BSRBR) control centre consortium1, Deborah P. Symmons1, William G. Dixon1, Kimme L. Hyrich1 and On behalf of the BSRBR1, 1Arthritis Research UK Epidemiology Unit, The University of Manchester, Manchester, United Kingdom, 2University of Manchester, Manchester Academic Health Science Centre, Manchester, United Kingdom, 3Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, 4Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, 5British Society for Rheumatology, London, United Kingdom

5:30 PM
829. Subcutaneous Nodules Are Significantly Associated with Cardiovascular Events in Patients with Rheumatoid Arthritis: Results From a Very Large US Registry
Prashant Kaushik1, Susan P. Messing2, Jyoti Arora3, George Reed4, Katherine C. Saunders5, Jeffrey D. Greenberg6 and Joel M. Kremer7, 1Stratton VAMC, Albany, NY, 2University of Rochester School of Medicine and Dentistry, Rochester, NY, 3UMass Medical School, Worcester, MA, 4CORRONA, Inc., Southborough, MA, 5New York University School of Medicine, New York, NY, 6Albany Medical College and The Center for Rheumatology, Albany, NY

5:45 PM
830. Five-Year Favourable Outcome of Patients with Early Rheumatoid Arthritis in the 2000s: Data From the Espoir Cohort
Bernard G. Combe1, Nathalie Rincheval2, Joelle Benessiano3, Francis Berenbaum4, Alain G. Cantagrel1, Jean-Pierre Daurès5, Maxime Dougados6, Patrice Fardellone7, Bruno Fauret8, René-Marc Filpo9, Philippe M. Goupille10, Francis Guillemin11, Xavier X. Le Loet12, Isabelle Logeart13, Xavier Mariette14, Olivier Meyer15, Philippe Ravaud16, Alain Saraux17, Thierry Schaeverbeke18 and Jean Sibilia19, 1Hospital Lapeyronie, Montpellier, France, 2Institut Universitaire de Recherche Clinique, Montpellier, France, 3Rheumatology, Paris Univerisity Hospital BICHAT, Paris, France, 4AP-HP, St Antoine Hospital, Paris, France, 5Hospital Purpan, Toulouse CEDEX 9, France, 6Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 7C.H.U. D‘Amiens, Amiens, France, 8APH-Pitie Salpetriere Hospital / UPMC, Paris, France, 9Hopital R Salengro CHRU, Lille CEDEX, France, 10Hopital Trousseau, Tours, France, 11Faculte de Medecin/BP 184, Vandooever-les-Nancy, France, 12CHU de ROUEN, Rouen, France, 13Pfizer, Paris, France, 14Université Paris-Sud, Le Kremlin Bicetre, France, 15Hopital Bichat, Paris, France, 16Hotel Dieu University hospital, Paris, France, 17CHU de la Cavale Blanche, Brest Cedex, France, 18Groupe Hospitalier Pellegrin, Bordeaux, France, 19CHU Hautepiere, Strasbourg, France

Ballroom A
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy and Safety of Novel Entities

Moderators: Patrick Hoffstetter, MD and Andrew J. Head, MD

4:30 PM
831. A Randomized, Double-Blind, Placebo-Controlled, Multiple-Dose Study to Evaluate the Safety, Tolerability, and Efficacy of Brodalumab (AMG 827) in Subjects with Rheumatoid Arthritis and an Inadequate Response to Methotrexate
Karel Pavelka1, Yun Chon2, Richard Newmark3, Ngozi Erondu2 and Shao- Lee Lin2, 1Institute and Clinical of Rheumatology, Charles University, Prague, Czech Republic, 2Amgen Inc, Thousand Oaks, CA

4:45 PM
832. Peroxisome Proliferator-Activated Receptor Gamma Agonist Treatment for Rheumatoid Arthritis: A Proof-of-Concept Randomized Controlled Trial
Michelle J. Ormseth, Annette M. Oeser, Andrew Cunningham, Aihua Bian, Ayumi Shintani, S. Bobo Tanner and C. Michael Stein, Vanderbilt Medical Center, Nashville, TN

5:00 PM
833. A Phase 1, Randomized, Double-Blind, Placebo-Controlled Multiple-Dose Study of Intravenous Staphylococcal Protein A in Patients with Active Rheumatoid Arthritis On Methotrexate: Safety, Pharmacokinetics and Efficacy

5:15 PM
834. Cetrorelix, a Gonadotropin-Releasing Hormone Antagonist, Significantly Reduces Tumour-Necrosis-Factor-Alpha and Demonstrates Efficacy in Patients with Active Rheumatoid Arthritis: A Proof-of-Concept, Double-Blind, Randomised Trial

SUNDAY NOVEMBER 11, 2012
835. Low Doses of Ocaratuzumab, a Fc- and Fab-Engineered Anti-CD20 Antibody, Result in Rapid and Sustained Depletion of Circulating B-Cells in Rheumatoid Arthritis Patients
Adrienne O’Reilly, Tracy Davis and Vinay Jain, Mentrik Biotech, Dallas, TX

5:45 PM

836. Clinical Responses and Patient Reported Outcomes to NNC0109-0012 (anti-IL-20 mAb) in Rheumatoid Arthritis (RA) Patients Following 12-Weeks Dosing and 13 Weeks Follow up: Results From a Phase 2a Trial
Ladislav ŠEnolt1, Marie Göthberg2, Xavier Valencia3 and Eva Dokoupilova4, 1Institute of Rheumatology, Prague, Czech Republic, 2Novo Nordisk, A/S, Soeborg, Denmark, 3Novo Nordisk, Inc., Princeton, NJ, 4Medical Plus s.r.o, Uherske Hradiste, Czech Republic

4:30 PM

837. Response to MMF Therapy for Lupus Nephritis Is Independent of Genetic Variation of Inosine Monophosphate Dehydrogenase
Noa Schwartz1, Tejaskumar Patel1, Ellen M. Ginzler2, Neil Solomons3, Jill P. Buyon4 and Robert M. Clancy1, 1New York University School of Medicine, New York, NY, 2SUNY-Downstate Medical Center, Brooklyn, NY, 3Vifor Pharma, 4NYU School of Medicine, New York, NY

4:45 PM

838. Association of Urinary and Serum Soluble Fn14 Levels and TWEAK Levels with Lupus Nephritis Disease Activity
Irene Blanco1, Ping Wu2, Timothy S. Zheng3, Shawn Weng4, Jennifer S. Michaelson5, Linda C. Burkly5 and Chaim Putterman1, 1Albert Einstein College of Medicine, Bronx, NY, 2Biogen Idec, Inc, Cambridge, MA, 3Biogen Idec Inc, Cambridge, MA, 4Biogen Idec, Inc., Cambridge, MA

5:00 PM

839. Urinary Levels of High Mobility Group Box 1 Protein Are Elevated in Patients with Active Lupus Nephritis, and Correlate with Renal Histopathology
Irene Blanco1, Neelakshi Jog2, Chaim Putterman1, Iris Lee2 and Roberto Caricchio3, 1Albert Einstein College of Medicine, Bronx, NY, 2Temple University, Philadelphia, PA, 3Temple Univ Med Office Bldg, Philadelphia, PA

5:15 PM

840. Do Serum Heparin 25 Levels Predict SLE Renal or Non-Renal Flares?
Alexandra Friedman1, Nicholas Young1, Paul Jensen2, Xiaolin Zhang3, Wael N. Jarjour4, Brad H. Rovin2, Daniel Birmingham2, Lee Hebert5 and Stacy P. Ardoin3, 1The Ohio State University Medical Center, Columbus, OH, 2Ohio State University Medical Center, Columbus, OH, 3Ohio State University, Columbus, OH

5:30 PM

841. Effect of Partial and Complete Proteinuria Recovery in Lupus Nephritis On Long Term Outcomes
Zahi Touma, Murray B. Urowitz, Dominique Ibanez and D. D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

5:45 PM

842. Partial and Complete Recovery From Proteinuria in Lupus Nephritis Patients Receiving Standard of Care Treatment
Zahi Touma, D. D. Gladman, Dominique Ibanez and Murray B. Urowitz, Toronto Western Hospital and University of Toronto, Toronto, ON

145 A

Systemic Lupus Erythematosus - Human Etiology and Pathogenesis I

Moderators: Alessandra Pernis, MD and Vasileios C. Kyttaris, MD

4:30 PM

843. Interferon Regulatory Factor 5 Associates with Systemic Lupus Erythematosus Through Two Distinct and Independent Effects
Erin Zoller1, Leah C. Kottyan2, Bahram Namjou3, Samuel Vaughn4, Miranda C. Marion2, Carl D. Langefeld4, Marta E. Alarcon-Riquelme4, Juan-Manuel Anaya4, Elizabeth E. Brown on behalf of PROFILE5, Sang-Cheol Bae6, Jeffrey C. Edberg7, Patrick M. Gaffney8, Diane L. Kamen9, Robert P. Kimberly10, Chaim O. Jacob10, Joan T. Merrill11, Kathy Moser Sivils12, Michelle A. Petri12, Rosalind Ramsey-Goldman11, John D. Reveille14, Anne M. Stevens15, Betty P. Taso16, Luis M. Vila17, Timothy J. Vyse18 and Kenneth M. Kaufman1, 1Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Oklahoma Medical Research Foundation, Center for Genomics and Oncological Research Pfizer-University of Granada-Junta de Andalucia, Granada, Spain, 4Universidad del Rosario-Corporacion para Investigaciones Biologicas, Bogota, Colombia, 5University of Alabama at Birmingham, Birmingham, AL, 6Hanyang University Hospital for Rheumatic Diseases, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea, 7Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, 8Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, 9Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC, 10Department of Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, 11Oklahoma Medical Research Foundation, Oklahoma City, OK, 12Johns Hopkins University School of Medicine, Baltimore, MD, 13Northwestern University Feinberg School of Medicine, Chicago, IL, 14Univ of Texas
Health Science Center at Houston, Houston, TX, 13University of Washington, Seattle, WA, 14UCLA School of Medicine, Los Angeles, CA, 15University of Puerto Rico School of Medicine, San Juan, PR, 16Divisions of Genetics and Molecular Medicine and Immunology, King’s College London, London, United Kingdom

4:45 PM

844. Toll-Like Receptor 9-Independent and Immune Complex-Independent Interferon-α Production by Neutrophils Upon Netosis in Response to Circulating Chromatin

Dennis Lindau1, Julie Mussard2, Armin Rabsteyn1, Matthieu Ribon3, Ina Köter1, Annette Igney1, Gosse Adema1, Marie-Christophe Boissier2, Hans-Georg Rammensee1 and Patrice Decker1, 1University of Tübingen, Institute for Cell Biology, Tübingen, Germany, 2Center for Molecular Life Sciences, Nijmegen, Netherlands, 3Avicenne Hospital, Rheumatology Department, Bobigny, France

5:00 PM

845. Systemic Lupus Erythematosus Immune Complexes Upregulate the Expression of CD319 and CD229 On Plasmacytoid Dendritic Cells

Niklas Hagberg1, Jakob Theorell2, Gunnar V. Alm3, Maija-Leena Eloranta1, Yenan Bryceson1 and Lars Rönnblom1, 1Section of Rheumatology, Uppsala University, Uppsala, Sweden, 2Center for Infectious Medicine, Karolinska Institutet, Stockholm, Sweden, 3Swedish University of Agricultural Sciences, Uppsala, Sweden

5:15 PM

846. Preferential Binding to Elk-1 by SLE-Associated IL10 Risk Allele up-Regulates IL10 Expression

Daisuke Sakurai1, Jian Zhao1, Yun Deng1, Jennifer A. Kelly2, Kathy Moser Sivils3, Kenneth M. Kaufman4, Elizabeth E. Brown on behalf of PROFILE5, Marta E. Alarcón-Riquelme on behalf of BIOULUPUS and GENLES network2, John B. Harley4, Sang-Choel Bae5, Chaim O. Jacob5, Timothy J. Vyse5, Timothy B. Niewold16, Patrick M. Gaffney11, Judith A. James12, Robert P. Kimberly4, Gary S. Gilkeson13, Diane L. Kamen14, Carl D. Langefeld15, Deh-Ming Chang16, Yeong Wook Song17, Weiling Chen1, Jennifer M. Grossman1, Bevra H. Hahn1 and Betty P. Tao1, 1David Geffen School of Medicine University of California Los Angeles, Los Angeles, CA, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 4University of Alabama at Birmingham, Birmingham, AL, 5Centro de Genómica e Investigación Oncológica Pfizer-Universidad de Granada-Junta de Andalucía (GENYOR), Granada, Spain and Oklahoma Medical Research Foundation, Oklahoma City, OK, 6Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 7Hanyang University Hospital for Rheumatic Disease, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, 8Keck School of Medicine, University of Southern California, Los Angeles, CA, 9King’s College London, London, United Kingdom, 10University of Chicago, Chicago, IL, 11Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, 12Arizona Medical Research Foundation and Oklahoma University Health Sciences Center, Oklahoma City, OK, 13Medical University of South Carolina, Charleston, SC, 14Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC, 15Department of Biostatistical Sciences, Wake Forest University Health Sciences, Winston-Salem, NC, 16National Defense Medical Center, Taipei, 17Seoul National University Hospital, Seoul, South Korea

5:30 PM

847. Enhanced ROCK Activation in Patients with Systemic Lupus Erythematosus

Josephine Isgro1, Sanjay Gupta2, Tanya M. Pavri2, Roland Duculan2, Kyriakos A. Kirou1, Jane E. Salmon2 and Alessandra B. Pennisi3, 1Morgan Stanley Children’s Hospital of New-York Presbyterian, Columbia University Medical Center, New York, NY, 2Hospital for Special Surgery, New York, NY

5:45 PM

848. Targeting Glycosphingolipid Biosynthesis Normalises T Lymphocyte Function in Patients with Systemic Lupus Erythematosus

Georgia McDonald1, Laura Miguel2, Cleo Hall1, David A. Isenberg1, Anthony I. Magee1, Terry Butters1 and Elizabeth C. Jury1, 1University College London, London, United Kingdom, 2Imperial College London, London, United Kingdom, 3University of Oxford, Oxford, United Kingdom

146 C

Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics I

Moderators: Murray Baron, MD and Ami A. Shah, MD, MHS

3:30 PM

849. The Risk of Cardiovascular Disease in Systemic Sclerosis: A Population-Based Cohort Study

Ada Man1, Yan Yan Zhu1, Yuqing Zhang1, Maureen Dubreuil1, Young Hee Rho1, Christine Peloquin1, Robert W. Simms1 and Hyon K. Choi1, 1Boston University School of Medicine, Boston, MA, 2Boston University, Boston, MA, 3Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA

4:45 PM

850. Elevation of KL-6 At Early Disease Course Predicts Subsequent Deterioration of Pulmonary Function in Patients with Systemic Sclerosis and Interstitial Lung Disease

Masataka Kuwana1, Tsutomu Takeuchi2 and Junichi Kaburaki2, 1Keio University School of Medicine, Tokyo, Japan, 2Shinakasaka Clinic, Tokyo, Japan

5:00 PM

851. An Evidence-Based Screening Algorithm for Pulmonary Arterial Hypertension in Systemic Sclerosis

James R. Seibold1, Christopher D. Denton2, Ekkehard Grünig1, Diana Bonderman1, Oliver Distler2, Dinesh Khanna2, Ulf Müller-Ladner3, Janet E. Pope4, Madelon C. Vonk5, Martin Doelberg6, Harbajan Chadha-Boreham7, Harald Heinitz8, Daniel M. Rosenberg10, Vallerie McLaughlin9 and John G. Coghlan2, 1Scleroderma Research Consultants LLC, Avon, CT, 2Royal Free Hospital, London, United Kingdom, 3University Hospital, Heidelberg, Germany, 4Medical University of Vienna, Vienna, Austria, 5Royal Free Hospital, London, United Kingdom, 6University Hospital, Heidelberg, Germany, 7University of Wisconsin Madison, Madison, WI, 8University of Toronto, Toronto, ON, 9University of Washington, Seattle, WA, 10University of Rochester, Rochester, NY
Austria, 1University Hospital Zurich, Zurich, Switzerland, 2University of Michigan, Ann Arbor, MI, 3Kerckhoff-Klinik GmbH, Bad Nauheim, Germany, 4Western University of Canada, St. Joseph’s Health Care, London, ON, 5Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 6Actelion Pharmaceuticals Ltd, Allschwil, Switzerland

5:15 PM
852. C-Reactive Protein Predicts Long-Term Progression of Interstitial Lung Disease and Survival in Patients with Early Systemic Sclerosis
Xiaochun Liu1, Maureen D. Mayes1, John D. Revelle2, Emilio B. Gonzalez3, Brock E. Harper1, Hilda T. Draeger4 and Shervin Assassi2, 1University of Texas Health Science Center at Houston, Houston, TX, 2Univ of Texas Health Science Center at Houston, Houston, TX, 3University of Texas Medical Branch, Galveston, TX, 4Univ of TX Health Sci Ctr, San Antonio, TX, 5Univ of Texas Health Science Houston, Houston, TX

5:30 PM
853. Systemic Sclerosis Classification Criteria: Developing Methods for Multi-Criteria Decision Analysis
Sindhu R. Johnson1, Raymond P. Naden2, Jaap Fransen3, Frank H.J. van den Hoogen4, Janet E. Pope5, Murray Baron6, Alan G. Tyndall7, Marco Matucci-Cerinic8 and Dinesh Khanna on behalf of ACR/EULAR Classification Criteria SSc9, 1Toronto Western Health, Denver, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3Hospital Clínica Universitaria de Navarra, Pamplona, Spain, 4Mayo Clinic, Rochester, MN, 5Stanford Univ School of Medicine, Stanford, CA, 6Stanford University School of Medicine, Stanford, CA, 7Kerckhoff-Klinik GmbH, Bad Nauheim, Germany, 8Western University of Canada, London, ON, 9University of Michigan, Ann Arbor, MI

5:45 PM
854. Anti-EIF2B8: A Novel Interstitial Lung Disease Associated Autoantibody in Patients with Systemic Sclerosis
Zoe Betteridge1, Felix Woodhead2, Christopher Bunn3, Christopher D. Denton4, David J. Abraham5, Sujal Desai6, Roland du Bois7, Athol U. Wells8 and Neil McHugh1, 1University of Edinburgh, Edinburgh, United Kingdom, 2University Hospitals Coventry and Warwickshire, Coventry, United Kingdom, 3Royal Free Hospital, London, United Kingdom, 4Royal Free and University College Medical School, London, England, 5UCL Medical School, London, United Kingdom, 6Kings College Hospital, London, United Kingdom, 7National Jewish Health, Denver, 8Royal Brompton Hospital, United Kingdom

147 A
Vasculitis: Pathogenesis
Moderators: Paul A. Monach, MD, PhD and Maria C. Cid, MD

4:30 PM
855. Identification of a Burkholderia-Like Strain From Temporal Arteries of Subjects with Giant Cell Arteritis
Curry L. Koenig1, Bradley J. Katz2, Jose Hernandez-Rodriguez2, Marc Corbela-Bellalta3, Maria C. Cid4, Herbert P. Schweizer5, Dean Li6, Jerry Kaplan7, Gary S. Hoffman8 and Ivana De Domenico9, 1Salt Lake City Veterans Administration, Salt Lake City, UT, 2University of Utah, Salt Lake City, UT, 3Hospital Clinic. University of Barcelona. IDIBAPS, Barcelona, Spain, 4Vasculitis Research Unit. Hospital Clinic. University of Barcelona. IDIBAPS, Barcelona, Spain, 5Colorado State University, Fort Collins, CO, 6Cleveland Clinic, Cleveland, OH

4:45 PM
856. Am80, a Retinoic Acid Receptor Agonist, Ameliorates Murine Vasculitisthrough the Suppression of Neutrophil Migration and Activation
Chie Miyabe1, Yoshishige Miyabe2, Noriko Miura3, Kei Takahashi4, Yuya Terashima5, Etsuko Toda6, Fumiko Honda7, Tomohiro Morio8, Naohito Ohno9, Jun-ichi Suzuki10, Mitsuki Isobe11, Kouji Matsushima12, Ryoji Tsuboi13, Nobuyuki Miyasaka14 and Toshihiro Nanki15, 1Tokyo Medical and Dental University, Tokyo, Japan, 2School of Pharmacy, Tokyo University of Pharmacy and Life Science, Tokyo, Japan, 3Toho University Ohashi Medical Center, Tokyo, Japan, 4The University of Tokyo, Tokyo, Japan, 5Tokyo Medical University, Tokyo, Japan

5:00 PM
857. Impairment of the Inhibitory PD-1-PD-L1 Axis in Giant Cell Arteritis (GCA)
Mazen Nasrallah1, Augusto Voglio2, Shalini Mohan1, Bjorn Hartmann1, Joyce Liao2, Kenneth J. Warrington3, Jorg J. Goronzy4 and Cornelia M. Weyand5, 1Stanford University, Stanford, CA, 2University of Parma, Parma, Italy, 3Stanford University, Palo Alto, CA, 4Mayo Clinic, Rochester, MN, 5Stanford Univ School of Medicine, Stanford, CA, 6Stanford University School of Medicine, Stanford, CA

5:15 PM
858. Dense Genotyping, Imputation, and Regression Analysis Identifies Multiple Independent Genetic Susceptibility Loci within the HLA Region in Behcet’s Disease
Travis Hughes1, Adam Adler2, Patrick S. Coit3, Vuslat Yilmaz4, Kenan Aksu5, Nursen Durugun6, Gokhan Keser6, Ayse Cefe6, Ayten Yazici7, Andac Ergen8, Erkan Alpsoy9, Carlo Sarvarani9, Bruno Casali10, Ina Koetter11, Javier Gutierrez-Achury12, Ciska Wijmenga13, Haner Direskeneli13, Guher Saruhan-Direskeneli14 and Amr H. Sawalha15, 1University of Michigan, Ann Arbor, MI, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3Istanbul University, Istanbul Faculty of Medicine, Department of Physiology, Istanbul, Turkey, 4Ege University, Izmir, Turkey, 5Ankara University, Ankara, Turkey, 6Kocaeli University, Kocaeli, Turkey, 7Kocaeli University, Kocaeli, Turkey, 8Akdeniz University, Antalya, Turkey, 9Arcispedale S Maria Nuova. IRCCS, Reggio Emilia, Italy, 10Molecular Biology Laboratory, Arcispedale S. Maria Nuova., Reggio Emilia, Italy, 11University Hospital, Tuebingen, Germany, 12University Medical Hospital Groningen, University of Groningen, Groningen, Netherlands, 13Marmara University, School of Medicine, Istanbul, Turkey, 14Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey

5:30 PM
859. WITHDRAWN

5:45 PM
860. Interleukin-21, B Cell Activating Factor and Unmethylated CpG Oligodeoxynucleotides Synergize in Promoting Anti-Proteinase 3 Autoantibody Production in vitro

ACR MEET THE PROFESSOR SESSIONS

4:30 - 6:00 PM
Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

148
*Ankylosing Spondylitis: 2012 Update (021)
Speaker: Michael H. Weisman, MD

153
*Antiphospholipid Syndrome (022)
Speaker: Munther A. Khamashta, MD

154 A
Crystal: Diagnosis and Management of Gout (023)
Speaker: Theodore R. Fields, MD

154 B
Immunodeficiency Syndromes (024)
Speaker: Alton Melton, MD

155
Pain: Evaluation and Treatment of Back Pain (025)
Speaker: David G. Borenstein, MD

158 A
*Psoriatic Arthritis (026)
Speaker: Arthur Kavanaugh, MD

158 B
Pulmonary Hypertension in the Rheumatic Diseases (027)
Speaker: Dinesh Khanna, MD, MSc

159 A
*Rheumatoid Arthritis: Challenging Cases (028)
Speaker: Jonathan Kay, MD

159 B
*Rheumatoid Arthritis: Outcome Measures in Clinical Practice (029)
Speaker: J. Timothy Harrington, MD

160
Temporal Arteritis (030)
Speaker: Gene G. Hunder, MD

ARHP SESSIONS

4:30 - 6:00 PM

201
Income Inequities Are Perilous to People with Arthritis
Moderator: Charles G. Helmick, MD

Upon completion of this session, participants should be able to:
- characterize the social and economic burden of poverty among U.S. adults with arthritis
- describe the characteristics of U.S. adults with arthritis with income insufficiency
- explain the association between employment status and income
- outline policies and interventions that can reduce the susceptibility to job loss and poverty and its adverse effects for U.S. adults with arthritis

4:30 PM
Introduction
Charles G. Helmick, MD

4:45 PM
Magnitude of Socio-economic Inequities among People with Arthritis
Louise Murphy, PhD

5:10 PM
Socio-economic Characteristics of People with Arthritis in the U.S. Medical Expenditure Panel Survey
Edward H. Yelin, PhD

5:35 PM
Characteristics of U.S. Adults with Income Insufficiency
Kristina A. Theis, BA, MPH

204 A
Practice Management: Patients as Partners in Design and Delivery (Practice Management Series)
Moderator: Laura Wright, MBA, CMPE

Upon completion of this session, participants should be able to:
- outline the steps in establishing a Patient and Family Advisory Council
- assess the benefits of engaging patients and family members in decision-making
- describe the Patient and Family Advisory Council’s role in designing a safe, healing environment

4:30 PM
Practice Management: Patients As Partners in Design and Delivery
Janet Porter, PhD

5:15 PM
Practice Management: Patients As Partners in Design and Delivery
Martie Carnie, AS, PFAC
SUNDAY
November 11, 2012

206

ARHP CONCURRENT ABSTRACT SESSIONS
4:30 - 6:00 PM

Pediatrics: Disease Flares
Moderators: Thuy T. Beam, RN and Janalee Taylor, MSN

4:30 PM
861. A Family Based Pedometer Walking Program in an Adolescent Population with Juvenile Idiopathic Arthritis
Sara M. Stern, Jill R. Blitz, Amber Richards and Katherine AB Marzan, Children's Hospital Los Angeles, Los Angeles, CA

4:45 PM
862. What Is the Impact of a Transition Program On Adolescents with Juvenile Idiopathic Arthritis and Their Parents?
Deborah Hilderson1, Rene Westhovens2, Rik Joos3, Carine H. Wouters3 and Philip Moons4, 1University Hospital Leuven, KU Leuven, Leuven, Belgium, 2University Hospital KU Leuven, Leuven, Belgium, 3University Hospital Gent, Ghent, Belgium, 4KU Leuven, Leuven, Belgium

5:00 PM
863. Employment of a Needs Assessment Survey to Shape a Novel Web-Based Pediatric Rheumatology Curriculum for Primary Care Providers
Amy L. Woodward and Z. Leah Harris, Vanderbilt University School of Medicine, Nashville, TN

5:15 PM
864. Will I Waste Your Time? Delays in Help-Seeking for RA Flares
Caroline A. Flurey1, Marianne Morris1, Jon Pollock2, Rodney A. Hughes2, Pamela Richards2 and Sarah Hewlett1, 1University of the West of England, Bristol, United Kingdom, 2St. Peters Hospital, Chertsey Surrey, United Kingdom, 3University of Bristol, Bristol, United Kingdom

5:30 PM
865. A Methodology for Estimating Disease State Transitions: Repeated Measures Markov Models with Covariate Dependence

140 A
Psychological Aspects of Rheumatologic Disease
Moderators: Carol M. Greco, PhD and Karen L. Smarr, PhD

4:30 PM
866. Pain Is Associated with Telomere Shortening in Women with Fibromyalgia
Afton L. Hassett1, Daniel J. Clauw1, Richard E. Harris1, Steven E. Harte1, Anson E. Kairys1, Steven Buyske2 and David A. Williams3, 1University of Michigan, Ann Arbor, MI, 2Rutgers University, Piscataway, NJ

4:45 PM
867. Events That Trigger the Onset of the Fibromyalgia Syndrome (FMS)
Robert S. Katz1, Sharon M. Ferbert2, Alexandra Small3 and Susan Sott1, 1Rush University Medical Center, Chicago, IL, 2Advocates for Funding Fibromyalgia Treatment, Education and Research(AFFTER), Libertyville, IL, 3University of Illinois Medical School

5:00 PM
868. Illness Perceptions Among Patients with Different Forms of Vasculitis
Peter C. Grayson1, Naomi Amudal1, Carol McAlear2, Renée Leduc3, Denise Shereff3, Rachel Richesson3, Liana Fraenkel1 and Peter A. Merkel1, 1Boston University Medical Center, Boston, MA, 2Vasculitis Clinical Research Consortium, University of Pennsylvania, Philadelphia, 3University of South Florida, Tampa, FL, 4Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 5University of Pennsylvania, Philadelphia, PA

5:15 PM
869. Concepts Which Determine Health in a Positive Way Are Important to People with Rheumatoid Arthritis and Are Covered by Some Patient-Reported Outcome Instruments
Mona Dür1, Michaela Coenen2, Josef S. Smolen3 and Tanja A. Stamm1, 1Medical University of Vienna, Vienna, Vienna, Austria, 2Ludwig-Maximilians-University, Munich, Germany, 3Medical University of Vienna and Hietzing Hospital, Vienna, Austria

5:30 PM
870. To Love and to Hold: Men Describe Parenting in the Presence of Inflammatory Arthritis
Catherine L. Backman1 and Alana Longson1, 1University of British Columbia, Vancouver, BC, 2Arthritis Research Centre of Canada, Vancouver, BC

5:45 PM
871. Depression Predicts Mortality in RA
Christina Bode1, Chris Tonner1, Laura Trupin2 and Patricia P. Katz1, 1University of Twente, Enschede, Netherlands, 2UCSF, San Francisco, CA, 3UC San Francisco, San Francisco, CA, 4University of California San Francisco, San Francisco, CA

INDUSTRY-SUPPORTED SYMPOSIA
6:30 - 9:30 PM

These symposia are both CME-accredited and non-CME company-directed programs. For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit. All non-CME programs are wholly sponsored and supported by commercial entities. Please visit the organization's exhibit booth, the industry-supported symposia booth or see page 317 for more information.
ACR/ARHP REGISTRATION
6:30 AM - 6:00 PM
Registration Hall (Salons G-H-I)

ACR SESSIONS
7:30 - 8:30 AM
Hall D
Clinicopathologic Conference: A Patient with Hepatitis C and Inflammatory Polyarticular Arthritis
Moderator: Victoria K. Shanmugam, MBBS
Upon completion of this session, participants should be able to:
• discuss the evaluation of patients with hepatitis C presenting with polyarticular inflammatory arthritis and review the differential diagnosis of inflammatory diseases seen in patients with hepatitis C
• interpret synovial fluid findings in the context of the clinical care of complex patients
• review the evaluation of immunosuppressed patients with inflammatory arthritis and the typical and atypical infections which should be considered

7:30 AM
Case Presentation
Gail S. Kerr, MD

7:40 AM
Hepatitis C Associated Immune Diseases
Gail S. Kerr, MD

7:50 AM
Gout in the Inpatient Setting
Gail S. Kerr, MD

8:00 AM
Synovial Fluid Analysis
Jack Lichy, MD

8:10 AM
Septic Arthritis in the Immunocompromised Host
Debra Benator, MD

8:20 AM
Discussion
Gail S. Kerr, MD

Renaissance Washington - Grand Ballroom North
Cross-Sectional Imaging Techniques for Rheumatology
Moderator: Carol A. Langford, MD, MHS
Speaker: John Carrino, MD, MPH
Upon completion of this session, participants should be able to:
• describe the physical basis underlying the cross-sectional imaging modalities

Ballroom A

Immune Tolerance: From Theory and Clinical Practice
Moderator: Andrew P. Cope, MD, PhD
Speaker: John D. Isaacs, MD, PhD
Upon completion of this session, participants should be able to:
• review the pivotal immunological studies that underpin our current understanding of immune tolerance
• discuss the key molecular and cellular players responsible for maintaining a state of immunological tolerance, and how these are likely to form the basis for assays of immune tolerance in the clinical laboratory
• review therapeutic approaches currently under evaluation for inducing a clinical state of operational tolerance in patients with autoimmune disease

Salon B

2012 Hench Lecture: Synovial Immunobiology and Response to Therapy in Rheumatoid
Moderator: Richard M. Pope, MD
Speaker: Paul P. Tak, MD, PhD
Upon completion of this session, participants should be able to:
• define mechanisms which promote synovial inflammation in rheumatoid arthritis
• identify markers of clinical response, examining synovial tissue before and after therapy initiation
• identify common mechanism(s) responsible for clinical response

ARHP SESSIONS
7:30 - 8:30 AM
201
Disparities in the Use of Joint Arthroplasty: A Pervasive Matter Leading to Inequitable Care (Arthroplasty/Joint Replacement Series)
Moderator: Hazel L. Breland, PhD, OTR/L
Upon completion of this session, participants should be able to:
• describe the utilization of joint replacement across different demographic and sociocultural groups
• identify conceptual models evaluating mediating factors leading to differential health services utilization
• examine healthcare disparities in the use of joint arthroplasty: rates, determinants and the role of patients’ knowledge and preferences
• compare conceptual models and interventions proposed to decrease disparities and improve equitable access to care for patients with arthritis with an indication for joint arthroplasty

Appreciate the relative strengths and weaknesses of each imaging modality
• identify common clinical pathologies on each modality
• know the current indications and potential future applications of computed tomography, magnetic resonance imaging and ultrasound
7:30 AM
Differences in the Utilization of Health Services: Disparity, Inequity or Preference?
Maria E. Suarez-Almazor, MD, PhD

7:40 AM
Ethnic Variation in the Use of Joint Arthroplasty
Said Ibrahim, MD, MPH

8:00 AM
Gender and Residence As Determinants of Variation in Joint Arthroplasty
Gillian A. Hawker, MD, MSc

8:20 AM
Panel Discussion

206
Incorporating Physician Assistants and Nurse Practitioners into Rheumatology Practice
Moderator: Victoria A. Merrell, MPT, PA-C

Upon completion of this session, participants should be able to:
• discuss the benefits of assimilating physician assistants and nurse practitioners into rheumatology practice
• describe the scope of practice in various settings
• review the approaches to training physician assistants and nurse practitioners with limited rheumatology experience
• discuss the ACR/ARHP online rheumatology training program

7:30 AM
A Rheumatologist’s Perspective on Incorporating Advanced Practitioners into Rheumatology Practice
John R. P. Tesser, MD

7:45 AM
Nurse Practitioners in Rheumatology
Kori A. Dewing, DNP, ARNP

8:00 AM
Physician Assistants in Rheumatology
Barbara A. Slusher, PA-C, MSW

8:20 AM
Panel Discussion

204 A
Infusion Room Information for Medical Professionals (Infusion Series)
Moderator: Aimee Wiener, ARNP, MSN
Speaker: Sharon Manson, NP

Upon completion of this session, participants should be able to:
• describe processes required to ensure reimbursement of infusion therapies
• establish skills required for infusion registered nurses and the impact on nursing practice
• identify issues which impact scheduling and operations of infusion rooms

143 A
New and Better Habits! Facilitating Patient Self-management with Proven Behavior Change Strategies
Moderator: David A. Williams, PhD

Upon completion of this session, participants should be able to:
• compare key elements of behavior change and goal setting theories
• identify and practice brief strategies that can be incorporated into clinical visits
• outline components of Self-management and Recovery Training
• propose strategies for using Self-management and Recovery Training

7:30 AM
Introduction
Susan J. Bartlett, PhD

7:36 AM
Increasing Motivation to Change
Susan J. Bartlett, PhD

7:54 AM
Guided Discovery
Sarah Hewlett, MA, PhD, RN

8:12 AM
Goal Setting
Emma Dures, PhD

ACR SESSION
7:30 - 9:00 AM

202 B
ILAR – The Current Rheumatology Workforce across the Globe
Moderator: Peter Brooks, MD

Upon completion of this session, participants should be able to:
• recognize the shortage in the current rheumatology workforce across the globe and the impact it has on the patient population
• describe programs funded by ILAR to address the need to advance the development of rheumatology by increasing the number of rheumatologists around the world

7:30 AM
Review of Current Workforce for Rheumatology in the United States
David G. Borenstein, MD

7:45 AM
Review of Current Workforce for Rheumatology in the Countries of the Americas
John D. Reveille, MD

8:00 AM
Review of Current Workforce for Rheumatology in All Countries in Europe
Maxime Dougados, MD
8:15 AM  
Review of Current Workforce for Rheumatology in All Countries in the Asia-Pacific  
Zhan-Guo Li, MD

8:30 AM  
Review of Current Workforce for Rheumatology in All Countries in Africa  
Omondi G. Oyoo, MD, MMed

8:45 AM  
Summary of the Global Rheumatology Workforce  
Peter Brooks, MD

ACR MEET THE PROFESSOR SESSIONS  
7:45 - 9:15 AM

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148  
Crystal: Diagnosis and Management of Gout (031)  
Speaker: Michael A. Becker, MD

153  
*Osteoarthritis: Update 2012 (032)  
Speaker: Joanne M. Jordan, MD, MPH

154 A  
Pediatric Rheumatology for Adult Rheumatologists (033)  
Speaker: Peter A. Nigrovic, MD

154 B  
Pediatrics: Spondylarthritides in Children (034)  
Speaker: Thomas J. A. Lehman, MD

155  
Psoriatic Arthritis (035)  
Speaker: M. Elaine Husni, MD, MPH

158 A  
Rheumatoid Arthritis: Difficult Cases (036)  
Speaker: Stanley B. Cohen, MD

158 B  
Rheumatoid Arthritis: Difficult Cases (037)  
Speaker: Nancy A. Shadick, MD, MPH

159 A  
Scleroderma: Systemic Sclerosis (038)  
Speaker: Robyn T. Domsic, MD, MPH

159 B  
Scleroderma: Systemic Sclerosis (039)  
Speaker: Michael R. York, MD

160  
Vasculitis: Update (040)  
Speaker: Paul A. Monach, MD, PhD

ACR/ARHP WORKSHOPS  
7:45 - 9:45 AM

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144 C  
Joint Injections (Knee and Ankle Prosthetics) (216)  
Speakers: Gregory C. Gardner, MD and Kenneth R. Margules, MD

144 B  
*Musculoskeletal Ultrasound (217)  
Speakers: Eugene Y. Kissin, MD and Amy M. Evangelisto, MD

144 A  
*Peripheral Magnetic Resonance Imaging in Rheumatology Practice (218)  
Speakers: Philip G. Conaghan, MD, PhD and Mikkel Ostergaard, MD, PhD, DMSc

149 A  
*X-ray Challenges in Rheumatic Diseases (219)  
Speaker: Donald J. Flemming, MD

ACR SESSIONS  
9:00 - 10:00 AM

152 A  
Epigenetic Factors in Autoimmune Disease  
Moderator: Lindsey A. Criswell, MD, MPH  
Speaker: Bruce C. Richardson, MD, PhD

Upon completion of this session, participants should be able to:  
- describe the different types of epigenetic modifications and how they are currently assessed
• recognize how epigenetic factors or changes may influence disease through changes in gene expression or other mechanisms
• evaluate current and emerging evidence that implicates DNA methylation and other epigenetic changes in risk and severity of rheumatoid arthritis, systemic lupus erythematosus and related diseases

Hall D

New Anticoagulants: What a Hematologist Thinks a Rheumatologist Needs to Know!
Moderator: Victoria K. Shanmugam, MBBS
Speaker: Craig M. Kessler, MD

Upon completion of this session, participants should be able to:
• discuss the clinical indications for the various currently available anticoagulants
• discuss the monitoring required for the various anticoagulants
• describe some of the limitations of the various anticoagulants, and how clinicians should select appropriate therapy for their patients

RHEUMATOLOGY RESEARCH FOUNDATION SPECIAL SESSION
9:00 - 10:00 AM

Hall E

Memorial Lectureship: Pathogenesis of Rheumatoid Arthritis: The Voyage from Pre-Rheumatoid Arthritis to Joint Destruction
Moderator: Shaun Ruddy, MD
Speaker: Gary S. Firestein, MD

Upon completion of this session, participants should be able to:
• appreciate from a historic perspective the evolution of current theories on the causes of rheumatoid arthritis pathogenesis
• describe how immunogenetic inheritance may lead to the development of inflammatory arthritides
• explain the relationships between different rheumatoid arthritides associated autoantibodies and their target antigens during pathogenesis
• describe how improved understanding of pathogenesis has led to progressive advancements in therapeutic interventions

ARHP SESSIONS
9:00 - 10:00 AM

143 A
Clinical Trials: Participation and Recruitment
Moderator: Meenakshi Jolly, MD, MS
Speaker: Alan J. Kivitz, MD, CPI

Upon completion of this session, participants should be able to:
• identify challenges facing sponsors in recruiting patients
• identify challenges facing sites in recruiting patients
• describe what sponsors are doing in response to these challenges
• discuss what sites can adopt to recruit patient for clinical trials

204 A
Infusion Reactions: Management and Prevention (Infusion Series)
Moderator: Karen Huisinga, MN, ARNP
Speaker: Christine Elliott, RN

Upon completion of this session, participants should be able to:
• discuss the types of infusion reactions that may occur with medications used to manage rheumatic diseases
• review the medications with higher propensity for infusion reactions
• identify medications that require pre-treatment and discuss measures that may be taken to assist with preventing infusion reactions
• outline the management of infusion reactions from mild reactions to anaphylaxis

201
Issues in the Management of Rheumatic Disease in Patients Undergoing Joint Replacement (Arthroplasty/Joint Replacement Series)
Moderator: James G. Freeman, MD
Speaker: Brian F. Mandell, MD, PhD

Upon completion of this session, participants should be able to:
• explain the major medical issues that should be assessed and optimized pre-operatively
• recognize the rheumatology specific issues that must be addressed pre-operatively
• discuss the data and current standard of care to help guide clinicians in the use of NSAIDs, DMARDs and biologics, as well as drugs for osteoporosis before and after surgery

206
Rheumatic Disease Update: Gout
Moderator: Afton L. Hassett, PsyD
Speaker: Naomi Schlesinger, MD

Upon completion of this session, participants should be able to:
• describe current conceptualizations of clinical manifestations, diagnostic procedures and pathophysiology of gout
• identify common concerns of patients with gout
• discuss evidence-based treatment strategies to promote optimal outcomes in patients with gout

ACR SESSIONS
9:00 - 10:30 AM

150 B
Creating an Efficient Rheum Practice
Moderator: C. Ryan Antolini, MD
Speaker: Owen J. Dahl, MBA, FACHE, CHBC, LSSMBB

Upon completion of this session, participants should be able to:
• identify common opportunities to improve practice/procedure efficiency
• identify the person or process constraint in your office, and possible ways to leverage or manage that constraint
• describe the concept of continuous flow
• recognize strategies to reduce waste and inefficiency
147 A
Legislative Update from Capitol Hill

This session is not eligible for CME credit.

Moderator: Timothy Laing, MD
Speaker: The Honorable Chris Van Hollen, U.S. Representative (MD – 8th District)

Upon completion of this session, participants should be able to:
- describe the latest developments in federal health policy
- discuss legislative initiatives currently before Congress and how outcomes could affect the rheumatology community
- recognize the value of engaging in grassroots advocacy with members of Congress

207 A
Update on Safety Issues in the Treatment of Rheumatic Diseases – From the Food and Drug Administration and Beyond

Moderators: Arthur Kavanaugh, MD and Michael H. Weisman, MD

Upon completion of this session, participants should be able to:
- identify important safety issues in the drug treatment of rheumatic diseases
- integrate knowledge of new safety issues into their treatment strategies
- more fully advise patients about the safety issues related to treatments for rheumatic diseases
- become aware of evolutions at the Food and Drug Administration that will affect drug safety monitoring and reporting

9:00 AM
Introduction – Update on Newly Identified Drug Safety Issues and Initiatives from the ACR Drug Safety Subcommittee
John J. Cush, MD

9:25 AM
Update and Safety Issues of Recently Approved Agents for Rheumatic Diseases
Larissa Lapteva, MD, MHS

9:50 AM
The Year in Review - Update on Safety Issues at the FDA for the Last 12 Months
Sally M. Seymour, MD

10:15 AM
Question & Answer

ACR/ARHP POSTER SESSION B, THIEVES’ MARKET POSTERS, AND POSTER TOURS

9:00 AM - 6:00 PM
Poster presenters will be available from 9:00 - 11:00 AM (abstracts # 872 - 1592). Poster tours will be held 9:00 - 9:45 AM and 10:15 - 11:00 AM. Morning snacks will be available from 9:00 - 10:30 AM.

Poster Hall (Hall B)
Thieves’ Market Posters
Thieves’ Market posters feature cases with interesting imaging studies or pictorial displays of physical findings.

A Case of Juvenile Arthritis
Krati Chauhan, MD, MPH

A Case of Perplexing Weakness
Andreea Harsanyi, MD

Development of Leprosy after Treatment with IL6 Blocker
Basma Al Nahlawi, MD; Samina Hayat, MD; Mamatha Katikaneni, MD and Anita S. Mathew, MD

Headaches and Heartaches
Bansai Gujar, MD

Mass Effect
Bansai Gujar, MD

Stridor
Cristina Gale Arriens, MD

Voriconazole-induced Periostitis
Anna Gramling, MD
Guided Poster Tours

Guided poster tours allow scientific attendees to ask questions and gain insights from some of the best-known rheumatology leaders. Tours are complimentary; however, registration is required and is limited to scientific attendees. If you preregistered for a tour, you should have received a ticket with your meeting materials. Once you have your ticket, check in at the tour desk 15 minutes prior to the start of your tour to receive your headset. Your reservation will be held only until 5 minutes prior to the start of the tour. After this time, your reservation is not guaranteed and may be released to standby attendees. If you did not pre-register, tickets may be available in the registration area (Salons G-H-I). Alternatively, you may go directly to the poster tour desk and wait for a standby ticket. Standby tickets will be assigned on a first-come, first-served basis 5 minutes prior to the start of each tour. Each tour participant will receive a wireless headset which will be registered against the participants’ registration ID. Participants will be charged $50 if the headset is not returned within 15 minutes of the end of the tour.

ARHP Patient Care and Clinically-Focused Research (312)
Tour Guide: Elizabeth G. Salt, PhD

Orthopedics, Low Back Pain and Rehabilitation (313)
Tour Guide: Jeffrey N. Katz, MD

Rheumatoid Arthritis: Clinical Aspects (314)
Tour Guide: Neal S. Birnbaum, MD

Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s: Clinical Aspects and Therapeutics (316)
Tour Guide: Murray Baron, MD

Vasculitis (317)
Tour Guide: Alexandra Villa-Forte, MD, MPH

Exhibit Hall (Hall A)

Join your colleagues in the Exhibit Hall for morning and afternoon refreshments from 10:00 - 11:00 AM and 2:00 - 3:00 PM.

(Booth #1451)

Innovation Theater

Non-CME accredited presentations have been planned and will be implemented in accordance with the requirements of the FDA and applicable standards of the PhRMA Code on Interactions with Healthcare Professionals. These presentations will be held from 10:30 - 11:15 AM, 12:30 - 1:15 PM and 2:30 - 3:15 PM.

For a complete listing of Innovation Theater presentations see page 316.

ACR WORKSHOPS

10:30 AM - 12:30 PM

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144 B

Musculoskeletal Exam Skills III: Regional Musculoskeletal Examination of the Shoulder and Knee (220)

Speakers: George V. Lawry, MD and Paul C. Utrie, MD

144 A


Speaker: Stuart L. Silverman, MD
11:00 AM

1593. The Risk of Lymphoma in Patients Receiving Anti-Tumor Necrosis Factor Therapy for Rheumatoid Arthritis: Results From the British Society for Rheumatology Biologics Register-Rheumatoid Arthritis

Louise K. Mercer, Mark Lunt, Audrey S. Low, James B. Galloway, Kath Watson, William G. Dixon, BSRBR Control Centre Consortium, Deborah P. Symmons, Kimme L. Hyrich and On behalf of the BSRBR, 1Arthritis Research UK Epidemiology Unit, The University of Manchester, Manchester, United Kingdom, 2Manchester, United Kingdom, 3Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, 4British Society for Rheumatology, London, United Kingdom

Background/Purpose: The risk of lymphoma is increased in people with RA compared to the general population and is greatest in severe RA. Anti-TNF therapy is now widely used to treat RA, especially severe RA. The aim of this study was to determine whether anti-TNF influences the risk of lymphoma when used in routine UK clinical practice.

Methods: The analysis was conducted in the BSRBR-RA, a national cohort study. Patients with RA starting treatment with the TNF inhibitors etanercept (ETA), infliximab (INF) or adalimumab (ADA) and a biologic-naive comparison cohort exposed to non-biologic therapy (nbDMARD) were recruited between 2001-2009. Subjects were followed until 09/30/2010, first lymphoma or death, whichever came first. Subjects with a history of lymphoproliferative malignancy prior to registration were excluded. Incident cancers were identified in 3 ways; lifelong flagging with national cancer agencies; 6 monthly patient and physician questionnaires for 3 years and annual physician questionnaires thereafter. Only first lymphoma per subject, confirmed by histology or cancer agency, was analysed. The rates of lymphoma and non-Hodgkin lymphoma (NHL) in the nbDMARD cohort and in patients ever exposed to anti-TNF were compared using Cox proportional hazards models adjusted using deciles of propensity score (DP) which included baseline age, gender, DAS score, HAQ, disease duration, use of steroids, current/previous cyclophosphamide, smoking and registration history of lymphoproliferative malignancy prior to registration.

Results: 84 incident lymphomas were confirmed: 20 in 3465 nbDMARD-treated subjects and 64 in 11987 anti-TNF (152 versus 96 per 100000 person-years (pyrs); Table). After adjusting using DP there was no difference in risk of lymphoma between the cohorts; hazard ratio (HR) for anti-TNF 1.13 (95% CI 0.55, 2.31). There were 5 (22%) HL in the nbDMARD cohort and 9 (13%) in anti-TNF. Among 71 NHL, the most frequent subtype was diffuse large B cell lymphoma; 8 (50% of NHL) in nbDMARD and 25 (45%) anti-TNF. There was no significant difference in risk of NHL between the cohorts (table).

Conclusion: There is no evidence that anti-TNF increases the risk of lymphoma over the background risk associated with RA, but further follow up is needed to establish if the picture changes with time.

### Table

<table>
<thead>
<tr>
<th></th>
<th>nbDMARD N=3465</th>
<th>Anti-TNF N=11987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow-up (pyrs)</td>
<td>13186</td>
<td>66353</td>
</tr>
<tr>
<td>Median follow-up (pyrs; IQR)</td>
<td>4.5 (2.6, 5.9)</td>
<td>6.4 (4.8, 7.4)</td>
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<tr>
<td>Age: (years) Mean (SD)</td>
<td>60 (12)</td>
<td>56 (12)</td>
</tr>
<tr>
<td>Gender: N(%) female</td>
<td>2545 (73)</td>
<td>9145 (76)</td>
</tr>
<tr>
<td>RA disease duration: (years) Median (IQR)</td>
<td>6 (1, 15)</td>
<td>11 (6, 19)</td>
</tr>
<tr>
<td>DAS28 score: mean (SD)</td>
<td>5.3 (1.1)</td>
<td>6.6 (1.0)</td>
</tr>
<tr>
<td>HAQ: mean (SD)</td>
<td>1.5 (0.7)</td>
<td>2.0 (0.6)</td>
</tr>
<tr>
<td>Lymphoma: N</td>
<td>20</td>
<td>64</td>
</tr>
<tr>
<td>Lymphoma: Rate per 100000 pyrs (95% CI)</td>
<td>152 (93, 234)</td>
<td>96 (74, 123)</td>
</tr>
<tr>
<td>Lymphoma: Age and gender adjusted HR (95% CI)</td>
<td>Referent 0.79 (0.44, 1.40)</td>
<td></td>
</tr>
<tr>
<td>Lymphoma: DP adjusted HR (95% CI)</td>
<td>Referent 1.13 (0.55, 2.33)</td>
<td></td>
</tr>
<tr>
<td>Hodgkin lymphoma: N</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Hodgkin lymphoma: Rate per 100000 pyrs (95% CI)</td>
<td>30 (8, 78)</td>
<td>14 (6, 26)</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma: N</td>
<td>16</td>
<td>55</td>
</tr>
<tr>
<td>NHL: Rate per 100000 pyrs (95% CI)</td>
<td>121 (69, 197)</td>
<td>83 (62, 108)</td>
</tr>
<tr>
<td>NHL: Age and gender adjusted HR (95% CI)</td>
<td>Referent 0.79 (0.44, 1.40)</td>
<td></td>
</tr>
<tr>
<td>NHL: DP adjusted HR (95% CI)</td>
<td>Referent 1.26 (0.58, 2.72)</td>
<td></td>
</tr>
</tbody>
</table>

Disclosure: L. K. Mercer, None; M. Lunt, None; A. S. Low, None; J. B. Galloway, None; K. Watson, None; W. G. Dixon, None; D. P. Symmons, None; K. L. Hyrich, None; O. B. O. T. BSRBR, BSR Biologics Register, 2.

11:15 AM

1594. Clinical and Radiological Outcomes After One Year of Remission Steered Combination Treatment in Patients with Early Rheumatoid and Undifferentiated Arthritis

L. Heimans, K.V.C. Wevers-de Boer, K. Visser, H.K. Ronday, M. van Oosterhout, J. H. M. Van Groenendaal, A.J. Peeters, G. Steup-Beekman, G. Collee, P.B.J Sonnaville, B.A. Grillet, Tom Huizinga and C.F. Allaart, 1Leiden University Medical Center, Leiden, Netherlands, 2Haga Hospital, The Hague, Netherlands, 3Groene Hart Hospital, Gouda, Netherlands, 4Franciscus Hospital, Roosendaal, Netherlands, 5Reinier de Graaf Gasthuis, Delft, Netherlands, 6Bronovo Hospital, Netherlands, 7MCH, The Hague, Netherlands, 8Admiraal de Ruyter Ziekenhuis, Goes, Netherlands, 9Zorgsaam hospital, Terneuzen, Netherlands

Background/Purpose: To evaluate the 1 year clinical and radiological outcomes of remission steered therapy in early arthritis patients treated aiming at remission (DAS<1.6).

Methods: In the IMPROVED study 610 patients were included with early rheumatoid or undifferentiated arthritis (RA or UA). All patients started with methotrexate (MTX) 25mg/wk and prednisone 60mg/day tapered to 7.5mg/day in 7 weeks. Patients in remission (DAS<1.6) after 4 months (early remission) tapered prednisone to zero and, when in remission at 8 months, tapered MTX. Patients not in early remission were randomized either to a combination of MTX 25mg/wk, hydroxychloroquine.
400mg/day, sulphasalazine 2000mg/day and prednisone 7.5mg/day (arm 1) or to adalimumab (ADA) 40mg/2weeks with MTX 25mg/wk (arm 2). If not in remission after 8 months, patients in arm 1 switched to ADA+MTX and patients in arm 2 increased ADA to 40mg/wk. Proportions of remission and radiological progression measured by Sharp-van der Heijde scoring method after one year follow up were compared between the different treatment strategies.

Results: After 4 months 375 patients (61%) achieved early remission and 221 (36%) did not, of which 161 patients were randomized, 83 to arm 1 and 78 to arm 2. In 62 (10%) patients the protocol was not followed, 12 were lost to follow up after 4 months and in total 34 after 1 year. Of those in early remission 361 (96%) tapered prednisone after 4 months and 200 (53%) tapered MTX after 8 months. After 1 year, remission was achieved in 257 (69%) patients and 119 (32%, 20% of all patients) were in drug free remission. Patients in arm 1 and 2 achieved remission in similar proportions after 8 months (30 (36%) versus 27 (35%), p=1.0), but after 1 year patients in arm 2 more often achieved remission than in arm 1 (32 (41%) vs 21 (25%), p=0.01). Patients in arm 2 who at 8 months tapered ADA+MTX combination to MTX monotherapy, more often remained in remission after one year than patients tapering poly-DMARDs+prednisone to MTX monotherapy in arm 1 (17/26 (65%) vs 11/30 (37%), p=0.02). After failing to achieve remission on poly-DMARDs+prednisone, 6/24 patients (18%) who switched to ADA achieved remission after one year, compared to 8/27 (30%) who failed on ADA+MTX and increased ADA (p=0.2). Of the total study population 53% were in remission after 1 year. Median (IQR) radiological damage progression after 1 year was 0(0-0) in patients who achieved early remission, and 0(0-0) and 0(0-0) in arms 1 and 2, respectively (p=0.2).

Conclusion: After one year of remission steered combination treatment, 53% of the patients with early arthritis achieved remission. Patients in early remission after initial treatment with MTX and prednisone most often achieved remission after one year (69%) and 32% were in drug free remission. Patients who failed to achieve early remission benefited more from a treatment strategy with adalimumab than with multiple DMARDs+prednisone. In this treat-to-remission cohort, radiological damage progression after 1 year was negligible in all patients.

Disclosure: L. Heimans, None; K. V. C. Wevers-de Boer, None; K. Visser, None; H. K. Mondy, None; M. van Oosterhout, None; J. H. L. M. Van Groenendaal, None; A. J. Peeters, None; G. Steup-Beekman, None; G. Collee, None; P. B. J. Sonnaville, None; B. A. Grillet, None; T. Huizinga, None; C. F. Allaart, None.

11:30 AM

1595. Genome-Wide Association Study to High-Throughput Cell-Based Phenotypic Screen Identifies Novel Chemical Inhibitors of CD40 Signaling

Gang Li1, Dorothée Diogo1, Di Wu1, Jim Spoonamore2, Rheumatoid Arthritis Consortium International (RACI)3, Eli Stahl4, Nicola Tolliday5 and Robert M. Plenge5, 1Brigham and Women’s Hospital, Boston, MA, 2Broad Institute, Cambridge, MA, 3Boston, “Brigham and Women’s Hospital

Background/Purpose: Deriving therapeutic targets from human genetics linked with biological alterations of risk alleles may provide a more successful approach to drug development than traditional efforts that focus on biological insight alone. Here, we successfully translate a SNP association from a genome-wide association study (GWAS) in rheumatoid arthritis (RA) into a high-throughput screen (HTS) based on cellular phenotype in a human B cell line to identify inhibitors of CD40-mediated NF-κB signaling.

Methods: We fine-map the CD40 risk locus in 7,222 seropositive RA patients and 15,870 controls genotyped on the Immunochip, together with deep sequencing of CD40 coding exons in 500 RA cases and 650 controls. We use flow cytometry to measure CD40 protein levels on the surface of primary CD19+ from 90 healthy control individuals. We use gene expression arrays to measure CD40 RNA levels in peripheral blood mononuclear cells from 1,469 healthy control individuals. We use retroviral shRNA infection to perturb the amount of CD40 on the surface of a human B lymphocyte cell line (BL2). We develop a high-throughput NF-κB luciferase reporter assay in BL2 cells activated with trimerized CD40 ligand (tCD40L), and conduct an HTS of 1,982 chemical compounds and FDA-approved drugs. Counter-screens of the top “hit” compounds were performed in the BL2 line activated with both tCD40L and LPS, and in an additional B cell line, Ramos, activated with tCD40L and TNF. Two known and two novel compounds were tested for inhibition of tCD40-NFκB signaling in primary human CD19+ B cells by measuring CD86 expression with flow cytometry.

Results: A single common SNP at the CD40 locus explains the entire signal of association (rs4810485, P=1.4x10-9), without any evidence for independent rare variants contributing to RA risk. Subjects homozygous for the common RA risk allele have ~33% more CD40 on the surface of primary human CD19+ B lymphocytes than subjects homozygous for the non-risk allele (P=10-9), a finding corroborated by expression quantitative trait loci (eQTL) analysis in PBMCs (P<10-15). We observe a direct correlation between amount of CD40 protein and phosphorylation of RelA (p65), a subunit of the NF-κB transcription factor. Using our luciferase reporter assay, we identify 81 “hit” compounds (out of 1,982) that consistent inhibit luciferase activity following tCD40L activation. After a series of counter-screens and testing in primary human CD19+ B cells, we identify 2 “known” and 2 “novel” chemical inhibitors not previously implicated in inflammation or CD40-mediated NF-κB signaling. One known inhibitor is tranilast, a drug currently in a phase II clinical trial of RA; the other is a corticosteroid derivative. The two novel compounds represent promising tool compounds to develop new therapies to treat RA.

Conclusion: Our study demonstrates proof-of-concept that human genetics can be used to guide the development of phenotype-based, high-throughput small-molecule screens to identify potential novel therapies in complex traits such as RA.

Disclosure: G. Li, None; D. Diogo, None; D. Wu, None; J. Spoonamore, None; E. Stahl, None; N. Tolliday, None; R. M. Plenge, None.

11:45 AM

1596. Strontium Ranelate in Knee Osteoarthritis Trial (SEKOIA): A Structural and Symptomatic Efficacy

Jean-Yves Regnier1, R. Chapurlat2, Claus Christiansen2, H. Genant4, N. Bellamy5, W. Benson5, F. Navarro5, J. Badurski5, E. Nasonov5, X. Chevalier6,7, PN. Sambrook8, T. Spector9 and Cyrus Cooper9, 1University of Liège, Liège, Belgium, 2INSERM UMR 1033 and Université de Lyon, Hôpital Edouard Herriot, Lyon,
Treatments for osteoarthritis focus on improving symptoms through non-pharmacological and pharmacological approaches. Strontium ranelate (SrRan), a treatment for osteoporosis, was shown to stimulate cartilage matrix formation in vitro, and to reduce radiographic spinous OA progression in osteoporotic women with spinal OA. The objective of SEKOIA phase III study was to compare the efficacy of SrRan with placebo for reducing radiological progression of knee OA.

Methods: SEKOIA is a double-blind, placebo-controlled, randomized, 3-year study involving 1683 patients with symptomatic primary knee OA (Kellgren and Lawrence [KL] grade 2 or 3, joint space width [JSW] 2.5–5 mm) randomly allocated to SrRan 1 or 2 g/day, or placebo. Primary endpoint was radiographic change in JSW of the medial tibiofemoral compartment from baseline to LOCF. Group comparisons were performed in the ITT using a general linear model with baseline JSW, center and sex as covariates. JSW was measured yearly using a validated computer-assisted centralised reading method. Secondary endpoints included radiological progression (JSN≥0.5mm), radioclinical progression (JSW≥0.5mm and WOAM improvements≥20%) and WOMAC scores, knee pain, and adverse events.

Results: The ITT set included 1371 (82%) patients. Age was 63±7 years, BMI was 30±5 kg/m², JSW was 3.5±0.8 mm. 61% were KL II. 69% were female. SrRan was associated with less progression of cartilage degradation, decrease in JSW was –0.23±0.56 mm with placebo; estimated differences (SE) were –0.27±0.63 mm with 2g/day and –0.37±0.59 mm with 1g/day. Efficacy of SrRan was confirmed using a multipurpose comparison procedure with baseline JSW, center and sex as covariates. JSW was measured yearly using a validated computer-assisted centralised reading method. Secondary endpoints included radiological progression (JSN≥0.5mm), radioclinical progression (JSW≥0.5mm and WOAM improvements≥20%) and WOMAC scores, knee pain, and adverse events.

Greater reductions in total WOMAC score (p=0.045), pain (p=0.028) and physical function subscore (p=0.099), and knee pain (p=0.065) were observed with SrRan 2 g/day. SrRan was well tolerated: 86%, 88% and 87% reported an emergent adverse event (EAE) in the SrRan 1g, 2g and placebo group respectively. 17% of the patients in each group reported a serious EAE. 1 EAE in each SrRan group, 3 in the placebo group led to death.

Conclusion: SrRan 1 and 2g/day delayed radiographic progression of knee OA, evidencing a structure-modifying effect. This structural effect is translated clinically into a lower number of patients having a radiological progression over thresholds known to be predictive of OA-related surgery suggesting that SrRan could reduce the number of patients needing knee surgery in the long-term. The structural effect was accompanied by symptom improvement at the dose of 2g/day.

References
3. Disclosures: J. Y. Reginster, Servier, Novartis, Negma, Lilly, Wyeth, Amgen, GlaxoSmithKline, Roche, Merckle, Nycomed, NPS, Theramex, UCB, 5, Merck Sharp and Dohme, Lilly, Rottapharm, IBSA, Genevriev, Novartis, Servier, Roche, GlaxoSmithKline, Teijin, Teva, Ebewee Pharma, Zodiac, Analis, Theramex, Nycomed, Novo-Nordisk, , Bristol Myers Squibb, Merck Sharp and Dohme, Rottapharm, Teva, Lilly, Novartis, Roche, GlaxoSmithKline, Amgen, Servier, 2; R. Chapurlat, Merck, Amgen, Servier, Lilly, Roche, Novartis, 2; C. Christiansen, Nordic, Bioscience A/S, CCBR/Synarc, 9, Roche, Eli Lilly, Novartis, Novo Nordisk, Proctor and Gamble, Groupe Fournier, Besins Escovesco, Merck Sharp and Dohme, Chiesi, Boehringer Mannheim, Pfizer, GlaxoSmithKline, Amgen., 5; H. Genant, Servier, Novartis, Pfizer, GSK, Roche, Genentech, Lilly, Amgen, Merck, ONO, Bristol Myers Squibb, 5, Synarc, Inc., 1; N. Bellamy, Servier, 5; W. Bensen, Abbott, Amgen, Bristol Myers Squibb, Janssen, Merck-Schering, Lilly, Novartis, Pfizer, Wyeth, Proctor and Gamble, Roche, Sanofi, Servier, Aventis, UCB, Warner Chilcott, 5; F. Navarro, Servier, 5; I. Badurski, Servier, Amgen, 5; E. Nasonov, Merck Sharp and Dohme, Rocher, 5; X. Chevalier, Expanscience, Negma, Genevriev, Merck Sharp and Dohme, Rottapharm, Fidia, Servier, Pierre Fabre, Smith Nephews, Ibsa, Genzyme, 5, Roche for the department association, 2; P. Sambrook, Servier, 5; T. Spector, Servier, 5, Pfizer Inc, 2, Expanscience, Ono Pharma, 5; C. Cooper, Amgen, ABBH, Novartis, Pfizer, Merck Sharp and Dohme, Eli Lilly, Servier, 5.

Noon
1597. Efficacy and Safety of Tocilizumab in Patients with Polyarticular Juvenile Idiopathic Arthritis: Data From a Phase 3 Trial

Hermine Brunner1, Nicolino Ruperto2, Zbigniew Zuber3, Caroline Keane4, Olivier Harari4, Andrew Kenwright4, Rubén J. Cuttica5, Vladimir Keltsev6, Ricardo Xavier7, Inmaculada Calvo8, Martini11, and Fabrizio De Benedetti13, 1Cincinnati Children’s Hospital Medical Center and PRSCG, Cincinnati, OH, 2Paediatric Rheumatology International Trials Organisation [PRINTO],
Methods: CHERISH is a 104-wk study in pts age 2-17 yrs with active pcJIA for ≥6 mo who failed MTX. In the first 16 wks, all pts received open-label (OL) TCZ every 4 wks (if body weight [BW] ≥30 kg, 8 mg/kg [n = 119]; if BW <30 kg, pts were randomly assigned to 8 mg/kg [n = 34] or 10 mg/kg [n = 35]). At wk 16, eligible pts with ≥3AUC ACR30 response entered a 24-wk randomized (pts were assigned [1:1] to placebo [PBO] or to continue TCZ at the same dose), double-blind (DB) withdrawal period for evaluation of the primary endpoint (JIA ACR30 flare relative to wk 16). Pts who flared or completed the DB period entered an OL extension in which they received the same TCZ dose as in the lead-in period. Efficacy data (until wk 40) are presented for the ITT population; safety data are presented for the safety population to the cut date.

Results: 188 pts entered the initial lead-in period (77% girls; 79% and 46% were receiving concurrent MTX and oral corticosteroids [CS], respectively); 166 pts entered the DB period; 15 pts (8%) withdrew due to insufficient response, 3 (2%) due to adverse events (AEs), and 4 (2%) due to other reasons. The primary endpoint was met, and JIA ACR30/50/70 responses were significantly higher with TCZ compared to PBO at wk 40 (Table). Efficacy responses for the initial lead-in period at wk 16 are shown in Table (Table). The degree of improvement in each endpoint was lower for these endpoints in the TCZ 8 mg/kg <30 kg BW group compared with the other 2 groups (TCZ 10 mg/kg <30 kg BW and TCZ 8 mg/kg ≥30 kg BW) (Table). At the time of the safety data cut, there were 184 pt-yrs (PY) of follow-up in the 188 pts enrolled. Rates/100PY of AEs and SAEs were 480 and 12.5; infections were the most common AEs (164/100PY) and SAEs (4.9/100PY). ALT and AST elevations ≥3× ULN were each reported in 3.7% and <1% of pts. Neutropenia (<1000 cells/mm³) and thrombocytopenia (<50,000 cells/mm³) occurred in 3.7% and 1.1% of pts. LDL-cholesterol ≥110 mg/dL occurred in 11.4% of pts. No grade 3/4 (>3 ULN) elevations of serum bilirubin were reported.

Conclusion: TCZ treatment in pcJIA was efficacious, with a sustained clinically meaningful improvement using a monthly regimen at doses of 8 mg/kg if BW ≥30 kg and 10 mg/kg if BW <30 kg. The safety profile is consistent with that in other TCZ-treated pts (eg, systemic JIA).
Background/Purpose: The Rituximab in Myositis (RIM) Study evaluated 200 refractory myositis patients treated with rituximab, 83% of whom met the definition of improvement (DOI). The aim of this study was to identify the clinical and laboratory predictors of response in this cohort.

Methods: All patients failed corticosteroids and at least 1 other immunosuppressive (IS) agent and received rituximab at weeks 0/1 (Early) or 8/9 (Late). The 1st endpoint in this 44-week trial was time to achieve DOI [≥20% improvement in 3 of 6 core set measures (CSM) (includes manual muscle testing (MMT), muscle enzymes, HAQ, patient/parent global, physician global disease activity and extramuscular disease activity) with no >2 CSM worsening by ≥25% (excluding MMT)] at 2 consecutive visits.

We analyzed the effect of the following baseline variables on the time to DOI: myositis subtype, demographics, laboratory (IGM, IGG, myositis-associated autoantibodies (MAA), CBC, creatinine), damage measures (global, muscle damage and atrophy and organ-related), disease activity and other clinical parameters (skeletal/GI/pulmonary/muscle disease activity, Raynaud, calcinosis, mechanic hands), CSM, medication (early vs. late rituximab, IS agents and corticosteroids) and MAA subset [anti-synthetase (anti-Syn), Mi-2, TIF1-γ, MJ, other autoantibodies and those without an MAA]. The Wilcoxon test was used to univariately evaluate the association of baseline variables with the time to DOI. A multivariate time-dependent proportional hazard model was built using forward selection (α=0.05) based on univariate variables with p<0.1.

Results: 200 randomized patients (76 PM/76 DM/48 JDM) were analyzed (96 Early/104 Late). Table 1 lists the baseline variables which predicted time to DOI univariately. The multivariate model included autoantibodies (anti-Syn was the best DOI predictor followed by Mi-2 as compared to the ‘no MAA’ subset), and global damage (lower damage had a better response). The effects of global damage diminished by week 20. Myositis subtype (JDM had a better response than adult myositis) was not statistically significant univariately, however, final model was stratified by the subtypes due to their clinical relevance and post hoc had statistical significance in multivariate models.

Conclusion: Anti-Syn and Mi-2 autoAbs strongly predicted improvement in rituximab-treated refractory myositis patients. JDM and lower disease damage predicted more rapid improvement early in course of treatment. It is unclear whether this effect is due to a delayed beneficial effect of rituximab in patients with higher damage and adult PM/DM. These results suggest that early, more aggressive therapy could be considered in some clinical and serologic myositis subsets to achieve a better therapeutic response and to avoid disease-related damage.

Table 1. Univariate predictive factors and final multivariate model.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Associated with more rapid achievement of DOI (Hazard Ratio)</th>
<th>p-value for Wilcoxon test for trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>males (1.28)</td>
<td>p=0.10</td>
</tr>
<tr>
<td>Autoantibody</td>
<td>Anti-Syn 2.83, Mi-2 2.48, Other MAA 1.39 as compared with no MAA</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>White blood count</td>
<td>higher counts (1.44)</td>
<td>p=0.04</td>
</tr>
<tr>
<td>Muscle damage</td>
<td>lower damage (1.26)</td>
<td>p=0.02</td>
</tr>
<tr>
<td>Muscle atrophy</td>
<td>absence of atrophy (1.45)</td>
<td>p=0.02</td>
</tr>
<tr>
<td>Global damage</td>
<td>lower damage (1.30)</td>
<td>p=0.004</td>
</tr>
<tr>
<td>Most abnormal muscle enzyme</td>
<td>higher result (1.30)</td>
<td>p=0.09</td>
</tr>
<tr>
<td>Extramuscular disease activity</td>
<td>higher values (1.26)</td>
<td>p=0.07</td>
</tr>
<tr>
<td>Disability index</td>
<td>higher values (1.09)</td>
<td>p=0.09</td>
</tr>
</tbody>
</table>

Multivariate model based on the variables identified in univariate analysis

<table>
<thead>
<tr>
<th>Autoantibody</th>
<th>Hazard ratio of DOI</th>
<th>P-value (comments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>no MAA</td>
<td>-</td>
<td>(Baseline)</td>
</tr>
<tr>
<td>Jo-1/other antiSyn</td>
<td>3.03</td>
<td>&lt;0.01 (for adult PM or DM)</td>
</tr>
<tr>
<td>Mi-2</td>
<td>2.49</td>
<td>&lt;0.01 (for JDM or adult DM)</td>
</tr>
<tr>
<td>Other MAA (SRP, MJ, TIF1-γ, other)</td>
<td>1.38</td>
<td>0.140</td>
</tr>
<tr>
<td>Global Damage (dichotomized at median &lt;23 vs. &gt;23)</td>
<td>0.43</td>
<td>&lt;0.01 for week 8, washes out by week 20</td>
</tr>
</tbody>
</table>

Disclosure: R. Aggarwal, None; A. M. Reed, None; D. P. Ascherman, None; R. J. Barohn, None; B. M. Feldman, baxter and Bayer, 2, Novartis Pharmaceutical Corporation, 9, Pfizer Inc, 9; F. W. Miller, None; L. G. Rider, None; M. Harris-Love, None; M. C. Levesque, Genentech and Biogen IDEC Inc., 2; C. V. Oddis, Genentech and Biogen IDEC Inc., 9.

ACR SESSIONS

11:00 AM - 12:30 PM

Hall D

ACR Knowledge Bowl - Final Round

Moderator: Zsuzsanna H. McMahan, MD, MHS

Upon completion of this session, participants should be able to:

• identify key images that are important to recognize in clinical practice
• recall factual information related to various rheumatic diseases
• identify historical facts relevant to the field of rheumatology
Career Opportunities in Rheumatology: Making a Choice

Moderator: Allan C. Gelber, MD

Upon completion of this session, participants should be able to:
• provide examples of different career choices available to young rheumatologists
• discuss the pros and cons of the various career choices in rheumatology

11:00 AM  
Basic Research  
Anne Davidson, MBBS

11:20 AM  
Academic Rheumatology  
Richard Furie, MD

11:40 AM  
Rheumatology Private Practice  
Joseph Flood, MD

noon  
Rheumatologists in Government  
Robert H. Carter, MD

12:20 PM  
Discussion

Ballroom C

New Developments in Systemic Juvenile Idiopathic Arthritis Management

Moderators: Alexei A. Grom, MD and Peter A. Nigrovic, MD

Upon completion of this session, participants should be able to:
• review current approaches to management of systemic juvenile idiopathic arthritis in North America
• discuss the main results of the recent clinical trials in systemic juvenile idiopathic arthritis and their potential impact on systemic juvenile idiopathic arthritis management

11:00 AM  
Current Practices in Systemic Juvenile Idiopathic Arthritis Management Based on the Childhood Arthritis & Rheumatology Research Alliance Registry  
Yukiko Kimura, MD

11:30 AM  
Review of the Recent Phase III Clinical Trials of IL-6 and IL-1 Inhibiting Biologic Agents in Systemic Juvenile Idiopathic Arthritis  
Ronald M. Laxer, MD

noon  
Role of New IL-1 and IL-6 Inhibiting Agents in Systemic Juvenile Idiopathic Arthritis  
Timothy Beukelman, MD, MSCE

The Connected Rheumatology Practice: Electronic Health Record and Social Media Implementation and Customization

Moderator: Deborah S. Collier, MD

Upon completion of this session, participants should be able to:
• identify the key elements in current clinical processes and workflow to help select the features of an electronic health record that will be most useful for a rheumatology clinical practice
• understand common obstacles in electronic health record implementation and identify strategies to mitigate those barriers
• employ strategies to work effectively with an electronic health record vendor to incorporate rheumatology-specific templates into the electronic health record system
• design successful marketing campaigns – online and traditional
• examine the platforms, including Twitter, Facebook and YouTube and when it makes sense to use them to market your practice
• identify resources for creating and utilizing a web site that patients can find and utilize successfully

11:00 AM  
Things I Wish I Had Known about Implementing an Electronic Health Record System  
William M. McClatchey, MD

11:30 AM  
Tips and Tricks to Optimize an Electronic Health Record System for Rheumatology  
Salahuddin Kazi, MD

noon  
Using Technology to Engage Patients and Promote Your Practice  
Simon Sikorski, MD

ARHP NETWORKING EVENT

noon - 2:00 PM

Renaissance Washington - Renaissance Ballroom, East & West Networking at Noon

Sit down with your colleagues over a complimentary lunch, and participate in open discussion on various research, practice, and clinical topics. Each roundtable discussion will be facilitated by a rheumatology expert. All ARHP attendees are welcome to participate in this event.

This session is not eligible for CME credit.

Roundtable Topics
• Form Sharing – Adult
• Form Sharing – Pediatric
• Arthritis and Employment Issues
• Clinical Research Coordinators
• Physical Activity
• Measurement of Disease Activity
• Meeting the Needs of Underserved Populations –ECHO Program
• Enhancing Patient Adherence
• Epidemiology/Public Health
• Advocacy
• Patients Access to Medications
• Issues in Healthcare Education
• Post-surgical Interventions
• Infusion and Injectable Therapies
• Medications for Rheumatic Diseases
• Physician Assistants
• Nurse Practitioners – Adult
• Nurse Practitioners – Pediatric
• Office Nurse
• Qualitative Research
• Research Mentoring
• ARHP Grant/Award Opportunities
• Pain Management
• Sleep/Fatigue
• Social Media to Improve Patient Health Care Models
• Tele Medicine
• Electronic Health Records
• Office Managers/Practice Managers
• International Issues
• ARHP Volunteering/Mentoring
• ARHP Past Presidents

ACR MEET THE PROFESSOR SESSIONS

12:45 - 2:15 PM

Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

148

*Ankylosing Spondylitis: 2012 Update (041)
Speaker: Michael H. Weisman, MD

153

*Basic Immunology for Clinical Rheumatologists (042)
Speaker: Antony Rosen, MD

154 A

*Challenging Cases in Osteoporosis Management (043)
Speaker: Kenneth G. Saag, MD, MSc

154 B

*Dermatological Manifestations of Rheumatic Diseases (044)
Speaker: Ruth Ann Vleugels, MD

155

Hereditary Angioderma (045)
Speaker: Peter Deane, MD

158 A

*Pulmonary Manifestations of Rheumatic Disease (046)
Speaker: Kristin B. Highland, MD, MSCR

158 B

Raynaud’s and Digital Ischemia (047)
Speaker: Janet E. Pope, MD, MPH

159 A

Scleroderma Mimics (048)
Speaker: Faye N. Hant, DO, MSCR

159 B

Vaccinations for Patients on Biologic Therapies (049)
Speaker: Clifton O. Bingham III, MD

160

Vasculitis: Update (050)
Speaker: Peter A. Merkel, MD, MPH

ACR SESSIONS

1:00 - 2:00 PM

Ballroom A

Complex Regional Pain Syndrome/Reflex Sympathetic Dystrophy: Recent Advances, Current Thoughts

Moderator: Joel A. Block, MD
Speaker: Andreas Goebel, MSc, PhD

Upon completion of this session, participants should be able to:
• discuss the current thoughts regarding the etiopathogenesis of complex regional pain syndrome
• summarize current knowledge regarding the appropriate evaluation of suspected complex regional pain syndrome
• review potential therapeutic strategies leveraging recent knowledge about pathophysiology

152 A

Innovation in Musculoskeletal Curriculum Development: Lessons from New Medical Schools

Moderator: Sharon L. Kolasinski, MD

Upon completion of this session, participants should be able to:
• explain the breadth of medical school curricular change
• identify the goals and objectives of curricular redesign
• outline expectations for evaluation of medical students enrolled in new schools

1:00 PM

Creating A New Medical School Curriculum at Hofstra North Shore-LIJ
Veronica M. Catanese, MD, MBA
1:30 PM
Creating A New Medical School Curriculum at the University of Central Florida
Shazia Beg, MD

201
Pediatric Rheumatology Town Hall Meeting
Moderator: Marisa S. Klein-Gitelman, MD, MPH

Upon completion of this session, participants should be able to:
• delineate the changes scheduled for implementation to the American Board of Pediatrics MOC program
• recognize the current issues affecting the pediatric rheumatology community
• identify various pediatric rheumatology organizations and their program of work

1:00 PM
Update on the American Board of Pediatrics MOC Program
Barbara E. Ostrov, MD

1:30 PM
Update on ACR activities Involving Pediatric Rheumatology
Marisa S. Klein-Gitelman, MD, MPH

1:40 PM
Update on Childhood Arthritis & Rheumatology Research Alliance
Norman T. Ilowite, MD

1:50 PM
Update on Pediatric Rheumatology Collaborative Study Group
Hermine I. Brunner, MD, MSc, MBA

Hall E
Scleroderma Bowel Disease: From Top to Bottom (Clinical Review)
Moderator: Virginia D. Steen, MD
Speaker: John Clarke, MD

Upon completion of this session, participants should be able to:
• review the available data involving the pathophysiology and associated complications of gastrointestinal disease in scleroderma
• summarize the diagnostic and therapeutic strategies in the management of gastrointestinal dysmotility
• discuss the management of challenging cases of scleroderma bowel disease including the role of parenteral nutrition and the data involving novel therapeutic targets

ACR/ARHP WORKSHOPS
1:15 - 3:15 PM

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

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149 B
Histopathology of Vasculitis (222)
Speaker: Allen Burke, MD

144 C
Joint Injections (Shoulder and Wrist Prosthetics) (223)
Speakers: Gregory C. Gardner, MD and Kenneth R. Margules, MD

144 B
MRI in the Diagnosis and Management of Spondylarthritis: A Clinician’s Guide (224)
Speaker: Walter P. Maksymowych, MD

ACR SESSIONS
2:30 - 4:00 PM

Hall D
Curbside Consults - Ask the Professors
Moderators: Diane L. Kamen, MD, MS and Robert F. Spiera, MD

Upon completion of this session, participants should be able to:
• compare their personal management approaches to selected clinical problems with those of the presenters
• describe therapeutic choices and management options for several common but difficult complications of Sjögren’s syndrome
• develop an approach to evaluating and managing patients presenting with complications attributed to Lyme disease
• appraise the potential impact on fracture risk of various treatments for low bone density and when to consider a drug holiday

2:30 PM
Sjögren’s Syndrome: Challenges in Clinical Practice
Frederick B. Vivino, MD

3:00 PM
Difficult Complications of Lyme Disease
Robert A. Kalish, MD

3:30 PM
To Treat or Not to Treat When Faced with a Bone Density Dilemma
Michael R. McClung, MD

Renaissance Washington - Grand Ballroom North
Macrophage and Dendritic cell Heterogeneity in Tissue Inflammation and Fibrosis
Moderator: Robert Lafyatis, MD

Upon completion of this session, participants should be able to:
• describe markers in mouse and human for macrophage and dendritic cell activation
• explain the roles various cytokines play on macrophage activation
• review macrophages and dendritic cell subpopulations implicated in inflammatory and fibrotic disease
2:30 PM
Functional Consequences of Monocyte and Macrophage Heterogeneity in Normal and Inflammatory Conditions
Frederic Geissmann, MD, PhD

3:00 PM
Dendritic Cell Subsets: Developmental Heterogeneity and Roles in Inflammatory Disease
Kenneth M. Murphy, MD, PhD

3:30 PM
Macrophages and Dendritic Cells in Inflammatory Skin Disease
Michelle Lowes, MD, PhD

Ballroom A
Osteoporosis: From Bisphosphonates and Beyond
Moderators: Jeffrey R. Curtis, MD, MPH, MS and Margaret R. Wilkes, MD
Upon completion of this session, participants should be able to:
• describe current data regarding association of bisphosphonate therapy to osteonecrosis of the jaw and atypical fractures
• discuss evidence and best data supporting duration of bisphosphonate therapy for osteoporosis
• evaluate the data regarding increased infection risk in patients receiving denosumab
• review potential treatment strategies for difficult to manage osteoporosis

2:30 PM
Osteoporosis and Bisphosphonates – How Long Should We Treat?
Chad L. Deal, MD

3:00 PM
Denosumab: Is Infection a Real Concern?
Nelson B. Watts, MD, MACE

3:30 PM
Diagnostic and Therapeutic Dilemmas in Osteoporosis
Kenneth G. Saag, MD, MSc

ACR CONCURRENT ABSTRACT SESSIONS
2:30 - 4:00 PM
140 A
Cell-cell Adhesion, Cell Trafficking and Angiogenesis
Moderators: Shiva Shahrrara, PhD and Douglas J. Veale, MD

2:30 PM
2011 Lee C. Howley, Sr. Prize for Arthritis Research Introductory Talk II
Speaker: Alisa E. Koch, MD

2:45 PM
1599. NF-Kb Inducing Kinase (NIK) Is a Key Regulator of Inflammation-Induced Angiogenesis
A.R. Noort1, K.P.M. van Zoest1, P. Koolwijk2, D.V. Novack3, M.J. Siemerink1, P. P. Tak4 and S.W. Tas1, 1Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 2Institute for Cardiovascular Research (ICaR-VU)/VU University Medical Center, Amsterdam, Netherlands, 3Washington University School of Medicine, St. Louis, MO, 4Academic Medical Center/University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

3:00 PM
1600. Gene Targeting of an Integrin-Mediated Signaling Adaptor Molecule, Crk-Associated Substrate Lymphocyte Type Reduced the Severity of Collagen-Induced Arthritis. Its Possible Involvement in the Pathophysiology of Rheumatoid Arthritis
Satoshi Iwata, Tomoki Katayose, Yoshiko Kichikawa, Hiromi Ichihara, Hiroshi Kawasaki, Osamu Hosono, Hirotoshi Tanaka
Salon B

Epidemiology and Health Services Research II: Epidemiologic Risk Factors in the Development of Rheumatic Disease

Moderators: Evelyne Vinet, MD and Nasim A. Khan, MD

2:30 PM

1604. Parity and the Risk of Developing Rheumatoid Arthritis: Results From the Swedish Epidemiological Investigation of Rheumatoid Arthritis Study

Cecilia Orellana1, Lars Klareskog2, Lars Alfredsson1 and Camilla Bengtsson1, 1Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 2Rheumatology Unit, Karolinska Institutet, Stockholm, Sweden

2:45 PM

1605. Anti-Citrullinated Peptide Autoantibodies to Rheumatoid Synovium Epitopes in Women and Risk of Future Rheumatoid Arthritis

Elizabeth V. Arkema1, Barbara L. Goldstein1, William H. Robinson2, Catriona Cramb2, Jeremy Sokolove3, Jing Cui2, Susan Malspeis2, Elizabeth W. Karlson2 and Karen H. Costenbader3, 1Harvard School of Public Health, Boston, MA, 2Brigham and Women’s Hospital, Harvard School of Public Health, Boston, MA, 3Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

3:00 PM

1606. Identifying a Link Between Uranium Exposure and Systemic Lupus Erythematosus in a Community Living near a Uranium Plant

Pai-Yue Lu1, Leah C. Kottyan2, Susan M. Pinney2, Judith A. James3, Changchun Xie2, Jeanette M. Buckholz1 and John B. Harley4, 1Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 2University of Cincinnati, Cincinnati, OH, 3Oklahoma Medical Research Foundation and Oklahoma University Health Sciences Center, Oklahoma City, OK, 4Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH

3:15 PM

1607. The Association Between Thyroxin Substitution and Rheumatoid Arthritis; Results From the Swedish EIRA Study

Camilla Bengtsson1, Henrik Källberg1, Leonid Padyukov1 and Saedis Saevarsdottir3, 1Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 2Rheumatology Unit, Karolinska Institutet, Stockholm, Sweden, 3Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden

3:30 PM

1608. Overweight and Obesity Increase Risk of Rheumatoid Arthritis in Women in a Large Prospective Study

Bing Lu1, Chia-Yen Chen2, Linda T. Hiraki3, Karen H. Costenbader1 and Elizabeth W. Karlson1, 1Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 2Harvard School of Public Health, Boston, MA, 3Harvard School of Public Health, Boston, MA

3:45 PM

1609. Circulating 25-Hydroxyvitamin D Level and Risk of Developing Rheumatoid Arthritis

Linda T. Hiraki1, Jing Cui2, Susan Malspeis1, Karen H. Costenbader1 and Elizabeth W. Karlson1, 1Brigham and Women’s Hospital, Harvard School of Public Health, Boston, MA, 2Brigham and Women’s Hospital, Boston, MA, 3Brigham and Women’s Hospital, Boston, MA

145 A

Genetics and Genomics of Rheumatic Diseases

Moderators: Soumya Raychaudhuri, MD, PhD and Nan Shen, MD

2:30 PM

1610. The DNA Methylation Signature in Fibroblast-Like Synoviocytes (FLS) Defines Critical Pathogenic Pathways in Rheumatoid Arthritis (RA)

David L. Boyle1, Robert Shoemaker2, David W. Anderson2, Wei Wang1 and Gary S. Firestein1, 1UCSD School of Medicine, La Jolla, CA, 2UCSD, La Jolla, CA

2:45 PM

1611. Targeted Deep Re-Sequencing Implicates Rare and Low Frequency Coding Variants in IL23R, MEFV, TLR4, and NOD2 in Behçet’s Disease

Yohei Kirino1, Qing Zhou1, Yoshiaki Ishigatsu2, Nobuhisa Mizuki3, Ilknur Tugal-Tutkun4, Emire Seyahi5, Yilmaz Ozyazgan6, F. Sevgi Saclı7, Burak Eren7, Zeliha Emrence8, Atila Cakar7, Duran
Ustek‡, Akira Meguro‡, Atsuhisa Ueda‡, Mitsuhiro Takeno‡, Michael J. Ombrello§, Colleen Satorius§, Baishali Maskeri‡, Jim Mullikin‡, Hong-Wei Sun‡, Gustavo Gutierrez-Cruz‡, Yoonhee Kim‡, Ahmet Gül‡, Daniel L. Kastner§ and Elaine F. Remmers§, 1National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, 2Yokohama City University Graduate School of Medicine, Yokohama, Japan, 3Istanbul, Turkey, 4Cerrahpasa Faculty of Medicine, Istanbul University, Istanbul, Turkey, 5Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey, 6Institute for Experimental Medicine, Istanbul University, Istanbul, Turkey, 7Institute of Experimental Medicine, Istanbul University, Istanbul, Turkey, 8National Human Genome Research Institute, National Institutes of Health, Rockville, MD, 9National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 10National Human Genome Research Institute, National Institutes of Health, Baltimore, MD, 11Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey

3:00 PM

1612. Ankylosing Spondylitis Is Associated with Single Nucleotide Polymorphisms in Loci Implicating Four Aminopeptidases

Philip Robinson‡, Adrian Cortés‡, Paul Leo‡, 1Australian-Anglo-American Spondylitis Consortium (TASC)‡, 2Wellcome Trust Case Control Consortium (WTCCC) 2, 3International Genetics of Ankylosing Spondylitis Consortium (IGAS)‡, 4David Evans‡ and Matthew A. Brown‡, 5University of Queensland Diamantina Institute, Brisbane, Australia, 6Brisbane, Australia, 7Wellcome Trust Case Control Consortium, Wellcome Trust Case Control Consortium, United Kingdom, 8IGAS, Iugas, Australiá, 9Bristol University, Bristol, United Kingdom

3:15 PM

1613. The SLE-Associated TLR7 Variant Confers Differential Expression of Microrna-3148

Yun Deng‡, Jian Zhao‡, Daisuke Sakurai‡, Kenneth M. Kaufman‡, Jeffrey C. Edberg‡, Robert P. Kimberly‡, Diane L. Kamen‡, Gary S. Gilkeson‡, Chaim O. Jacob‡, Robert H. Scofield‡, Carl D. Langefeld‡, Jennifer A. Kelly‡, Marta E. Alarcun-Riquelme on behalf of BOLUPUS and GENLES networks 10, John B. Harley‡, Timothy J. Vyse‡, Barry I. Freedman‡, Patrick M. Gaffney‡, 1Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 4Division of Human Genetics, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 5University of Utah, Salt Lake City, UT, 6University College London (UCL), London, United Kingdom, 7German Center for Pediatric and Adolescent Rheumatology, Garmisch-Partenkirchen, Germany, 8Cincinnati Childrens Hospital Medical Center, Cincinnati, OH, 9Emory Children’s Center, Atlanta, GA

3:30 PM

1614. Analysis of the Immunochip in a Large Cohort of Juvenile Idiopathic Arthritis Cases Identifies 17 Loci At Genome-Wide Significance

Anne Hinks‡, Joanna Cobb‡, Miranda C. Marion‡, Marc Sudman‡, John Bowes‡, Kathryn J. A. Steel‡, Mehdi Keddache‡, John F. Bohnsack‡, Stephen Guthery‡, Lucy R. Wedderburn‡, Johannes Peter Haas‡, David N. Glass‡, Sampath Prahalad‡, Carl D. Langefeld‡, Wendy Thomson‡ and Susan D. Thompson‡, 1Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 4Wake Forest School of Medicine, Winston-Salem, NC, 5Bristol Medical School, University of Bristol, United Kingdom, 6Wellcome Trust Case Control Consortium, United Kingdom, 7American Spondylitis Consortium (TASC), United Kingdom, 8Division of Genetics and Molecular Medicine and Immunology, King’s College London, London, United Kingdom, 9Department of Internal Medicine, Wake Forest School of Medicine, Winston-Salem, NC, 10Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, 11Section of Rheumatology and Gwen Knapp Center for Lupus and Immunology Research University of Chicago, Chicago, IL, 12Department of Human Genetics, University of California Los Angeles, Los Angeles, CA

3:45 PM

1615. Evidence for Distinct Roles of Environmental and Genetic Factors in the Emergence of Anti Citrullinated-Protein Antibodies Positive Rheumatoid Arthritis-an Epidemiological Investigation in Twins

Aase Haj Hensvold‡, Patrik KE Magnusson‡, Monika Hansson‡, Lena Israelsson‡, Cecilia Carlens‡, Johan Askling‡, Vivianne Malmström‡, Lars Klareskog§ and Anca Irinel Catrina‡, 1Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 2Swedish Twin Registry Karolinska Institutet, Stockholm, Sweden, 3Karolinska Institute, Stockholm, Sweden, 4Rheumatology Unit & Clinical Epidemiology Unit, Stockholm, Sweden

202 B

Imaging of Rheumatic Diseases II: Magnetic Resonance Imaging

Moderators: John Carrino, MD, MPH and Ali Guermazi, MD, PhD

2:30 PM

1616. Comparison of Conventional and Wholebody Magnetic Resonance Imaging for Assessing Inflammation and Structural Damage in Psoriatic Arthritis and Axial Spondyloarthritis

René Panduro Poggenborg§, Susanne Juhi Pedersen§, Iris Eshed§, Inge Juul Sørensen§, Ole Rintek Madsen§, J.M. Møller§ and Mikkel Østergaard§, 1Copenhagen University Hospital in Glostrup, Copenhagen, Denmark, 2Glostrup
2:45 PM

1617. Whole-Body Magnetic Resonance Imaging of Disease Manifestations in Axial and Peripheral Joints and Entheses in Rheumatoid Arthritis Patients
Mette Bjørndal Axelsen1, Anne Duer2, Iris Eshed3, Jakob M. Möller4, Susanne Juhl Pedersen1 and Mikkel Østergaard3
1Glostrup Hospital, Copenhagen, Denmark, 2Copenhagen University Hospital at Hvidovre, Hvidovre, Denmark, 3Sheba Medical Center, Tel Hashomer, Israel, 4Copenhagen University Hospital Glostrup, Glostrup, Denmark

3:00 PM

1618. Prevalence of Inflammatory Sacroiliitis Assessed On MR Imaging of Inflammatory Bowel Disease: A Retrospective Study Performed On 186 Patients
Sophie Leclerc-Jacob, Guillaume Lux, Anne-Christine Rat, Valérie Laurent, Alain Blum, Isabelle Chary-Valckenære, Laurent Peyrin-Biroulet and Damien Loeuille, Nancy Teaching Hospital, Nancy, France

3:15 PM

1619. Quantification of Bone Marrow Edema by Using Magnetic Resonance Imaging for the Assessment of Neck Pain Only Marginally Reflects Clinical Evaluation in Patients with Rheumatoid Arthritis and Ankylosing Spondylitis
Xenofon Baraliakos1, Frank Heldmann2, Ravi Suppiah3, Fiona M. McQueen4 and Jurgen Braun1, 1Rheumazentrum Ruhrgebiet, Herne, Germany, 2Rheumazentrum Ruhrgebiet, Herne, Ghana, 3Department of Rheumatology, Nuffield Orthopaedic Centre, Oxford, United Kingdom, 4University of Auckland, Auckland, New Zealand

3:30 PM

1620. Early Magnetic Resonance Imaging Measures Independently Predict 1- and 2-Year X-Ray Progression: Results From a Large Clinical Trial
Joshua Baker1, Mikkel Østergaard2, Paul Emery3, Elizabeth C. Hsia4, J. D. Lu5, Daniel Baker1 and Philip G. Conaghan5, 1University of Pennsylvania, Philadelphia, PA, 2Glostrup Hospital, Copenhagen, Denmark, 3Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 4Janssen Research & Development, LLC/U of Penn, Spring House/Phila, PA, 5Janssen Research and Development, LLC, Spring House, PA, 6University of Leeds, Leeds, United Kingdom

3:45 PM

1621. In vivo Synovial Oxygen Levels Are Inversely Related to Metabolic Turnover and Disease Activity in Rheumatoid and Psoriatic Arthritis Biologic Responders
Leonard C. Harty1, John Ryan2, Chin Teck Ng2, Monika Biniecka1, Aisling Kennedy1, Eric J. Heffernan4, Ursula Fearon1 and Douglas J. Veale3, 1University of Toronto, Toronto, ON, 2Toronto Western Research Institute, University Health Network, Toronto, ON, 3Translation Rheumatology Research Group, Dublin, Ireland, 4St. Vincent’s University Hospital, Dublin, Ireland, 5Translation Research Group, Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

150 B

Infection-related Rheumatic Disease
Moderators: Leonard H. Calabrese, DO and James S. Louie, MD

2:30 PM

1622. Characteristics of Patients with Infectious Cryoglobulinemia Vasculitis in the Absence of HCV Infection: Results From the French Nationwide Cryovas Survey
Benjamin Terrier Sr.1, Isabelle Marie2, Adeline Lacraz3, Pauline Belenotti4, Fabrice Bonnet5, Laurent Chiche Sr.4, Bruno Graffin Sr.5, Arnaud Hot Sr.5, Jean-Emmanuel Kahn6, Thomas Quemeneur6, Olivier Hermine Sr.10, Jean-Marc Léger11, Patricia Senet12, Emmanuelle Plaisier5, Xavier Mariette13 and Patrice Cacoub Sr.13, 1Cochin Hospital, Paris, France, 2Service de médecine interne, CHU de Rouen, Rouen, France., Rouen, France, 3Nephrology, CHU Bordeaux, Bordeaux, France, 4Internal Medicine, CHU de Poitiers, Poitiers, France, 5Internal Medicine, CHU Bordeaux, Bordeaux, France, 6Metz hospital, Metz, France, 7Lyon hospital, Lyon, France, 8Internal Medicine, Foch Hospital, Suresnes, France, 9CHR de Valenciennes, Valenciennes, France, 10Hôpital Necker, Paris, France, 11Paris, France, 12Tenon hospital, Paris, France, 13Nephrology, Tenon Hospital, Paris, France, 14Université Paris-Sud, Le Kremlin Bicetre, France, 15CHU Pitié-Salpêtrière, Paris, France

2:45 PM

1623. Serum Biomarkers Signature Identifies Patients with Overt B-Cell Non-Hodgkin Lymphoma Associated with Mixed Cryoglobulinemia in Chronic HCV Infection
Benjamin Terrier Sr.1, Wahiba Chaara2, Guillaume Geri3, David Saadoun4, Michelle Rozenzwajg Sr.5, Damien Sene Sr.5, Adrien Six1, David Klatzmann Sr.5 and Patrice Cacoub Sr.1, 1Cochin Hospital, Paris, France, 2Laboratory I3 “Immunology, Immunopathology, Immunotherapy”, UMR CNRS 7211, INSERM U959, Groupe Hospitalier Pitié-Salpêtrière, Paris, France, 3CHU Pitié-Salpêtrière, Paris, France, 4Department of Internal Medicine and Laboratory I3 “Immunology, Immunopathology, Immunotherapy”, UMR CNRS 7211, INSERM U959, Groupe Hospitalier Pitié-Salpêtrière, Paris, France, 5Internal Medicine, CHU Pitié-Salpêtrière, Paris, France, 6Nephrology, Tenon Hospital, Paris, France, 7Overt B-Cell Non-Hodgkin Lymphoma Associated with Mixed Cryoglobulinemia, CHU Pitié-Salpêtrière, Paris, France, 8Internal Medicine, Foch Hospital, Suresnes, France, 9CHR de Valenciennes, Valenciennes, France, 10Hôpital Necker, Paris, France, 11Paris, France, 12Tenon hospital, Paris, France, 13Nephrology, Tenon Hospital, Paris, France, 14Université Paris-Sud, Le Kremlin Bicetre, France, 15CHU Pitié-Salpêtrière, Paris, France

3:00 PM

1624. Deletion of HLA-B27 T Cells Underlies the Immunodominant Response to Influenza Infection On Class I MHC Transgenic Mice
Ali Akram1 and Robert D. Inman2, 1University of Toronto and University Health Network (UHN), Toronto, ON, 2Toronto Western Research Institute, University Health Network and University of Toronto, ON
1625. With Chlamydia Infection the Macrophage Serves As Gate-Keeper for Dissemination and Induction of Host Immunity
Eric Gracey1 and R. D. Inman2, 1Toronto Western Hospital, Toronto, ON, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON

3:30 PM

1626. Frequent Conversion of Tuberculosis Screening Tests During Anti-Tumor Necrosis Factor Therapy in Patients with Rheumatic Diseases
Chrisoula Hatzara, Emilia Hadziyannis, Anna Kandidi, Stamatoula Tsikrika, Martha Minopetrou, Georgios Georgiopoulos and Dimitrios Vassilopoulos, Athens University School of Medicine, Athens, Greece

3:45 PM

1627. New Insights Into the Presentation and the Management of Hepatitis B Reactivation in Patients with Autoimmune Diseases and Inflammatory Arthritis
Nina Droz1, Laurent Gilardin2, Patrice Cabcou Sr.3, Francis Berenbaum3, Daniel Wendling4, Bertrand Godeau5, Anne-Marie Piette6, Emmanuelle Dernis6, Mikael Ebb6, Bruno Faure6, Arsène Meikinian11, Aude Rigolet12, Sophie Riviere12, Stanislas Pol1, Loic Guilluin14, Luc Moutonh Sr.15 and Benjamin Terrier Sr.11, 1Cochin Hospital, Paris, France, 2Saint Antoine Hospital, Paris, France, 3AP-HP, St Antoine Hospital, Paris, France, 4MINOZ University Hospital, Besancon, France, 5Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 6Meudon Hospital, Meudon, France, 7Foch Hospital, Suresnes, France, 8Centre Hospitalier, Le Mans, France, 9Conception Hospital, Marseille, France, 10APHP-Pitié-Salpêtrière, Paris, France, 11Jean Verdier Hospital, Bondy, France, 12Pitié-Salpetriere Hospital, APHP, UPMC Paris VI, Paris, France, 13Lapeyronie, Montpellier, France, 14Reims Hospital, Reims, France, 15University Paris Descartes, Paris, France, 16Hôpital Cochin, Paris, France

147 A

Metabolic and Crystal Arthropathies: Basic Science

Moderators: Michael H. Pillinger, MD and John S. Sundy, MD, PhD

2:30 PM

1628. Epistatic Interaction Between Solute Carrier 2A9 Genotype and Sugar-Sweetened Beverage Consumption in the Determination of Gout Risk
Tony R. Merriman1, Nicola Dalbeth2, Peter J. Gow2, Andrew Harrison3, John Highton3, Peter B. B. Jones3, Lisa K. Stamp3, Murray Cadzow1, Marilyn E. Merriman1, Ruth Topless1, Michael A. Black1, Amanda Phipps-Green1 and Caitlin M. Batt1, 1University of Otago, Dunedin, New Zealand, 2University of Auckland, Auckland, New Zealand, 3Middlemore Hospital, Auckland, New Zealand, 4Hutt Hospital, Lower Hutt, New Zealand, 5Univ of Otago Med Sch, Dunedin, New Zealand, 6Waikato Clinical School, Waikato Hospital, Hamilton, New Zealand, 7University of Otago, Christchurch, New Zealand

2:45 PM

1629. Microarray Analysis of Acute and Intercritical Gout
Alicia Rodriguez-Pia1, Lynda Bennett1, Kathryn H. Dao2, Edwardo Delgado2, Typhanie Mauroard3, M. Virginia Fascial1 and John J. Cush4, 1Baylor Institute for Immunology Research, Dallas, TX, 2Arthritis Care and Research Center, Dallas, TX, 3Baylor Research Institute, Dallas, TX

3:00 PM

1630. Genetic Variants of Serum Uric Acid and Gout: An Analysis of > 170,000 Individuals
Hyon Choi1, Robert M. Plenge2, Annette Kottgen3, Veronique Vitart4, Murielle Bochud5, Christian Gieger4,2, Mark Caulfield7,8,9, Marina Ciullo5,6, Eva Albrecht9,10, Alexander Teumer10, Gary Curhan9,10, Jan Krumsliek11, Conall O’Seaghdha12, Caroline Fox3 and The Global Urate Genetics Consortium (GUGC)14, 1Boston University School of Medicine, Boston, MA, 2Bingham and Women’s Hospital, Boston, MA, 3Renal Division, Freiburg University Hospital, Freiburg, Germany, 4Western General Hospital, Edinburgh, United Kingdom, 5Lausanne University Hospital, Switzerland, 6Neuherberg, Germany, 7Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, United Kingdom, 8“A. Buzzati-Traverso”, Italy, 9Ernst-Moritz-Arndt- University Greifswald, Greifswald, Germany, 10Harvard Medical School, Boston, 11German Research Center for Environmental Health, Neuherberg, Germany, 12NHLBI’s Framingham Heart Study and Center for Population Studies, Neuherberg, 13NHLBI’s Framingham Heart Study and Center for Population Studies., MA, 14Boston

3:15 PM

1631. Osteoarthritis-Associated Basic Calcium Phosphate Crystals Induce IL-1β, IL-18 and S100A8 Production in a Tyrosine Kinase Dependent Manner
Geraldine M. McCarthy1, Evanna Mills2, Kingston Mills2 and Aisling Dunne1, 1Mater Misericordiae University Hospital, Dublin 7, Ireland, 2Trinity College Dublin, Dublin 2, Ireland

3:30 PM

1632. Arhalofenate Is a Novel Dual-Acting Agent with Uricosuric and Anti-Inflammatory Properties
Yun-Jung Choi, Vanina Larroca, Annette Lucman, Vic Vicena, Noe Abarca, Tim Rantz, Brian E. Lavan and Charles A. McWherter, Metabolex, Inc., Hayward, CA

3:45 PM

1633. Ulodesine (BCX4208) Add-On Therapy to Allopurinol 300mg Lowers Hypoxanthine and Xanthine Plasma Levels in a Dose-Dependent Fashion: Results From a 12-Week Randomized Controlled Trial in Patients with Gout
Shanta Bantia1, Leigh Harman2, Cynthia Parker2, Damon Papac2, Andreas Maetzel1, Brian Taubenheim3 and Alan S. Hollister4, 1BioCryst Pharmaceuticals, Inc., Durham, NC, 2Southern Research Institute, Birmingham, AL

207 A

Rheumatoid Arthritis - Animal Models

Moderators: Charles S. Via, MD and Harris R. Perlman, PhD
2:30 PM
1634. Delivering Mesenchymal Stem Cells to Arthritic Joints with Nano-Fiber Scaffold Resulted in Inhibition of Arthritis and Joint Damage in Arthritis Models
Xiangmei Zhang1, Kunihiro Yamaoka2, Koshiro Sonomoto2, Masahiro Kondo1, Shunsuke Fukuyo1, Makoto Satake2, Hiroaki Kaneko2, Kazuhisa Nakano2, Shingo Nakayama2, Yosuke Okada1 and Yoshiya Tanaka1, 1University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 2Integrative Technology Research Institute, Teijin Limited, Tokyo, Japan

2:45 PM
1635. Polychoraly Caused by TIARPN (TNFAIP9) Deficiency Critically Dependent On Dysregulated STAT3, NF-κB Signaling and Cell Death in Macrophage
Asuka Inoue1, Isao Matsumoto1, Naoto Umeda1, Yuki Tanaka1, Satoru Takahashi2 and Takayuki Sumida3, 1University of Tsukuba, Tsukuba city, Ibaraki, Japan, 2Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, Tsukuba city, Ibaraki, Japan

3:00 PM
1636. Commensal Gut-Derived Bacteria As Therapy for Systemic Autoimmune Disease
David Luckey1, Eric Marietta1, Harvinder S. Luthra1, Robin Patel1, Joseph A. Murray1, Ashutosh Mangalam2 and Veena Taneja1, 1Mayo Clinic, Rochester, MN, 2Mayo Clinic, Rochester

3:15 PM
1637. A Novel Peptide Inhibiting the Binding Between C1q and Immunoglobulin Ameliorates Joint Destruction in Rats with Collagen-Induced Arthritis
Yu Moriguchi and Tetsuya Tomita, Osaka University Graduate School of Medicine, Suita, Japan

3:30 PM
1638. Synovial Fibroblast Migration Is Modulated by the Focal Contact Protein Lasp-1
Adelheid Korb-Pap1, Jan Hillen1, Marianne Heitzmann1, Catherine S. Chew1, Stefan Butz1, Dietmar Vestweber1, Hermann Pavenstädt1 and Thomas Pap1, 1University Hospital Muenster, Muenster, Germany, 2Medical College of Georgia, Augusta, GA, 3Max Planck Institute of Molecular Biomedicine, Muenster, Germany

3:45 PM
1639. FLIP in Macrophages Promotes the Progression of Serum Transfer-Induced Arthritis
Qi Quan Huang1, Robert Birkett2, Renee E. Koessler1, G. Kenneth Haines III1, Harris R. Perlman1 and Richard M. Pope1, 1Northwestern University, Chicago, IL, 2Northwestern University Feinberg School of Medicine, Chicago, IL, 3Yale University, New Haven, CT, 4Northwestern Univ Med School, Chicago, IL

Hall E
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety I
Moderators: Josef S. Smolen, MD and Simon M. Helfgott, MD

2:30 PM
1640. Long-Term Safety of Tocilizumab in Patients with Rheumatoid Arthritis and a Mean Treatment Duration of 3.7 Years
Mark C. Genovese1, Anthony Sebba2, Andrea Rubbert-Roth3, Juan José Scali4, Rieke Alten5, Joel M. Kremer6, Laura Pitts7, Emma Vernon8 and Ronald F. van Vollenhoven9, 1Stanford University Medical Center, Palo Alto, CA, 2University of South Florida, Tampa, FL, 3University of Cologne, Cologne, Germany, 4Durand University Hospital, Buenos Aires, Argentina, 5Schloßpark Klinik, University Medicine Berlin, Berlin, Germany, 6Albany Medical College, Albany, NY, 7Roche, Welwyn Garden City, United Kingdom, 8Karolinska Institute, Stockholm, Sweden

2:45 PM
1641. When Can Biological Therapy Be Resumed in Patients with Rheumatic Conditions Who Develop Tuberculosis Infection During Tumour Necrosis Factors Antagonists Therapy? Study Based On the Biobadaser Data Registry
Maria Victoria Hernández1, Miguel A. Descalzo2, Juan D. Cañete3, Raimon Sanmarti4 and BIOBADASER Study Group5, 1Hospital Clinic of Barcelona, Barcelona, Spain, 2Spanish Society of Rheumatology, Madrid, Spain, 3Madrid, Spain
Ballroom B

Systemic Lupus Erythematosus - Clinical Aspects and Treatment II: Clinical Aspects/Pregnancy

Moderators: Meenakshi Jolly, MD, MS and Graciela S. Alarcon, MD, MPH

2:30 PM

1646. The Mechanism of Umbilical Cord Mesenchymal Stem Cells in the Upregulation of Regulatory T Cells by TGF-β1 in Systemic Lupus Erythematosus

Lingyun Sun, Dandan Wang, Lin Lu and Xia Li, Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China

2:45 PM

1647. Critical Management Decisions in Cardiac Neonatal Lupus: The Role of Fluorinated Steroids

Peter M. Izmirly1, Sara Sahil1, Amit Saxena1, Nathalie Costedoat-Chalumeau1, Jean-Charles Piette1, Munther A. Khamashtra1, Cecilia Pisoni1, Deborah Friedman2 and Jill P. Buyon1, 1New York University School of Medicine, New York, NY, 2Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 3Lupus Research Unit, The Rayne Institute, Kings College London School of Medicine, London, United Kingdom, 4Lupus Research Unit, The Rayne Institute, Kings College London School of Medicine, London, United Kingdom, 5Médica e Investigaciones Clinicas (CEMIC), Buenos Aires, Argentina, 6New York Medical College, Valhalla, NY

3:00 PM

1648. Lupus Anticoagulant At First Pregnancy Visit Is Predictive of Pregnancy Loss

Michelle Petri1, Anil Mankee1, Ehtisham Akhter1, Hong Fang1 and Laurence S. Magder1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

3:15 PM

1649. French Cohort Study of 141 Cases of Autoimmune Cells in the Upregulation of Regulatory T Cells by TGF-β1 in Systemic Lupus Erythematosus

Michelle Petri1, Anil Mankee1, Ehtisham Akhter1, Hong Fang1 and Laurence S. Magder1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

3:30 PM

1650. Abnormal Serologies in the Absence of Clinical Activity Do Not Predict New or Recurrent Lupus Nephritis During Pregnancy

Jill Buyon1, Aanam Aslam2, Marta M. Guerra3, Michael D. Lockshin4, Carl A. Laskin5, Ware Branch7, Lisa R. Sammaritano2, Michelle Petri2, Joan T. Merrill2, Allen D. Sawitzke2 and Jane E. Salmon1, 1New York University School of Medicine, New York, NY, 2Hospital for Special Surgery, New York, NY, 3University of Toronto and LifeQuest Centre for Reproductive Medicine, Toronto, ON, 4Univ of Utah, Salt Lake City, UT, 5Johns Hopkins University School of Medicine, Baltimore, MD, 6Oklahoma Medical Research Foundation, Oklahoma City, OK, 7University of Utah Medical Ctr, Salt Lake City, UT

3:45 PM

1651. Higher Corticosteroid Doses Early in Disease Have A Long-Term Influence On Metabolic Syndrome in Systemic Lupus Erythematosus: Data from an International Inception Cohort

Ben Parker1, Murray B. Urowitz2, Dafna D. Gladman Gladman2, Mark Lunt1, Ian N. Bruce3 and Systemic Lupus International Collaborating Clinic (SLICC)4, 1University of Manchester, Manchester, United Kingdom, 2Toronto Western Hospital and University of Toronto, Toronto, ON, 3Arthritis Research UK Epidemiology Unit, The University of Manchester, Manchester, United Kingdom, 4Arthritis Research UK Epidemiology Unit and NIHR Manchester Musculoskeletal Biomedical Research Unit, Manchester, United Kingdom, 5Toronto

Vasculitis: Clinical Trials

Moderators: Rula Hajj- Ali, MD and John Stone, MD, MPH

2:30 PM

1652. Rituximab Versus Azathioprine for Maintenance in Antineutrophil Cytoplasmic Antibodies (ANCA)-Associated Vasculitis

Loic Guillemin1, Christian Pagnoux2, Alexandre Karras3, Chahera Khourtra4, Olivier Aumaitre5, Pascal Cohen6, Francois Maurier7, Olivier Decaux1, Hélène Desmurs-Clavel2, Pierre Gobert5, Thomas Quemener10, Claire Blanchard-Delaunay11, Pascal Godmer12, Xavier Puechal13, Pierre-Louis Carron14, Pierre yves Hatron15, Nicolas Limal16, Mohamed Hamidou17, Maize Ducret18, Florence Vende19, Elisa Pasqualoni20, Bernard Bonnotte20, Philippe Ravaud21, Luc Mouthon Sr.21 and French Vasculitis Study Group (FVSG)21, 1Division of Internal Medicine, Hôpital Cochin, University Paris Descartes, Paris, France, 2Mount Sinai Hospital, Toronto, ON, 3Hôpital Européen Georges Pompidou, APHP, Paris, France, 4Hospices Civils de Lyon, Hôpital Louis Pradel, Lyon, France, 5Centre Hospitalier de Clermont-Ferrand, Clermont-Ferrand, France, 6Service de médecine interne, Centre de Références des Vascularites, Université Paris Descartes, APHP, Hôpital Cochin, 75005 Paris, France, 8Marseille Medical Ctr, Marseille, France, 9Centre Hospitalier d’Avignon, Avignon, France, 10CHR de Valenciennes, Valenciennes, France, 11Centre hospitalier Universitaire de Fort de France, Fort de France, Martinique, 12Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France

146 C
University, Paris, France, 22Hôpital Cochin, Paris, France, 23Paris, France, 24Department of Internal Medicine, Centre Hospitalier Bretagne Atlantique de Vannes, Vannes, France, 25Hôpital Cochin, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, Paris, France, 26Reims, France, 27Paris, France, 28Department of Internal Medicine, Centre Hospitalier Bretagne Atlantique de Vannes, Vannes, France, 29Hôpital Cochin, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, 27 rue du faubourg Saint Jacques, Paris, 75014, France, Paris, France, 30Division of Internal Medicine, Centre Hospitalier Régional Universitaire de Caen, Côte de Nacre, Caen, France, 31Service de médecine interne, Centre de Références des Vascularités, Université Paris Descartes, APHP, Hôpital Cochin, 75005 Paris, France., Paris, France, 32Hôpital Cochin, Paris, France, 33Cochin University Hospital, Paris, France

2:45 PM
1653. Outcomes in Patients with Granulomatosis with Polyangiitis (Wegener’s) Treated with Short- Vs. Long-Term Maintenance Therapy
Jason Springer, Benjamin Nutter, Carol A. Langford, Gary S. Hoffman and Alexandra Villa-Forte, Cleveland Clinic Foundation, Cleveland, OH

3:00 PM
1654. Primary Endpoint Failure in the Rituximab in ANCA-Associated Vasculitis Trial
Eli Miloslavsky1, Ulrich Specks2, John H. Stone3 and RAVE/ITN Research Group4, 1Massachusetts General Hospital, Boston, MA, 2Mayo Clinic, Rochester, MN, 3Massachusetts General Hospital, Boston, MA, 4Bethesda

3:15 PM
1655. An Open-Label Trial of Abatacept in Mild Relapsing Granulomatosis with Polyangiitis (Wegener’s)
Carol A. Langford1, David Cuthbertson2, Gary S. Hoffman1, Jeffrey Krischer2, Carol McAlear3, Paul A. Monach4, Philip Seo5, Ulrich Specks6, Steven R. Ytterberg6, Peter A. Merkel7 and for the Vasculitis Clinical Research Consortium8, 1Cleveland Clinic, Cleveland, OH, 2University of South Florida, Tampa, FL, 3University of Pennsylvania, Philadelphia, PA, 4Boston University, Boston, MA, 5Johns Hopkins Vasculitis Center, Baltimore, MD, 6Mayo Clinic, Rochester, MN

3:30 PM
1656. Treatment of Systemic Necrotizing Vasculitides in Patients ≥65 Years Old: Results of the Multicenter Randomized Cортage Trial
Christian Pagnotx1, Thomas Quemeneur1, Jacques Ninet1, Elodie Perrodeau1, Elizabeth Diot1, Xavier Knyd4, Benoit de Wazieres2, Jean-Luc Remy4, Xavier Puéchal5, Pierre-Yves Leberruyer6, Olivier Lidove7, Philippe Vanhille9, Pascal Godmer12, Aimé Albath-Sadiki13, Boris Bienvenu4, Pascal Cohen9, Luc Mounthon Sr.16, Philippe Ravaud11, Loic Guillemin17 and French Vasculitis Study Group (FVSG)11, 1Department of Internal Medicine, National Referral Center for Necrotizing Vasculitides and Systemic Sclerosis, Hôpital Cochin, Assistance Publique – Hôpitaux de Paris, Université Paris – Descartes, Paris, France, Paris, France, 2CHR de Valenciennes, Valenciennes, France, 3Department of Nephrology and Internal Medicine, Hôpital Edouard Herriot, Lyon, France, Lyon, France, 4Hôpital Hotel Dieu, Paris Descartes University, Paris, France, 5Department of Internal Medicine, Hôpital Bretonneau, Centre Hospitalier Régional Universitaire de Tours, Tours, France, Tours, France, 6Valenciennes, France, 7Department of Internal Medicine and Gerontology, Hôpital Universitaire Carémeau, Nîmes, France, Nîmes, France, 8Geneve, Switzerland, 9Hôpital Cochin, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, Paris, France, 10Reims, France, 11Paris, France, 12Department of Internal Medicine, Centre Hospitalier Bretagne Atlantique de Vannes, Vannes, France, 13Hôpital Cochin, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, 27 rue du faubourg Saint Jacques, Paris, 75014, France, Paris, France, 14Division of Internal Medicine, Centre Hospitalier Régional Universitaire de Caen, Côte de Nacre, Caen, France, 15Service de médecine interne, Centre de Références des Vascularités, Université Paris Descartes, APHP, Hôpital Cochin, 75005 Paris, France., Paris, France, 16Hôpital Cochin, Paris, France, 17Cochin University Hospital, Paris, France

3:45 PM
1657. Peg-IFNa/Ribavirin/Protease Inhibitor Combination Is Highly Effective in HCV-Mixed Cryoglobulinemia Vasculitis
David Saadoun1, Stanislas Pol2, Pascal Lebray Sr.3, François Blanc1, Gilles Pialoux4, Alexandre Karras5, Dorothée Bazin7, Emmanuelle Plaisier8 and Patrice Cacoub Sr.9, 1Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 2Hematology, Cochin Hospital, Paris, France, 3Hôpital Pitié Salpêtrière, Paris, France, 4hospital Montpellier, Montpellier, France, 5hospital Tenon, Paris, France, 6Hôpital Européen Georges Pompidou, APHP, Paris, France, 7New Hôpital Civil, Strasbourg, France, 8Nephrology, Tenon Hospital, Paris, France, 9CHU Pitié-Salpêtrière, Paris, France

2:30 - 4:00 PM
143 A
Demystifying the Study Section: How Grants Are Reviewed and Scored

Moderator: Jennifer M. Hootman, ATC, PhD

Upon completion of this session, participants should be able to:
• describe the basic process of how peer review sessions for grants are conducted
• identify elements that lead to a strong early career grant application
• identify common areas of weakness that can hurt a grant application

2:30 PM
Tips for an “Exceptional” Grant Review - National Institutes of Health Perspective
Susan Marden, MD

2:45 PM
Tips for an “Exceptional” Grant Review – Research and Education Perspective
Michael M. Ward, MD

2:55 PM
Overview of Study Section Process
Kelli D. Allen, PhD

3:00 PM
Mock Study Section
Kelli D. Allen, PhD, Patricia P. Katz, PhD, Susan Marden, MD and Michael M. Ward, MD
3:30 PM  
**Summary of Grant Strengths and Weaknesses**  
Robert R. McLean, DSc, MPH

3:40 PM  
**Panel Discussion**

### 204 A  
**Depression in Rheumatic Diseases**  
**Moderator:** Karen L. Smarr, PhD

**Upon completion of this session, participants should be able to:**
- summarize the incidence of depression in various rheumatic diseases along with associated complications
- describe the relationship between rheumatic disease and depression in the context of pathophysiology
- utilize diagnostic criteria and screening instruments to identify cases of depression
- discuss pharmacological and non-pharmacological treatment options in consideration of other common treatments for rheumatic patients

2:30 PM  
**Depression in Rheumatic Disease: An Overview**  
Lesley M. Arnold, MD

3:15 PM  
**Pharmacological and Non-Pharmacological Treatment of Depression in Rheumatic Disease**  
Jessica Farrell, PharmD

### 206  
**Minimizing Falls in Geriatric Rheumatic Populations**  
**Moderator:** Lori L. Cyr, BSc, OT

**Upon completion of this session, participants should be able to:**
- describe the incidence and contributing factors to falls in geriatric rheumatic populations
- discuss medications associated with increased risk for falls and strategies to ameliorate the risk
- identify physical and occupational therapies to prevent falls, as well as promote recovery after a fall

2:30 PM  
**Fractures and Falls in Geriatric Patients with Rheumatic Diseases**  
Marian T. Hannan, DSc, MPH

3:00 PM  
**The Medication Connection to Falls in Elderly Rheumatic Patients**  
Kam Nola, PharmD, MS

3:30 PM  
**After the Fall: The Rehabilitation Process**  
Susan L. Murphy, ScD

### ACR WORKSHOPS

**4:00 - 6:00 PM**  
Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

149 B  
**Getting Electronic Health Record Right (225)**  
**Speaker:** Salahuddin Kazi, MD

144 B  
**Musculoskeletal Ultrasonography: Basic (226)**  
**Speakers:** Janak R. Goyal, MD and Gurjit S. Kaeley, MBBS
### ACR SESSIONS

#### 150 B

**Aging and the Rheumatic Diseases**

*Moderator: Peter A. Nigrovic, MD*

*Upon completion of this session, participants should be able to:*
- discuss updates in the biology of aging
- review changes in the aging joint which may predispose to inflammation
- discuss aging in the immune system and its potential relevance to rheumatic disease

*4:30 PM*

**Update on the Biology of Aging**

Toren Finkel, MD, PhD

*5:00 PM*

**Age-related Frailty: Age and Susceptibility to Disease**

Jeremy Walston, MD

*5:30 PM*

**The Aging Immune System and Inflammatory Disease**

Cornelia M. Weyand, MD, PhD

#### Hall D

**Dermatology Topics for Rheumatologists: What You Need to Know**

*Moderator: Shelly P. Kafka, MD*

*Upon completion of this session, participants should be able to:*
- describe nail pathology associated with common rheumatic diseases and be familiar with treatment options
- review cutaneous reactions associated with biological agents, understand the pathology associated in treatment induced skin reactions
- discuss options in regard to treatment and know when to stop and re-challenge certain agents
- describe skin biopsies and discuss histopathology associated with autoimmune disorders
- review procedures and techniques used in obtaining skin biopsies

*4:30 PM*

**Nail Signs of Systemic Disease**

Richard K. Scher, MD, MS

*5:00 PM*

**Cutaneous Reactions to Biologic Agents**

Jan P. Dutz, MD

*5:30 PM*


Soon Bahrami, MD

#### 152 A

**Energetics, Metabolism and Osteoarthritis**

*Moderator: Richard F. Loeser, MD*

*Upon completion of this session, participants should be able to:*
- describe the effects of a high fat diet and obesity on the development of osteoarthritis
- define the role of Sirt1 in the regulation of chondrocyte anabolic and catabolic activity
- review the changes found in AMPK activity in osteoarthritis and the effects on catabolic activity

*4:30 PM*

**The Effects of High Fat Diet and Obesity on Joint Tissue Metabolism in Rodents**

Timothy M. Griffin, PhD

*5:00 PM*

**Actions of the Metabolic Master Switch in Articular Chondrocytes**

Odile H. Gabay, PhD

*5:30 PM*

**Altered AMP-activated kinase Activity in Osteoarthritis**

Ru Liu-Bryan, PhD

#### Salon B

**Gout and Hyperuricemia: Diseases Beyond the Joint**

*Moderators: Theodore R. Fields, MD and Jasvinder A. Singh, MD, MPH*

*Upon completion of this session, participants should be able to:*
- describe the cardiovascular risks of hyperuricemia and data linking treatment of hyperuricemia with amelioration of the risk
- summarize the renal and vascular effects of hyperuricemia and the effects of medications used for treatment of gout and hyperuricemia on kidneys and vascular system
- discuss the indications and contraindications of new and old therapies for the treatment of gout, especially in patients with refractory disease and in those with renal failure

*4:30 PM*

**Hyperuricemia and Atherothrombotic Vascular Disease-What to Do with the Evidence?**

Eswar Krishnan, MD

*5:00 PM*

**Uric Acid as a Kidney Toxin: Revival of a 60-year Old Story**

Richard J. Johnson, MD
5:30 PM
Gout Therapy: What to use in my Patient with Refractory Gout and Renal Disease?
Ted R. Mikuls, MD, MSPH

Ballroom C
Preclinical Autoimmunity – Potential for Prevention
Moderators: Kevin D. Deane, MD, PhD and Diane L. Kamen, MD, MS
Upon completion of this session, participants should be able to:
- identify the patterns of preclinical autoantibody positivity seen prior to the development of certain autoimmune diseases
- describe potential mechanisms for gene x environment interactions in the development of autoimmunity
- summarize findings from prospective studies and discuss proposed prevention strategies

4:30 PM
The Epidemiology of Autoimmunity – Lessons from the Clustering of Cases and Factors Associated with a Rising Incidence
Jill M. Norris, MPH, PhD

5:00 PM
Studying Genes, Environment and Biomarkers to Identify Targets to Prevent the Onset of Rheumatoid Arthritis
Hani S. El-Gabalawy, MD

5:30 PM
The Age of Lost Tolerance - the Rise and Fall of Autoantibodies Prior to Onset of Clinical Disease
Judith A. James, MD, PhD

ACR CONCURRENT ABSTRACT SESSIONS
4:30 - 6:00 PM

140 A
Cytokines, Mediators, and Gene Regulation II
Moderators: Erik Lubberts, PhD and Michael Volin, PhD

4:30 PM
1658. Signal Transducer and Activator of Transcription 3 Induced Synovial Invasion and Migration Is Mediated in Part Through the Notch/Hypoxia-Inducible Factor 1α Pathways
Wei Gao1, Douglas J. Veale2 and Ursula Fearon2, 1Translational Rheumatology Research Group, Dublin, Ireland, 2Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

4:45 PM
1659. Ptpome Profile of Rheumatoid Arthritis Fibroblast-Like Synoviocytes: A Novel Role for the Tyrosine Phosphatase SHP-2 As a Modulator of Invasion and Survival
Stephanie Stanford1, Michael Maestre2, Beatrix Bartok2, David L. Boyle2, Heather Arnett3, Tomas Mustelin1, Gary S. Firestein2 and Nunzio Bottini1, 1La Jolla Institute for Allergy and Immunology, La Jolla, CA, 2UCSD School of Medicine, La Jolla, CA, 3Amgen, Inc., Seattle, 4Sanford-Burnham Institute for Medical Research, La Jolla, CA

5:00 PM
1660. Development of a Bruton’s Tyrosine Kinase (Btk) Inhibitor, ONO-4059: Efficacy in a Collagen Induced Arthritis (CIA) Model Indicates Potential Treatment for Rheumatoid Arthritis (RA)
Toshibu Yoshizawa, Yuko Ariza, Yoshiko Ueda, Shingo Hotta, Masami Narita and Kazuhiro Kawabata, Ono Pharmaceutical Co., Ltd., Osaka, Japan

5:15 PM
1661. CCR1 Potentiates Gouty Inflammation Following Initial CXCR2-Dependent Neutrophil Recruitment to Sites of Monosodium Urate Crystal Deposition in Mice
Robert P. Friday1, Terry K. Means1, Melissa Tai2, Christian D. Sadik2 and Andrew D. Luster2, 1Massachusetts General Hospital, Boston, MA, 2Massachusetts General Hospital, Charlestown, MA

5:30 PM
1662. Anti-IL-6 Therapy Impairs Intestinal Repair Through Inhibition of Epithelial Proliferation After Injury
Kristine Kuhn, Hiroyuki Miyoshi, Nicholas A. Manieri, Nicole P. Malvin, Vinithi Bijanki, Paul Allen and Thaddeus S. Stappenbeck, Washington University School of Medicine, St. Louis, MO

5:45 PM
1663. G Protein Signaling Modulator 3 Is a Key Regulator of Monocyte-Driven Inflammatory Arthritis
Matthew J. Billard, Patrick M. Giguère, Brian Buckley, Marcus W. McGinnis, Roman Timoshchenko, Peng Liu, David P. Siderovski and Teresa K. Tarrant, University of North Carolina at Chapel Hill, Chapel Hill, NC

Ballroom B
Epidemiology and Health Services Research III: Rheumatic Diseases and Cardiovascular Disease and Risk Assessment
Moderators: Laura L. Tarter, MD and Mariko L. Ishimori, MD

4:30 PM
1664. Autoantibodies Are Associated with Subclinical Atherosclerosis and Cardiovascular Endpoints in Caucasian and African American Women in a Prospective Study: the Multi-Ethnic Study of Atherosclerosis (MESA)
Darcy S. Majka1, Rowland W. Chang1, Richard M. Pope2, Marius C. Teodorescu3, Elizabeth W. Karlson4, Thanh Huyen T. Vu5, Joseph Kang6 and Kiang Liu1, 1Northwestern University, Chicago, IL, 2Northwestern Univ Med School, Chicago, IL, 3TheraTest Laboratories Inc, Lombard, IL, 4Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 5Northwestern University, Feinberg School of Medicine, Chicago, 6Northwestern University, Feinberg School of Medicine, Chicago, IL

4:45 PM
1665. Associations of Race and Ethnicity with Overall Mortality and Cardiovascular Events Among Patients with End-Stage Renal Disease Due to Lupus Nephritis
Jose A. Gomez-Puerta1, Sushrut Waikar2, Graciela S. Alarcon3, Jun Liu4, Daniel H. Solomon5, Wolfgang C. Winkelmayer6 and
Karen H. Costenbader1, 1Division of Rheumatology, Immunology, and Allergy, Brigham and Women’s Hospital, Harvard Medical School, Boston, Boston, MA, 2Division of Nephrology, Brigham and Women’s Hospital, Harvard Medical School, Boston, Boston, MA, 3University of Alabama at Birmingham, Birmingham, AL, 4Division of Pharmacoepidemiology and Pharmacoeconomics, Brigham and Women’s Hospital, Harvard Medical School, Boston, Boston, MA, 5Stanford University School of Medicine, Stanford, CA

5:00 PM
1666. Short Term Use of Glucocorticoids Is Not Associated with Acute Risk of Myocardial Infarction
Steven C. Vlad1, David T. Felson1, Donald R. Miller2 and Yuqing Zhang3, 1Boston University, Boston, MA, 2Edith Nourse Rogers Memorial VA Hospital, Bedford, MA

5:15 PM
1667. Impact of Rheumatoid Arthritis On Recognition of Hypertension in a Medically Housed Population
Christie M. Bartels1, Heather Johnson2, Katya Voelker2, Patrick McBride2 and Maureen Smith3, 1Univ of Wisconsin School of Medicine and Public Health, Madison, WI, 2Univ of Wisconsin School of Medicine and Public Health, Madison

5:30 PM
1668. Improving the Accuracy of Cardiovascular Risk Prediction in Rheumatoid Arthritis with a New Predictive Model Using the 10-Year Prospective Carre-Study
Alper M. van Sijl1, Inge A.M. van den Oever1, Mike J.L. Peters2, Vokko P. van Halm3, Alexandre E. Voskuyl2, Yvo M. Smulders2 and Mike T. Nurmohamed1, 1Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 2VU University Medical Center, Amsterdam, Netherlands, 3Academic Medical Centre, Amsterdam, Netherlands

5:45 PM
1669. Infection Risk After Orthopaedic Surgery in Patients with Inflammatory Rheumatic Diseases, with Focus On Discontinuation of TNF-Alpha-Inhibitors
Catrina B. Scherrer1, Anne AF Mannion1, Diego Kyburz2, Markus Vogt1 and Ines A. Kramers-de Quervain1, 1Schulthess Clinic, Zürich, Switzerland, 2Center of Exp. Rheumatology, Zurich, Switzerland, 3Cantonal Hospital Zug, Baar, Switzerland

202 B
Muscle Biology, Myositis and Myopathies: Pathogenesis in Idiopathic Inflammatory Myopathies

Moderators: Lauren M. Pachman, MD and Jiri Vencovsky, MD, DSc

4:30 PM
1670. Microarray Analysis for miRNA Expression in Juvenile Dermatomyositis (JDM)
Dong Xu1, Akadia Kachaochana2, Gabrielle A. Morgan2, Elio F. Vanin1, Marcelo Bento Soares1 and Lauren M. Pachman1, 1Division of Pediatric Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Children’s Hospital of Chicago Research Center, Cure JM Myositis Center, Chicago, IL, 3Cancer Biology & Epigenomics Program, Department of Pediatrics, Northwestern University Feinberg School of Medicine, Chicago, IL

4:45 PM
1671. Characterization of Jo-1 Autoantibodies in Patients with Inflammatory Myopathy and Interstitial Lung Disease
Kyle P. Chiang1, Varun Gauba1, Darin Lee1, Minh-Ha T. Do1, Jie J. Zhou2, Feng Wang2, Ying Buechler1, Leslie Nangle1, Zhiwen Xu2, John Mendle1, Melissa Ashlock1 and Jeffrey M. Greve1, 1aTyr Pharma, San Diego, CA, 2Hong Kong University of Science and Technology, Kowloon, Hong Kong

5:00 PM
1672. Myosin Skews Effector Immune Cells of Scurvy Mice to Target Muscles in an Adoptive Transfer Model of Myositis
Nicholas Young1, Rahul Sharma2, Alexandra Friedman1, Benjamin Kaffenberger2 and Wael N. Jarjour3, 1The Ohio State University Medical Center, Columbus, OH, 2University of Virginia Health System, Charlottesville, VA, 3Ohio State University, Columbus, OH

5:15 PM
1673. Clinical Phenotypes of Caucasian Adult and Juvenile Dermatomyositis Patients with Anti-MDA5 Autoantibodies
Zoe Betteridge1, Sarah Tansley1, Harsha Gunawardena1, Lucy R. Wedderburn2, Hector Chino1, Robert G. Cooper3, Jiri Vencovsky4, Lenka Pleslova5, Ingrid E. Lundberg6, Katalin Danko7, Melinda Vincze7, Neil McHugh8, UK JDRG9 and EuMyoNet11, 1Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, 2North Bristol NHS Trust, Bristol, United Kingdom, 3University College London (UCL), London, United Kingdom, 4The University of Manchester, Manchester, United Kingdom, 5Hope Hospital, Salford, United Kingdom, 6Institute of Rheumatology, Prague, Czech Republic, 7Institute of Rheumatology, Prague, 8Czech Republic, 9Karolinska Institutet, Stockholm, Sweden, 10University of Debrecen, Debrecen, Hungary, Debrecan, Hungary, 11London, United Kingdom, 12Stockholm, Sweden

5:30 PM
1674. Myeloid Related Proteins Induce Muscle Derived Inflammatory Mediators in Juvenile Dermatomyositis
Kiran Nistala1, Hembata Sarsani1, Helmut Wittkowski2, Thomas Vogl1, Petra Kro1, Vanita Shah1, Kamel Mamchaoui1, Paul Brogan1, Johannes Roth1 and Lucy R. Wedderburn1, 1University College London (UCL), London, United Kingdom, 2Hospital, Salford, United Kingdom, 3Institute of Rheumatology, Prague, Czech Republic, 4Institute of Rheumatology, Prague, 5Czech Republic, 6Karolinska Institutet, Stockholm, Sweden, 7University of Muenster, Muenster, Germany, 8University of Debrecen, Debrecen, Hungary, Debrecan, Hungary, 9London, United Kingdom, 10Stockholm, Sweden

5:45 PM
1675. Myositis Autoimmunity and Muscle Weakness Are Linked to TNF-Alpha Suppression of Micrornas-1, 133, and 206 in Myoblasts and Myocytes
Robert Georgantas III1, Katie Streicher1, Steven A. Greenberg2, Lydia Greenlees V3, Wei Zhu4, Philip Brohawn4, Brandon W. Higgs5, Megan Zapiga6, Chris Morehouse7, Laura Richman1, Bahija Jallal1, Koustubh Ranade1 and Yihong Yao3, 1Medimmune, Inc, Gaithersburg, MD, 2Brigham Women's Hospital, Harvard Medical School, Boston, MA, 3MedImmune, Gaithersburg, MD, 4MedImmune, LLC, Gaithersburg, MD, 5MedImmune, Inc, Gaithersburg, MD
Ballroom A

Rheumatoid Arthritis - Clinical Aspects III:
Rheumatoid Arthritis and Cardiovascular Disease

Moderators: Jon T. Giles, MD and Kimme Hyrich, MD, PhD

4:30 PM

1682. Sustained Clinical Remission (Disease Activity Score 28 <2.6) Protects for Cardiovascular Disease in Rheumatoid Arthritis Patients
Elke.E.A. Arts1, Jaap Fransen1, Alfons A. den Broeder2, Calin Popa3 and Piet L.C.M. van Riel1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Sint Maartenskliniek, Nijmegen, Netherlands, 3IBiTech-bioMMeda, Ghent University, Ghent, Belgium

4:45 PM

1683. Associations Between Lipid and Rheumatoid Arthritis Genetic Factors, and Low Density Lipoprotein Levels in RA Patients
Katherine P. Liao1, Dorothee Diogo1, Tianxi Cai2, Jing Cui3, Raul N. Guzman P.4, Vivian Gainer4, Shawn N. Murphy4, Susanne Churchill5, Isaac Kohane1, Elizabeth W. Karlson2 and Robert M. Plenge1, 1Brigham and Women’s Hospital, Boston, MA, 2Harvard School of Public Health, Boston, MA, 3Brigham and Women’s Hospital, Boston, MA, 4Partners Healthcare Systems, Boston, MA, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

5:00 PM

1684. Increased Risk of Major Cardiovascular Events in a Nationwide Cohort of Rheumatoid Arthritis Patients Treated with Biological Agents
Signe Abitz Winther, Peter Riis Hansen, Søren Lund Kristensen, Lene Dreyer, Ole Ahlehoff, Louise Linde, Christian Torp-Pedersen and Jesper Lindhardsen, Copenhagen University Hospital Gentofte, Hellerup, Denmark

5:15 PM

1685. Differential Impact of Cardiac Risk Factors On Coronary Plaque Presence and Features in Asymptomatic Patients with Rheumatoid Arthritis Compared to Controls
George A. Karpouzas1, Jennifer Malpeso2, Tae-Young Choi2, Silvia Munoz3 and Matthew Budoff1, 1Harbor-UCLA, Torrance, CA, 2Harbor-UCLA Medical Center, Torrance, CA.
1686. Vertebral Fracture Assessment-Detected Abdominal Aortic Calcification Enhances Cardiovascular Disease Risk Stratification of Rheumatoid Arthritis Patients
Ausaf Mohammad1, Derek Lohan1, Diane Bergin1, Sarah Mooney1, John Newell2, Martín O’Donnell1, Robert J. Coughlan1 and John J. Carey1, 1Galway University Hospitals, Galway, Ireland, 2National University of Ireland, Galway, Ireland

5:45 PM

1687. The Risk of Atrial Fibrillation in Patients with Rheumatoid Arthritis Compared to the General Population: A Large Cohort Study
Seoyoung C. Kim1, Jun Liu2 and Daniel H. Solomon3, 1Brigham and Women’s Hospital, Boston, MA, 2Brigham and Women’s Hospital, Harvard Medical School, Boston, Boston, MA, 3Brigham & Women’s Hospital and Harvard Medical School, Boston, MA

1688. Evolution of Preclinical Autoimmunity in Individuals At Risk for Development of Rheumatoid Arthritis
Hani S. El-Gabalawy1, David B. Robinson1, Irene Smolik1, Donna M. Hart1, Elizabeth D. Ferucci2, Marianna M. Newkirk1, Marvin J. Fritzier1, Catriona Cramb1, Jeremy Sokolove1, William H. Robinson5, 1University of Manitoba, Winnipeg, MB, 2Alaska Native Tribal Health Consortium, Anchorage, AK, 3McGill University Health Centre, Montreal, QC, 4University of Calgary, Calgary, AB, 5Stanford University, Palo Alto, CA

4:45 PM

1689. Anti-Peptidylarginine Deiminase 3/4 Cross-Reactive Antibodies: A Novel Biomarker with Clinical and Mechanistic Implications in Rheumatoid Arthritis
Erika Darrah1, Jon T. Giles2, Herbert Bull3, Felipe Andrade1 and Antony Rosen1, 1The Johns Hopkins University School of Medicine, Baltimore, MD, 2Columbia University Medical Center, New York, NY, 3Consultant, Westfield, NJ

5:00 PM

1690. Citrullination within the Atherosclerotic Plaque: A New Potential Target for Anti-Citrullinated Protein Antibodies
Jeremy Sokolove1, Orr Share1, Matthew Brennan1, Lauren J. Lahey1, Amy H. Kao1, Eswar Krishnan1, Mary Chester Wasko4 and William H. Robinson5, 1VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 2Allegheny Singer Research Institute, Pittsburgh, PA, 3Stanford University, Stanford, CA, 4Temple University School of Medicine, Pittsburgh, PA, 5Stanford University, Palo Alto, CA

5:15 PM

1691. Early Signs of Subclinical Inflammation and Local Antibody Production in Early Rheumatoid Lungs
Gudrun Reynisdóttir1, Reza Karimi2, Jimmy ‘tterberg2, Vijay Joshua1, Helga Olsen1, Aase Haj Hensvold1, Anders Harju1, Johan Grunewald1, Sven Nygren1, Anders Eklund2, Lars Klareskog3, Roman Zubarev4, Magnus Skold4 and Anca Iriñel Catrina1, 1Rheumatology unit, Karolinska University Hospital, Karolinska Institutet, Stockholm, Sweden, 2Division of Respiratory Medicine, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 3Rheumatology Unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 4Karolinska University Hospital, Karolinska Institutet, Stockholm, Sweden, 5Karolinska Institute, Stockholm, Sweden, 6Karolinska Institutet, Stockholm, Sweden

5:30 PM

1692. Lung Microbiome Differs in Subjects with Rheumatoid Arthritis-Related Autoimmunity without Inflammatory Arthritis Compared to Healthy Seronegative Controls
M. Kristen Demourelle1, Jill M. Norris2, V. Michael Hohers3, Kevin D. Deane1 and J. Kirk Harris4, 1University of Colorado School of Medicine, Aurora, CO, 2Colorado School of Public Health, Aurora, CO, 3Aurora, CO

5:45 PM

1693. Oncogenic Activation of MAPK in Rheumatoid Arthritis Synovial Fibroblasts
Niloofar L. Farmani1, Keith K. Colburn2, Grace Chan1, Erica Li3, Emil Heinze1, Antonia Rubell1, Robert Nishimura4 and Richard H. Weisbart1, 1Olive View-UCLA Medical Center, Sylmar, CA, 2Loma Linda Univ Medical Center, Loma Linda, CA, 3VA GLAHS, Sepulveda, CA, 4The David Geffen School of Medicine at UCLA, Los Angeles, CA

Hall E

Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety II
Moderators: Alan J. Kivitz, MD, and Joseph M. Grisanti, MD

4:30 PM

1694. Infection Risk in Patients with Low Immunoglobulins Following Rituximab Treatment in Rheumatoid Arthritis
Ronald F. van Vollenhoven1, Gregg J. Silverman2, Clifton O. Bingham III1, Patrick Duret3, Patricia B. Lehane3, Nicola Tyson2 and Elena Fisheleva1, 1Karolinska University Hospital, Stockholm, Sweden, 2NYU School of Medicine, New York, NY, 3Johns Hopkins University, Baltimore, MD, 4University Hospital St Luc, UCL, Brussels, Belgium, 5Roche Products Limited, Welwyn Garden City, United Kingdom

4:45 PM

1695. Prolonged Exposure to Subcutaneous and Intravenous Abatacept in Patients with Rheumatoid Arthritis Does Not Affect Rates of Infection, Malignancy and Autoimmune Events: Results From Pooled Clinical Trial Data
M. C. Genovese1, M. C. Hochberg2, R. B. Cohen3, M. E. Weinblatt4, J. Kaine5, E. Keystone6, P. Nash7, I. Delaet8 and R. Alten9, 1Stanford University, Palo Alto, CA, 2Department of Medicine, University of Maryland, Baltimore, MD, 3Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, 4Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 5Sarasota Arthritis Research Center, Sarasota, FL, 6Mount Sinai Hospital, Toronto, ON, 7University of Queensland, Brisbane, Australia, 8Bristol-Myers Squibb, Princeton, NJ and Bristol-Myers Squibb, Hopewell, VA, 9Schlosspark-Klinik, University Medicine, Berlin, Germany
1696. Quantitative Evaluation of Dermal Atrophy by High-Resolution Ultrasonography, Comparing Between Patients Under Long-Term Treatment with Prednisolone or Methylprednisolone
Tim Pottel1, Christoph Schäfer2 and Gernot Keyßer2, 106114 Halle (Saale), Germany, 06120 Halle (Saale), Germany

5:15 PM
1697. Meta-Analysis of Malignancies, Serious Infections, and Serious Adverse Events with Tofacitinib or Biologic Treatment in Rheumatoid Arthritis Clinical Trials
Simahadieh1, Tina Checchio1, Thomas Tensfeldt1, Jonathan French2, Srijar Krishnaswami1, Richard Riese1, Sujatha Menon1, Mary G. Boy1 and Jamie L. Geier1, 1Pfizer Inc., Groton, CT, 2Metrum Research Institute, Tariffville, CT, 3Pfizer Inc., New York, NY

5:30 PM
1698. Predictors of Discontinuation of Biologics in 2,281 US Patients with Rheumatoid Arthritis
Sofia Ramiro1, Frederick Wolfe2, David J. Harrison3, George Joseph2, David H. Collier3, Nouel Joseph3, David H. Collier3, 1Academic Medical Center, Amsterdam, Netherlands, 2Center for Outcomes Research, University of Nebraska Medical Center, Omaha, NE, 3University Medical Center, Leiden, Netherlands

5:45 PM
1699. Neutropenia After Rituximab in Rheumatoid Arthritis and Other Autoimmune Diseases Is a Rare Events: Date From the Autoimmunity and Rituximab Registry
Jean Hugues Salmon1, Patrice P. Cacoub Sr2,3, Bernard G. Combe2, Jean Sibilia3, Beatrice Pallot Prades3, Olivier Fain3, Alain G. Cantagrel1, Maxime Dougados1, Olivier Meyer1, Philippe Carli14, Edouard Pertuiset1, Isabelle Pane1, Philippe Ravaud1, Xavier Mariette1 and Jacques-Eric Gottenberg1, 1Rheumatology, University of Lille, Lille, France, 2Assistance Publique-Hôpitaux de Paris, Hôpital Raymond Poincaré, Garches, France, 3Hopital Lapeyronie, Montpellier, France, 4CHU Hautepierre, Strasbourg, France, 5Saint Etienne university hospital, Saint Etienne, France, 6Service de médecine interne, Université Paris 13, AP-HP, Hôpital Jean Verdier, 93140, Bondy, France., 7Bhuvan, France., 8Place du Docteur Baylac, Toulouse, France, 9Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 10Hospital Bichat, Paris, France, 11Toulon, France, 12Ch Rene Dubos, Pontoise, France, 13Hotel Dieu University Hospital Paris, France, 14Hotel Dieu Hospital, Paris Descartes University, Paris, France, 15Université Paris-Sud, Le Kremlin Bicetre, France, 16Strasbourg University Hospital, Strasbourg, France

1700. Prevalence of Spondyloarthritis in Anterior Uveitis Patients: The Sentinel Study
Miguel Cordero Coma1 and Xavier Juanola2, 1Unidad de Uveitis. Hospital Universitario de León, León, Spain, 2Hospital Universitario de Bellvitge, Barcelona, Spain

4:30 PM
1701. Validation of the New ASAS Criteria for Classification of Early Spondyloarthritis in the Esperanza Cohort
Eva Tomero1, Loreto Carmona1, Juan Muler1, Eugenio De Miguel1, Milena Gobbo1, Carmen Martinez2, Miguel A. Descalzo1, Pedro Zarco1, Eduardo Collantes-Estevez2 and Esperanza Group3, 1Hospital Universitario La Princesa, Madrid, Spain, 2Universidad Camilo José Cela, Villanueva de la Cañada, Spain, 3Hospital Universitario Puerta de Hierro Majadahonda, Majadahonda (Madrid), Spain, 4Hospital Universitario La Paz, Madrid, Spain, 5Spanish Society of Rheumatology, Madrid, Spain, 6Sociedad Española de Reumatología, Madrid, Spain, 7Fundación Hospital Alcorcon, Alcorcon, Madrid, Spain, 8IMIBIC-Reina Sofia Hospital, Cordoba 14012, Spain

5:00 PM
1702. Tumor Necrosis Factor Blocking Agents Inhibit the Progression of Preclinical Atherosclerosis in Patients with Ankylosing Spondylitis
Alper M. van Sijil1, Izhar C. van Eijk2, Mike J.L. Peters2, Erik H. Serne2, Yvo M. Smulders2 and Mike T. Nurmohamed3, 1Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 2VU University Medical Center, Amsterdam, Netherlands, 3VU University Medical Center, Amsterdam, Netherlands

5:15 PM
1703. Relationship Between Tobacco Smoking and Radiographic Spinal Progression in Axial Spondyloarthritis: The Role of Inflammatory Activity
Denis Poddubnyy1, Hildrun Haibel1, Joachim Listing2, Elisabeth Mårker-Hermann2, Henning Zeidler2, Jürgen Braun2, Martin Rudwaleit1 and Joachim Sieper1, 1Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 2German Rheumatism Research Center, Berlin, Germany, 3Dr. Horst Schmidt Kliniken, Wiesbaden, Germany, 4Medizinische Hochschule, Hannover, Germany, 5Rheumazentrum Ruhrgebiet, Herne, Germany, 6Endokrinologikum Berlin, Berlin, Germany, 7Charité Universitätesmedizin Berlin, Berlin, Germany

5:30 PM
1704. New Threshold Values for Spinal Mobility Measures Based On a Large Nationally Representative Sample of U.S. Adults: Ages 20-69 Years
Shervin Assassi1, Hildrun Haibel1, Jungxue Chen1, Mohammad Rahbar1 and John D. Reveille1, 1Univ of Texas Health Science Center at Houston, Houston, TX, 2Cedars-Sinai Medical Center, Los Angeles, CA

5:45 PM
1705. Effect of Certolizumab Pegol On Inflammation of Spine and Sacroiliac Joints in Patients with Axial Spondyloarthritis: 12 Week Magnetic Resonance Imaging results of a Phase 3 Double Blind Randomized Placebo-Controlled Study
Désirée van der Heijde1, Walter P. Maksymowych2, Robert B. M. Landewé3, Christian Stach4, Bengt Hoepken4, Andreas Fichtner4, Danuta Kieler5 and Jurgen Braun6, 1Leiden University Medical Center, Heerlen, Netherlands, 2National Data Bank for Rheumatic Diseases, University of Nebraska Medical Center, Omaha, NE, 3Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 4VU University Medical Center, Amsterdam, Netherlands, 5Rheumazentrum Ruhrgebiet, Herne, Germany, 6Charité Universitätesmedizin Berlin, Berlin, Germany
Renaissance Washington - Grand Ballroom North
Systemic Lupus Erythematosus - Clinical Aspects and Treatment III: Cardiovascular

Moderators: Susan Manzi, MD, MPH and Jose A. Gomez-Puerta, MD, PhD

4:30 PM
1706. Predictive Atherosclerotic Risk Factors At Inception in a Multicentre, Multinational Cohort
Murray B. Urowitz°, Dominique Ibanez°, D. D. Gladman° and SLICC°, °Toronto Western Hospital and University of Toronto, Toronto, ON, °Toronto, ON

4:45 PM
1707. The Association of Serum Biomarkers and Metabolic Syndrome with Subclinical Atherosclerosis in Systemic Lupus Erythematosus: A Controlled Analysis in Patients with No Clinical Disease Activity
Semra Erdoan-Demirci°, Ahmet Yasar Cizigici°, Gaye Erdoan°, Bahar Artim-Esen°, Yasemin Sahinkaya°, Öziem Pehlivan°, Nilüfer Alpay-Kanitez°, Kadri Atiy°, Huseyin Öflaz°, Gunnur Deniz° and Murat İnce°, °Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey, °Istanbul University, Institute of Experimental Medicine (DETAIE), Istanbul, Turkey

5:00 PM
1708. Systemic Lupus Erythematosus Cardiovascular Risk Equation
Michelle Petri° and Laurence S. Magder°, °Johns Hopkins University School of Medicine, Baltimore, MD, °University of Maryland, Baltimore, MD

5:15 PM
1709. Biomarkers of Atherosclerosis Are Associated with Progression of Non-Cardiovascular Damage in Patients with SLE
Sarah J. Kim, Jennifer M. Grossman, Brian Skaggs, Elaine Lourenco, Lori Sahakian, John D. FitzGerald, Nagesh Ragavendra, Christina Charles-Schoeman, Alan H. Gorn, Bevra H. Hahn and Maureen A. McMahon, UCLA David Geffen School of Medicine, Los Angeles, CA

5:30 PM
1710. Increase in Vitamin D Improves Disease Activity and Systolic Blood Pressure in Systemic Lupus Erythematosus
Kayode J. Bello°, Hong Fang°, Laurence S. Magder° and Michelle Petri°, °Johns Hopkins University School of Medicine, Baltimore, MD, °University of Maryland, Baltimore, MD

5:45 PM
1711. Association of Vascular Calcification and Perivascular Adipose Tissue of the Descending Aorta with Cardiovascular Events in SLE
Kelly J. Shields°, Emma Barinas-Mitchell°, Amy H. Kao°, Susan Manzi° and Kim Sutton-Tyrrell°, °Lupus Center of Excellence/ASRI/West Penn Allegheny Health System, Pittsburgh, PA,
5:30 PM
1716. Outcomes Linked to Intensive Treatment Trials in Systemic Sclerosis
Svetlana I. Nihtyanova1, Voon H. Ong2 and Christopher P. Denton3, 1Royal Free Hospital, Medical School, London, England, 2UCL Medical School, London, England, 3UCL, London, United Kingdom

5:45 PM
1717. Autologous Lipostructure in the Treatment of Fibrotic Perioral Changes in Systemic Sclerosis: A Pilot Study
Nicoletta Del Papa1, Fabio Caviggioli2, Domenico Sambataro1, Eleonora Zaccara1, Gabriele Di Luca1, Valeriano Vinci1 and Marco Klinger3, 1G. Pini Hospital, Milano, Italy, 2UOC Chirurgia Plastica, Multimedica Holding SpA, Università degli Studi di Milano, Milano, Italy, 3Istituto Clinico Humanitas, Università degli Studi di Milano, Milano, Italy

ACR MEET THE PROFESSOR SESSIONS

4:30 - 6:00 PM
Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

148
Adult Inflammatory Myopathy (051)
Speaker: Mary E. Cronin, MD

153
Antiphospholipid Syndrome (052)
Speaker: Munther A. Khamashta, MD

154 A
Controversies in Sjögren’s Syndrome (053)
Speaker: Alan N. Baer, MD

154 B
Dermatological Manifestations of Rheumatic Diseases (054)
Speaker: Ruth Ann Vleugels, MD

155
Fibromyalgia and Dysautonomia (055)
Speaker: Manuel Martinez-Lavin, MD

158 A
Pain: Evaluation and Treatment of Back Pain (056)
Speaker: David G. Borenstein, MD

158 B
Pediatric Systemic Lupus (057)
Speaker: Kelly A. Rouster-Stevens, MD, MSc

159 A
Psoriatic Arthritis (058)
Speaker: M. Elaine Husni, MD, MPH

159 B
*Rheumatoid Arthritis: Biological Agents (059)
Speaker: Edward C. Keystone, MD

160
Systemic Lupus Erythematosus: Difficult to Treat Systemic Lupus Erythematosus (060)
Speaker: Maria Dall’Era, MD

ARHP SESSIONS

4:30 - 6:00 PM

201
Early Rehabilitation for Hip and Foot Osteoarthritis: Opportunities and Challenges
Moderator: Donna K. Everix, MPA, BS, PT
Upon completion of this session, participants should be able to:
• describe clinical presentation and assessment of individuals with early osteoarthritis
• distinguish hip impingement from hip osteoarthritis
• define how to assess pain, mechanics and physical function in foot osteoarthritis
• interpret the results of subject specific motion analysis in individuals with hip or foot osteoarthritis
• identify key components of rehabilitation intervention

4:30 PM
Early Hip Osteoarthritis: Clinical Presentation, Intervention Strategies and Implications for Treatment
Shingpui Betty Chow, PT, MA, OCS

4:55 PM
Hip Impingement: Clinical Presentation, Evaluation, Principles for Intervention and Implications for Treatment
Scott Siverling, PT, OCS

5:20 PM
Foot Osteoarthritis: Clinical Presentation, Evaluation of Function and Footwear, Evidence-based Intervention and Implications for Treatment
Smita Rao, PT, PhD

5:45 PM
Panel Discussion

204 A
Novel Approaches to Pain Management in Juvenile Idiopathic Arthritis
Moderator: Lynn R. Spiegel, MDCM
Upon completion of this session, participants should be able to:

- explain how to design and evaluate interactive health communication applications for youth with musculoskeletal pain using an example from the “Teens Taking Charge: Managing Arthritis Online” program
- summarize the use of smartphone health technology as a mode of assessing pain and coping as well as delivering pain management interventions in youth with juvenile idiopathic arthritis, and assess whether this modality may be suitable for their own research
- appraise information that will help them to consider the inclusion of non-pharmacologic approaches, including complementary and alternative medicine interventions such as yoga, for targeting pain in juvenile idiopathic arthritis

4:30 PM
Harnessing the Potential of the Internet: Developing a Web-based Self-management Program for Adolescents with Arthritis
Jennifer N. Stinson, PhD, RN, CPNP

5:00 PM
DVD-based Yoga Intervention for Adolescent Girls with Juvenile Idiopathic Arthritis
Amanda B. Feinstein, MS

5:30 PM
Smartphone Delivery of Non-pharmacologic Interventions for Pain in Juvenile Idiopathic Arthritis
Laura E. Schanberg, MD

143 A
Promoting Participation: Where Is the Field and Where Do We Go Next?

Moderator: Jillian A. Rose, LMSW

Upon completion of this session, participants should be able to:

- discuss the importance of examining participation outcomes for persons with rheumatic conditions
- outline participation outcome measures for assessing work disability
- identify community and social participant outcome measures for adults with rheumatic conditions
- apply current evidence to intervening on participation

4:30 PM
Participation: Definition and Current Measurement Approaches
Julie J. Keysor, PhD, PT

4:45 PM
Work Disability and Employment Retention
Rawan Alheresh, OT, MSc

5:05 PM
Participation and Community Dwelling Adults with Arthritis
Julie J. Keysor, PhD, PT

5:25 PM
Participation and Adults Post Total Knee Joint Replacement
Jessica L. Maxwell, DPT, PT

5:45 PM
Panel Discussion

**ARHP CONCURRENT ABSTRACT SESSION**

**4:30 - 6:00 PM**

**206**

**Care of Patients with Rheumatoid Arthritis**

**Moderators:** Jennifer M. Hootman, PhD and Joan C. McTigue, PA-C

4:30 PM

**1718. Cost Effectiveness of Nurse-Led Care for People with Rheumatoid Arthritis: A Multicentre RCT**

Mwidimi Ndosi1, Martyn Lewis2, Claire Hale1, Howard Bird3, Sarah Ryan2, Helen Quinn1, Elizabeth McIvor1, Julia Taylor4, Gail Burbage5, Deborah Bond6, Jo White7, Debbie Chagadama2, Sandra Green2, Lesley Kay2, Adrian V. Pace8, Victoria Bejarano9, Paul Emery10 and Jackie Hill11, 1University of Leeds, Leeds, United Kingdom, 2Keele University, Staffordshire, United Kingdom, 3Stobhill Hospital, Glasgow, UK, Glasgow, United Kingdom, 4Poole Hospital NHS Trust, Poole, United Kingdom, 5King’s Mill Hospital, Mansfield, United Kingdom, 6Queen Elizabeth Hospital King’s Lynn, King’s Lynn, United Kingdom, 7Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, 8Royal London Hospital, London, United Kingdom, 9Weston General Hospital, Weston-Super-Mare, United Kingdom, 10Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom, 11Russels Hall Hospital, Dudley, United Kingdom, 12Barnsley Hospital, Barnsley, United Kingdom, 13Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom
5:30 PM
1722. Exploring How Patients with Rheumatoid Arthritis Use a Methotrexate Decision Aid for Making Treatment Choices
Linda C. Li1, Anne F. Townsend2, Paul M. Adam3, Catherine L. Backman1, Sydney Brooks4, Gwen A. Ellert5, Allynson Jones6, Otto Kamensek1, Cheryl Koehn1, Diane LaCaillie1, Jenny Leese1, Colleen Maloney1, Elaine Yacyshyn1, Charlene Yousefi1 and Dawn Stacey1, 1University of British Columbia, Vancouver, BC, 2Arthritis Research Centre of Canada, Vancouver, BC, 3Arthritis Research Centre of Canada, Ontario Division, Toronto, 4Trelle Enterprises Inc, Vancouver, BC, 5University of Alberta, Edmonton, AB, 6University of Ottawa, Ottawa, ON

5:45 PM
1723. The Development of the Rheumatoid Arthritis Patient Priorities in Pharmacological Intervention Outcome Measures
Tessa Sanderson1, John R. Kirwan2, Marianne Morris1, Jon Pollock1, Robert Noddings2, Anne Watts1 and Sarah Hewlett1, 1University of the West of England, Bristol, United Kingdom, 2Bristol Royal Infirmary, Bristol, United Kingdom

ACR STUDY GROUPS
6:30 - 7:45 PM
Study Groups are non-CME activities, open to all attendees. See page 102 for additional Study Group offerings. View Study Group session details online in My Annual Meeting at www.ACRannualmeeting.org.

145 A
ACR-EULAR Study Group - Signal Transduction in the Rheumatic Diseases

147 A
Antiphospholipid Syndrome

150 B
Autoantibodies in Diagnosis and Follow-up of Rheumatic Diseases

152 A
Childhood Vasculitis

158 A
Clinical Research Methodology

151 A or B
Degos Disease and Other Atypical Vasculopathies

158 B
Geriatric Rheumatology

201
Global Health Initiatives

206
Gout Classification Criteria

143 A
Hypermobility

204 A
Interstitial Lung Disease

154 B
(JAW) Juvenile Arthritis Workgroup

146 C
Macrophage Activation Syndrome

207 A
Musculoskeletal Ultrasound

202 B
Myositis: New Developments on Myositis Therapies

140 A
Neuro Endocrine Immunology

154 A
Osteoarthritis - Synovial Inflammation

155
Pediatric Rheumatologists Interested in Medical Education

209 B
Pediatric Rheumatology Imaging

153
Skin

TUESDAY, NOVEMBER 13, 2012

ACR/ARHP REGISTRATION
6:30 AM - 6:00 PM
Registration Hall (Salons G-H-I)

ACR SESSIONS
7:30 - 8:30 AM
Ballroom B

Chronic Recurrent Multifocal Osteomyelitis

Moderator: Peter A. Nigrovic, MD
Speaker: Polly J. Ferguson, MD

Upon completion of this session, participants should be able to:
- discuss the clinical presentation and diagnosis of chronic recurrent multifocal osteomyelitis
- review the potential pathophysiologic mechanisms of chronic recurrent multifocal osteomyelitis and related inflammatory diseases of bone
- identify and evaluate therapeutic options for chronic recurrent multifocal osteomyelitis
152 A  
**Molecular and Cellular Basis of Tissue Homing**
Moderator: Andrew P. Cope, MD, PhD  
Speaker: William Agace, PhD  
Upon completion of this session, participants should be able to:  
• review the main cell surface and soluble factors that regulate migratory behavior of cells  
• discuss the role of external cues in programming dendritic cells to promote tissue specific T cell migration  
• discuss how this knowledge may inform aberrant migratory pathways of cells in the context of chronic immune mediated inflammatory diseases

Hall D  
**Update on Immune Mediated Glomerular Disease**  
Moderator: Zsuzsanna H. McMahan, MD, MHS  
Speaker: Derek M. Fine, MD  
Upon completion of this session, participants should be able to:  
• develop a differential diagnosis for causes of glomerular disease  
• discuss the most recent literature involving the mechanisms of immune-mediated glomerular injury  
• define the approach to screening, diagnosis, and management of these patients

**RHEUMATOLOGY RESEARCH FOUNDATION SPECIAL SESSION**  
7:30 - 8:30 AM  
Ballroom C  
**Paul Klemperer, MD Memorial Lectureship: Serum Autoantibodies in Systemic Sclerosis: Usefulness in Diagnosis, Clinical Subsetting and Predicting Outcomes**  
Moderator: David I. Daikh, MD, PhD  
Speaker: Thomas A. Medsger Jr., MD  
Upon completion of this session, participants should be able to:  
• describe and interpret laboratory reports on systemic sclerosis serum autoantibodies  
• use autoantibody test results to classify systemic sclerosis patients into meaningful clinical subsets  
• design clinically relevant and cost-effective followup plans for individual systemic sclerosis patients

ARHP SESSIONS  
7:30 - 8:30 AM  
201  
**Clinical and Epidemiologic Study Designs in Rheumatic Disease Research**  
Moderator: Marian T. Hannan, DSc, MPH  
Speaker: Tuhina Neogi, MD, PhD  
Upon completion of this session, participants should be able to:  
• discuss measures of disease occurrence (e.g., prevalence, risk, and rate) and measures of effects (e.g., relative risk, rate ratio and odds ratio)  
• explain basic epidemiologic study designs including observational (e.g., cross-sectional, cohort and case-control) and clinical trials, as well as the advantages and disadvantages of each design  
• identify other study designs in rheumatology research such as case-cross over, self-control case series and examples of research using each design

143 A  
**Don’t Let the Pink Sheets Make You Blue**  
Moderator: Leigh F. Callahan, PhD  
Speaker: Nelson Chao, MD  
Upon completion of this session, participants should be able to:  
• describe the review process using the National Institutes of Health as an example including resubmission success funding rates  
• identify a plan to break down comments and develop a high level strategy to submit a comprehensive response  
• utilize strategies to respond to each reviewer’s concerns that will be viewed as thorough and friendly  
• discuss the need to manage expectations and skills to multiply success

145 A  
**Fungal Infections and Tuberculosis in Patients with Rheumatologic Disease (Infection Series)**  
Moderator: Elizabeth G. Salt, PhD  
Speaker: Neil M. Ampel, MD  
Upon completion of this session, participants should be able to:  
• identify the risks of fungal infections and tuberculosis in patients with rheumatologic disease  
• review screening for tuberculosis and fungal infections in patients with rheumatic disease  
• outline treatment of rheumatologic disease in areas with high incidence of fungal infections and describe the treatment of rheumatologic disease in the presence of fungal disease  
• discuss treatment of rheumatic disease in the presence of tuberculosis

**ACR MEET THE PROFESSOR SESSIONS**  
7:45 - 9:15 AM  
Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.  
* Sessions denoted with an asterisk were sold out as of September 14.  

**148**  
*Ankylosing Spondylitis: Disease Modification (061)*  
Speaker: Joachim Sieper, MD
153  
Crystal: Diagnosis and Management of Gout (062)  
Speaker: Michael A. Becker, MD  

154 A  
*Infections with Biologics (063)  
Speaker: John J. Cush, MD  

154 B  
Osteoarthritis: Update 2012 (064)  
Speaker: Joanne M. Jordan, MD, MPH  

155  
Pain: Dealing with Patients with Refractory Pain in Musculoskeletal and Autoimmune Disorders (065)  
Speaker: Stephen A. Paget, MD  

158 A  
Pediatrics: Juvenile Idiopathic Arthritis for Adult Rheumatologists (066)  
Speaker: Mara L. Becker, MD, MSCE  

158  
*Pregnancy in Rheumatic Diseases (067)  
Speaker: Eliza F. Chakravarty, MD  

159 A  
Reactive Arthritis: An Update (068)  
Speaker: John D. Reveille, MD  

159 B  
Scleroderma: Systemic Sclerosis (069)  
Speaker: Robyn T. Domsic, MD, MPH  

160  
Vasculitis: Update (070)  
Speaker: Peter A. Merkel, MD, MPH  

ACR/ARHP WORKSHOPS  
7:45 AM  

ACR SESSIONS  
9:00 AM - 10:00 AM  

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.  

* Sessions denoted with an asterisk were sold out as of September 14.  

144 C  
Adult Musculoskeletal Lower Examinations (229)  
Speaker: Arthur M. Mandelin II, MD, PhD  

144 A  
Knee Braces and Foot Orthosis for Knee Osteoarthritis (230)  
Speakers: Howard J. Hillstrom, PhD and Kelly Krohn, MD  

144 B  
Peripheral Magnetic Resonance Imaging in Rheumatology Practice (231)  
Speakers: Philip G. Conaghan, MD, PhD and Mikkel Ostergaard, MD, PhD, DMSc  

149 A  
Synovial Fluid Analysis and Crystal Identification (232)  
Speakers: Brian F. Mandell, MD, PhD, Lan Chen, MD, PhD and Gilda M. Clayburne, MLT  

Ballroom A  
Advances in Targeting of B cell Survival Factors  
Moderator: William Stohl, MD, PhD  
Speaker: Eline T. Luning Prak, MD, PhD  

Upon completion of this session, participants should be able to:  
• identify the ligands and receptors involved in B cell survival pathways  
• explain basic signaling pathways  
• describe emerging approaches and newly developed agents for the targeting of B cells by interruption of survival factor pathways  
• summarize results from recent clinical trials and the new therapeutic opportunities now available for the treatment of autoimmune rheumatic diseases  

147 A  
Systems Immunology  
Moderator: Richard J. Bucala, MD, PhD  
Speaker: David A. Hafler, MD  

Upon completion of this session, participants should be able to:  
• describe how new developments in systems approaches, or the broad-based examination of hundreds to thousands of genetic or phenotypic characteristics, is enhancing our understanding of autoimmune diseases  
• identify how mathematically-based, bioinformatic approaches are enabling a better understanding of RNA expression and genetic data and allowing for the definition of sub-phenotypes of autoimmune disease  
• explain how systems immunology will suggest new approaches to therapy by tailoring drugs for the treatment of particular immune profiles
ARHP SESSIONS
9:00 - 10:00 AM

145 A
Hepatitis in Patients with Rheumatologic Disease
(Infection Series)
Moderator: Elizabeth G. Salt, PhD
Speaker: Daniel E. Furst, MD
Upon completion of this session, participants should be able to:
• describe the risks of treatment of rheumatologic conditions in the presence of concomitant hepatitis infection
• review screening for hepatitis B and C in patients with rheumatic disease
• discuss treatment of rheumatologic disease in patients with hepatitis B and C infections

143 A
Rheumatic Disease Update: The Approach to Low Back Pain
Moderator: James G. Freeman, MD
Speaker: Jeffrey N. Katz, MD
Upon completion of this session, participants should be able to:
• recognize the critical items in the history and exam of a patient with low back pain
• identify appropriate diagnostic testing in the evaluation of low back pain
• determine treatment options for patients with low back pain

201
Threats to Validity: Confounding in Rheumatic Disease Research (Research Series)
Moderators: Hyon K. Choi, DrPH, MD and Yuqing Zhang, DSc, MPH
Speaker: Til Stürmer, MD, MPH
Upon completion of this session, participants should be able to:
• define and describe the concept of confounding
• identify design methods to reduce confounding (e.g., randomization, restriction, matching)
• examine analytic methods to adjust for confounding (e.g., stratification, matching, multivariate analyses)
• explain propensity scores and their appropriate uses

ACR SESSIONS
9:00 - 10:30 AM

150 B
Contract Negotiations for Physicians
Moderator: Seth M. Berney, MD
Upon completion of this session, participants should be able to:
• explain the value of legal advice prior to signing a contract and the legal ramifications of the contract
• identify a fair private practice or hospital practice contract and how to successfully modify it to correspond with their individual needs
• negotiate a fair academic or industrial letter of offer/contract

9:00 AM
Contract Negotiations for Academics: How to Optimize Your

Academic Offer Letter/Contract
Marc C. Hochberg, MD, MPH
9:20 AM
Contract Negotiations with Industry: How to Optimize Your
Industry Offer Letter/Contract
Gregory J. Dennis, MD
9:40 AM
Contract Negotiations for Private Practice: How to Identify a Fair Private or Hospital Practice Contract and How to Successfully Modify It to Correspond to Your Individual Needs
Herbert S. B. Baraf, MD
10:00 AM
The Legal Ramifications of the Contract: How to Optimize Your Contract and Protect Yourself
Joan M. Roediger, JD, LLM
10:20 AM
Panel Discussion

Hall D
Paradigm Shifts in Rheumatoid Arthritis
Moderators: Elana J. Bernstein, MD and Jasvinder A. Singh, MD, MPH
Upon completion of this session, participants should be able to:
• outline the arguments for and against a window of opportunity in rheumatoid arthritis
• apply comparative safety and efficacy data from meta-analyses of biologic agents to patient care
• describe the data supporting tapering of therapy in selected patients with rheumatoid arthritis

9:00 AM
Window of Opportunity in Rheumatoid Arthritis - Myth or Reality?
Vivian P. Bykerk, MD
9:30 AM
Biologics in 2012: Making Sense of the Data
Joel Kremer, PsyD
10:00 AM
My Patient Feels Great! Can I Taper Therapy?
Stanley B. Cohen, MD

Renaissance Washington - Grand Ballroom North

The Guide to Meaningful Use and Beyond
Moderator: Steven K. Magid, MD
Upon completion of this session, participants should be able to:
• describe the requirements and criteria for receiving the incentive payments under the CMS electronic health record incentive program (meaningful use)
• identify the electronic health record incentive program’s impact on the practice of rheumatology, including best practices from early experiences and how operations must be modified to successfully achieve meaningful use
• describe the functionality objectives and clinical quality measures most relevant to rheumatology providers
• understand the implications of future stages of the program,
specifically how to adopt the second stage of meaningful use

9:00 AM
Implementing Stage I of Meaningful Use While Keeping Stage II in Mind
Robert W. Warren, MD, PhD, MPH

9:40 AM
Attestation Best Practices From Early Adopters
Craig W. Carson, MD

10:20 AM
Question & Answer

**RHEUMATOLOGY RESEARCH FOUNDATION SPECIAL SESSION**

**9:00 AM - 10:30 PM**

**207 A**

**Disease Targeted Research**

Moderator: Anne Davidson, MBBS

*Upon completion of this session, participants should be able to:*

- explain the role of carboxypeptidase B in the pathogenesis of rheumatoid arthritis
- determine the potential for therapeutic intervention targeting specific WNT inhibitors to prevent bone destruction and/or promote bone repair in rheumatoid arthritis
- report the genetic basis of measures of rheumatoid arthritis severity

9:00 AM
The Role of Carboxypeptidase B and its Substrates in Rheumatoid Arthritis
William H. Robinson, MD, PhD

9:30 AM
The Role of sFRP1 and WNT Signaling in Formation and Repair of Erosions in Rheumatoid Arthritis
Ellen M. Gravallese, MD

10:00 AM
Genome Wide Predictors of Quantitative Phenotypes in Rheumatoid Arthritis
Jing Cui, PhD

**ARHP CONCURRENT ABSTRACT SESSIONS**

**9:00 - 10:30 AM**

**206**

Physical/Occupational Therapy and Exercise in Patients with Rheumatologic Disease

Moderators: Jill R. Blitz, DPT, PT and Maura D. Iverson, DPT, MPH

9:00 AM
2431. Are Occupational Therapy Interventions Included in the Most Commonly Used European Clinical-Practice Guidelines for the Management of Osteoarthritis?
Michaela Stoffer1, Doris Taurok2, Birgit Prodinger3, Josef S. Smolen4, Anthony D. Woolf5 and Tanja A. Stamm6, 1Medical University of Vienna, A – 1090 Vienna, Austria, 2Orthopaedic Hospital Vienna Speising, 1130 Wien, Austria, 3University of Western Ontario, London, ON, 4Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 5Royal Cornwall Hospital, Truro Cornwall, United Kingdom, 6Medical University of Vienna, Vienna, Austria

9:15 AM

2432. Arthritis Foundation’s Tai Chi Program for People with Arthritis: One Year Follow-up
My-Linh Luong1, Rebecca J. Cleveland2, Betsy Hackney3 and Leigh F. Callahan4, 1University of North Carolina at Chapel Hill, Chapel Hill, NC, 2University of North Carolina, Chapel Hill, NC

9:30 AM

2433. Integration of a Healthy Aging Program Into the Arthritis Foundation Exercise Program: Six-Month Results
Elizabeth A. Schlenk1, Joni Vander Bilt2, Wei-Hsuan Lo-Ciganic3, Sarah E. Woody1, Janice C. Zgibor1, Molly B. Cronroy1, C. Kent Kwoh1 and Anne B. Newman2, 1University of Pittsburgh, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3University of Pittsburgh and VA Healthcare System, Pittsburgh, PA

9:45 AM

2434. Effects of Interventions That Aim to Increase Exercise Adherence in People with Arthritis: A Best Evidence Synthesis
Katie, E. MacPherson1, Allison M. Ezzat2, Jenny Leese3 and Linda C. Li4, New Westminster, BC, 5University of British Columbia, Vancouver, BC, 6Arthritis Research Centre, Vancouver, BC

10:00 AM

2435. Lumbrical Splinting and Stretching Versus Standard Treatment On Grip, Pinch, and Dexterity in People with Carpal Tunnel Syndrome
Nancy Ann Baker1, Krissy Moehling2, Elaine Rubinstein3, Norman Gustafson1 and Mark Baratz4, 1University of Pittsburgh, Pittsburgh, PA, 2Pittsburgh, PA, 3University of Pittsburgh, Pittsburgh, PA, 4Allegheancy General Hospital, Pittsburgh, PA

10:15 AM

2436. Clinical Effectiveness and Costs of an Integrated Rehabilitation Programme Compared with Outpatient Physiotherapy for Chronic Knee Pain
Mike Hurley1, Dr Nicola E. Walsh2 and Sally Jesse3, 1University of London, London, United Kingdom, 2University of the West of England Bristol, Bristol, United Kingdom, 3Kent, United Kingdom

204 A

**Programs and Literacy in Patients with Rheumatologic Diseases**

Moderators: Susan J. Blalock, PhD and Victoria Gall, PT, MEd

9:00 AM

2437. Initiating an Innovative Training Programme to Improve Access to Musculoskeletal Health Care in Kenya
Anthony D. Woolf1, Jo Erwin1, Omondi G. Oyoo2, Lillian Mwaniki3, Ingrid Cederlund4, Paul Etu5 and Katie Edwards6, 1Royal Cornwall Hospital, Truro Cornwall, United Kingdom, 2Royal Cornwall Hospital, Teliske, United Kingdom, 3University of Nairobi, Nairobi,
Kenya, 
Nairobi, Kenya, 
Reumatikerforbundet, Stockholm, Sweden, 
University of Nairobi, Nairobi, Kuwait, 
Royal Cornwall Hospital, Truro, United Kingdom

9:15 AM
2438. The Effect of a Systematic, Personalized Computer Workstation Redesign On Musculoskeletal Symptoms
Nancy A. Baker and Krissy Moehling, University of Pittsburgh, Pittsburgh, PA

9:30 AM
2439. A Brief Exercise and Self Management Programme Improves Upper Limb Disability in People with Early Rheumatoid Arthritis
Lindsay M. Bearne¹, Victoria L. Manning¹, David L. Scott², Ernest Choy³ and Michael V. Hurley⁴, 'Kings College London, London, United Kingdom, ²'King’s College London, London, United Kingdom, ³Cardiff University School of Medicine, Cardiff, United Kingdom, ⁴St George’s University of London, London, United Kingdom

9:45 AM
2440. Decisional Conflict Among Vulnerable Patient Populations with Rheumatoid Arthritis Is Associated with Limited Health Literacy and Non-English Language
Laura Trupin, Jennifer Barton, Gina Evans-Young, John B. Imboden, Andrew J. Gross, Dean Schillinger and Edward H. Yelin, UCSF, San Francisco, CA

10:00 AM
2441. Readability and Suitability Assessment of Patient Education Materials in Rheumatic Diseases
Rennie L. Rhee¹, Joan Marie Von Feldt², H. Ralph Schumacher³ and Peter A. Merkel¹, ¹University of Pennsylvania, Philadelphia, PA, ²Univ of Pennsylvania/Philadelphia VAMC, Philadelphia, PA, ³University of Pennsylvania and VA Medical Center, Philadelphia, PA

10:15 AM
2442. Screening of Osteoporosis in Men Age 70 and Older: A Need for Increased Awareness
Sian Yik Lim, Kenneth Nugent, Joon Hee Lim, Hoda Mojazi Amiri, Rie Okamura and Dan Nguyen, Texas Tech University Health Sciences Center, Lubbock, TX

ACR/ARHP POSTER SESSION C, THIEVES’ MARKET POSTERS AND POSTER TOURS
9:00 AM - 6:00 PM

Poster presenters will be available from 9:00 - 11:00 AM (abstracts # 1724 - 2430). Poster tours will be held 9:00 - 9:45 AM and 10:15 - 11:00 AM. Morning snacks will be available from 9:00 - 10:30 AM.

Poster Hall (Hall B)

Thieves’ Market Posters

Thieves’ Market posters feature cases with interesting imaging studies or pictorial displays of physical findings.

A Wolf in Sheep’s Clothing
Reeti Joshi, MBBS

Behçet’s Disease with Pulmonary Artery Aneurysms
Claudia B. Hubbe, MD

Medical Re-vascularisation
Mark Richard Williams, MD

Myalgias: Out of Proportion to Exam
Julie Paik, MD

Neonate with Sclerodermatous Limbs
Murray H. Passo, MD

Treatment of Fulminant Myocarditis and Macrophage Activation Syndrome Secondary to Adult Onset Still’s Disease
Eimear Savage, BAO, BCh, MB

ACR/ARHP POSTER SESSION C, THIEVES’ MARKET POSTERS AND POSTER TOURS
9:00 AM - 6:00 PM

Poster presenters will be available from 9:00 - 11:00 AM (abstracts # 1724 - 2430). Poster tours will be held 9:00 - 9:45 AM and 10:15 - 11:00 AM. Morning snacks will be available from 9:00 - 10:30 AM.

Poster Hall (Hall B)

Thieves’ Market Posters

Thieves’ Market posters feature cases with interesting imaging studies or pictorial displays of physical findings.

A Wolf in Sheep’s Clothing
Reeti Joshi, MBBS
Osteoporosis and Metabolic Bone Disease: Clinical Aspects and Pathogenesis (332)
Tour Guide: Nancy E. Lane, MD

Sjögren’s Syndrome (333)
Tour Guide: Jacques-Eric Gottenberg, PhD

Rheumatology Research Foundation - Pathogenic Mechanisms in Rheumatic Diseases (334)
Tour Guide: Michael H. Pillinger, MD

Learn about the excellent work being done by Rheumatology Research Foundation-funded early career investigators. This is also an opportunity for division chiefs looking to recruit junior faculty to meet young productive investigators and vice versa.

EXHIBITS
10:00 AM - 5:00 PM

Exhibit Hall (Hall A)
Join your colleagues in the Exhibit Hall for morning and afternoon refreshments from 10:00 - 11:00 AM and 2:00-3:00 PM.

(Booth #1451)
Innovation Theater

Non-CME accredited presentations have been planned and will be implemented in accordance with the requirements of the FDA and applicable standards of the PhRMA Code on Interactions with Healthcare Professionals. These presentations will be held from 10:30 - 11:15 AM, 12:30 - 1:15 PM and 2:30 - 3:15 PM. For a complete listing of Innovation Theater presentations see page 316.

ACR SESSION
10:30 - 11:30 AM

146 C
Gouty Inflammation

Moderator: Richard J. Bucala, MD, PhD
Speaker: Stephen E. Malawista, MD

Upon completion of this session, participants should be able to:
• describe evolving knowledge of the pathogenetic setting in which urate crystals lead to acute gout
• review biochemical and cellular determinants that lead to the initiation of gouty inflammation
• discuss biochemical and cellular determinants that lead to resolution of gouty inflammation

ARHP SESSIONS
10:30 - 11:30 AM

145 A
Immunizations in Patients with Rheumatologic Disease (Infection Series)

Moderator: Elizabeth G. Salt, PhD
Speaker: Gil Y. Melmed, MD

Upon completion of this session, participants should be able to:
• identify underlying immune dysregulation and immunosuppressive treatments
• discuss effective methods of infection prevention in patients with autoimmune disease
• review recommendations for vaccines in adult patients with rheumatic disease

201
Selection Bias in Rheumatic Disease Research – Risk Factor Paradox and Other Issues

Moderator: Sherine E. Gabriel, MD, MSc

Upon completion of this session, participants should be able to:
• discuss selection bias due to conditioning on an intermediate variable
• identify major types of selection bias
• associate design and analytic methods to minimize selection bias

10:30 AM
Risk Factor Paradox in Rheumatic Diseases-Selection Bias?
Hyon K. Choi, DrPH, MD

10:50 AM
Other Major Types of Selection Bias in Rheumatic Disease Research
Yuqing Zhang, DSc, MPH

11:10 AM
Minimizing Selection Bias through Study Design and Analytic Methods – Panel Discussion
Hyon K. Choi, DrPH, MD and Yuqing Zhang, DSc, MPH

ACR/ARHP COMBINED ABSTRACT SESSION
10:30 AM - Noon

140 A
ACR/ARHP Combined Rehabilitation Abstract Session

Moderators: Nancy A. Baker, MPH, OTR, OTR/L; Julie J. Keysor, PhD, PT

10:30 AM
2443. Pain and Function Outcomes in Systemic Lupus Erythematosus Hip and Knee Arthroplasty
Ummara Shah1, Lisa A. Mandl2, Mark P. Figgie2, Michael Alexiades3 and Susan M. Goodman2, 1New York University School of Medicine, NYC, NY, 2Hospital for Special Surgery, New York, NY

10:45 AM
2444. Restricting Back Pain Is Associated with Disability in Community-Living Older Persons
Una E. Makris1, Liana Fraenkel2, Ling Han3, Linda Leo-Summers3 and Thomas M. Gill4, 1UT Southwestern Medical Center, Dallas, TX, 2Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 3Department of Medicine, New Haven, CT, 4Yale University, New Haven
11:00 AM  
2445. Ipsilateral Lower Extremity Joint Involvement Increases the Risk of Poor Pain and Function Outcomes After Hip or Knee Arthroplasty  
Jasvinder A. Singh1 and David Lewallen2, 1University of Alabama at Birmingham, Birmingham, AL, 2Mayo Clinic college of medicine, Rochester

11:15 AM  
2446. Activity Limitations Experienced by People with Rheumatoid Arthritis On Biologic Medications and Their Use of Ergonomic Methods  
Alison Hammond1 and Sarah Tyson2, 1University of Salford, Salford, United Kingdom, 2University of Salford, Manchester, United Kingdom

11:30 AM  
2447. Accuracy of Sensewear MiniTM and Actigraph GT3XTM Accelerometers for Differentiating Sedentary and Light Physical Activities in a Controlled Laboratory Setting  
April Y. F. Leung1, Lynne M. Feehan2, Cynthia Macdonald1, Jenny Leese1, Erin Carruthers2 and Linda C. Li1, 1University of British Columbia, Vancouver, BC, 2Arthritis Research Centre of Canada and University of British Columbia, Vancouver, BC, 3Arthritis Research Centre of Canada, Vancouver, BC

11:45 AM  
2448. Sustained Improvement Physical Function Following an Integrated Rehabilitation Programme for Chronic Knee Pain  
Mike Hurley1 and Dr Nicola E. Walsh1, 1St George’s University of London, London, United Kingdom, 2University of the West of England Bristol, Bristol, United Kingdom

ACR WORKSHOPS  
10:30 AM - 12:30 PM  
Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.  
* Sessions denoted with an asterisk were sold out as of September 14.

149 B  
Histopathology of Vasculitis (233)  
Speaker: Allen Burke, MD

144 C  
*Joint Injection Techniques (234)  
Speakers: Atul A. Deodhar, MD and Kenneth S. O'Rourke, MD

ARHP SESSIONS  
11:00 AM – NOON  
204 A  
A Practical Understanding of Function in Rheumatoid Arthritis: A Multidisciplinary Perspective  
Moderator: Jillian A. Rose, LMSW  
Upon completion of this session, participants should be able to:  
• discuss pathophysiologic mechanisms of rheumatoid arthritis and their effect on functional activity  
• review the tools for assessing functional activity and how they can be used in the clinical setting and for research  
• discuss common strategies patients with rheumatoid arthritis use to ensure optimal functioning in the home, at work, and in the community  
• discuss educational strategies to help patients with rheumatoid arthritis improve communication of functional capabilities to health care providers being cognizant of patients’ level of health literacy

11:00 AM  
Integrating Impairment and Functional Activity: Using Patient Self-report Measures to Inform Medial Practice for Patients with Rheumatoid Arthritis  
Terence W. Starz, MD

11:20 AM  
Strategies to Promote Functional Activity in the Home, at Work, and in the Community for Clients with Rheumatoid Arthritis  
Nancy A. Baker, MPH, OTR, OTR/L

11:40 AM  
The Role of Nursing in the Management of Rheumatoid Arthritis  
Elizabeth A. Schlenk, PhD, RN

143 A  
Strategies to Enhance Office Efficiencies and Access to Care in Rheumatology Practice  
Moderator: James G. Freeman, MD  
Speaker: Eric D. Newman, MD  
Upon completion of this session, participants should be able to:  
• review some of the problems with traditional practice models that impede efficiency and increase waiting times for new referrals  
• explore alternative models that may improve access to care and triage of new referrals  
• discuss options for improving practice scheduling, workflow and efficiencies

ACR PLENARY SESSION III – DISCOVERY  
2012  
11:00 AM - 12:30 PM  
Hall E  
Moderators: Chester V. Oddis, MD and Richard M. Pope, MD
2449. Head to Head Comparison of Subcutaneous Abatacept Versus Adalimumab in the Treatment of Rheumatoid Arthritis: Key Efficacy and Safety Results From the Ample (Abatacept Versus Adalimumab Comparison in Biologic-Naive RA Subjects with Background Methotrexate) Trial

Michael E. Weinblatt1, Michael H. Schiff2, Roy Fleischmann3, Robert Valente4, Désirée van der Heijde5, Gustavo Citera6, Cathy Zhao7 and Michael A. Maldonado7, 1Rheumatology Nebraska, Lincoln, NE, 5Leiden University Medical Center, Leiden, Netherlands, 6Instituto de Rehabilitación Psicofísica., Buenos Aires, Argentina, 7Bristol-Myers Squibb, Princeton, NJ

Background/Purpose: The availability of multiple biologic agents to treat rheumatoid arthritis (RA) has created a need for comparative assessment. AMPLE (Abatacept Versus Adalimumab Comparison in Biologic-Naive RA Subjects with Background Methotrexate) is the first head-to-head study powered to compare subcutaneous abatacept (ABA) and adalimumab (ADA) on a background of methotrexate (MTX). Here, we report key 1 year data from AMPLE including ACR core component data.

Methods: AMPLE is an ongoing, phase III, randomized, investigator-blinded study of 24 months duration with a 12 month primary efficacy endpoint. Biologic-naive RA patients with an inadequate response to MTX were randomized to 125 mg ABA weekly or 40 mg ADA bi-weekly, in combination with MTX. The primary end point was non-inferiority (NI) of ABA to ADA based on ACR 20 at 12 months; key secondary endpoints were rates of radiographic non-progression, safety, injection site reactions and retention. ACR core component data were also analyzed.

Results: A total of 646 patients were randomized and treated; 86.2% of ABA patients and 82.0% of ADA patients completed 12 months. Baseline characteristics were balanced across both arms (mean DAS28-CRP of 5.5 and disease duration ~1.8 yrs). At 1 year, 64.8% of ABA patients and 63.4% of ADA patients achieved an ACR 20 response, with an estimated difference between the two arms (95% CI) of 1.8 (-5.6, 9.2) supporting NI of ABA to ADA. The kinetics of response across ACR scores were comparable overall, with an ACR50 of 46.2% and 46% and ACR70 of 29.2% and 26.2% for ABA and ADA, respectively, at 1 year. Similar responses over time were seen in some ACR core components (Figure). At 1 year, the rates of radiographic non-progression were comparable, as were mean changes in van der Heijde-modified total Sharp scores (0.58 vs. 0.38, for ABA vs. ADA respectively). The rates of AEs, SAEs, serious infections and malignancies were comparable. There were more patients with autoimmune AEs (3.1% vs. 0.9%) in the ABA arm; however, none were serious. One patient discontinued in each arm due to an autoimmune event. There were fewer discontinuations with ABA due to AEs (3.5% vs. 6.1%) and due to serious infections (0% vs. 1.5%). Injection site reactions occurred in significantly fewer ABA-treated patients (3.8% vs. 9.1% [p=0.006]).

Conclusion: This first head-to-head study in RA patients comparing biologic agents on background MTX demonstrated that subcutaneous abatacept is comparable to adalimumab by most efficacy measures, including radiographic progression. Safety was generally similar with fewer discontinuations and injection site reactions observed with abatacept.

Disclosure: M. E. Weinblatt, Bristol-Myers Squibb, Abbott, 2, Bristol-Myers Squibb, Abbott; M. H. Schiff, Bristol-Myers Squibb, 5, Abbott Laboratories, 8; R. Fleischmann, Genentech Inc, Roche, Abbott, Amgen, UCB, Pfizer, BMS, Lilly, Sanofi Aventis, Lexicon, MSD, Novartis, BiogenIDEC, Astellas, AstraZeneca, Jansen, 2, Roche, Abbott, Amgen, UCB, Pfizer, BMS, Lilly, Sanofi Aventis, Lexicon, Novartis, Astellas, AstraZeneca, Jansen, HGS, 5; R. Valente, UCB,Pfizer,Novartis,Eli Lilly,Takeda, Centocor, 2; D. van der Heijde, Abbott, Amgen, AstraZeneca, BMS, Centocor, Chugai, Eli-Lilly, GSK, Merck, Novartis, Otsuka, Pfizer, Roche, Sanofi-Aventis, Schering-Plough, UCB, Wyeth, 5, Owner of Imaging Rheumatology bv, 4; G. Citera, Pfizer Inc, 2, Pfizer, Bristol-Myers Squibb, Astra Zeneca, 5; C. Zhao, Bristol-Myers Squibb, 1, Bristol-Myers Squibb, 3; M. A. Maldonado, Bristol-Myers Squibb, 3, Bristol-Myers Squibb, 1.

2450. Evoked Pain Brain Response Is Associated with Reduced μ-Opioid Receptor Binding in Fibromyalgia

Heng Wang1, Daniel J. Clauw2, Jon-Kar Zubieta1 and Richard E. Harris2, 1University of Michigan, Ann Arbor, 2University of Michigan, Ann Arbor, MI

Background/Purpose: Previous studies indicate that fibromyalgia (FM) patients have augmented clinical and brain responses to painful stimuli (i.e. hyperalgesia/allodynia), as well as increased production of endogenous opioids, and reduced μ-opioid receptor (MOR) binding. However, it is not known if these factors co-occur within the same individual or if these factors act independently. We performed a longitudinal investigation using functional magnetic resonance imaging (fMRI) and positron emission tomography (PET) in chronic pain patients diagnosed with FM to address this question. If these factors operate in the same individual, we expected an inverse correlation between changes in fMRI evoked pain activity and MOR binding potential (BP).

Methods: fMRI and PET imaging sessions were performed on 18 female opioid-naïve FM patients (age 45.4±/ 13.0). Each participant underwent 4 weeks of non-pharmacological treatment. Before and after treatment, each patient underwent...
an fMRI scan with varying levels of pressure pain applied to the thumb as well as a 90-minute [11C]carfentanil PET scan under resting conditions. After quantification of the PET data with Logan plots, fMRI images and preprocessing of PET data were performed with statistical parametric mapping (SPM5). fMRI and PET scans were normalized to the same template. Difference images before and after treatment were calculated for both the fMRI contrast and PET images. A whole-brain voxel-by-voxel correlation analysis between the fMRI and PET difference images were carried out using the Biological Parametric Mapping toolbox. Activation clusters were defined based on a correlation coefficient, with |R| >0.6 uncorrected. Clinical pain was assessed with Short Form McGill Pain Questionnaire (SFMPQ).

**Results:** Negative correlations between the change in the fMRI blood oxygenation level dependent (BOLD) signal and MOR BP were observed in multiple regions involved in pain processing and modulation: right posterior insula R=-0.82, P=0.0004; left medial insula R=0.82, P=0.0003; left orbital frontal cortex R=-0.75, P=0.0004; right amygdala R=0.68, P=0.002; brainstem R=-0.71, P=0.0009. Positive correlations were observed in right DLPFC R=0.66, P=0.003; posterior cingulate R=0.62, P=0.006; right putamen R=0.72, P=0.0008. Changes in both functional imaging outcomes were negatively associated with changes in clinical pain: BOLD in right DLPFC and clinical pain SFMPQ; R=-0.52, P=0.03; MOR BP in left medial insula and SFMPQ present pain R=-0.51, P=0.03.

**Conclusion:** We find strong longitudinal associations between evoked pain activations suggestive of hyperalgesia, and µ-opioid receptor availability (binding potential, BP) within the same brain regions, in individual FM patients. Positive associations were also observed between BOLD responses, and µ-opioid receptor BP (in opposite directions) with respect to clinical pain. These data suggest that the µ-opioid system is somehow involved in the pathogenesis of FM, and may even help explain why these patients are generally not felt to respond to narcotic analgesics, and may even be made worse when these drugs are used therapeutically.

**Disclosure:** H. Wang, None; D. J. Clauw, Pfizer Inc, Forest Laboratories, Merck, Nuvo; 2, Pfizer, Forest, Lilly, Merck, Nuvo, J and J; 5; J. K. Zubieta, None; R. E. Harris, Pfizer Inc, 2, Pfizer Inc, 5.

11:30 AM 2451. Laquinimod (LAQ) Is Equivalent to Mycophenolate Mofetil (MMF) in Preventing and Suppressing Murine Lupus Nephritis and Has Greater Effects On Myeloid/Monocyte/ Macrophage Cells

Bevra H. Hahn, Maida Wong, Elaine Lourenco and Brian Skaggs, UCLA David Geffen School of Medicine, Los Angeles, CA

**Background/Purpose:** Lupus nephritis (LN) depends on autoAb deposition and activation of multiple cell types that infiltrate kidneys and promote inflammation – monocytes/macrophages (MM), DCs, T and B cells. Laquinimod (LAQ) administered to humans downregulates Ag presentation, decreases chemokine production, decreases MHC expression on MM, and induces apoptotic pathways in PBMC (Gurevich M et al 2010). LAQ reduces progression of relapsing remitting multiple sclerosis (Comi G et al NEJM 2012); it is currently in clinical trials in SLE. MMF targets primarily lymphocytes; it is effective in many LN patients

**Methods:** We compared clinical and immune cell changes in groups of 10-12 BWF1 female mice treated orally 3 times a week for 24 weeks with a) water; b) LAQ 1 mg/kg; c) LAQ 25 mg/kg; d) MMF 30 mg/kg; e) MMF100 mg/kg.

**Results:** Survival was better in both LAQ groups and the MMF100 group vs controls (p=0.028). LAQ at both doses was equivalent to MMF100 in preventing proteinuria in mice treated before disease appeared. At 32 wks of age 50% of mice on water had proteinuria vs zero in LAQ and MMF100 groups (p<0.0001) Renal histology mirrored proteinuria: mean total histologic scores were 7.8 on water, 1.0 on LAQ and 0.9 on MMF100 (p<0.01 both treatment groups compared to controls). Glomerular deposition of Ig and C3 were in the normal range in LAQ and MMF, but significantly increased in the water group (p<0.001). Mice treated after clinical nephritis appeared (≥3+ proteinuria) improved on LAQ: after 3 wks of treatment proteinuria was present in 100% on water vs 25% on LAQ (p<0.001). Survival was also better in mice treated with LAQ (p<0.0001) Effects on splenic PBMC differed between LAQ and MMF. Neither treatment changed total numbers of B cells. MMF decreased CD4+ and CD8+ T cell percents; LAQ did not. LAQ compared to MMF increased numbers of two putative regulatory cells, CD4+CD25+Foxp3+ Treg and CD11b+Ly6intGR-1+ myeloid MM. Most interesting was the observation that LAQ, but not MMF, significantly reduced numbers of MM.

**Conclusion:** LAQ was highly effective in preventing and suppressing proteinuria and glomerular immune disease in BWF1 mice. Responses to MMF in high dose were similarly good. However, LAQ reduced numbers of MM, and MMF did not. In addition, LAQ induced different types of regulatory cells, distinguishing it from MMF. Since suppression of MM is likely to reduce renal inflammation and damage, future development of LAQ as a therapeutic for lupus nephritis is especially promising.

**Disclosure:** B. H. Hahn, Teva Pharmaceuticals, 2, Aspreva Pharmaceutical, 2, Anthera, 5, Abbott, 5, Eli Lilly, 5; M. Wong, None; E. Lourenco, None; B. Skaggs, None.

11:45 AM 2452. Rheumatoid Arthritis-Associated PTPN22 Modulates Toll-Like Receptor-Mediated, Type 1 Interferon-Dependent Innate Immunoregulation

Yaya Wang1, Stephanie Stanford2, Wenbo Zhou, Jennifer L. Auger1, Genhong Cheng3, Amanda Campbell2, Fernanda M. Shoyama1, Henry H. Balfour Jr.4, Andrew C. Chan5, Bryce A. Binstadt1, Nunzio Bottini2 and Erik J. Peterson1, 1University of Minnesota, Minneapolis, MN, 2La Jolla Institute for Allergy and Immunology, La Jolla, CA, 3University of California, Los Angeles, Los Angeles, CA, 4University of Minnesota, Minneapolis, 5Genentech Inc, South San Francisco, CA

**Background/Purpose:** A coding polymorphism (C1858T) in PTPN22 is strongly associated with risk of Rheumatoid Arthritis (RA) and other autoimmune diseases. PTPN22 encodes Lymphoid Phosphatase (Lyp); the Lyp disease variant bears an R620W substitution (“LypW”). The mechanism by which LypW increases disease susceptibility remains unclear. PTPN22-expressing dendritic cells (DC) and macrophages have been implicated in RA pathology. Such myeloid cells produce type 1 interferons (IFN) and proinflammatory cytokines in response to Toll-like receptor (TLR) engagement. We hypothesized that
PTPN22 might modulate TLR signaling and attendant innate immune responses.

**Methods:** We studied TLR signaling and type 1 IFN-mediated antiviral responses and immunoregulation in Ptpn22-deficient myeloid cells and mice, in transgenic mice harboring human LyplW or LyplR (major allele protein product), and in human LyplW carrier peripheral blood mononuclear cells (PBMC).

**Results:** We found markedly decreased induction of type 1 IFN after TLR3/4/7/9 activation in Ptpn22<sup>-/-</sup> macrophages, DC, and plasmacytoid DC. Interestingly, Ptpn22 was dispensable for induction of proinflammatory cytokines, including TNFα, IL-6, and IL-1β, after TLR2/3/4/7/9 stimulation. The selective TLR signalling defect in Ptpn22<sup>-/-</sup> cells was associated with impaired type 1 IFN-dependent immunity, manifested by reduced serum type 1 IFN, impaired dendritic cell activation, and diminished T cell responses after lymphocytic choriomeningitis virus (LCMV) infection of Ptpn22<sup>-/-</sup> mice. In the K/BxN serum transfer model of rheumatoid arthritis, treatment with type 1 IFN-inducing TLR ligands suppresses disease. However, we observed significantly decreased TLR ligand-mediated suppression of inflammatory arthritis in Ptpn22<sup>-/-</sup> mice. RA-associated LyplW carrier human PBMC and myeloid cells derived from LyplW transgenic mice displayed defective induction of type 1 IFN after TLR stimulation. LyplR directly associated with TNF receptor-associated factor 3 (TRAF3), a key TLR signaling mediator upstream of type 1 IFN induction. LyplR, but not LyplW promoted TRAF3 K63-linked polyubiquitylation, which is required for TLR-induced type 1 IFN production.

**Conclusion:** PTPN22 is a key positive regulator of TLR-driven upregulation of type 1 IFN. LyplW, product of the RA-associated PTPN22 allele, exhibits “loss of function” in type 1 IFN dependent processes, including antiviral host defense and amelioration of inflammatory arthritis. Our findings strongly suggest that PTPN22 could regulate severity of joint inflammation in RA through modulation of TLR signaling in innate immune cells.

**Disclosure:** Y. Wang, None; S. Stanford, None; W. Zhou, None; J. L. Auger, None; G. Cheng, None; A. Campbell, None; F. M. Shoyama, None; H. H. Balfour Jr., None; A. C. Chan, None; B. A. Binstadt, None; N. Bottini, None; E. J. Peterson, None.

**2453. The Role of Bob1 in Rheumatoid Arthritis: Potential Implications for Autoimmunity**

Nataliya Yeremenko<sup>1</sup>, Tineke Cantaert<sup>1</sup>, Melissa N. van Tok<sup>1</sup>, Ioana Gofita<sup>2</sup>, Juan D. Canete<sup>2</sup>, Paul P. Tak<sup>1</sup>, Hergen Spits<sup>1</sup> and Dominique L. Baeten<sup>1</sup>, 1Division of Clinical Immunology and Rheumatology and Department of Experimental Immunology, Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 2Rheumatology Department, Hospital Clinic, Barcelona, Spain, 3Tytgat Institute for Liver and Intestinal Research, Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands

**Background/Purpose:** Rheumatoid arthritis (RA) is a prototypic autoimmune disease characterized by a prominent humoral autoimmunity. Of particular relevance is the local production of autoantibodies such as rheumatoid factor and anti-citrullinated protein antibodies in the inflamed synovial tissue. The mechanisms underlying break of B cell tolerance and local autoantibody production remains poorly understood. This study was conducted in order to identify cellular and molecular pathways implicated in RA-specific humoral autoimmunity.

**Methods:** Synovial tissue samples were obtained by arthrocopy from untreated individuals with RA (n=33) and inflammation matched SpA controls (n=58). Gene expression profiling was performed on tissue samples of patients with established arthritis using 44K Whole Genome Human microarrays (Agilent). Top differentially expressed genes were validated on three independent cohorts by Taqman based RT-qPCR and immunohistochemistry. Collagen-induced arthritis (CIA) and Experimental autoimmune encephalomyelitis (EAE) experiments were conducted using Bob1 knockout mice and their littermate controls.

**Results:** Microarray screening for genes differentially expressed in the inflamed synovium, the key target of the disease process in RA, revealed a prominent and disease-specific B cell/plasma cell signature with the B cell-specific transcriptional co-activator Bob1 and its transcriptional target BCMA among the most upregulated genes. Validation by RT-qPCR on two independent cohorts representing early and established arthritis confirmed microarray data and demonstrated elevated expression of Bob1 and BCMA not only in established RA, but also at the early phase of the disease. Quantitative evaluation of immunohistochemical stainings of synovial tissue with monoclonal antibody for Bob1 revealed significant increase in Bob1 positive cells in RA synovium (p<0.01). Next we determined whether lack of functional Bob1 modifies disease onset or severity in CIA. Interestingly, the results showed that Bob<sup>1<sup>-/-</sup> mice were fully resistant to CIA induction compared to their wild-type littermates. This remarkable protection from CIA is explained by failure to produce pathogenic anti-collagen autoantibodies in the absence of Bob1. In contrast, Bob1<sup>-/-</sup> mice were susceptible to MOG protein induced EAE and incidence and severity of clinical disease were not altered in these mice comparing to wild-type littermates, suggesting that absence of Bob1 does not impact on antigen-presentation/costimulatory capacity of B cells.

**Conclusion:** The specific increase in Bob1 expressing cells in RA synovitis and the resistance of Bob1-deficient mice to development of CIA indicate that Bob1/BCMA axis may contribute to humoral autoimmunity in RA. The relationship between an aberrant Bob1 expression and the break of peripheral tolerance in RA is currently under investigation.

**Disclosure:** N. Yeremenko, None; T. Cantaert, None; M. N. van Tok, None; I. Gofita, None; J. D. Canete, None; P. P. Tak, None; H. Spits, None; D. L. Baeten, None.

**12:15 PM**

**2454. Expression of TLR5 Strongly Correlates with Levels of TNF-a and DAS28 in RA Monocytes and Ligation of TLR5 Induces Angiogenesis in RA**

Nathan D. Chamberlain<sup>1</sup>, Michael Volin<sup>2</sup>, Olga M. Vila<sup>3</sup>, Shiva Arami<sup>4</sup>, Suncica Volkov<sup>5</sup> and Shiva Shahrara<sup>3</sup>, 1University of Illinois at Chicago, Chicago, IL, 2Chicago College of Osteopathic Medicine Midwestern University, Downers Grove, IL

**Background/Purpose:** This study was performed to determine whether expression of TLR5 is associated with Rheumatoid Arthritis (RA) disease activity as well as to examine the role of TLR5 ligation in the pathogenesis of RA.

**Methods:** Expression of TLR5 was determined in RA and normal (NL) PB monocytes and in vitro differentiated macrophages by
real-time RT-PCR and/or flow cytometry. Next, linear regression analysis was employed to correlate expression of TLR5 with levels of TNF-a and DAS28 score in RA monocytes from 43-48 patients. Finally, the mechanism by which TLR5 ligation mediates RA pathogenesis was determined by endothelial chemotaxis and tube formation.

**Results:** We performed microarray studies to identify differentially regulated genes in RA synovial fluid macrophages from active patients and identified Toll like receptor (TLR)5 as one of the most highly upregulated genes in RA synovial fluid macrophages compared to normal macrophages. Using real-time RT-PCR and FACS analysis we confirmed that expression of TLR5 is significantly elevated in RA synovial fluid macrophages (35 fold) and RA monocytes (7 fold) compared to normal counterpart cells. Interestingly, we found that blockade of TLR5 on RA peripheral blood (PB) monocytes greatly reduces RA synovial fluid mediated TNF-a transcription by 80% suggesting that there are endogenous TLR5 ligands expressed in the RA synovial fluid that are crucial for joint TNF-a modulation. Since TNF-a stimulation is also capable of upregulating TLR5 levels there is a positive feedback modulation in RA monocytes between TNF-a and TLR5 ligation and expression. We found that patients with higher expression of TNF-a expressed elevated levels of TLR5 (R²=0.79, p=3.6x10⁻⁷) in RA monocytes and the concentrations of TLR5 and TNF-a strongly correlated with increased disease activity as determined by examination of 28 defined joints (DAS28) (correlation of TLR5 with DAS28; R²=0.75) (correlation of TNF-a with DAS28, R²=0.58). Since our previous studies demonstrated that TLR5 expression is elevated on RA synovial tissue endothelial cells compared to control tissue we asked whether ligation of this receptor induces angiogenesis and if TLR5 endogenous ligands present in RA synovial fluid play a role in this process. We found that when endothelial cells were exposed to a dose response of flagellin, a TLR5 agonist, migration of endothelial cells was induced at concentrations ranging from 0.1 to 100 ng/ml (p<0.05). Further, incubation of endothelial cells with neutralizing antibody to TLR5 significantly suppressed RA synovial fluid endothelial migration and tube formation suggesting that the RA synovial fluid contains TLR5 endogenous ligands that are chemotactic for TLR5+ endothelial cells.

**Conclusion:** Our observations highlight that there is a strong correlation between TNF-a and TLR5 expression with disease activity in RA monocytes suggesting that TLR5 may be a TNF-a responsive gene that is linked to RA progression through induction of angiogenesis.

**Disclosure:** N. D. Chamberlain, None; M. Volin, None; O. M. Vila, None; S. Arami, None; S. Volkov, None; S. Shahrara, None.

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**ACR SESSIONS**

**11:00 AM - 12:30 PM**

Renaissance Washington - Grand Ballroom North

**Microbiome Influence on Autoimmunity**

*Moderator:* Steven B. Abramson, MD

*Upon completion of this session, participants should be able to:*

- describe the close interconnection between commensal microflora and immune system development
- explain the potential influence of the commensal microflora and local and systemic immune responses
- communicate that systemic autoimmunity may be associated with differences in commensal microflora

**11:00 AM**

**Influence of the Microbiome in Immune Responsiveness**

Charles O. Elson, MD

**11:30 AM**

**The Microbiome in Gut Immunity and Inflammatory Bowel Disease**

Susan Lynch, PhD

**NOON**

**The Oral and Intestinal Microbiome in Rheumatoid Arthritis**

Jose U. Scher, MD

**Hall D**

**Polymyalgia Rheumatica - Recent Advances and Ongoing Questions**

*Moderators:* Curry L. Koening, MD, MS and Carol A. Langford, MD, MHS

*Upon completion of this session, participants should be able to:*

- recognize the clinical symptoms and diagnostic approach to polymyalgia rheumatica
- describe the relationship between polymyalgia rheumatica and giant cell arteritis
- identify treatment strategies in polymyalgia rheumatica, particularly with regards to glucocorticoid dosage and duration

**11:00 AM**

**Classification, Diagnosis, and Imaging of Polymyalgia Rheumatica**

Eric L. Matteson, MD, MPH

**11:30 AM**

**What is the Relationship between Polymyalgia Rheumatica and Giant Cell Arteritis?**

Maria C. Cid, MD

**NOON**

**Treatment of Polymyalgia Rheumatica: Options and Duration of Therapy**

Carlo Salvarani, MD

**202 B**

**Top 10 Compliance Risks Facing Physicians**

*Moderator:* Alan R. Erickson, MD

*Speaker:* Robert W. Liles, JD

*Upon completion of this session, participants should be able to:*

- identify the greatest risks areas in physician practices and the increase in targeted health care fraud enforcement efforts by the government’s Health Care Fraud Prevention and Enforcement Action Team (HEAT)
- discuss the growing risk of private contractor reviews of Medicare claims to identify outliers and payment fraud

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• identify tracking mechanism to respond timely to auditors for “additional documentation requests”
• recognize the new targeted reviews of EMR cloned notes and documentation that are triggering audits

**ARHP NETWORKING EVENT**
**NOON - 1:00 PM**
Renaissance Washington - Congressional Hall B
Networking Break
All ARHP attendees are invited to an informal networking event. Bring your lunch and enjoy an opportunity to meet with health professionals. Soft drinks will be provided. This session is not eligible for CME credit.

**ACR MEET THE PROFESSOR SESSIONS**
**12:45 - 2:15 PM**
Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.
* Sessions denoted with an asterisk were sold out as of September 14.

148
*Basic Immunology for Clinical Rheumatologists (071)
Speaker: Antony Rosen, MD

153
Fibromyalgia and Dysautonomia (072)
Speaker: Manuel Martinez-Lavin, MD

154 A
Myopathy: Issues in Diagnosis and Treatment (073)
Speaker: Lisa Christopher-Stine, MD, MPH

154 B
Rheumatoid Arthritis: Challenging Cases (074)
Speaker: Jonathan Kay, MD

155
*Rheumatoid Arthritis: Safety of Novel Therapies (075)
Speaker: Lee S. Simon, MD

158 B
*Systemic Lupus Erythematosus: Difficult to Treat
Systemic Lupus Erythematosus (077)
Speaker: Maria Dall’Era, MD

159 A
*Systemic Lupus Erythematosus: Lupus Nephritis (078)
Speaker: Brad H. Rovin, MD

159 B
Temporal Arteritis (079)
Speaker: Gene G. Hunder, MD

160
Vasculitis: Update (080)
Speaker: Paul A. Monach, MD, PhD

**ACR SESSIONS**
**1:00 - 2:00 PM**
Hall D
Catastrophic Antiphospholipid Syndrome (Clinical Review)
Moderator: Fernando E. Figueroa, MD
Speaker: Doruk Erkan, MD
Upon completion of this session, participants should be able to:
• review the current classification criteria for catastrophic antiphospholipid syndrome
• analyze proposed diagnostic algorithms for catastrophic antiphospholipid syndrome
• describe current treatment guidelines for catastrophic antiphospholipid syndrome

Ballroom B
Osteoimmunology
Moderator: S. Louis Bridges Jr., MD, PhD
Speaker: Georg A. Schett, MD, PhD
Upon completion of this session, participants should be able to:
• describe the relationship between osteoclasts and the immune system
• identify inflammation-associated changes in bone homeostasis
• appreciate the mechanisms of bone destruction in rheumatoid arthritis and other forms of inflammatory arthritis

**ACR STUDY GROUPS**
**1:00 - 2:00 PM**
Study Groups are non-CME activities, open to all attendees.

204 A
A Primer on Educational Theory for Medical Educators

206
Capillaroscopy in Rheumatic Diseases
ACR/ARHP WORKSHOPS

1:15 - 3:15 PM

Admission to Workshops requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.

144 C
Clinical Anatomy and Physical Exam: Essential Tools in Upper Extremity Regional Pain Syndromes (235)

Speakers: Robert A. Kalish, MD and Pablo Villasenor Ovies, MD

144 B
MRI in the Diagnosis and Management of Spondyloarthritis: A Clinician’s Guide (236)

Speakers: Walter P. Maksymowych, MD

ACR SESSION

1:30 - 2:30 PM

Ballroom A

ACR Leadership Town Hall Meeting & Business Meeting

This session is not eligible for CME Credit.

Moderator: James R. O’Dell, MD

Upon completion of this session, participants should be able to:
• have interacted with ACR leadership by asking questions and voicing concerns
• recognize ACR initiatives
• summarize what the ACR is doing to address various practice and other issues

1:30 PM
Leadership Town Hall Meeting
James R. O’Dell, MD, Audrey B. Uknis, MD, Joseph Flood, MD, E. William St.Clair, MD, David I. Daikh, MD, PhD, Benjamin J. Smith, PA-C and David G. Borenstein, MD

2:00 PM
Business Meeting
James R. O’Dell, MD, Audrey B. Uknis, MD, Joseph Flood, MD, E. William St.Clair, MD, David I. Daikh, MD, PhD, Benjamin J. Smith, PA-C and David G. Borenstein, MD

ACR SESSIONS

2:30 - 4:00 PM

Hall E

Approach and Management of Back Pain in Older Adults

Moderator: Una E. Makris, MD

Upon completion of this session, participants should be able to:
• review the painful structures associated with back pain in older persons
• describe the epidemiological differences, including impact, of back pain in younger vs. older adults
• discuss the approach to diagnosis of back pain in older adults
• discuss the pharmacological, non-pharmacological, and surgical management of back pain in older adults

2:30 PM
Where Does the Pain Come From? A Surgeon’s Perspective on Back Pain in Older Adults
A. Jay Khanna, MD
3:15 PM
Back Pain in Older Adults: Fundamental Differences Between Younger and Older Adults and How Our Approach/Management Should Differ
David G. Borenstein, MD

Hall D
Connective Tissue Disease Associated Interstitial Lung Disease
Moderators: Jessica K. Gordon, MD, MSc and Robert F. Spiera, MD

Upon completion of this session, participants should be able to:
• describe basic pathophysiologic principles underlying interstitial lung disease in association with connective tissue diseases
• explain diagnostic and therapeutic approaches to these patients and evolving concepts in such approaches

2:30 PM
Connective Tissue Disease Associated Interstitial Lung Disease: Clinical and Pathological Aspects
Aryeh Fischer, MD

3:00 PM
Connective Tissue Disease Associated Interstitial Lung Disease: Approach to Therapy
Richard M. Silver, MD

3:30 PM
Interstitial Lung Disease Associated Secondary Pulmonary Hypertension: Implications for Diagnosis and Treatment
Stephen C. Mathai, MD, MHS

152 A
New Molecules in Joint Biology
Moderator: Anne-Marie Malfait, MD, PhD

Upon completion of this session, participants should be able to:
• describe form and function of extracellular matrix molecules, with emphasis on novel molecules or roles in joint homeostasis
• review newly discovered mutations in TRPV4 that cause an inherited arthropathy of hands and feet
• discuss sclerostin biology in bone and cartilage
• recognize implications for the pathogenesis of age- and injury-related osteoarthritis

2:30 PM
Proteoglycans and More- From Molecules to Biology of Articular Cartilage
Dick Heinegard, PhD

3:00 PM
A Role for TRPV4 in Cartilage Homeostasis
Shireen Lamande, PhD

3:30 PM
Sclerostin in Bone and Cartilage
Di Chen, MD, PhD

150 B
Visualizing the Immuno-inflammatory Response
Moderator: Andrew P. Cope, MD, PhD

2:30 PM
The Immunological Synapse and its Aberrations in Inflammatory Disease
Alexandra Zanin-Zhorov, PhD

3:00 PM
In vivo Imaging of Immunity and Infection
Paul Garside, PhD

3:30 PM
The Dynamics of Monocyte Migration in Immune-mediated Inflammatory Disease in Humans
Danielle M. Gerlag, MD

ACR CONCURRENT ABSTRACT SESSIONS
2:30 - 4:00 PM
Ballroom A
ACR Late-breaking Abstract Session
Moderator: Chester V. Oddis, MD

147 A
Antiphospholipid Syndrome
Moderators: Pier Luigi Meroni, MD and Roger Levy, MD

2:30 PM
2455. Establishment of Standardized International Units for IgG Anti-β2glycoprotein Antibody Measurement
Rohan Willis1, Claudia Grossi1, Gabriella Lakos1, Pier Luigi Meroni2, Maria Borghi2, Luis R. Lopez3, Corina Dima4, Marius C. Teodorescu5, Nicholas Ozarka6, Matthias Kast7, Nina Olshowlka8, Alfredo Villarreal9, Maria Crisostomo10, Mike Watkins9, Wendy Vandam11, Tony Prestiagiacomo12, Josep Puig13, Kerrie Jaskal13, Roger Walker12, Sarah Paul12, T. Buckner14, Fernando S. Cavalcanti14 and Silvia S. Pierangeli1.1University of Texas Medical Branch, Galveston, TX, 2Lab of immunology, IRCCS Istituto Auxologico Italiano, Milano, Italy, 3NOVA Diagnostics, Inc., San Diego, CA, 4Division of Rheumatology - Istituto G. Pini, University of Milan, Milano, Italy, 5Corgenix Inc, Broomfield, CO, 6Theratest Laboratories Inc, Lombard, IL, 7TheraTest Laboratories Inc, Lombard, IL, 8Phadia Thermofisher, Freiburg, Germany, 9Bio-Rad Laboratories, Benicia, CA, 10Bio-Rad Laboratories, Hercules, CA, 11Bio-Rad Laboratories, Hercules, 12Biiokit, Barcelona, Spain, 13Instrumentation Laboratories, Bedford, MA, 14Corgenix, Broomfield, CO

2:45 PM
2456. Pro-Inflammatory and Pro-Thrombotic Markers in Persistently Antiphospholipid Antibody-Positive Patients with/without Systemic Lupus Erythematosus
Gurjot Basra1, Doruk Erkan2, Rohan Willis3, JoAnn Vega4, Ana Laura Carrera Marin4, Patricia Ruiz Limon5, Vijaya L. Murthy6, Shraddha Jatwani7, Neha Dang4, Emilio B. Gonzalez7 and Silvia S. Pierangeli1.1University of Texas Medical Branch, Galveston, TX, 2Hospital for Special Surgery, New York, NY
2457. An Open-Label Prospective Pilot Mechanistic Study of Fluvastatin in Persistently Antiphospholipid Antibody-Positive Patients

Doruk Erkan1, Rohan Willis2, JoAnn Vega2, Vijaya L. Murthy2, Ana Laura Carrera Marin2, Gurjot Basra2, Patricia Ruiz Limon2, Emilio B. Gonzalez2 and Silvia S. Pierangeli2, 1Hospital for Special Surgery, New York, NY, 2University of Texas Medical Branch, Galveston, TX

3:15 PM

2458. The Estimated Prevalence of Antiphospholipid Antibodies in General Population Patients with Pregnancy Loss, Stroke, Myocardial Infarction, and Deep Vein Thrombosis

Laura Andreoli1, Alessandra Banzato2, Cecilia B. Chighizola3, Laura Andreoli1, Alessandra Banzato2, Cecilia B. Chighizola3, Matteo Andreoli1, Istituto Auxologico Italiano, University of Milan, Milan, Italy, 3First Department of Internal Medicine, University of Padua, Padua, Italy, 2Department of Cardiac Thoracic and Vascular Sciences, University of Padua, Padua, Italy, 1Istituto Auxologico Italiano, University of Milan, Milan, Italy

3:30 PM

2459. Efficacy of Aspirin for the Prevention of the First Thrombo-Embolic Events in Patients with Antiphospholipid Antibodies: A Metaanalysis of Literature Data

Laurent Arnaud1, Alexis Mathian1, Amelia Ruffatti2, Maria Tecktonidou3, Ricard Cervera4, Ricardo Forastiero5, Vittorio Pengo6, Marc Lambert7, Stephane Zuily8, Denis Wahl9 and Zahir Otomo, Toshiyuki Bohgaki, Tetsuya Horita, Shinsuke Yasuda and Akihiro Kato, 1Hôpital Pitié-Salpêtrière, AP-HP, UPMC Univ Paris 06, 2French National Reference Center for Systemic Lupus and Antiphospholipid Syndrome, Paris, France, 3Rheumatology Unit, Department of Clinical and Experimental Medicine, University of Padua, Padua, Italy, 4First Department of Internal Medicine, School of Medicine, National University of Athens, Athens, Greece, 5Hospital Clinic of Barcelona, Barcelona, Spain, 6Favaloro University, Argentina, 7Clinical Cardiology, Department of Cardiac Thoracic and Vascular Sciences, University of Padova, Padova, Italy, 8Internal Medicine Department, University hospital, Lille, France, 9Nancy University Hospital, Université de Lorraine & INSERM U961, Vandoeuvre-Les-Nancy, France

202 B

Epidemiology and Health Services Research IV:
Outcomes and Costs in Rheumatic Disease

Moderators: Kaleb Michaud, PhD and Elena Losina, PhD

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2467. Tissue Lesions in Osteoarthritis Initiative Participants with Normal X-Rays and Risk Factors for Incident Cartilage Damage
Leena Sharma1, Ali Guermazi2, Orit Almagor3, Michel Crema3, Dorothy D. Dunlop4, Frank Roemer5, Marc C. Hochberg6, Charles Eaton7, Joan M. Bathon8, Rebecca D. Jackson9, W.J. Mysiw10, C. Kent Kwoh11, Michael C. Nevitt12 and Joan S. Chmiel13, 1Northwestern University, Chicago, IL, 2Boston University School of Medicine, Boston, MA, 3Boston University, Boston, MA, 4Klinikum Augsburg, Augsburg, Germany, 5University of California-San Francisco, San Francisco, CA, 6Warren Alpert Medical School at Brown University, RI, 7Columbia University Medical Center, New York, NY, 8Ohio State University, Columbus, OH, 9University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 10University of California-San Francisco, San Francisco, CA

2:45 PM

2468. Incident Symptomatic Hip Osteoarthritis Is Associated with Differences in Hip Shape by Active Shape Modeling: The Johnston County Osteoarthritis Project
Amanda E. Nelson1, Felix Liu2, John A. Lynch3, Jordan B. Renner4, Todd A. Schwartz5, Nancy E. Lane6 and Joanne M. Jordan7, 1University of North Carolina Thrusor Arthritis Research Center, Chapel Hill, NC, 2University of California at San Francisco, San Francisco, CA, 3University of North Carolina at Chapel Hill Dept of Radiology, Chapel Hill, NC, 4University of North Carolina Gillings School of Global Public Health, Dept of Biostatistics, Chapel Hill, NC, 6UC Davis School of Medicine, Sacramento, CA

3:00 PM

2469. A Virtual Knee Joint Replacement Clinical Endpoint Based On Longitudinal Trends and Thresholds in Koos Knee Pain and Function in Osteoarthritis Initiative Participants
Robert M. Boudreau1, David J. Hunter2, Zhijie Wang3, Frank Roemer4, Felix Eckstein5, Michael J. Hannon6, Ali Guermazi7 and C. Kent Kwoh8, 1University of Pittsburgh, Pittsburgh, PA, 2University of Sydney, Sydney, Australia, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4Boston University School of Medicine, Boston, MA, 5Paracelsus Medical University, Salzburg, Austria, 6University of Pittsburgh and VA Healthcare System, Pittsburgh, PA

3:15 PM

2470. Does Structural Progression of Knee Osteoarthritis Measured with Magnetic Resonance Imaging or Radiography Predict Knee Replacement? - Data From the Osteoarthritis Initiative
Felix Eckstein1, C. Kent Kwoh2, Robert M. Boudreau3, Zhijie Wang4, Michael J. Hannon5, Wolfgang Wirth6, Ali Guermazi7, Frank Roemer8, Michael C. Nevitt9, Markus R. John10, Leena Sharma11, Jeffrey W. Duryea12, David J. Hunter13 and Osteoarthritis Initiative Investigators14, 1Paracelsus Medical University, Salzburg, Austria, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4Boston University School of Medicine, Pittsburgh, PA, 5University of Chicago, IL, 6Brigham & Women, Boston, MA, 7University of California-San Francisco, San Francisco, CA, 8Novartis Pharma AG, Basel, Switzerland, 9Northwestern University, Chicago, IL, 10Brigham & Women, Boston, MA, 11University of Sydney, Sydney, Australia, 12San Francisco

3:30 PM

2471. Oral Glucosamine Sulphate for the Prevention of Knee Osteoarthritis in Overweight Females: The First Ever Preventive Randomized Controlled Trial
Jos Runhaar1, Marienke van Middelkoop2, Max Reijman3, Edwin Oei1, Dammis Vroegindeweij1, Gerjo van Osch1, Bart Koes1 and Sita Bierma-Zeinstra1, 1Erasmus MC, Rotterdam, Netherlands, 2Maasstad Hospital, Rotterdam, Netherlands

3:45 PM

2472. A Randomized, Multicentre, Double Blind, Placebo-Controlled Trial of Anti TNF Alpha (adalimumab) in Refractory Hand Osteoarthritis: The Dora Study
Xavier Chevalier1, Philippe Ravaud2, Emmanuel Maheu3, Gabriel Baron4, Amandine Rialland5, Philippe Vergnaud6, Christian Roux7, Yves Maugars8, Denis Mulleman9, Bernard Combe10, Daniel Wendling11, Pierre Laforgue12, Damien Loeuille13, Violaine Foltz14 and Pascal Richette15, 1Department of Rheumatology, Hospital Henri Mondor, Créteil, France, 2Hopital Hotel Dieu, Paris, France, 3AP-HP, St Antoine Hospital, Paris, France, 4Unité de recherche clinique Henri Mondor, Créteil, France, 5CRCB Synarc Lyon, Lyon, France, 6CHU L’ Archet University Nice, Nice, France, 7CHU Nantes, Nantes, France, 8CHU Trousseau Tours, Tours, France, 9Lapeyronie Hospital, Montpellier, France, 10Minjoz University Hospital, Besancon, France, 11CHU la conception Marseille, Marseille, France, 12CHU Brabois, Vandoeuvre les Nancy, France, 13Pitié Salpêtrière Hospital, Paris, France, 14Lariboisière Hospital, Paris, France

207 A

Pediatric Rheumatology: Clinical and Therapeutic Disease III: Childhood Systemic Lupus Erythematosus and Other Vasculitides
Moderators: Emily von Scheven, MD and Karen Onel, MD

2:30 PM

2473. A Randomized Trial in New Onset Juvenile Dermatomyositis: Prednisone Versus Prednisone Plus Cyclosporine Versus Prednisone Plus Methotrexate
3:00 PM

2475. Cancer in Pediatric-Onset Systemic Lupus: What Is the Role of Disease Duration and Other Factors on Risk?
Sasha Bernatsky1, Ann E. Clarke1, Jeremy Labrecque2, Emily von Scheven3, Laura E. Schanberg4, Earl D. Silverman5, Hermine I. Brunner6, Kathleen A. Haines7, Randy Q. Cron8, Kathleen M. O’Neill9, Kim Oen10, Alan M. Rosenberg11, Ciaran M. Duffy12, Jennifer L. Lee11, Mrganka Kale11, Elizabeth M. Turnbull1 and Rosalind Ramsey-Goldman11, 1McGill University, Montreal, QC, 2Research Institute of the McGill Univ. Health Ctre, Montreal, QC, 3UC San Francisco, San Francisco, CA, 4Duke University Medical Center, Durham, NC, 5PRSCG, Cincinnati, OH, 6Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 7Hackensack Univ Med Ctr, Hackensack, NJ, 8Univ of Alabama-Birmingham, Birmingham, AL, 9Okla Univ Health Science Ctr, Oklahoma City, OK, 10University of Manitoba, Winnipeg, MB, 11Royal University Hospital, Saskatoon, SK, 12Children’s Hospital of Eastern Ontario, Ottawa, ON, 13RI McGill Univ Health Ctre, Montreal, QC, 14Northwestern University Feinberg School of Medicine, Chicago, IL

3:15 PM

Clara Malattia1, Annalisa Madeo1, Silvia Pederzoli1, Anna Providenti2, Marta Mazzoni2, Agnese Beltramo2, Alessandro Consolo2, Stefania Viola3, Antonella Buoncompagni3 and A. Martini1, 1Istituto G Gaslini, Pediatria II, Reumatologia, Genova, Italy, 2Istituto G Gaslini, Reumatologia, Genova, Italy

3:30 PM

2477. The Comparison of Childhood Polyarteritis Nodosa and Cutaneous Polyarteritis Nodosa and a New Set of Diagnostic Criteria for Cut-Polyarteritis Nodosa

3:45 PM

2478. Identification of Disease-Specific Neuroimaging Phenotypes in Childhood Inflammatory Brain Diseases
Tania Cellucci, Pascal N. Tyrrell, Shehla Sheikh, Suzanne Laughlin and Susanne M. Benseler, The Hospital for Sick Children, Toronto, ON

Ballroom B

Rheumatoid Arthritis - Clinical Aspects IV: Non-biologic Drugs for Rheumatoid Arthritis: New Insights on Comorbidities and Adverse Events
Moderators: Jonathan Kay, MD and Neal S. Birnbaum, MD

2:30 PM

2479. Rheumatoid Arthritis Does Not Increase Risk of Short Term Total Knee Replacement (TKR) Adverse Events (AE)
Zachary J. LoVerde1, Lisa A. Mandl2, Beverly K. Johnson3, Mark P. Figgie2, Friedrich Boettner4 and Susan M. Goodman5, 1New York Medical College, Valhalla, NY, 2Hospital for Special Surgery, New York, NY

2:45 PM

2480. Disease-Modifying Antirheumatic Drug Use and Toxicities Among Elderly Patients with Rheumatoid Arthritis
Rebecca L. Manno1, Dimitrios A. Pappas2, Katherine C. Saunders3, George Reed4, Shannon Grant1 and Clifton O. Bingham III1, 1Johns Hopkins University, Baltimore, MD, 2Columbia University, College of Physicians & Surge, New York, NY, 3CORRONA, Inc., Southborough, MA, 4UMass Medical School, Worcester, MA, 5Axiom Research LLC, Seattle, WA

3:00 PM

Ashima Makol, John M. Davis III, Cynthia S. Crowson, Terry M. Therneau, Sherine E. Gabriel and Eric L. Matteson, Mayo Clinic, Rochester, MN

3:15 PM

2482. Hydroxychloroquine Has Lipid-Lowering Effects in US Veterans with Rheumatoid Arthritis
Nicole A. Kieffer1, Gail S. Kerr2, J. Steuart Richards3, Lisa A. Davis4, Liron Caplan5, Jeffrey Huang6, Grant W. Cannon7, Harlan Sayles8, Caleb Mikhud1 and Liron Caplan5, 1Georgetown University, Washington, DC, 2Washington DC VAMC, Georgetown and Howard University, Washington, DC, 3Washington DC VA and Georgetown University Hospital, Washington, DC, 4Denver VA and Univ of Colorado School of Med, Aurora, CO, 5Denver VA and Univ of Colorado School of Medicine, Aurora, CO, 6Denver VA and Univ of Colorado School of Medicine, Aurora, CO

3:30 PM

2483. Folic Acid Pathway Single Neucelotide Polymorphisms Associated with Methotrexate-Related Significant Adverse Events
Lisa A. Davis1, Brooke Ivan Polk2, Alyse D. Mann3, Roger K. Wolff4, Gail S. Kerr5, Andreas M. Reimold6, Grant W. Cannon7, Ted R. Mikuls4 and Liron Caplan5, 1Univ of Colorado School of Med, Aurora, CO, 2University of Colorado Medical School, Aurora, CO, 3Denver VA Medical Center, Denver, CO, 4University of Utah, Salt Lake City, UT, 5University of Nebraska Medical School, Omaha, NE, 6National Data Bank for Rheumatic Diseases & University of Nebraska Medical Center, Omaha, NE

3:45 PM

2484. Hepatic Steatosis in Rheumatoid Arthritis: Associations with Disease Characteristics, Pharmacotherapies, and Atherosclerosis
Jon T. Giles and Joan M. Bathon, Columbia University Medical Center, New York, NY
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety & Efficacy of Janus Activated-Kinase (JAK) Inhibitors

Moderators: Daniel Aletaha, MD, MSc and Martin Aringer, MD

2:30 PM

2485. Tofacitinib, an Oral Janus Kinase Inhibitor: Analyses of Efficacy and Safety of 10 versus 5mg Twice Daily in a Pooled Phase 3 and Long-Term Extension Rheumatoid Arthritis Population

S. Cohen1, S. Krishnaswami2, B. Benda3, R. Riese4, M.G. Boy1, D. Gruben5, G. Wallenstein2, C. A. Mebus2, S. H. Zwillich2 and J. D. Bradley2, 1Metroplex Clinical Research Centre, Dallas, TX, 2Pfizer Inc., Groton, CT, 3Pfizer Inc., Collegeville, PA

2:45 PM

2486. Radiographic, Clinical and Functional Comparison of Tofacitinib Monotherapy Versus Methotrexate in Methotrexate-Naive Patients with Rheumatoid Arthritis

Eun Bong Lee1, Roy M. Fleischmann2, Stephen Hall3, Ronald F. van Vollenhoven4, John Bradley5, David Gruben5, Tamas Koncz6, Siram Krishnaswami7, Gene Wallenstein2, Samuel H. Zwillich3, Bethanie E. Wilkinson7 and the ORAL Start Investigators7, 1Seoul National University, Seoul, South Korea, 2Metroplex Clinical Research Center, Dallas, TX, 3Cabrini Health and Monash University, Melbourne, Australia, 4Karolinska Institute, Stockholm, Sweden, 5Pfizer Inc., Groton, CT, 6Pfizer Inc., New York, NY, 7Groton, CT

3:00 PM

2487. 24-Week Results of a Blinded Phase 2b Dose-Ranging Study of Baricitinib, an Oral Janus Kinase 1/ Janus Kinase 2 Inhibitor, in Combination with Traditional Disease Modifying Antirheumatic Drugs in Patients with Rheumatoid Arthritis

Mark C. Genovese1, Edward Keystone2, Peter Taylor3, Edit Drescher1, Pierre-Yves Berclaz4, Chin H. Lee5, Douglas E. Schlichting6, Scott D. Beattie7, Rosanne K. Fidelus-Gort8, Monica E. Luchi9 and William Macias10, 1Stanford University Medical Center, Palo Alto, CA, 2University of Toronto, Toronto, ON, 3University of Oxford, Oxford, United Kingdom, 4Veszprémszámó Référence County Hospital, Department of Rheumatology and Physical Rehabilitation, Veszprém, Hungary, 5Eli Lilly and Company, Indianapolis, IN, 6Incycyte Corporation, Wilmington, DE

3:15 PM

2488. Magnetic Resonance Imaging Substudy in a Phase 2b Dose-Ranging Study of Baricitinib, an Oral Janus Kinase 1/Janus Kinase 2 Inhibitor, in Combination with Traditional Disease Modifying Antirheumatic Drugs in Patients with Rheumatoid Arthritis

Charles G. Peterfy1, Paul Emery2, Mark C. Genovese3, Edward Keystone4, Peter Taylor5, Pierre-Yves Berclaz6, Julie C. DiCarlo7, Chin H. Lee8, Douglas E. Schlichting9, Scott D. Beattie10, Monica E. Luchi11 and William Macias12, 1Scrip Sciences LLC, Kentfield, CA, 2University of Leeds, Leeds, United Kingdom, 3Stanford University Medical Center, Palo Alto, CA, 4University of Toronto, Toronto, ON, 5University of Oxford, Oxford, United Kingdom, 6Eli Lilly and Company, Indianapolis, IN, 7Incycyte Corporation, Wilmington, DE

2:30 PM

2489. Selective JAK1 Inhibition in the Treatment of Rheumatoid Arthritis: Proof of Concept with GLPG0634

Frédéric Vanhoutte1, Minodora Mazur2, Annegret Van der Aa3, Piet Wiggerink1 and Gerben van ’t Klooster1, 1Galapagos NV, Mechelen, Belgium, 2State Medical and Pharmaceutical University “Nicolae Testemitanu”, Chisinau, Moldova

3:45 PM

2490. Herpes Zoster and Tofacitinib Therapy in Patients with Rheumatoid Arthritis

K. L. Winthrop1, H. Valdez2, E. Mortensen3, R. Chew4, S. Krishnaswami5, T. Kawabata6 and R. Riese7, 1Division of Infectious Diseases, Oregon Health and Science University, Portland, OR, 2Pfizer Inc., New York, NY, 3Pfizer Inc., Collegeville, PA, 4Pfizer Inc., Groton, CT

3:30 PM

2491. IL-17 Expression Is Low in Psoriatic Arthritis Synovium Compared to Expression in Matched Skin Lesions

Jennifer Belasco1, Hiroshi Mitsui2, Maye Suarez-Farinas3, James S. Louie4, Nathan Wei5, Nicholas Gulati6 and James G. Krueger7, 1The Rockefeller University, New York, NY, 2UCLA School of Medicine, Los Angeles, CA, 3Arthritis Treatment Center, Frederick, MD

3:00 PM

2492. Protective and Pathogenic Effects of the IL-23 Family of Cytokines in Spondyloarthropathy in SKG Mice

Helen Benham1, Linda Rehaume1, Merja Ruutu1, Jared Velasco1, Kristine Kikly2, Geoffrey Strutton3, Michael McGuckin4 and Ranjeny Thomas5, 1Diamantina Institute University of Queensland, Brisbane, Australia, 2Biotechnology Discovery Research, Eli Lilly and Co., Indianapolis, IN, 3Department of Pathology, Princess Alexandra Hospital, Brisbane, Australia, 4Mater Medical Research Institute, Brisbane, Australia

3:00 PM

2493. The Presence of HLA-B27 Shapes Gut Microbiome Composition in Rats

Mary H. Bach1, Russell N. Van Gelder1, Joel D. Taurog2 and James T. Rosenbaum3, 1University of Washington Medical Center, Seattle, WA, 2UT Southwestern Medical Center, Dallas, TX, 3Oregon Health & Science University, Portland, OR

3:15 PM

2494. Incidence and Severity of Spondyloarthropathy and Crohn’s Ileitis Are Determined by Interaction Between the Microbiota and Genetic Susceptibility in Beta-Glucan-Treated SKG Mice

Ranjeny Thomas1, Linda Rehaume2, Daniel Aguirre de Cárcer1, Stan Mondot2, Jared Velasco1, Helen Benham3, Merja Ruutu3, Mark Morrison4 and Michael McGuckin5, 1University of Queensland Diamantina Institute, Brisbane, Australia, 2CSIRO Livestock Industries, Brisbane, Australia, 3Mater Medical Research Institute, Brisbane, Australia
3:30 PM
2495. Dense Genotyping of Candidate Genes Identifies 16 New Susceptibility Loci in Ankylosing Spondylitis
Adrian Cortes1, Philip Robinson2, International Spondyloarthritis Genetics Consortium3 and Matthew A. Brown1, 1The University of Queensland Diamantina Institute, Brisbane, Australia, 2Brisbane, Australia

3:45 PM
2496. Elevated Serum Level of the Vascular Endothelial Growth Factor Is Highly Predictive for New Syndromesphotes Formation in Patients with Ankylosing Spondylitis
Denis Podubravina1, Kristina Conrad1, Uta Syrbe1, Hildrun Haibel1, Heiner Appel1, Martin Rudwaleit2 and Joachim Sieper2, 1Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 2Endokrinologikum Berlin, Berlin, Germany, 3Charité Universitätsmedizin Berlin, Berlin, Germany

146 C
Systemic Lupus Erythematosus - Human Etiology and Pathogenesis II
Moderators: Mary K. Crow, MD and Mariana J. Kaplan, MD

2:30 PM
2497. Altered Circulating Follicular Helper T Cell Phenotype and Subset Composition Are Associated with Disease Activity in Patients with Systemic Lupus Erythematosus
Hsi-en Ho1, Jin Young Choi2, Viviane M. Bunin2, Sandra G. Pasoto1, Solange Carrasco1, Eduardo F. Borba1, Celio R. Goncalves1, Priscila R. Costa1, Esper G. Kallas3, Eloisa Bonfa3 and Joseph E. Craft2, 1Yale University School of Medicine, New Haven, CT, 2Yale University School of Medicine, Internal Medicine, Section of Rheumatology, New Haven, CT, 3Universidade de São Paulo, Division of Rheumatology, Faculdade de Medicina, Sao Paulo, Brazil, 4Universidade de São Paulo, Division of Immunology, Faculdade de Medicina, Sao Paulo, Brazil

2:45 PM
2498. Biomarkers of Mitochondrial Dysfunction Correlate with Disease Activity in SLE
Zhi-Wei Lai1, Tiffany Telarico1, Robert Hanczko1, Adam Bartos1, Lisa Francis1, Hajra I. Tily1, Ricardo Garcia1, Maha M. Dawood2, Jianghong Yu1, Ashwini Shadakshari2, Paul E. Phillips2 and Andras Perl1, 1SUNY, Syracuse, NY, 2SUNY Upstate Medical University, Syracuse, NY, 3SUNY upstate medical university, Syracuse, NY, 4SUNY, NY, 5SUNY Upstate Medical University, Syracuse, NY, 6SUNY-Upstate Medical Univ, Syracuse, NY, 7Upstate Medical University, Syracuse, NY

3:00 PM
2499. The Peroxisome-Proliferator Activated Receptor-γ Agonist Pioglitazone Modulates Aberrant T-Cell Responses in Systemic Lupus Erythematosus
Wenpu Zhao1, Celine C. Berthier1, Matthias Kretzler2 and Mariana J. Kaplan1, 1University of Michigan, Ann Arbor, MI, 2University of Michigan, MI

3:15 PM
2500. Podocyte Injury in Membranous and Proliferative Lupus Nephritis: Distinct Underlying Mechanisms?
Gabriela M. Rezende1, Vilma S. T. Viana2, Denise M. Malheiro2, Elaine P. Leon1, Eduardo F. Borba1, Neila AS Silva1, Irene L. Noronha1, Cleonice Silva1 and Eloisa Bonfá1, 1Division of Rheumatology - Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Division of AnatomicPathology - Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 3Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 4Division of Nephrology - Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 5University of Sao Paulo, Sao Paulo, Brazil

3:30 PM
2501. Mirorna Mir-150 Contributes to Chronic Kidney Injury in Lupus Nephritis by Increasing the Synthesis of Fibrotic Proteins Via Downregulation of SOCS1
Hua Zhou1, Sarfaraz A. Hasni1, Mayank Tandon1, Shyh-Ing Jang3, Howard A. Austin1, James E. Balow2, Illias Alevizos1 and Gabor G. Illei1, 1NIDCR/NIH, Bethesda, MD, 2NIAMS/NIH, Bethesda, MD, 3NIDDK/NIH, Bethesda, MD

3:45 PM
2502. Neutrophil Extracellular Trap-Associated Protein Activation of the Inflammasome Is Enhanced in Lupus M1 Macrophages
J. Michelle Kahlenberg, Carolyne K. Smith, Carmelo Carmona-Rivera and Mariana J. Kaplan, University of Michigan, Ann Arbor, MI

204 A
T-cell Biology and Targets in Autoimmune Disease
Moderators: Cornelia M. Weyand, MD, PhD and George C. Tsokos, MD

2:30 PM
2503. CD8+Foxp3-CD103+ Regulatory T Cells Generated Ex Vivo with TGF-β Suppress Autoimmunity Through IL-10-Dependent Mechanism
Ya Liu1, An-Ping Xu2, David A. Horwitz1 and Song G. Zheng3, 1USC Keck School of Medicine, Los Angeles, CA, 2nd Affiliated Hospital of Sun Yat-sen University, 3Keck School of Medicine of USC, Los Angeles, CA

2:45 PM
2504. SOCS1 Is One of the Key Molecules to Prevent the Plasticity of Regulatory T Cells and the Development of Autoimmunity
Reiko Takahashi1, Kenji Itoh1, Fumihiko Kimura1 and Akihiko Yoshimura1, 1National Defense Medical College, Tokorozawa, Japan, 2Keio University School of Medicine, Tokyo, Japan

3:00 PM
2505. Involvement of CD4+ FoxP3+ Regulatory T Cells in Interleukin-6 Receptor Targeted Treatment in Murine Arthritis and Rheumatoid Arthritis
Allan Thiolat1, Jerome Biton1, Luca Semerano2, Yves-Marie Pers1, Pierre Portales2, Delphine Lemonnier1, Patrice Decke1, Christian Jorgensen2, Pascale Louis-Plence2, Natacha Bessis1 and Marie-Christophe Boissier2, 1EA4222, Li2P, University Paris 13, Sorbonne Paris Cité and Rheumatology Department, Avicenne Hospital, Assistance Publique-Hôpitaux de Paris (AP-HP), Bobigny, 93009, France, Bobigny, France, 2Inserm U844, CHU saint-Eloi, Université Montpellier 1, CHU Lapeyronie, Montpellier, France
3:15 PM  
2506. Expression of Helios Facilitates Distinction Between FoxP3+ Treg and FoxP3+ Activated T Conventional Cells in Patients with Systemic Lupus Erythematosus  
Amit Golding¹, Sarfaraz A. Hasni², Gabor G. Illei³, and Ethan M. Shevach⁴, ¹NIAID/National Institutes of Health, Bethesda, MD, ²National Institutes of Health, Bethesda, MD, ³NIDCR/NIH, Bethesda, MD, ⁴NIAID/NIH, Bethesda, MD

3:30 PM  
2507. Activated Cullin-Ring Ubiquitin Ligases (CRLs) Dampen T Cell Signaling and Inactivation of Crisp Arrests the Progression of Inflammatory Arthritis  
Leonard L. Dragone¹, Lisa K. Peterson¹, Allison Berger², and Samantha F. Friend¹, ¹National Jewish Health, Denver, CO, ²Millennium Pharmaceuticals, Inc, Cambridge, MA

3:45 PM  
2508. miR142-3p Interferes with T Cell Proliferation by Targeting the Expression of Garp in Patients with Rheumatoid Arthritis  
Qihui Zhou, Sonja Haupt, Johannes Thomas Kreuzer, Hendrik Schulze-Koops, and Alla Skapenko, University of Munich, Munich, Germany

ACR/ARHP COMBINED ABSTRACT SESSION
2:30 - 4:00 PM
201  
ACR/ARHP Combined Epidemiology Abstract Session  
Moderators: Yuqing Zhang, DSc, MPH and Tuhina Neogi, MD, PhD

2:30 PM  
2509. Cost-Effectiveness of Training Rural Providers to Perform Joint Injections  
Michael J. Battistone, Richard E. Nelson, William D. Ashworth, Andrea Barker, Marissa Grotzke, Timothy A. Huhtala, Robert Z. Tashjian and Grant W. Cannon, Salt Lake City VA and University of Utah, Salt Lake City, UT

2:45 PM  
2510. Patient and Provider Factors Associated with Compliance with Rheumatoid Arthritis Treatment Recommendations  
Leslie R. Harrold¹, George W. Reed¹, Katherine C. Saunders¹, Ying Shan¹, Tanya Spruill¹ and Jeffrey D. Greenberg¹, ¹UMass Medical School, Worcester, MA, ²University of Massachusetts Medical School, Worcester, MA, ³CORAON, Inc., Southborough, MA, ⁴NYU School of Medicine, New York, NY, ⁵New York University School of Medicine, New York, NY

3:00 PM  
2511. Potential Barriers That Limit Access to Rheumatologists Among Patients with Early Rheumatoid Arthritis in a Universal Access Health Care System  
Jessica Widdifield¹, J. Michael Paterson¹, Sasha Bernatsky¹, Karen Tu¹, Nadia Gunraj¹, Noah Ivers¹, Debra Butt¹, R. Liisa Jaakkimainen¹, J. Carter Thorne¹, Vandaana Aihlwalia¹ and Claire Bombardier¹, ¹University of Toronto, Toronto, ON, ²Institute for Clinical Evaluative Sciences, Toronto, ON, ³Research Institute of the McGill University Health Ctre, Montreal, QC, ⁴Southlake Regional Health Centre, Newmarket, ON, ⁵William Osler Health Center, Mississauga, ON

3:15 PM  
2512. Changes in Bone Marrow Lesion Volume Relate to Changes in Knee Pain. Data From the Osteoarthritis Initiative  
Jeffrey B. Driban¹, Lori Lyn Price¹, Grace H. Lo², Jincheng Pang³, Eric Miller³, Charles Eaton³, John A. Lynch¹ and Timothy E. McAlindon¹, ¹Tufts Medical Center, Boston, MA, ²Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX, ³Tufts University, Medford, MA, ⁴Warren Alpert Medical School at Brown University, RI, ⁵University of California at San Francisco, San Francisco, CA

3:30 PM  
Kathryn Remmes Martin¹, Dane Van Domelen¹, Matthew PanteIl¹, Ming-yang Hung¹, Tamara B. Harris¹ and Kushang Patel², ¹NIA/NIH, Bethesda, MD, ²University of Washington, Seattle, WA

3:45 PM  
2514. Racial/Ethnic Trends in Incidence and Prevalence of Rheumatoid Arthritis in a Large Multi-Ethnic Managed Care Population  
Aniket A. Kawatkar¹, Cecilia Portugal¹, Li-Hao Chu² and Rajan Iyer¹, ¹Kaiser Permanente Southern California, Pasadena, CA, ²Kaiser Permanente Southern California, Pasadena

ARHP SESSIONS
2:30 - 4:00 PM
206  
Myositis: Pathogenesis, Diagnosis and Management  
Moderator: Maura D. Iversen, BSc, DPT, SD, MPH

Upon completion of this session, participants should be able to:  
- review the pathogenesis of myositis versus other myopathies  
- discuss the diagnostic approach to myositis including specific objective measures in the clinical setting, laboratory studies, imaging, electromyogram and muscle biopsy  
- identify medications currently being used to treat myositis and emerging therapies  
- summarize the therapeutic approach to myositis and identify specific precautions

2:30 PM  
Pathogenesis, Diagnosis and Medication Management of Myositis  
Dana P. Ascherman, MD

3:15 PM  
Exercise in Patients with Idiopathic Inflammatory Myopathies  
Helene Alexanderson, PhD, RPT
145 A
Rheumatic Disease Update: Systemic Lupus Erythematosus

Moderator: James G. Freeman, MD
Speaker: Michelle Petri, MD, MPH

Upon completion of this session, participants should be able to:
• review current knowledge of the pathophysiology and biology of lupus
• discuss the major manifestations of lupus
• identify the recently recognized cardiovascular co-morbidities associated with lupus
• explain the use of laboratory testing in lupus
• explore the role for newer biological agents in the treatment of lupus

143 A
Rheumatoid Arthritis Disease Activity Measures and Quality Indicators: Correct Use and Future Directions

Moderator: Barbara A. Slusher, PA-C, MSW

Upon completion of this session, participants should be able to:
• define the term disease activity in patients with rheumatoid arthritis
• describe the importance of the measuring disease activity in patients with rheumatoid arthritis
• describe measures of disease activity used in patients with rheumatoid arthritis
• apply the use of measures of disease activity to clinical scenarios
• describe quality indicators of rheumatoid arthritis
• discuss the role of quality indicators in the health care system

2:30 PM
Disease Activity Measures
Arthur M. Mandelin II, MD, PhD

3:15 PM
Quality Indicators
Jeffrey R. Curtis, MD, MPH, MS

144 C
*Joint Injection Techniques (239)

Speaker: Atul A. Deodhar, MD and Kenneth S. O’Rourke, MD

Upon completion of this session, participants should be able to:
• discuss indications and contraindications for joint aspirations and injections
• identify and avoid common mistakes in joint injection procedures
• perform common joint and soft tissue injections on upper and lower extremities

ARHP SESSION
4:30 - 5:30 PM

140 A
Obesity: It IS a Chronic Disease

Moderator: Thuy T. Beam, RN, BSN
Speaker: Mary R. Ciccarelli, MD

Upon completion of this session, participants should be able to:
• review secondary co-morbidities associated with obesity across the lifespan
• develop skills to communicate the importance of weight management
• develop strategies for self-management for the obese patient

ACR SESSIONS
4:30 - 6:00 PM

Hall D
Diagnostic Assessments in Myopathy

Moderators: Christina Charles-Schoeman, MD and Chester V. Oddis, MD

Upon completion of this session, participants should be able to:
• recognize the clinical and prognostic factors associated with the more recently identified autoantibodies in patients with myositis
• identify the nuances of interpreting an electromyogram report in patients presenting with myopathic features
• interpret accurately the muscle biopsy report received from a neuromuscular pathologist in patients with myopathy
4:30 PM
Clinical and Prognostic Correlations of Newly Identified Myositis-Associated Autoantibodies
Hector Chinoy, MD, PhD

5:00 PM
Electromyography for the Rheumatologist
Devon I. Rubin, MD

5:30 PM
Interpretation of the Muscle Biopsy Report in Patients with Myopathy
David Lacomis, MD

Ballroom B
MicroRNA and the Rheumatic Diseases
Moderator: Richard M. Pope, MD

Upon completion of this session, participants should be able to:
• identify the mechanisms regulating the expression and function of MicroRNA
• define the role of MicroRNA in innate and antigen specific inflammatory responses
• describe the role of MicroRNA in altered chondrocyte function in osteoarthritis

4:30 PM
MicroRNA Control of Cellular Homeostasis: Basic Mechanisms
Judy Lieberman, MD, PhD

5:00 PM
MicroRNA in the Regulation of Innate and Adaptive Immunity
Ryan M. O’Connell, PhD

5:30 PM
MicroRNA and the Regulation of Chondrocyte Gene Expression in Osteoarthritis
Martin K. Lotz, MD

Salon B
Should Ultrasound be Used in Rheumatology Practice?
Moderator: Timothy E. McAlindon, MD, MPH

Upon completion of this session, participants should be able to:
• describe the capability of ultrasound scanning to image pathophysiological changes in and around joints and other anatomical sites pertinent to rheumatology practice
• identify how musculoskeletal ultrasound might be utilized in typical rheumatology practice
• assess the use of ultrasound in clinical management of rheumatic diseases with a balanced perspective on its risks and benefits
• identify when to use musculoskeletal ultrasonography in appropriate clinical scenarios

4:30 PM
Possible Uses of Ultrasound in Rheumatology Practice
Paul J. DeMarco, MD

4:40 PM
Methods Used to Develop Appropriateness Criteria
John Esdaile, MD, MPH

4:50 PM
Overview of Literature Review
John D. FitzGerald, MD, PhD

5:00 PM
Presentation of Recommendations
Timothy E. McAlindon, MD, MPH

5:40 PM
Panel Discussion

146 C
The Great Masqueraders: Malignancies in Rheumatic Disease
Moderator: Zsuzsanna H. McMahan, MD, MHS

Upon completion of this session, participants should be able to:
• describe the biologic mechanisms associated with neoplastic and paraneoplastic syndromes
• define the risks of malignancy in patients with rheumatic disease
• distinguish the features of occult malignancies that distinguish them from rheumatic diseases

4:30 PM
Myositis Associated with Neoplastic and Paraneoplastic Syndromes
Andrew L. Mammen, MD, PhD

5:00 PM
Vasculitis Associated with Neoplastic and Paraneoplastic Syndromes
Simon Carette, MD

5:30 PM
Malignancies and Scleroderma
Ami A. Shah, MD, MHS

ACR CONCURRENT ABSTRACT SESSIONS
4:30 - 6:00 PM

201
Biology and Pathology of Bone and Joint: Regulation of Bone Cells
Moderators: Antonios O. Aliprantis, MD and Tariq M. Haqqi, PhD

4:30 PM
2515. Low Density Lipoprotein Receptor Deficiency Results in Osteophyte Formation During Experimental Osteoarthritis Which Is Enhanced Under High Cholesterol Conditions
Wouter de Munter, Birgitte Walgreen, Monique M. Helsen, Annet W. Sloëtjes, Wim B. van den Berg and Peter L.E.M. van Lent, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands
143 A Innate Immunity and Rheumatic Disease

Moderators: Diego Kyburz, MD and Mariana J. Kaplan, MD

4:30 PM

2521. Immunoglobulin G Fc Receptor Activity In vivo Is Under Complement Control

Eveline Y. Wu, Haixiang Jiang, C. Garren Hester and Michael M. Frank, Duke Univ Med Ctr, Durham, NC

4:45 PM

2522. M-Ficolin, an Activator of the Complement System, Is the Strongest Predictor of Both DAS28 Remission and Low Disease Activity in a Cohort of 180 Early DMARD Naïve Rheumatoid Arthritis Patients Followed in the Opera-Study

Christian G. Ammitzbøll1, Jens Christian Jensenius2, Torkell Ellingsen1, Steffen Thiel1, Kim Harlev-Petersen1, Merete L. Hetland1, Peter Junker2, Julia Johansen2, Mikkel Østergaard3, Jan Pødenphant4 and Kristian Stengaard-Pedersen1, 1Arhus University Hospital, Aarhus, Denmark, 2University of Southern Denmark, Graasten, Denmark, 3Copenhagen University and Glostrup Hospital, Copenhagen, Denmark, 4Odense University Hospital, Odense, Denmark, 5Glostrup Hospital, Glostrup, Denmark, 6Glostrup Hospital, Glostrup, Denmark, 7Glostrup Hospital, Glostrup, Denmark, 8Copenhagen University Hospital Glostrup, Glostrup, Denmark, 9Gentofte Hospital

5:00 PM

2523. Periodontal Pathogens Directly Promote Autoimmune Experimental Arthritis by Inducing a Toll-Like Receptor 2 and Interleukin-1 Driven Th17 Response

Shahla Abdollahi-Roodsaz1, Sabrina Garcia de Aquino2, Marije I. Koenders1, Fons A. van de Loo3, Ger J. Pruinj1, Mario J. Avila Campos4, Fernando Q. Cunha5, Joni A. Cirelli2 and Wim B. van den Berg1, 1Rheumatology Research and Advanced Therapeutics, University of Erlangen-Nuremberg, Erlangen, Germany, 2Radboud University Nijmegen, Nijmegen, Netherlands, 3Department of Diagnostics and Oral Surgery, Periodontic Division, Araraquara Dental School, Sao Paolo, Brazil, 4Radboud University Nijmegen, Nijmegen, Netherlands, 5Department of Microbiology, Institute of Biomedical Sciences—ICB/USP, Sao Paolo, Brazil, 6Department of Pharmacology, School of Medicine of Ribeirao Preto, Sao Paolo, Brazil

5:15 PM

2524. Snapin Is Critical for the Maturation of Autophagosome and Phagosomes in Macrophages

Bo Shi, Qiquan Huang, Robert Birckett, Renee E. Koessler, Andrea Dorfleutner, Christian Stehlik and Richard M. Pope, Northwestern University Feinberg School of Medicine, Chicago, IL

5:30 PM

2525. Bruton’s Tyrosine Kinase Inhibition Suppresses Inflammatory Cytokine Production and Affects Gene Expression in Human Macrophages and RA Synovial Tissue Explants

Linda M. Hartkamp1, Inge E. van Es2, Jay S. Fine2, Michael Smith2, John Woods2, Satwant Narula2, Julie DeMartino2, Paul P. Tak1 and Kris A. Reedquist1, 1Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands, 2University of Southern Denmark, Syddansk University, Denmark
5:45 PM

2526. Bruton’s Tyrosine Kinase and Calreticulin: A Novel Interaction with Implications for Inflammatory and Autoimmune Disease
Jennifer C. Byrne1, Joan Ní Gabhann1, Kevin Stacey1, Barbara M. Coffey1, Eoghan M. McCarthy2, Warren Thomas3, Eamonn S. Molloy4, Grainne M. Kearns2 and Caroline Jefferies1, 1Royal College of Surgeons in Ireland, Dublin, Ireland, 2Beaumont Hospital, Dublin 3, Ireland, 3Royal College of Surgeons in Ireland, Dublin, Ireland, 4Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

5:45 PM

2532. Whole Transcriptome Analysis in Relapsing Polychondritis: A Single-Center Analysis of 35 Patients
Laurent Arnaud1, Alexis Mathian1, Bruno Fairet2, Karim Dorgah3, Julien Haroche1, Nathalie Costedoat-Chalumeau1, Jean-Charles Piette1, Guy Gorochov1 and Zahir Amoura2, 1Hôpital Pitié-Salpêtrière, AP-HP & UPMC Univ Paris 06, Paris, France, 2Institut National de la Santé et de la Recherche Médicale, INSERM UMR-S 945, Paris, France

4:30 PM

2527. Prozone Phenomenon Leads to Low IgG4 Concentrations in IgG4-Related Disease
Areeou Khosroshahi1, Lynn A. Cheryk2, Mollie Carruthers1, Judith A. Edwards3, Donald B. Bloch1 and John H. Stone3, 1Massachusetts General Hospital, Boston, MA, 2Mayo Medical Laboratories, Andover, 3Mayo Medical School, Rochester, MN

4:45 PM

2528. Hypertrophic Pachymeningitis: IgG4-Related Disease Is A Common Etiology
Zachary S. Wallace, Mollie Carruthers, Areeou Khosroshahi, Robert Carruthers, Shweta Shinagare, Anat Stemmer-Rachamimov, Vikram Deshpande and John H. Stone, Massachusetts General Hospital, Boston, MA

5:00 PM

2529. Molecular Mechanism of IgG4 Class Switch Recombination in IgG4-Related Disease
Hirotu Tsuboi1, Mana Izuika1, Hiromitsu Asashima1, Sayaka Tsuchik1, Yuya Kondo1, Akihiko Tanaka2, Masafumi Moriyama3, Isao Matsumoto4, Seiji Nakamura2 and Takayuki Sumida1, 1Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Academic Medical Center / University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

5:15 PM

2530. Anti-Ribosomal P Antibodies in a Large Cohort of Autoimmune Hepatitis with No Evidence of Lupus: A Common Underlying Mechanism Targeting Liver?
Ana Luisa Calich1, Vilma S. T. Viana1, Eduardo L. Cançado1, Débora R. Teraubéo1, Francisco Tustumi2, Elaine P. Leon1, Clovis Artur Silva2, Eduardo F. Borba Neto3 and Eloisa Bonfa1, 1Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy

5:30 PM

2531. The Relapsing Polychondritis Disease Activity Index: International Development and Initial Validation of the First Disease Activity Score for Relapsing Polychondritis
Laurent Arnaud1, Hervé Devilliers2, Stanford L. Peng3, Zahir Amoura4 and the RPDAl study group5, 1Assistance Publique- Hôpitaux de Paris, Hopital Pitié-Salpêtrière, Paris, France, 2CHU Dijon, Dijon, France, 3Virginia Mason Medical Center, Seattle, WA, 4CHU Pitié-Salpêtrière, Paris, France, 5Paris

4:30 PM

2533. Weight Loss Is Associated with Structure Modification in Subjects with Radiographic Osteoarthritis of the Knee: Data From the Osteoarthritis Initiative
Marc C. Hochberg1, Danuta I. Bujak2, Jeffrey W. Duryea3, Knachelle Favors4 and John D. Sorkin5, 1University of Maryland, Baltimore, MD, 2Brigham & Women, Boston, MA, 3VA Maryland Health Care System, Baltimore, 4VA Maryland Health Care System, Baltimore, MD

4:45 PM

2534. The Intensive Diet and Exercise for Arthritis Trial (IDEA): 18-Month Radiographic and MRI Outcomes
David J. Hunter1, D. Beavers1, Felix Eckstein1, Ali Guermazi1, Richard F. Loeser2, Barbara J. Nicklas3, Shannon Mihalko4, Gary D. Miller5, Mary Lyles6, Paul DeVita7, Claudine Legault8, J. Jeffery Carr9, Jeff D. Williamson8 and Stephen P. Messier7, 1University of Sydney, Sydney, Australia, 2Winston Salem, NC, 3Paracelsus Medical University, Salzburg, Austria, 4Boston University, Boston, MA, 5Wake Forest School of Medicine, Winston-Salem, NC, 6Winston-Salem, NC, 7Wake Forest University, Winston-Salem, NC, 8Wake Forest University School of Medicine, Winston-Salem, NC, 9East Carolina University, Greenville, NC
5:15 PM

2536. The Effects of Intensive Diet and Exercise On Bone Density in Older Adults with Knee Osteoarthritis: The Intensive Diet and Exercise for Arthritis (IDEA) Trial
Nicole R. Walton1, Richard F. Loeser2, Daniel Beavers3, Barbara J. Nicklas4, Mary Ilyes5 and Stephen P. Messier6, 1Wake Forest University School of Medicine, Winston Salem, NC, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Wake Forest University School of Medicine, Winston-Salem, NC, 4Winston-Salem, NC, 5Wake Forest University, Winston-Salem, NC

5:30 PM

2537. Cross-Sectional and Longitudinal Associations Between Circulating Leptin and Knee Cartilage Thickness in Older Adults
Oliver Stannus1, Yuelong Cao2, Benny Samuel Eathakkattu Antony3, Graeme Jones4 and Changhai Ding5, 1Menzies Research Institute Tasmania, Hobart, Australia, 2Menzies Research Institute Tasmania, Research Institute of Orthopaedics, Shuguang Hospital Affiliated to Shanghai University of Traditional Chinese Medicine, Hobart, Australia, 3Menzies Research Institute Tasmania, University of Tasmania, Hobart, 7000, Australia, 4Menzies research institute & Monash University, Hobart, Australia

5:45 PM

2538. The Association of Fat Mass and Skeletal Muscle Mass with Clinical and Structural Knee Osteoarthritis: The Netherlands Epidemiology of Obesity Study
A. Willemien Visser, Marijke Loef, Martin den Heijer, Monique Reijnierse, Frits R. Rosendaal and Margreet Kloppenburg, Leiden University Medical Center, Leiden, Netherlands

Ballroom A

Rheumatoid Arthritis - Clinical Aspects V: Comorbidities in Rheumatoid Arthritis

Moderators: Eric L. Matteson, MD and Paul F. Dellaripa, MD

4:30 PM

2539. Fine-Specificity of Anti-Citrullinated Peptide Auto-Antibodies: Associations with Cardiac Structure and Function in Rheumatoid Arthritis
Laura Geraldino-Pardilla1, Jon T. Giles1, Jeremy Sokolove2, William H. Robinson1 and Joan M. Bathon1, 1Columbia University Medical Center, New York, NY, 2VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 3Stanford University, Palo Alto, CA

4:45 PM

2540. Prescription of Tumour Necrosis Factor α Antagonists Is Strongly Associated with a Reduction in Hospital Admissions and in Musculoskeletal Surgical Procedures for Rheumatoid Arthritis Based On a 16 Year Analysis of Nationwide Data
Leonard C. Hart1, Gary O'Toole2, Kathleen Bennett3 and Oliver M. FitzGerald4, 1Department of Rheumatology, St. Vincent’s University Hospital, Dublin, Ireland, 2Department of Orthopaedic Surgery, St. Vincent’s University Hospital, Dublin, Ireland, 3Department of Pharmacology & Therapeutics, Trinity centre for Health Sciences, St James’s Hospital, Dublin, Ireland, 4Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

5:00 PM

2541. High Risk of Intensive Care Unit Admission in Rheumatoid Arthritis Patients: A Population Based Study
Christine Peschken, Carol A. Hitchen, Allan Garland, Charles N. Bernstein, Randy Franso and Ruth Ann Marrie, University of Manitoba, Winnipeg, MB

5:15 PM

2542. The Association Between Inflammatory Markers and Hyperlipidemia and the Risk of Myocardial Infarction in Patients with Rheumatoid Arthritis
Jie Zhang1, Lang Chen1, Elizabeth S. Delzell1, Paul M. Muntner1, William B. Hillegass1, Monika M. Safford2, Iris E. Navarro3 and Jeffrey R. Curtis5, 1University of Alabama at Birmingham, Birmingham, AL, 2Birmingham, AL, 3Univ of Alabama-Birmingham, Birmingham, AL

5:30 PM

2543. Hospitalized Bacterial Infections Among U.S. Veterans with Rheumatoid Arthritis Initiating TNF Antagonist and Newer Biologic Agents
Jeffrey Curtis1, Shuo Yang2, Nivedita M. Patkar2, Lang Chen3, Jasvinder A. Singh1, Grant W. Cannon1, Ted R. Mikuls4, Elizabeth S. Delzell1, Kenneth G. Saag1, Monika M. Safford1, Scott DuVall5, Kimberly Alexander6, Pavel Napalkov7, Aaron Kamauu1 and John Baddley1, 1University of Alabama at Birmingham, Birmingham, AL, 2Univ of Alabama-Birmingham, Birmingham, AL, 3University of Alabama at Birmingham, Birmingham, AL, 4George E. Wahlen VA Medical Center, Salt Lake City, UT, 5Omaha VA and University of Nebraska Medical Center, Omaha, NE, 6VA Salt Lake City Health Care System and University of Utah School of Medicine, Salt Lake City, UT, 7Genentech, Inc., South San Francisco, CA, 8Anolinx, Bountiful, UT

5:45 PM

2544. Widening Gap Between Cardiovascular Specific Mortality in Patients with Inflammatory Polyarthritis Compared to the General Population?
Alexander J. Warner1, Jh Humphreys2, Mark Lunt2, Tarnya Marshall3, Deborah P. M. Symmons3 and Suzanne Verstappen6, 1Arthritis Research UK Epidemiology Unit, The University of Manchester, Manchester, United Kingdom, 2Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, 3University of Manchester, Manchester Academic Health Science Centre, Manchester, United Kingdom, 4Norfolk and Norwich University Hospitals Trust, Norwich, United Kingdom, 5University of Manchester, Manchester Academic Health Sciences Centre, Manchester, United Kingdom

Hall E

Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy of Approved Biologics

Moderators: Richard W. Martin, MA, MD and Aaron T. Eggebeen, MD

4:30 PM

2545. A Randomized, Double-Blind, Parallel Group Study of the Safety and Efficacy of Tocilizumab SC Versus Tocilizumab IV, in Combination with Traditional Dmards in Patients with Moderate to Severe RA

TUESDAY, NOVEMBER 13, 2012

207 A

**Sjögren’s Syndrome II - Clinical**

**Moderators:** E. William St.Clair, MD and Athanasios G. Tzioufas, MD

4:30 PM

**2551. Validation of EULAR Primary Sjögren’s Syndrome Disease Activity and Patient Indexes**

Raphaële Seror¹, Elke Theander², Johan G. Brun³, Manel Ramos-Casals⁴, Valeria Valim⁵, T. Dormer⁶, Xavier Mariette⁷, Hendrika Bootsm⁸, Athanasios G. Tzioufas⁹, Roser Solans-Laqué¹⁰, Jacques-Eric Gottenberg¹¹, Eric Hachulla¹², Wan-Fai NG¹³, Stefano Bombardieri¹⁴, Roberto Gerli¹⁵, Takayuki Sumida¹⁶, Alain Seraux¹⁷, Matija Tomsic¹⁸, Roberto Caporalį¹⁹, Roberta Priori²⁰, Cathy Moser Sivils²¹, A.A. Kruize²², Cristina F. Vollenweider²³, Claudio Vitali²⁴ and Simon J. Bowman²⁵, ¹Paris-Descartes University, APHP, Cochin Hospital, Paris, France, ²University of California, San Diego, La Jolla, CA, ³Klinikum der Universität zu Köln, Köln, Germany, ⁴Nørrebrogade Hospital, Odense, Denmark, ⁵University of Pisa, Pisa, Italy, ⁶Istituto Ortopedico Rizzoli, Bologna, Italy, ⁷Royal Free Hospital, London, UK, ⁸Second University of Naples, Naples, Italy, ⁹Hospital Universitario La Paz, Madrid, Spain, ¹⁰Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ¹¹Center for Autoimmune Diseases, Sheba Medical Center, Tel-hospital, Israel, ¹²Tel-hospital, Israel, ¹³University Federal do Rio Grande do Sul, Porto Alegre, Brazil, ¹⁴USC Keck School of Medicine, Santa Monica, CA, ¹⁵Roche, Basel, Switzerland, ¹⁶Leiden University Medical Center, Leiden, Netherlands

5:45 PM

**2550. Clinical, Radiographic, and Immunogenic Effects After 1 Year of Tocilizumab-Based Treatment Strategy with and without Methotrexate in Rheumatoid Arthritis: The ACT-RAY Study**

Maxime Dougados¹, Karsten Kissel², Philip G. Conaghan³, Emilio Martin-Mola⁴, Georg Schett⁵, Howard Amital⁶, Ricardo M. Xavier⁷, OM Trum⁸, Corrado Bernasconi⁹ and T.W.J. Huizinga¹⁰, ¹Paris-Descartes University, APHP, Cochin Hospital, Paris, France, ²F. Hoffmann-La Roche Ltd, Basel, Switzerland, ³University of Leeds, Leeds, United Kingdom, ⁴Hospital Universitario La Paz, Madrid, Spain, ⁵Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ⁶Center for Autoimmune Diseases, Sheba Medical Center, Tel-hospital, Israel, ⁷Tel-hospital, Israel, ⁸Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil, ⁹USC Keck School of Medicine, Santa Monica, CA, ¹⁰Roche, Basel, Switzerland, ¹¹Leiden University Medical Center, Leiden, Netherlands

**2546. Tofacitinib Inhibits Radiographic Progression in Patients with Rheumatoid Arthritis Prone to Develop Structural Damage: A Post-Hoc Analysis of a Phase 3 Trial**

Désirée van der Heijde¹, Robert B. M. Landewe² and David Gruben³, ¹Leiden University Medical Center, Leiden, Netherlands, ²Academic Medical Center/University of Amsterdam & Atrium Medical Center, Amsterdam, Netherlands, ³Pfizer Inc., Groton, CT

5:00 PM

**2547. Weekly Subcutaneous Abatacept Confers Comparable Onset of Treatment Response and Magnitude of Efficacy Improvement Over 6 Months When Administered with or without an Intravenous Abatacept Loading Dose**

M. Schiff⁴, R. Alten⁵, M. Weinblatt⁶, P. Nash⁷, R. Fleischmann⁵, P. Durez⁶, J. Kaine⁷, I. Delaet⁸, S. Kelly⁹, M. Maldonado⁹, S. Patel⁹ and M. C. Genovese¹⁰, ¹University of Colorado, Denver, CO, ²University of California, San Diego, La Jolla, CA, ³Schlosspark-Klinik, University Medicine, Berlin, Germany, ⁴Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, ⁵University of Queensland, Brisbane, Australia, ⁶University of Texas Southwestern Medical Center, Dallas, TX, ⁷Université catholique de Louvain, Brussels, Belgium, ⁸Rheumatology Research Center, Sarasota, FL, ⁹Bristol-Myers Squibb, Princeton, NJ, ¹⁰Stanford University, Palo Alto, CA

5:15 PM

**2548. Global Molecular Effects of Tocilizumab Therapy in Synovial Biopsies of Early Rheumatoid Arthritis Patients**

Julie Ducreux, Adrien Nzeusseu Toukap, Frédéric A. Houssiau, Patrick Durez and Bernard Lauwers, Université catholique de Louvain, Brussels, Belgium

5:30 PM

**2549. Induction of Remission in Patients with up to 12 Months of Moderate-to-Severe Rheumatoid Arthritis Symptoms Treated with Etanercept Plus Methotrexate Over 52 Weeks**

Paul Emery¹, Mohammed Hamoudéh², Oliver M. FitzGerald³, Bernard Combe⁴, Stefanie Gaylord⁵, Theresa Williams⁶, Jack Bukowski⁷, Ronald Pedersen⁸, Andrew S. Koenig⁹ and Bonnie Vlahos¹⁰, ¹Leeds General Infirmary, Leeds, United Kingdom, ²Hamad Medical Corporation, Doha, Qatar, ³St. Vincent’s University Hospital, Dublin, Ireland, ⁴Lapeyronie Hospital, Montpellier, France, ⁵Pfizer Inc., Collegeville, PA
2552. Clinically Significant and Biopsy-Documented Renal Involvement in Primary Sjögren’s Syndrome: Clinical Presentation and Outcome
Andreas V. Goules1, Ioanna P. Tatouli2, Alexandros A. Drosos3, Fotini N. Skopoul1, Haralampos M. Moutsopoulos4 and Athanasios G. Tzioufas5, 1National University of Athens, Athens, Greece, 2Professor of Medicine/Rheumatology, Ioannina, Greece, 3Harokopion University, Athens, Greece, 4School of Medicine, University of Athens, Athens, Greece, 5Professor of Medicine, University of Athens, Athens, Greece

2553. Histological, Serological and Clinical Changes in Response to Abatacept Treatment of Sjögren’s Syndrome
Sabine Adler1, Meike Koerner2, Frauke Foeger3, Marco-Domenico Caversaccio3 and Peter M. Villiger4, 1University Hospital Bern, Bern, Switzerland, 4Inselspital-University Hospital, Bern, Switzerland, 2University Hospital Bern, Inselspital, Bern, Switzerland, 3School of Medicine, University of Athens, Athens, Greece

2554. Tolerance and Efficacy of Rituximab in Primary Sjogren Syndrome: Final Results of a Randomized Controlled Trial
Valerie Devauchelle-Pensec1, Xavier Mariette2, Sandrine Jousse-Joulin3, Jean-Marie Berthelot4, Aeth Leb1, Philippe Hachulla1, Xavier Puech1, Jérome Le Guern5, Jean Sibilia6, Jacques-Eric Gottenberg10, Laurent Chiche Sr.11, Vincent Goeb12, Gilles Hayem13, Jacques Morel14, Charles Zarnitsky15, JJ Dubost16, Jacques-Olivier Pers17, Emmanuel Nowak18 and Alain Saraux19, 1Brest Occidentale university, Brest, France, 2Université Paris-Sud, Le Kremlin-Bicêtre, France, 3Brest university medical school, EA 22, UBO and CHU de la Cavale Blanche., Brest, France, 4Nantes University Hospital, Nantes, France, 5Hôpital Sud, Rennes, France, 6Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 7Hôpital Cochin, Paris, France, 8Cochin Hospital, Paris, France, 9EA4438 Laboratoire Physiopathologie des Arthrites, Illkirch-Strasbourg, France, 10Strasbourg University Hospital, Strasbourg, France, 11Internal Medicine, CHU Marseille, Marseille, France, 12Rouen University Hospital, Rouen, France, 13Bichat Hospital, Paris, France, 14Hôpital Lapeyronie, Montpellier, France, 15CH du Havre, Le Havre, France, 16CHU CLERMONT-FERRAnd, Clermont-Ferrand, France, 17Brest Occidentale University, Brest, France, 18CHU Brest, Brest, France, 19Université Brest Occidentale, Brest, France

2555. Results of the Beliss Study, the First Open Phase 2 Study of Belimumab in Primary Sjögren’s Syndrome
Xavier Mariette1, Luca Quattrocchio2, Raphaèle Seror3, Sara Salvin4, Frederic Desmoulins5, Martina Fabris3, Sara Villeneuve6, Philippe Ravaud4 and Salvatore De Vita5, 1Université Paris-Sud, Le Kremlin-Bicêtre, France, 2Rheumatology Clinic, DSMB, University of Udine, Italy, 3Udine, Italy, 4Bicêtre university hospital, LE Kremlin-Bicêtre, France, 5Institute of Clinical Pathology, Udine, Italy, 6Hospital Hotel dieu, Paris, France, 7Hospital Hotel Dieu, Paris Descartes University, Paris, France, 8Rheumatology Clinic, DSMB, University of Udine, Udine, Italy

2556. Allogenic Mesenchymal Stem Cells Transplantation Alleviates Clinical Sjögren’s Syndrome
Lingyun Sun1, Dandan Wang2, Junji Xu3 and Songlin Wang4, 1Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China, 2Salivary Gland Disease Center and Molecular Laboratory for Gene Therapy & Tooth Regeneration, Beijing Key Laboratory of Tooth Regeneration and Function Reconstruction, Capital Medical University School of Stomatology, Beijing, China

Ballroom C
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Psoriatic Arthritis
Moderators: Jeffrey R. Lisse, MD and Andreas M. Reimold, MD

2557. Ustekinumab in Active Psoriatic Arthritis Including Patients Previously Treated with Anti-TNF Agents: Results of a Phase 1, Multicenter, Double-Blind, Placebo-Controlled Study
Christopher T. Ritchlin1, Alice B. Gottlieb2, Iain B. Mclnnes3, Lluis Puig4, Proton Rahman3, Shu L5, Yuhua Wang6, Mittie K. Doyle7, Alan Mendelsohn8 and Arthur Kavanaugh9, 1University of Rochester Medical Center, Rochester, NY, 2Tufts Medical Center, Boston, MA, 3University of Glasgow, Glasgow, United Kingdom, 4Universitat Autònoma de Barcelona, 5Memorial University, St. John’s, NF, 6Janssen Research and Development, LLC, PA, 7Janssen Research and Development, LLC/Un of Penn, Spring House/Phila, PA, 8Janssen Research & Development, LLC, Spring House, PA, 9UCSD School of Medicine, La Jolla, CA

2558. Clinical Response, Drug Survival and Predictors Thereof Among 548 Switchers of Tumor Necrosis Factor Alpha Inhibitor Therapy in Psoriatic Arthritis. Results From the Danish Nationwide Danbio Registry
Bente Glintborg1, Mikkel Østergaard2, Niels Steen Krogh3, Martin Dehn Andersen4, Ullrik Tarp5, Anne Gitte Loft6, Hanne M. Lindegaard7, Mette Holland-Fischer8, Henrik Nordin9, Dorte Vendelbo Jensen4 and Merete L. Hetland5, 1Copenhagen University Hospital Gentofte, Copenhagen, Denmark, 2Glostrup Hospital, Copenhagen, Denmark, 3ZiteLab ApS, Copenhagen, Denmark, 4DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Copenhagen, Denmark, 5Copenhagen University and Glostrup Hospital, Copenhagen, Denmark

2559. Mortality in Patients with Psoriatic Arthritis Compared to Patients with Rheumatoid Arthritis, Psoriasis Alone, and the General Population
Alexis Ogdie1, Kevin Haynes2, Andrea Troxel2, Thorvardur Love3, Hyon K. Choi4 and Joel Gelfand2, 1University of Pennsylvania, Philadelphia, PA, 2University of Pennsylvania, Philadelphia, PA, 3Labspitali University Hospital, Reykjavik, Iceland, 4Boston University School of Medicine, University of British Columbia, Arthritis Research Centre of Canada, Boston, MA
202 B  VASCULITIS: CLINICAL ASPECTS

Moderators: Loic Guillemin, MD and David Jayne, MD

4:30 PM  2563. FACTORS ASSOCIATED WITH MAJOR CARDIOVASCULAR EVENTS IN PATIENTS WITH PRIMARY SYSTEMIC NECROTIZING VASCULITIDES: RESULTS OF A LONG-TERM FOLLOW-UP STUDY

Benjamin Terrier Sr1, Christian Pagnoux2, Gilles Chironi3, Alain Simon3, Luc Mouthon Sr3, Loic Guillemin3 and French Vasculitis Study Group (FVSG)4, 1Cochin Hospital, Paris, France, 2Leiden University Medical Center, Leiden, Netherlands, 3Diakonhjemmet Hospital, Oslo, Norway, 4University of British Columbia, Richmond, BC, 8University Medical Center Groningen, Groningen, Netherlands.

A CR MEET THE PROFESSOR SESSIONS

4:30 - 6:00 PM

Admission to Meet the Professor sessions requires a separate registration and ticket. To verify which session you registered for, the registration code on your ticket needs to match the 3-digit code in parentheses below. If you are interested in participating in one of these sessions or exchanging your ticket, visit the ACR registration desk to check space availability. View the session overview and learning objectives online in My Annual Meeting at www.ACRannualmeeting.org.

* Sessions denoted with an asterisk were sold out as of September 14.
Central Nervous System Vasculitis (081)
Speaker: Rula Hajj-Ali, MD

Crystal: Pseudogout (082)
Speaker: Ann K. Rosenthal, MD

Pulmonary Manifestations of Rheumatic Disease (084)
Speaker: Kristin B. Highland, MD, MSCR

Raynaud’s and Digital Ischemia (085)
Speaker: Janet E. Pope, MD, MPH

Rheumatoid Arthritis: Safety of Novel Therapies (086)
Speaker: Lee S. Simon, MD

Rheumatology Practice 101: Starting Out in Practice for The Graduating Fellow (087)
Speaker: Michael J. Maricic, MD

Systemic Lupus Erythematosus: Lupus Nephritis (088)
Speaker: Brad H. Rovin, MD

*Systemic Lupus Erythematosus: Novel Treatments (089)
Speaker: Robert G. Lahita, MD, PhD

Vaccinations for Patients on Biologic Therapies (090)
Speaker: Clifton O. Bingham III, MD

RHEUMATOLOGY RESEARCH FOUNDATION SPECIAL SESSION

4:30 - 6:00 PM

Edmond L. Dubois, MD Memorial Lectureship: Hydroxychloroquine Reduces Thrombosis in Systemic Lupus Erythematosus Particularly in Antiphospholipid Positive Patients
Moderators: Francisco P. Quismorio Jr., MD and Lindsay J. Forbes, MD

4:30 PM
2569. Hydroxychloroquine Reduces Thrombosis in Systemic LUPUS Erythematosus, Particularly in Antiphospholipid Positive Patients
Speaker: Genevieve Law, MD

Genevieve Law1, Laurence S. Magder2, Hong Fang3 and Michelle Petri3, 1University of British Columbia, Vancouver, BC, 2University of Maryland, Baltimore, MD, 3Johns Hopkins University School of Medicine, Baltimore, MD

4:45 PM
2570. Lymphoma Risk in Systemic Lupus: Effects of Disease Activity Versus Treatment
Sasha Bernatsky1, Ann E. Clarke1, Karen H. Costenbader1, Murray B. Urowitz2, Dafna D. Gladman3, Paul R. Fortin4, Michelle Petri5, Susan Manzi6, D.A. Isenberg7, Anisur Rahman8, Daniel Wallace9, Caroline Gordon10, Christine Peschken11, Mary Anne Dooley11, E.M. Ginzler12, Cynthia Aranow13, Steven M. Edworthy14, Ola Nived15, Søren Jacobsen16, Guillermo Ruiz-Iturzorza17, Edward Yelin18, Susan G. Barr18, Irene Blanco19, Candace H. Feldman19 and R. Ramsey-Goldman20, 1Systemic Lupus International Collaborating Clinics, Montreal, QC, 2Research Institute of the McGill University Health Centre, Montreal, QC, 3Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 4Toronto Western Hospital and University of Toronto, Toronto, ON, 5Toronto Western Hospital and University of Toronto, Toronto, ON, 6University of Laval, Quebec, 7Johns Hopkins University School of Medicine, Baltimore, MD, 8West Penn Allegheny Health System, Pittsburgh, PA, 9University College of London, London, United Kingdom, 10University College London, London, United Kingdom, 11Cedars-Sinai/UCLA, Los Angeles, CA, 12University of Birmingham, Birmingham, United Kingdom, 13University of Manitoba, Winnipeg, MB, 14University of North Carolina at Chapel Hill, Chapel Hill, NC, 15SUNY-Downstate Medical Center, Brooklyn, NY, 16Feinstein Institute for Medical Research, Manhasset, NY, 17The University of Calgary, Calgary, AB, 18University Hospital - Lund, Lund, Sweden, 19Copenhagen University Hospital, Copenhagen, Denmark, 20Hospital de Cruces, UPV/EHU, Barakaldo, Spain, Bizkaia, Spain, 21University of California San Francisco, San Francisco, CA, 22University of Calgary, Calgary, AB, 23Albert Einstein College of Medicine, Bronx, NY, 24Brigham and Women’s Hospital, Boston, MA, 25Northwestern University Feinberg School of Medicine, Chicago, IL

5:00 PM
2571. Lack of Control of Hypertension in Systemic Lupus Erythematosus
Hong Fang1, Raheel Ahmad2, Laurence S. Magder2 and Michelle Petri1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

5:15 PM
2572. Molecular Signatures in SLE: Flare Vs. Infection
Meggan Mackay1, Michaela Oswald2, Jorge Sanchez-Guerrero2, Juan J. Lichuaco2, Cynthia Aranow1, Sean Kotkin2, Peter K. Gregersen1 and Betty Diamond2, 1The Feinstein Institute for Medical Research, Manhasset, NY, 2Mount Sinai Hospital, University Health Network, Toronto, ON, 3St. Luke’s Medical Center, Quezon City, Philippines
206  

The Puzzle of Fatigue in Rheumatoid Arthritis: Putting the Pieces Together

Moderator: Ann Vincent, MD

Upon completion of this session, participants should be able to:

- recognize the impact of the disease process and behavioral factors in the manifestation of fatigue, and the therapeutic implications for patients with rheumatic diseases
- identify potential psychological and physiological sources of fatigue
- utilize traditional and novel methods (e.g., computer adaptive testing) of measuring fatigue from the patient perspective
- cite evidence supporting psychological and physical activity interventions for rheumatoid arthritis fatigue, and some of the questions that remain to be answered

4:30 PM

Fatigue in Rheumatic Disease from a Psychophysiological Perspective

Rinie Geenen, PhD

5:10 PM

Sources of Fatigue: Body, Mind, or Both?

Patricia P. Katz, PhD

5:30 PM

Non-pharmacological Interventions for Rheumatoid Arthritis Fatigue

Sarah Hewlett, MA, PhD, RN

INDUSTRY-SUPPORTED SYMPOSIA

6:30 - 9:30 PM

These symposia are both CME-accredited and non-CME company-directed programs. For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit. All non-CME programs are wholly sponsored and supported by commercial entities. Please visit the organization’s exhibit booth, the industry-supported symposia booth or see page 317 for more information.
ACR/ARHP REGISTRATION
7:00 AM - 1:00 PM
Registration Hall (Salons G-H-I)

ACR SESSIONS
7:30 - 8:30 AM

Ballroom A
Immunology of Pregnancy and Impact on Autoimmune Pathogenesis
Moderator: Gregg Silverman, MD
Speaker: J. Lee Nelson, MD
Upon completion of this session, participants should be able to:
• summarize the immunobiology of pregnancy and immune tolerance to the fetus
• discuss advances in methods to survey the immune status in pregnant women without and with rheumatic diseases
• discuss the pathogenesis of toxemia of pregnancy in predisposed individuals such as lupus patients
• consider whether insights into the immunology of pregnancy may offer new therapeutic approaches

Hall D
Rheumatology Roundup: Highlights from the 2012 Annual Scientific Meeting
Moderator: Chester V. Oddis, MD
Speakers: John J. Cush, MD and Arthur Kavanaugh, MD
Upon completion of this session, participants should be able to:
• list research highlights from the scientific presentations
• discuss the clinical impact of selected research reports presented at the meeting
• evaluate the therapeutic potential of selected clinical trials presented at the meeting

ARHP SESSIONS
7:30 - 8:30 AM

201
An Introduction to Immunology
Moderator: Afton L. Hassett, PsyD
Speaker: Leonard H. Sigal, MD
Upon completion of this session, participants should be able to:
• distinguish the differences between the innate immune system and the adaptive immune response and how they interact
• develop insights into the functions of B cells and T cells
• recognize mechanisms whereby auto-immunity may occur
• identify the many “yins and yangs” that cooperate to modulate the immune response

206
Beyond the Basics: A Real Life Example of Multiple Imputation for Missing Data Problems (Research Series)
Moderator: Sunny Kim, PhD
Upon completion of this session, participants should be able to:
• identify the causes of missing data and how it affects interpretation and analysis of research studies
• describe statistical principals behind multiple imputation of missing data and why it is preferred over single imputation techniques
• discuss the analytic techniques (imputation, analysis, pooling) required for multiple imputation
• apply real-life analyses using multiple imputation in popular statistical packages

How Does Loss to Missing Data Happen and What Are the Implications?
Robert R. McLean, DSc, MPH

Overview of Multiple Imputation for Missing Data
Alyssa B. Dufour, MA and Robert R. McLean, DSc, MPH

Using SAS and R to Perform Multiple Imputation
Alyssa B. Dufour, MA
8:10 AM
Introduction to the Johnston County Osteoarthritis Project Dataset
Yvonne M. Golightly, MS, PhD, PT

8:25 AM
Reporting Results in Manuscripts/Take Home Message
Robert R. McLean, DSc, MPH

ACR SESSIONS
9:00 - 10:30 AM
Ballroom C
Biosimilars Development: Food and Drug Administration Perspective
Moderator: Nikolay P. Nikolov, MD
Upon completion of this session, participants should be able to:
• summarize the statutory paradigm for the 351(k) biosimilar pathway
• discuss the Food and Drug Administration’s approach to the development of the biosimilar pathway
• discuss the role analytical similarity assessments and clinical considerations play in biosimilar product development

9:00 AM
Regulatory Framework of Biosimilars Development
Leah Christl, PhD

9:15 AM
Biosimilars Development: The Role of Analytics
Marjorie Shapiro, PhD

9:45 AM
Biosimilars Development: Clinical Considerations
Nikolay P. Nikolov, MD

10:10 AM
Panel Discussion
Badrul Chowdhury, MD, PhD, Leah Christl, PhD, Sarah K. Okada-Yim, MD and Marjorie Shapiro, PhD

Hall D
IgG4-Related Disease – Past Lessons and Future Directions
Moderators: Diane L. Kamen, MD, MS and Arezou Khosroshahi, MD
Upon completion of this session, participants should be able to:
• review the current nomenclature and diagnostic criteria for retroperitoneal fibrosis and IgG4-related disease
• identify the patterns of organ involvement and clinical manifestations of retroperitoneal fibrosis and IgG4-related disease
• describe potential treatment options for retroperitoneal fibrosis and IgG4-related disease

9:00 AM
Retroperitoneal Fibrosis – Past Lessons and Future Directions
Gary S. Gilkeson, MD

9:30 AM
Emerging Concepts in IgG4-Related Disease
John H. Stone, MD, MPH

10:00 AM
Diagnosis and Pathophysiology of IgG4-Related Disease
Yoh Zen, MD, PhD

152 A
NIAMS-Sponsored Research in Rheumatology: 2012 Highlights
Moderator: Robert H. Carter, MD
Upon completion of this session, participants should be able to:
• explain funding mechanisms available to rheumatology investigators
• describe the role of genetics in predicting response to treatment
• explain the future of juvenile idiopathic arthritis treatment and what the pipeline looks like
• identify the extent to which the poorer outcomes of those of low socioeconomic status may be due to the quality of care they receive
• express the importance of patient reported outcomes, and how these outcomes are being evaluated through the PROMIS system

9:00 AM
Funding Opportunities Available in Rheumatology
Bruce N. Cronstein, MD

9:20 AM
Improved Understanding of the Biology and Use of Tumor Necrosis Factor Inhibition in Juvenile Idiopathic Arthritis
D. J. Loveill, MD, MPH

9:40 AM
Health Systems, Quality of Care, and Outcomes
Edward H. Yelin, PhD

10:00 AM
Patient Reported Outcomes Measurement Information System (PROMIS)
James P. Witter, MD, PhD

10:20 AM
Break

Ballroom B
Osteoarthritis Therapeutics: Will This be the Decade for Breakthroughs?
Moderators: Tuhina Neogi, MD, PhD and Jasvinder A. Singh, MD, MPH
Upon completion of this session, participants should be able to:
• review the evidence in the literature regarding current therapies for osteoarthritis
• describe the rationale of new therapies for osteoarthritis, including stem cells and other innovative therapies
• describe the new approaches to treatment of osteoarthritis and promising new therapies on the horizon
• recognize how new treatments compliment the current therapies in management of patients with osteoarthritis
9:00 AM  
**What’s Effective in Osteoarthritis? Appraisal of Current Therapies**  
Marc C. Hochberg, MD, MPH

9:30 AM  
**Stem cells in Osteoarthritis: They Give Them to My Dog, Are we There Yet for Use in Humans?**  
Rocky S. Tuan, PhD

10:00 AM  
**Future of Osteoarthritis Treatment: Therapeutics in the Pipeline**  
David J. Hunter, MBBS, PhD

150 B  
**Predictive Biomarkers: A Journey to Personalized Health Care**  
Moderator: Wael N. Jarjour, MD

Upon completion of this session, participants should be able to:  
- critically review predictive biomarkers in cardiology and hematology/oncology  
- define the status of predictive biomarkers in systemic lupus erythematosus  
- identify models that were used to develop validated predictive biomarkers in cardiology (and other disciplines) and their potential applicability in systemic lupus erythematosus

9:00 AM  
**Predictive Biomarkers in Cardiovascular Disease**  
Alan S. Maisel, MD

9:30 AM  
**Moving from Prognostic to Predictive Factors in Oncology**  
Neil E. Kay, MD

10:00 AM  
**Predictive Biomarkers in Systemic Lupus Erythematosus: Where are We?**  
Mary K. Crow, MD

**ACR CONCURRENT ABSTRACT SESSIONS**  
9:00 - 10:30 AM

147 A  
**B-cell Biology and Targets in Autoimmune Disease**  
Moderators: Robert A. Eisenberg, MD and William Stohl, MD, PhD

9:00 AM  
**2575. Inhibition of Pathogenic Autoantibodies by Accelerating the Exit of Germinatal Center B Cells Via Manipulation of Regulator of G-Protein Signaling**  
John D. Mountz1, John H. Wang1, James S. New1, PingAr Yang3, Qi Wu3, Bao Luo1, Jun Li1, Kirk M. Druey1 and Hui-Chen Hsu1, 1Univ of Alabama at Birmingham and Birmingham VA Medical Center, Birmingham, AL, 2Cedars Sinai Medical Center, Los Angeles, CA, 3University of Alabama at Birmingham, Birmingham, AL, 4National Institute of Allergy and Infectious Diseases, Bethesda, MD

9:15 AM  
**2576. Production of Citrullinated Filaggrin-Specific IgG in Rheumatoid Arthritis Patients Is Associated with an Expansion of Citrullinated Filaggrin Tetramer-Binding Switched Memory Blood B Cells**  
Philip Titcombe, Laura O. Barsness, Lauren Giacobbe, Emily Baechler Gillespie, Erik J. Peterson and Daniel L. Mueller, University of Minnesota Medical School, Minneapolis, MN

9:30 AM  
**2577. Characterization of Circulating Human B Cells That Bind Cyclic Citrullinated Peptide Antigens in Clinically Active Rheumatoid Arthritis**  
Gregg J. Silverman1, John Jung2, Jeffrey D. Greenberg1, Adam J. Pelzek1, Caroline Gronwall1 and Jaya Vas1, 1NYU School of Medicine, New York, NY, 2NYU, New York, NY, 3New York University School of Medicine, New York, NY

9:45 AM  
**2578. Monoclonal IgG Antibodies (ACPAs) From Synovial Fluid B Cells of Rheumatoid Arthritis Patients – Antigen-Driven Affinity Maturation and Cross Reactivity**  
Khaled Amara1, Johanna Steen1, Fiona Murray1, Henner Morbach1, Blanca Fernandez-Rodriguez2, Vijay Balasingh2, Marianne Engstrom1, Omri Snir1, Lena Israelsson1, Anca I. Catrina1, Hedda Wardemann1, Davide Corti1, Eric Meffre Jr2, Lars Klareskog1 and Viviane Malmstrom1, 1Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 2Yale University School of Medicine, New Haven, CT, 3Institute for Research in Biomedicine, Bellinzona, Switzerland, 4Max Planck Institute for Infection Biology, Berlin, Germany

10:00 AM  
**2579. Novel Autoantibodies to 14-3-3 Eta Are Highly Specific for Rheumatoid Arthritis**  
Walter P. Maksymowych1, Désirée van der Heijde1, R. Landewe1, Vivian P. Bykerk2 and Anthony Marotta3, 1University of Alberta, Edmonton, AB, 2Leiden University Medical Center, Leiden, Netherlands, 3Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 4Hospital for Special Surgery, New York, NY, 5Augurex Life Sciences Corp, North Vancouver, BC

10:15 AM  
**2580. Marginal Zone Defects in Wiskott-Aldrich Syndrome Are Dependent On B Cell Intrinsic Toll-Like Receptor Signals**  
Shaun W. Jackson1, Nikita Kolhatkar1, Marc A. Schwartz2, Socheath Khim2 and David J. Rawlings3, 1Seattle Children’s Hospital, Seattle, WA, 2Department of Immunology, University of Washington, Seattle, WA, 3Seattle Children’s Research Institute, Seattle, WA, 4Washington, Seattle, WA

145 A  
**Imaging of Rheumatic Diseases III: Computed Tomography**  
Moderators: Georg A. Schett, MD, PhD and Fiona M. McQueen, MBChB, MD
9:00 AM 2581. Anti- Citrullinated Protein Antibodies but Not Rheumatoid Factor Are Associated with Larger Bone Erosions in rheumatoid arthritis patients- a Cross-Sectional Micro Computed Tomography Study
Carolin Hecht1, Stephanie Finzel1, Matthias Englbrecht1, Sarah Schmidt1, Juergen Rech1, Elizabeth Araujo1 and Georg Schett2,
1University of Erlangen-Nuremberg, Erlangen, Germany, 2Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

9:15 AM 2582. Bone Anabolic Changes Progress in Psa Patients Despite Treatment with Methotrexate or Tumour Necrosis Factor Inhibitors
Stephanie Finzel1, Sebastian Kraus1, Sarah Schmidt1, Axel J. Hueber1, Juergen Rech1, Klaus Engelke1, Matthias Englbrecht1 and Georg Schett2,
1University of Erlangen-Nuremberg, Erlangen, Germany, 2Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

9:30 AM 2583. Bone Structure and Perfusion Quantification of Bone Marrow Edema and Pannus Tissue Areas in the Wrist of Patients with RA
Jose R. Teruel Antolin, Andrew J. Burghardt, Julien Rivoire, Waraporn Srikhum, Susan M. Noworolski, Thomas M. Link, John B. Imboden and Xiaojuan Li, University of California, San Francisco, San Francisco, CA

9:45 AM 2584. Quantitative and Semi-Quantitative Bone Erosion Assessment On High-Resolution Peripheral Quantitative Computed Tomography in Rheumatoid Arthritis
Waraporn Srikhum, Waraporn Virayavanich, Andrew J. Burghardt, Andrew Yu, Thomas M. Link, John B. Imboden and Xiaojuan Li, University of California, San Francisco, San Francisco, CA

10:00 AM 2585. Magnetic Resonance Imaging Versus Dual Energy Computed Tomography for Detection of Joint Pathology in Gout
Fiona M. McQueen1, Anthony Doyle1, Quentin Reeves2, Angela Gao2, Amy Tsai2, Gregory Gamble1, Barbara Curteis1, Megan Williams2 and Nicola Dalbeth1,
1University of Auckland, Auckland, New Zealand, 2Auckland District Health Board, Auckland, New Zealand

10:15 AM 2586. Tendon and Ligament Involvement in Gout: A Dual Energy Computed Tomography Study
Nicola Dalbeth1, Ramanamma Kalluru2, Opetaia Aati1, Fiona M. McQueen1 and Anthony Doyle1,
1University of Auckland, Auckland, New Zealand, 2Department of Rheumatology, Auckland District Health Board, Auckland, New Zealand

143 A

Medical Education

Moderators: Michael H. Pillinger, MD and Michael J. Battistone, MD
2593. Predictive Markers of Therapeutical Outcome and Their Role in the Ethopathology of Juvenile Idiopathic Arthritis
Maura Rossetti1, Roberto Spreafico1, Hong Zhang2, Maryam Mosrhef3, Nora G. Singer4, D. J. Lovell1 and Salvatore Albani1, 1Sanford-Burnham Medical Research Institute, La Jolla, CA, 2MetroHealth Medical Center, Cleveland, OH, 3Cincinnati Children’s Hospital, Cincinnati, OH, 4Seattle Childrens Hospital, Seattle, WA

9:15 AM

2594. Epigenetic Signature of the Response to Anti-TNF in Juvenile Idiopathic Arthritis
Roberto Spreafico1, Maura Rossetti1, Hong Zhang1, Maryam Mosrhef3, Carol Wallace2, D. J. Lovell1 and Salvatore Albani1, 1Sanford-Burnham Medical Research Institute, La Jolla, CA, 2Childrens Hosp & Regional Med, Seattle, WA, 3Cincinnati Children’s Hospital, Cincinnati, OH

9:30 AM

2595. S100A12 At Baseline May Be Useful for Predicting Inactive Disease within 12 Months in Polyarticular Juvenile Idiopathic Arthritis
Gali Malul1, Joy M. Whitbred1, MaryAnn O’Riordan2, Sarah Ringold4, Susan D. Thompson4, Carol Wallace3, Salvatore Albani8 and Nora G. Singer7, 1MetroHealth Medical Center, Cleveland, OH, 2Case Medical Center, Cleveland, OH, 3Seattle Children’s Hospital, Seattle, WA, 4Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 5Childrens Hosp & Regional Med, Seattle, WA, 6Sanford-Burnham Medical Research Institute, La Jolla, CA, 7Director, Division of Rheumatology, MetroHealth Medical Center, Case Western Reserve University, Cleveland, OH

9:45 AM

2596. Rituximab Treatment for Antineutrophil Cytoplasmic Antibody-Associated Vasculitis in Children
Katharine F. Moore1, Leonard L. Dragone2, Jennifer B. Soep3 and J. Roger Hollister3, 1Seattle Children’s Hospital / University of Washington, Seattle, WA, 2National Jewish Health, Denver, CO, 3Children’s Hospital Colorado, Aurora, CO

10:00 AM

2597. Degree of Initial Intracellular Folate Depletion May Predict Methotrexate Response in Juvenile Idiopathic Arthritis
Leon van Haandel1, Ryan S. Funk1, Maria F. Ibarra2, Mark F. Hoeltzel1, Andrew Lasky1, Daisy Dai1, Rodger Gaedigk1, J. Steven Leeder1 and Mara L. Becker1, 1Children’s Mercy Hospital, Kansas City, MO, 2Children’s Mercy Hospital, Kansas City, MO

10:15 AM

2598. Anti-Drug Antibodies Are Associated with Diminished Drug Levels and Treatment Failure
Miha Kosmac1, Natasa Toplak1, Gabriele Simonini1, Ilaria Pagnini2, Rolando Cimaz2, Vladka Curin Serbec3 and Tadej Avcin4, 1Blood Transfusion Centre of Slovenia, Ljubljana, Slovenia, 2University Children’s Hospital Ljubljana Slovenia, Ljubljana, Slovenia, 3Anna Meyer Children’s Hospital Ljubljana Slovenia, Ljubljana, Slovenia, 4Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy

10:20 AM

2600. Assessment of Quality of Care for Incident Lupus Nephritis in the U.S. Medicaid Population
Jinoos Yazdany1, Candace H. Feldman2, Jun Liu3, Michael M. Ward4, Michael A. Fischer5 and Karen H. Costenbader6, 1University of California San Francisco, San Francisco, CA, 2Brigham and Women’s Hospital, Boston, MA, 3Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 4NIAMS/NIH, Bethesda, MD, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

9:30 AM

2601. Improving Delivery of Care for JIA Across a Multi-Center Network Using a Shared Data Registry and Quality Improvement Science: The Pediatric Rheumatology Care and Outcomes Improvement Network
Catherine A. Bingham1, Lynn M. Darbie2, Keith Marsolo3, Jennifer E. Weiss4, Stacy P. Ardoin5, Ronald M. Laxer6, D. J. Lovell7, Murray H. Passo8, Sheetal Vora9, Beth S. Gottlieb9, Timothy Beukelman9, Nancy Griffin10, Jason A. Stock11, Michael L. Miller12, Karen Onel13, Tova Ronis14, Peter Margolis15 and Esi M. Morgan16, 1Sanford-Burnham Medical Research Institute, La Jolla, CA, 2MetroHealth Medical Center, Cleveland, OH, 3University of California San Francisco, San Francisco, CA, 4NIAMS/NIH, Bethesda, MD, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 6University of Alabama-Birmingham, Birmingham, AL, 7Medical College of Wisconsin, Milwaukee, WI, 8Cohen Children’s Medical Center of New York, New Hyde Park, NY, 9Univ of Alabama-Birmingham, Birmingham, AL, 10Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 11Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 12Childrens Memorial Hospital, Chicago, IL, 13University of Chicago, Chicago, IL, 14Stanford University Hospital, Palo Alto, CA

9:45 AM

2602. The Rheumatology Informatics System for Effectiveness (RISE): Enabling Data Access Across Disparate Sites for Quality Improvement and Research
Peter J. Embi1, Itara Barnes2, Rachel Myslinski2, David Ervin3, William Stevens4, Tara Borlawsy5 and Philip R.O. Payne6, 1The Ohio State University, Columbus, OH, 2American College of Rheumatology, Atlanta, GA
10:00 AM

**2603. Moving Into the Electronic Age: Validation of Rheumatology Self-Assessment Questionnaires On Tablet Computers**

Jessica M. Sage1, Arshia Ali2, Jennifer Farrerelli3, Jennifer L. Huggins1, Kara Covert1, Diane Eskra1, Rina Mina2; Shweta Srivastava1, Janalee Taylor1, Tracy V. Ting1, Esi M. Morgan DeWitt1 and Hermine I. Brunner2, 1Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 2University of Cincinnati, Cincinnati, OH, 3Cincinnati Children’s Hospital Medical Center/University of Cincinnati, Cincinnati, OH

**Ballroom A**

**Rheumatoid Arthritis - Clinical Aspects VI: Remission and Flare in Rheumatoid Arthritis**

Moderators: Ernest Choy, MD and Shahin Jamal, MD, MSc

9:00 AM

**2605. Exploration of Possible Preliminary Descriptions of Remission Based On RAPID3, without Laboratory Tests or Formal Joints Counts but with Careful Joint Examinations, in the Etude Et Suivi Des Polyarthrites Indifférenciées Récentes (ESPOIR) Cohort of Early Rheumatoid Arthritis Patients**

Isabel Castrejón1, Maxime Dougdosos2, Bernard Combe3, Bruno Fautrel4 and Theodore Pincus1, 1NYU Hospital for Joint Diseases, New York, NY, 2Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 3Hospital Lapeyronie, Montpellier, France, 4APHP-Pitie Salpetriere Hospital / UPMC, Paris, France

9:15 AM

**2606. Patient Reported Outcomes in Early Arthritis Patients**

L. Heimans1, K.V.C. Wevers-de Boer2, K. Visser1, R. Goekoop3, T.H.E. Molenaar2, B.A. Grillet4, Tom Huizinga1 and C.F. Allaart1, 1Leiden University Medical Center, Leiden, Netherlands, 2Haga Hospital, The Hague, 3Groene Hart Hospital, Netherlands, 4Zorgsaam hospital, Terneuzen, Netherlands

9:30 AM

**2607. Adherence to a Treat-to-Target Strategy in Early Rheumatoid Arthritis: Results of the Dutch Rheumatoid Arthritis Monitoring Remission Induction Cohort**

Marloes Vermeer1, Ina H. Kuper2, Hein J. Bernelot Moens3, Monique Hoekstra4, Marcel D. Posthumus5, Piet L.C.M. van Riel6 and Mart A.F.J. van de Laar2, 1University of Twente & Medisch Spectrum Twente, Enschede, Netherlands, 2Medisch Spectrum Twente, Enschede, Netherlands, 3Ziekenhuisgroep Twente, Hengelo, Netherlands, 4Isala Klinieken, Zwolle, Netherlands, 5University Medical Center Groningen, Groningen, Netherlands, 6Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

10:15 AM

**2604. Ask a Doc – Rheumatologic Care Delivered Just in Time**

Eric D. Newman1, Chelsea Cedoño1, Thomas M. Harrington2, Thomas P. Oleninski1, Alfred E. Denio1, Androniki Bili1, Brian DelVecchio1, Carolyn Houk2 and Paul F. Simonelli1, 1Geisinger Medical Center, Danville, PA, 2Geisinger Health System, Danville, PA

10:00 AM

**2608. Time in Remission Is Important for Improvement of Physical Function in Patients with Rheumatoid Arthritis (RA)**

Helga Radner1, Farideh Alasti2, Josef S. Smolen1 and Daniel Aleataha2, 1Medical University Vienna, Vienna, Austria, 2Medical University of Vienna, Vienna, Austria, 3Medical University of Vienna and Hietzing Hospital, Vienna, Austria

10:00 AM

**2609. Construct and Criterion Validity of Several Proposed DAS28 Based Rheumatoid Arthritis Flare Criteria: A Cohort Validation Study**

Aatke van der Maas1, Elisabeth Lie2, Robin Christensen3, Ernest Choy4, Yael A. de Man5, Piet L.C.M. van Riel6, Thaisia G. Woodworth7 and Alfons A. den Broeder1, 1Sint Maartenskliniek, Nijmegen, Netherlands, 2Diakonhjemmet Hospital, Oslo, Norway, 3Musculoskeletal Statistics Unit, The Parker Institute, Copenhagen University Hospital, Copenhagen, Denmark, 4Cardiff University School of Medicine, Cardiff, United Kingdom, 5Erasmus Medical Centre, Rotterdam, Netherlands, 6Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 7Visiting Clinical Researcher, Geffen School of Medicine, UCLA, Los Angeles, CA

10:15 AM

**2610. Predictors of Sustained Clinical Remission in Early Rheumatoid Arthritis - Results From the Canadian Early Arthritis Cohort**

Bindee Kuriya1, Juan Xiong2, Gilles Boire3, Boulos Harroui4, Carol A. Hitchon5, Janet E. Pope6, J. Carter Thorne7, Diane Tin7, Edward Keystone1, Vivian P. Bykerk8 and CATCH9, 1University of Toronto, Toronto, ON, 2Mount Sinai Hospital, Toronto, ON, 3CHUS - Sherbrooke University, Sherbrooke, QC, 4Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 5University of Manitoba, Winnipeg, MB, 6St. Joseph’s Health Care London, London, ON, 7Southlake Regional Health Centre, Newmarket, ON, 8Hospital for Special Surgery, New York, NY, 9Toronto, ON

9:45 AM

**2612. Localisation of Bone Marrow Edema in Sacroiliac Joints in Spondyloarthritis Patients: Does the Site of Lesions Change Over a 3-Month Period?**

Manouk de Hooge, Rosaline van den Berg, Monique Reijnierse, Victoria Navarro-Compán, Floris van Gaalen, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands
2613. Effect of Certolizumab Pegol On Signs and Symptoms in Patients with Psoriatic Arthritis with and without Prior Anti-TNF Exposure: 24 Week Results of a Phase 3 Double-Blind Randomized Placebo-Controlled Study
Philip Mease1, Roy M. Fleischmann2, Jürgen Wollenhaupt3, Atul A. Deodhar4, Danuta Kielar5, Franz Woltering6, Christian Stach7, Bengt Hoepken8, Terri Arledge9 and Désirée van der Heijde9,
1Seattle Rheumatology Associates, Seattle, WA, 2University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 3Schön-Klinik, Hamburg, Germany, 4Oregon Health & Science University, Portland, OR, 5UCB Pharma, Brussels, Belgium, 6UCB Pharma, Monheim am Rhein, Germany, 7UCB Pharma, Rtp, NC, 8Leiden University Medical Center, Leiden, Netherlands

9:45 AM
2614. The Risk of Diabetes in Psoriatic Arthritis and Rheumatoid Arthritis
Maureen Dubreuil1, Young Hee Rho1, Ada Man2, Yanyan Zhu3, Yuqing Zhang4, Thorvardur Love5, Alexis Ogdie6, Joel Gelfand7 and Hyon Choi8,
1Boston University School of Medicine, Boston, MA, 2Boston University, Boston, MA, 3Department of Biostatistics, Boston University School of Public Health, Boston, MA, 4Labspital University Hospital, Reykjavik, Iceland, 5University of Pennsylvania, Philadelphia, PA, 6University of Pennsylvania,, Philadelphia, PA

10:00 AM
2615. Circulating Levels of Citrullinated Vimentin Fragments Are Diagnostic and Prognostic in Ankylosing Spondylitis; Evidence for Disease-Related Citrullination
Anne C. Bay-Jensen1, Morten Asser Karsdal2, Efstatios Vassiliadis3, Stephanie Wichuk4, Zheng Zhao5, Robert GW Lambert6, Rik Lories7, Claus Christiansen8 and Walter P. Maksymowycz9,
1Nordic Bioscience A/S, Herlev, Denmark, 2Department of Rheumatology, University of Alberta, Edmonton, AB, 3Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, Beijing, China, 4KU Leuven, Leuven, Belgium, 5CCBR, Ballerup, Denmark

10:15 AM
2616. The Transition From Psoriasis (Ps) to Psoriatic Arthritis (PsA) Is Associated with Elevated Circulating Osteoclast Precursors (OCP) and Increased Expression of DC-STAMP
Ya-Hui Chiu1, Edward M. Schwarz2, Dafna Gladman3, Sharon Moorehead4, Michelle Smith5, Rick Barrett6 and Christopher T. Ritchlin7,
1University of Rochester, Rochester, NY, 2Toronto Western Hospital and University of Toronto, Toronto, ON, 3University of Rochester Medical Center, Rochester, NY, 4University of Rochester Medical Center, Rochester, NY

Hall E
Systemic Lupus Erythematosus - Clinical Aspects and Treatment IV: Therapeutics
Moderators: Jose A. Gomez-Puerta, MD, PhD and Daniel Wallace, MD

9:00 AM
2617. Outcomes Associated with Belimumab in Black/African American Patients with Systemic Lupus Erythematosus in Clinical Practice Settings in the United States
Christopher E. Collins1, Siva Narayanan2, Maria Dall’Era3, Greg Dennis4, Alan Oglesby5, Mark B. McGuire6, Ramesh Pappu7, Charles T. Mota8 and Greg Keenan9,
1Washington Hospital Ctr, Washington, DC, 2Human Genome Sciences, Inc., Rockville, MD, 3University of California, San Francisco, San Francisco, CA, 4GlaxoSmithKline, Research Triangle Park, NC, 5Medical Data Analytics, Parsippany, NJ, 6GlaxoSmithKline, USA, Philadelphia, PA, 7GlaxoSmithKline, Philadelphia, PA

9:15 AM
2618. Lupus Disease Activity Severely Impairs Pandemic Influenza A/H1N1 Vaccine Immune Response in Patients without Therapy
Eduardo F. Borba1, Sandra G. Posto1, Ana L. Calich2, Ricardo Fuller3, Vilma S.T. Viana4, Margareth Vendramini5, Joao Miraglia6, Maria A. Ishida7 and Eloisa Bonfa8,
1University of Sao Paulo, Sao Paulo, Brazil, 2Fundação Butantan, São Paulo, Brazil, 3Adolfo Lutz Institute, Sao Paulo, Brazil, 4University of São Paulo, São Paulo, Brazil

9:30 AM
2619. A Double-Blind Randomized Placebo-Controlled Trial of the Effect of vitamin D3 On the Interferon Signature in Patients with Systemic Lupus Erythematosus
Cynthia Aranow1, Maria Dall’Era2, Elena M. Massarotti3, Meggan C. Mackay4, Andreea Coca5, Fotios Koumpouras6, Marc C. Levesque7, W. Winn Chatham8, Megan E. B. Clowse9, Lisa G. Criscione-Schreiber10, Sherrl Callahan11, Ellen A. Goldmuntz12, Lynette Keyes-Ellstone13, Betty Diamond14 and Diane L. Kamen15,
1Feinstein Institute for Medical Research, Manhasset, NY, 2University of California, San Francisco, San Francisco, CA, 3Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 4The Feinstein Institute, Manhasset, NY, 5University of Rochester, Rochester, NY, 6West Penn Hospital, Pittsburgh, PA, 7University of Pittsburgh, Pittsburgh, PA, 8University of Alabama at Birmingham, Birmingham, AL, 9Duke University Medical Center, Durham, NC, 10NIAID/NIH Rm 6807, Bethesda, MD, 11Rho Federal Systems, Inc., Chapel Hill, NC, 12Feinstein Institute Med Rsch, Manhasset, NY, 13Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC

9:45 AM
2620. Randomized, Double-Blind, Placebo-Controlled Studies of P140 Peptide in Mannitol (Lupuzor) and Trehalose (Forigerimod) in Patients with SLE
Robert Zimmer1, Daniel J. Wallace2 and Sylviane Muller3,
1ImmuPharma France, Mulhouse, France, 2Cedars-Sinai Medical Center, Los Angeles, CA, 3CNRS, Strasbourg, France

10:00 AM
2621. Sustained Disease Improvement and Safety Profile Over 1745 Patient-Year Experience (7 years) with Belimumab in Systemic Lupus Erythematosus Patients
1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2North Shore-LI Health System, Lake Success, NY, 3Cedars-Sinai Medical Center, Los Angeles, CA, 4University of Southern California Keck School of Medicine, Los Angeles, CA, 5University of Alabama at Birmingham, Birmingham, AL, 6Washington Hospital Center, Washington, DC, 7SUNY-Downstate Medical Center, Brooklyn, NY, 8Human
2622. Efficacy and Safety of Rontalizumab (Anti-Interferon Alpha) in SLE Subjects with Restricted Immunosuppressant Use: Results of A Randomized, Double-Blind, Placebo-Controlled Phase 2 Study
K. Kalunian¹, Joan T. Merrill², R. Maciuca³, Wenjun Ouyang⁴, J. M. McBride⁵, Michael J. Townsend⁶, E. Park⁷, J. Li⁸, X. Wei⁹, A. Morimoto¹⁰, R. Boismenu¹, John C. Davis Jr.¹¹ and William P. Kennedy¹², ¹UCSD School of Medicine, La Jolla, CA, ²Oklahoma Medical Research Foundation, Oklahoma City, OK, ³Genentech, Inc, South San Francisco, CA

ARHP SESSIONS
9:00 - 10:30 AM

206 Forming an Education and Support Group from the Ground up
Moderator: Thuy T. Beam, RN, BSN
Upon completion of this session, participants should be able to:
- review the literature of the value of support and education groups for both teens and their parents
- analyze identified barriers and how to overcome them
- analyze and evaluate the success of a collaborative effort
- discuss the development of three programs models, their pro and cons
- identify options and resources available to develop a strong community program

9:00 AM
Getting Started: From Concept to Program Development
Sandra J. Watcher, BSN

9:25 AM
Building the Community and Engaging Partners to Fulfill the Vision
Elyse M. Leon-Reyes, BA, MPA

9:50 AM
Bringing It All Together: Patient Impact and Resource Building
Jennifer A. Ziegler

10:15 AM
Question & Answer

201 Osteoporosis: 2012 Update
Moderator: Hazel L. Breland, PhD, OTR/L
Upon completion of this session, participants should be able to:
- review osteoporosis treatments and recommendations for duration of therapy
- describe the importance and effectiveness of medical management post-hip fracture to reduce risk of subsequent fracture
- cite the evidence for exercise and other non-pharmacologic therapeutic interventions for fracture prevention and hyperkyphosis

9:00 AM
Update on Imaging and Medications: When, Who, and How Long
Nancy E. Lane, MD

9:25 AM
Post Fracture Management
Michael R. McClung, MD

9:50 AM
Best Posture, Movement and Exercise for Vertebral Fracture Prevention and Hyperkyphosis
Wendy Katzman, DSc, PT

10:15 AM
Question & Answer

ARHP CONCURRENT ABSTRACT SESSIONS
9:00 - 10:30 AM

140 A Systemic Sclerosis, Vasculitis, Crohn’s and Spondylarthropathies
Moderators: Elizabeth G. Salt, PhD and Emily C. Somers, PhD

9:00 AM
2623. Taking Charge of Systemic Sclerosis: A Pilot Study of an Internet Self-Management Program
Janet L. Poole¹, Dinesh Khanna², Betty Skipper³ and Cindy F. Mendelson¹, ¹University of New Mexico, Albuquerque, NM, ²University of Michigan, Ann Arbor, MI, ³University of New Mexico, NM

9:15 AM
2624. Changes in Leisure Participation in Persons with Systemic Sclerosis
Cindy F. Mendelson, Jessica Greaves and Janet L. Poole, University of New Mexico, Albuquerque, NM

9:30 AM
2625. The Impact of Sexual Difficulties in Women with Scleroderma and Interpersonal Relationships
Tanaka Ngcozana¹, Louise Parker², Christopher P. Denton² and Voon Ong³, ¹UCL Medical School and Royal Free Hosp, London, United Kingdom, ²UCL, London, United Kingdom, ³UCL Medical School, London, England

9:45 AM
2626. The Utility of the Patient Health Questionnaire-9 to Assess Suicide Risk in Patients with Systemic Sclerosis
Ilya Razykov¹, Marie Hudson¹, Murray Baron² and Brett D. Thombs², ¹McGill University, Montreal, QC, ²Jewish General Hospital, Montreal, QC

10:00 AM
2627. Gender Differences of Concepts Important to People Living with Crohn’s Disease and Their Coverage by Commonly Used Patient-Reported Outcome Instruments: Patient’s Perspective Elevated by a Qualitative Study
Mona Dür¹, Michaela Coenen², Josef S. Smolen¹, Clemens Dejaco¹ and Tanja A. Stamm¹, ¹Medical University of Vienna,
10:15 AM
2628. The Lumbo-Pelvic Muscles and Axial Spondyloarthritis: A Pilot Observational Study
Janet Millner¹, Julie A. Hides², Patricia Lewis³ and Jane Zochling³, ¹Royal Hobart Hospital, Hobart, Australia, ²Australian Catholic University, Brisbane, Australia, ³Menzies Research Institute Tasmania, Hobart, Australia

204 A
Clinical and Rehabilitative Aspects of Osteoarthritis
Moderators: Leigh F. Callahan, PhD and Dorothy D. Dunlop, PhD

9:00 AM
2629. Associations of Current and Early-Life Socioeconomic Positions with Risk of Self-Reported Doctor-Diagnosed Arthritis in a Family-Medicine Cohort of North-Carolinitans
Antoine A. Baldassari¹, Rebecca J. Cleveland¹ and Leigh F. Callahan¹, ¹University of North Carolina at Chapel Hill, Chapel Hill, NC, ²University of North Carolina, Chapel Hill, NC

9:15 AM
2630. Rheumatoid Arthritis and Osteoarthritis in the Population: How Different Is the Impact?
Christina H. Chan¹, Mayilee Canizares¹ and E.M. Badley², ¹Division of Healthcare Outcomes and Research, Toronto Western Research Institute, Toronto, ON, ²Division of Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, ON

9:30 AM
2631. Radiographic Osteoarthritis Severity Is Associated with an Increased Risk of Developing Knee Pain: Findings From the Osteoarthritis Initiative
Jingbo Niu, David T. Felson, Tuhina Neogi and Yuqing Zhang, Boston Univ School of Medicine, Boston, MA

9:45 AM
2632. Doing Is Believing: Health Beliefs Before and After an Exercised-Based Rehabilitation Programme for Chronic Knee Pain
Mike Hurley¹ and Dr Nicola E. Walsh¹, ¹St George's University of London, London, United Kingdom, ²University of the West of England Bristol, Bristol, United Kingdom

10:00 AM
2633. Independence At Home: Real or Perceived
Hazel L. Breland, Medical University of South Carolina, Charleston, SC

10:15 AM
2634. Physical Disability, Perceived Dependence and Depression in Older Women with Osteoarthritis
Kisoo Park¹, Monique A. Gignac² and E. M. Badley³, ¹Gyeongsang National University, Jinju, South Korea, ²Arthritis Community Research and Evaluation Unit, Toronto Western Research Institute and University of Toronto, Toronto, ON, ³Division of Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, ON

ACR SESSIONS
11:00 AM - NOON
Hall D
Amyloidosis 2012
Moderator: Gregory C. Gardner, MD
Speaker: Jonathan Kay, MD
Upon completion of this session, participants should be able to:
- describe to a colleague the immunology of various forms of amyloidosis
- compare and contrast the clinical manifestation of amyloidosis
- order appropriate laboratory/diagnostic testing
- explain the current therapeutic approaches to amyloidosis

Mechanisms of Autoinflammatory Diseases
Moderator: Robert Lafyatis, MD
Speaker: Richard M. Siegel, MD, PhD
Upon completion of this session, participants should be able to:
- describe the clinical presentation of patients with TRAPs and other auto-inflammatory diseases
- explain recent advances in understanding pathogenesis of these diseases

ACR SESSIONS
11:00 AM - 12:30 PM
Ballroom C
Making Sense of Autoantibodies in the Diagnosis of Systemic Rheumatic Diseases
Moderator: Luis Eduardo C. Andrade, MD, PhD
Upon completion of this session, participants should be able to:
- review the technical basis of the several methodological platforms for autoantibody determination
- discuss the pros and cons of each methodological platform
- assess the clinical performance of autoantibodies determined by different methodological platforms
- recognize the perspectives for optimum autoantibody testing in the globalized world

Elements for Discriminating a Positive ANA-HEp-2 Test in Patients with and without Systemic Rheumatic Disease
Luis Eduardo C. Andrade, MD, PhD

Antinuclear Antibody Screening: Indirect Immunofluorescence on HEp-2 Cells versus ELISA and Related Platforms
Donald B. Bloch, MD

NOON
How May the Choice of the Laboratory Technique Influence Results in the Lab: Critical Analysis of Different Autoantibody Assays and Proposition of Algorithms for Optimal Clinical Value
Johan Ronnelid, MD
Rheumatoid Arthritis – Treating to Target: How to Incorporate Rheumatoid Arthritis Disease Activity Measures into Routine Practice

Moderator: Mark L. Robbins, MD, MPH

Upon completion of this session, participants should be able to:
• explain which measure(s) best fits your practice setting
• describe the time required to administer and score each measure
• discuss how to locate the forms/scoring sheets
• review the strengths and weaknesses of each measure that have practical implications for following patients
• outline the usefulness of a registry when implementing measures in a practice setting

11:00 AM
Rheumatoid Arthritis – Treating to Target: Why the Time has Come For All Rheumatologists to Routinely Measure Rheumatoid Arthritis Disease Activity in their Practices
James R. O’Dell, MD

11:20 AM
Which Rheumatoid Arthritis Disease Activity Measures to Use in Practice and Why
Charles M. King II, MD

11:40 AM
Accessing and Using Rheumatoid Arthritis Disease Activity Measures
Kaleb Michaud, PhD

Noon
Using the ACR Rheumatology Clinical Registry to Document Rheumatoid Arthritis Disease Activity
Salahuddin Kazi, MD

ACR CONCURRENT ABSTRACT SESSIONS
11:00 AM - 12:30 PM
207 A
Epidemiology and Health Services Research V: Rheumatoid Arthritis Management in the Treat-to-Target Era
Moderators: Lee S. Simon, MD and Jeffrey R. Curtis, MD, MPH

11:00 AM
2635. Exploring the Influence of Patient Perceptions On Medication Escalation in Daily Practice
Jos Hendrikx, Wietse Kievet, Jaap Fransen and Piet L.C.M. van Riel, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

11:15 AM
2636. Understanding Why Treat-to-Target Strategies Are Difficult to Follow
Liana Fraenkel1, Meaghan Cunningham2 and Paul Falzer3, 1Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 2Yale University School of Medicine, New Haven, CT, 3VA Connecticut Healthcare System, New Haven, CT

11:30 AM
2637. Cost-Effectiveness and Cost-Utility Analysis of Treat-to-Target Versus Usual Care in Early Rheumatoid Arthritis: Results of the Dutch Rheumatoid Arthritis Monitoring Registry
Marloes Vermeer1, Wietse Kievet2, Ina H. Kuper3, Annemarie Braakman-Jansen4, Hein J. Bernelot Moens5, Theo R. Zijlstra6, Alfons A. den Broeder7, Piet L.C.M. van Riel8, Jaap Fransen2 and Mart A.F.J. van de Laar2, 1University of Twente & Medisch Spectrum Twente, Enschede, Netherlands, 2Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 3Medisch Spectrum Twente, Enschede, Netherlands, 4University of Twente, Enschede, Netherlands, 5Ziekenhuisgroep Twente, Hengelo, Netherlands, 6Isala Klinieken, Zwolle, Netherlands, 7Maartenskliniek, Nijmegen, Netherlands

11:45 AM
Ozgur Tunceli1, Jeffrey R. Curtis1, Tatia C. Woodward1, Siting Zhou1, Yan-Wen Chen2 and Ancilla W. Fernandez3, 1HealthCore, Inc, Wilmington, DE, 2Univ of Alabama-Birmingham, Birmingham, AL, 3Medimmune, LLC, Gaithersburg, MD

Noon
2639. Residual Disease Activity in Patients with Early Rheumatoid Arthritis Who Were Classified As Being in Remission According to 8 Different Descriptions: Post Hoc Analysis of the Etude Et Suivi Des Polyarthrites Indifférenciées Récentes (ESPOIR) Cohort
Isabel Castrejón1, Maxime Dougdos2, Bernard Combe3, Francis Guillemin4, Bruno Fautrel5 and Theodore Pincus1, 1NYU Hospital for Joint Diseases, New York, NY, 2Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 3Hôpital Lapeyronie, Montpellier, France, 4Faculte de Medecin/BP 184, Vandoeuvre-les-Nancy, France, 5APHP-Pitie Salpetriere Hospital / UPMC, Paris, France

12:15 PM
2640. Methotrexate Adverse Events in a Cohort of US Veterans with Rheumatoid Arthritis
Lisa A. Davis1, Brooke Ivan Polk2, Alyse D. Mann3, Gail S. Kerr4, Andreas M. Reimold5, Grant W. Cannon6, M. Ted R. Mikuls7 and Liron Caplan8, 1Univ of Colorado School of Med, Aurora, CO, 2University of Colorado Medical School, Aurora, CO, 3Denver VA Medical Center, Denver, CO, 4Washington DC VAMC, Georgetown and Howard University, Washington, DC, 5Dallas VA and University of Texas Southwestern, Dallas, TX, 6George E. Wahlen VA Medical Center, Salt Lake City, UT, 7Omaha VA and University of Nebraska Medical Center, Omaha, NE, 8Denver VA and University of Colorado School of Medicine, Aurora, CO

202 B
Fibromyalgia and Soft Tissue Disorders II

Moderators: Mary-Ann Fitzcharles, MBChB, MD and Dennis Ang, MD

11:00 AM
2641. Time-to-Improvement of Pain and Sleep in Clinical Trials of Pregabalin Treatment of Fibromyalgia
Lesley M. Arnold1, Andrew Clair2, Birol Emir2, Lynne Pauer2
11:15 AM

2642. Rate and Predictors of Work Disability in Fibromyalgia
Frederick Wolfe1, Brian T. Walitt2, Robert S. Katz3 and Winfried Häuser4, 1National Data Bank for Rheumatic Diseases, Wichita, KS, 2Washington Hospital Center, Washington, DC, 3Rush University Medical Center, Chicago, IL, 4Technische Universität München, Munich, Germany

11:30 AM

2643. Grey Matter Decrease in Fibromyalgia Is Related to Pain Catastrophizing and Pain Sensitivity
Marta Ceko, Mary-Ann Fitzcharles, M. Catherine Bushnell and Petra Schweinhardt, McGill University, Montreal, QC

11:45 AM

2644. Functional Magnetic Resonance Imaging of Working Memory in Fibromyalgia: Support for a “Competing Demands” Theory of Cognitive Function in Chronic Pain
Anson E. Kairys, Gabriela Ramirez, Eric Ichesco, Johnson P. Hampson, Richard E. Harris, Daniel J. Clauw, Tobias Schmidt-Wilcke and Jennifer M. Glass, University of Michigan, Ann Arbor, MI

NOON

2645. The Transcription Factor Mohawk Plays an Important Role for Maintaining Human Anterior Cruciate Ligament Homeostasis
Hiroyuki Nakahara, Akihiko Hasegawa, Fumiaki Ayabe, Tetsuya Matsukawa, Koji Otabe, Tomo Yonezawa, Martin K. Lotz and Hiroshi Asahara, The Scripps Research Institute, La Jolla, CA

12:15 PM

2646. Cost-Effectiveness of Tai Chi Mind-Body Exercise for the Treatment of Fibromyalgia
John B. Wong and Chenchen Wang, Tufts Medical Center, Boston, MA

11:30 AM

Christina Mertelsmann-Voss1, Ting Jung Pan2, Stephen L. Lyman3, Mark P. Figgie4 and Lisa A. Mandl5, 1Hospital for Special Surgery, Cornell University, New York, NY, 2Hospital for Special Surgery, New York, NY, 3Children’s Hospital Los Angeles, Los Angeles, CA, 4Departments of Pediatric Dermatology, Hospital Niño Jesús, Madrid, Spain, Madrid, Spain, 5Meditex Spain, Malaga, Spain, 6KK Women’s and Children’s Hospital, Singapore, Singapore, 7Translational Autoinflammatory Disease, University of Cincinnati College of Medicine, Cincinnati, OH, 8Nicolas, New York, NY

11:45 AM

2650. The Meteor Trial: Preliminary Results of an RCT of Arthroscopic Partial Meniscectomy Vs. Physical Therapy in Patients greater Than 45
Jeffrey N. Katz1, Christine E. Chaisson2, Brian Cole3, Laurel Donnell-Fink1, Morgan Jones1, Bruce Levy4, Lisa A. Mandl5, Scott Martin6, Robert Marx7, Anthony Miniaci8, Joseph Palmisano9, Emily Reinke9, Clare Safran-Norton10, Debra J. Skoniecki8, Daniel Hal Solomon10, Kurt P. Spindler6, John Wright11, Rick Wright12 and Elena Losina12, 1Brigham and Women’s Hospital, Boston, MA, 2Boston University School of Public Health, Boston, MA, 3Rush University, Chicago, IL, 4Cleveland Clinic, Cleveland, OH, 5Mayo Clinic, Rochester, MN, 6Hospital for Special Surgery, New York, NY, 7Boston University School of Public Health, 8Vanderbilt University, Nashville, TN, 9Brigham & Womens Hospital, Boston, MA, 10Washington University, MO

NOON

2651. Associations Between Body Mass Index and Physical Activity Following Total Knee Replacement
Carol A. Oatis1, Wenjun Li2, Milagros Rosal3, David Ayers4 and Patricia D. Franklin5, 1Arcadia University, Glenside, PA, 2University of Massachusetts Medical School, Worcester, MA

12:15 PM

2652. Benefits of Aerobic Training in Patients with Ankylosing Spondylitis Are Not Coupled by Effects On Cytokines: A Randomized Controlled Trial
Fabio Jennings, Hilda A. Oliveira, Marcelo C. Sousa, Vanessa G. Cruz, Fabio S. Lira and Jamil Natour, Universidade Federal de Sao Paulo, Sao Paulo, Brazil

145 A

Orthopedics, Low Back Pain, and Rehabilitation
Moderators: Leena Sharma, MD and Agustin Escalante, MD

11:00 AM

2647. Effects of Pain Expectations On Neuromuscular Control of the Spine in Patients with Chronic Low Back Pain and Healthy Participants
Yves Henchoz, Charles Tétreau, Jacques Abboud, Mathieu Piché and Martin Descarreaux, Université du Québec à Trois-Rivières, Trois-Rivières, QC

11:15 AM

2648. Randomized Placebo-Controlled Trial of Local Steroid Injection for Moderately Severe Carpal Tunnel Syndrome
Isam Atroshi1, Magnus Flandell1 and Manfred Hofer1, 1Lund University, Hässleholm, Sweden, 2Lund University, Malmö, Sweden, 3Kristianstad Hospital, Kristianstad, Sweden

143 A

Pediatric Rheumatology - Pathogenesis and Genetics
Moderators: Anthony R. French, MD and James W. Verbsky, MD, PhD

11:00 AM

2653. A Subset of up-Regulated IFN Regulated Genes in Candle Patients Decrease with Treatment with a JAK Inhibitor
Adriana Almeida de Jesus1, Yin Liu2, Gina A. Montealegre2, Adam L. Reinhardt3, Diane Brown4, Antonio Torrelo5, Angel V. Casano6, Lena Das7, Yongqing Chen8, Yan Huang8, Deborah Stone9, Dawn C. Chapelle10, Nicole Plass11, Steven H. Zuckerman12, Anthony R. French, MD and James W. Verbsky, MD, PhD
Disease Section, Office of the Clinical Director NIAMS, Bethesda, MD, 1National Institutes of Health, Bethesda, MD, 2National Institutes of Health Clinical Center, Bethesda, MD, 3Lilly Research Labs, Indianapolis, IN, 4Eli Lilly and Company, Indianapolis, IN, 5Translational Autoinflammatory Diseases Section NIAMS NIH, Bethesda, MD

11:15 AM

**2654. Genome-Wide Association Study of Methotrexate Response Identifies Novel Genes in a Large Cohort of European Juvenile Idiopathic Arthritis Cases**

Joanna Cobb1, Erika Cule1, Halima Moncrieffe1, Edward Flynn1, Anne Hinks1, Fiona Patrick1, Laura Kassoumeri1, Simona Ursu1, Maja Bulatovic2, Marek Bohm2, Bertrand D. van Zelst2, Pavla Dolezalova2, Robert De Jonge2, Nico M. Wulffraat2, Stanton Dolezalova3, Maria de Iorio3, Lucy R. Wedderburn3 and Wendy Thomson1, 1Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, 2Imperial College London, United Kingdom, 3University College London, London, United Kingdom, 4University of Manchester, Manchester, United Kingdom, 5University of Sheffield, Sheffield, United Kingdom, 6First University of Genoa, Genoa, Italy, 7Istituto Giannina Gaslini, Genoa, Italy, 8City University London, London, United Kingdom, 9University of Minnesota, Minneapolis, MN, 10National Institutes of Health Clinical Center, Bethesda, MD, 11Children’s Hospital Medical Center, Cincinnati, OH, 12Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, 13Hospital de Pediatria Garrahan, Buenos Aires, Argentina, 14Universidad Federal de Sao Paulo / UNIFESP, Sao Paulo, Brazil, 15Istituto di Patologia e Puericultura Martagao Gesteira (IPPMG) da Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, Brazil, 16Hospital for Sick Children, Toronto, ON, 17University College London (UCL), London, United Kingdom, 18University Childrens Hospital, Barcelona, Spain, 19National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, 20The Wellcome Trust Sanger Institute, Cambridge, United Kingdom, 21Wake Forest School of Medicine, Winston-Salem, NC, 22University College London, London, United Kingdom

11:30 AM

**2655. Rapid and Effective Response to Immunosuppression in Treating Macrophage Activation Syndrome Associated with a Heterozygous Dominant Negative Mutation in RAB27a Leading to Decreased Cytolytic Activity**

Randy Q. Cron, Mingce Zhang, Christina J. Bemrich-Stolz and Timothy Beukelman, Univ of Alabama-Birmingham, Birmingham, AL

11:45 AM

**2656. Elevated Serum Follistatin-Like Protein 1 Suggests an Interleukin-1 Independent Pathway for Inflammation in Patients with Cryopyrin Associated Periodic Syndromes**

Mark Gorelik1, Daniel Bushnell2, Raphaela T. Goldbach-Mansky2, Hal M. Hoffman2 and Raphael Hirsch2, 1Univ of Pittsburgh Med Ctr Children’s Hospital, Pittsburgh, PA, 2Children’s Hospital Pittsburgh, Pittsburgh, PA, 3Translational Autoinflammatory Diseases Section NIAMS NIH, Bethesda, MD, 4University of California at San Diego, La Jolla, CA, 5Children’s Hosp Pittsburgh, Pittsburgh, PA

12:15 PM

**2658. Correlation Between Mefv Genotype and Interleukin (IL)1β secretion and Role of the nlr Family Pyrin Domain Containing 3 (Nlrp3) Inflammasome in Patients with Familial Mediterranean Fever (FMF)**

Alessia Omenetti1, Sonia Carta2, Delfino Laura2, Alberto Martini3, Anna Rubartelli3 and Marco Gattorno3, 1Pediatrics II Unit G Gaslini Institute, Genoa, Italy, 2Cell Biology, IST-San Martino, Genoa, Italy, 3Pediatrics II Unit, G Gaslini Institute and University of Genoa, Genoa, Italy, 4IST-San Martino, Genoa, Italy, Genoa, Italy

**Ballroom A**

**Rheumatoid Arthritis - Clinical Aspects VII: Prediction of Outcome in Rheumatoid Arthritis**

Moderators: Merete L. Hetland, MD, PhD, DMedSc and Yvonne C. Lee, MD, MMedSc

11:00 AM

**2659. An Expanded Repertoire of Anti-Citrullinated Peptide Antibodies Is Associated with Interstitial Lung Disease in Rheumatoid Arthritis**

Jon T. Giles1, Sonye Danoff2, Jeremy Sokolove3, Robert Winchester4, Dimitrios A. Pappas5, Catriona Crabb6, Geoffrey Connors7, Stanley S. Siegelman8, William H. Robinson9 and Joan M. Bathon1, 1Columbia University Medical Center, New York, NY, 2Johns Hopkins School of Medicine, Baltimore, MD, 3VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 4Columbia University, New York, NY, 5Columbia University, College of Physicians and Surgeons, New York, NY, 6VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 7Division of Pulmonary and Critical Care Medicine, Yale University, New Haven, CT, 8Department of Radiology, Johns Hopkins University, Baltimore, MD, 9Stanford University, Palo Alto, CA
11:15 AM
2660. Progressive Radiographic Joint Damage in Established Rheumatoid Arthritis: Common and Strongly Associated with Seropositivity
Siri Lillegården, Nancy A. Shadick, Zafar Jabbar-Lopez, Anna Potapov, Michelle A. Frits, Christine K. Iannaccone, Espen A. Haavardsholm, Tore K. Kviën, Michael Weinblatt and Daniel H. Solomon, 1Diakonhjemmet Hospital, Oslo, Norway, 2Brigham and Women’s Hospital, Boston, MA, 3Harvard School of Public Health, Boston, MA

11:30 AM
2661. Disease Activity Score 28-Joint Count: Are Erythrocyte Sedimentation Rate and C-Reactive Protein Versions Comparable?
Roy M. Fleischmann, Désirée van der Heijde, Andrew S. Koenig, Ronald Pedersen, Annette Szumski, Lisa Marshall and Eustratios Banas, 1University of Texas, Dallas, TX, 2Leiden University Medical Center, Leiden, Netherlands, 3Pfizer Inc., Collegeville, PA

11:45 AM
2662. Tightening up: Musculoskeletal Ultrasound Could Further Individualise Treatment Decisions in Early Rheumatoid Arthritis Patients Treated by a Step-up DMARD Escalation Regimen
James Dale, David Purves, Alex McConnachie, Duncan Porter and Iain B. McInnes, 1University of Glasgow, Glasgow, United Kingdom, 2Gartnavel General Hosp, Glasgow, United Kingdom

NOON
2663. A Variant in the Osteoprotegerin Gene Is Associated with Coronary Atherosclerosis in Patients with Rheumatoid Arthritis: Results From a Candidate Gene Study
Cecilia P. Chung, Joseph F. Solus, Annette Oeser, Chun Li, Paolo Raggi, Jeffrey R. Smith and C. Michael Stein, 1Vanderbilt University, Nashville, TN, 2Emory University, Atlanta, GA

12:15 PM
2664. A Multi-Biomarker Disease Activity (VECTRA™ DA Algorithm) Score Reflects Clinical Disease Activity and Tracks Responses in Patients with Rheumatoid Arthritis Treated with Either Adalimumab, Etanercept, and Infliximab
Shintaro Hirata, Douglas J. Haney, Guy Cavet, Rebecca Bolce, Wanying Li, Nadine Defranoux, David Chernoff, Kunihiro Yamaoka, Kazuyoshi Saito and Yoshiya Tanaka, 1University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 2Crescendo Bioscience Inc., South San Francisco, CA

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WEDNESDAY NOVEMBER 14

11:00 AM
2665. Metabolic Reprogramming of Autoimmune T Cells in Rheumatoid Arthritis
Zhen Yang, Hiroshi Fujii, Shalini Mohan, Jorg J. Goronzy and Cornelia M. Weyand, 1Stanford University School of Medicine, Stanford, CA, 2Tohoku University, Sendai, Japan

11:15 AM
2666. A Link Between B Cells and Bone Erosion in RA: RANKL Production by Memory B Cells
Nida Meednu, Teresa Owen, Hengwei Zhang, Christopher A. Cistrone, Liaping Xing and Jennifer H. Anolik, University of Rochester, Rochester, NY

11:30 AM
2667. Activated Memory B Cell Compartment in Rheumatoid Arthritis: Impact of B Cell Depletion Therapy
Diana G. Adlowitz, Jennifer Hessler, Jamie Biear, Christopher A. Cistrone, Teresa Owen, Wensheng Wang, Arumugam Palanichamy, Ignacio Sanz and Jennifer H. Anolik, 1University of Rochester Medical Center, Rochester, NY, 2Emory University, Atlanta, GA

11:45 AM
2668. Interferon and B-Cell Gene Signatures Contribute to Diagnosis of pre-Clinical Rheumatoid Arthritis
Joyce Lubbers, Lotte A. van de Stadt, Saskia Vossalam, John G. Wesseling, Dirkjan van Schaardenburg and Cornelis L. Verweij, 1VU University Medical Center, Amsterdam, Netherlands, 2Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands

NOON
2669. TLR7 Ligation Contributes to Monocyte Migration in Rheumatoid Arthritis
Nathan D. Chamberlain, Seung-jae Kim, Michael Volin, William Swedler, Suncica Volkov and Shiva Shahrara, 1University of Illinois at Chicago, Chicago, IL, 2Chicago College of Osteopathic Medicine Midwestern University, Downers Grove, IL, 3University of Illinois at Chicago, Chicago, IL

12:15 PM
2670. Genome-Wide Association Study On the Severity of Joint Destruction in Autoantibody Positive Rheumatoid Arthritis Identifies a Role for Sperm Associated Antigen 16
Rachel Knevel, Kerstin Klein, Klaartje Somers, Caroline Ospelt, Jeanine J. Houwing-Duistermaat, Jessica van Nies, Diederik P.C. de Rooy, Laura de Bock, Joris Schonkoren, Gerrie Stoenen-Rijsbergen, Jenna Kiridly, Luis Rodriguez-Rodriguez, Quinta Helmer, Piet Sinissen, Tom W. J. Huizinga, René E.M. Toes, Steffen Gay and Jennifer H. Anolik, University of Rochester Medical Center, Leiden, Netherlands, 1Leiden University Medical Center, Leiden, Netherlands, 2Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Zurich, Switzerland, 3Hasselt University, Biomedical Research Institute, Belgium, 4Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Switzerland, Zurich, Switzerland, 5Department of Medical Statistics and Bioinformatics, Leiden, Netherlands, 6Feinstein Institute for Medical Research and North Shore–Long Island
147 A

**Sjögren’s Syndrome I - Pathogenesis**

**Moderators:** Xavier Mariette, MD, PhD and Lindsey A. Criswell, MD, MPH

11:00 AM

**2671. A Genome-Wide Association Study Establishes Multiple Susceptibility Loci for Sjögren’s Syndrome**

Christopher J. Lessard1, He Li2, Indra Adrianto3, John A. Ice3, Roland Jonsson4, Gabor G. Illei5, Maureen Rischmueller6, Gunnar Nordmark7, Xavier Mariette8, Corine Miceli-Richard9, Marie Wahren-Herlenius10, Torsten Witte11, Michael T. Brennan12, Roald Omdal13, Patrick M. Gaffney14, James A. Lessard15, Wan-Fai Ng16, Nelson L. Rhodus17, Barbara M. Segal18, R. Hal Scofield19, Judith A. James20, Juan-Manuel Anaya21, John B. Harley22, Courtney G. Montgomery2 and Kathy Moser Sivils2, 1Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3Oklahoma Medical Research Foundation, Oklahoma City, OK, 4University of Bergen, Bergen, Norway, 5NIDCR/ NIH, Bethesda, MD, 6Queen Elizabeth Hospital, Adelaide, Australia, 7Rheumatology, Uppsala, Sweden, 8Université Paris-Sud, Le Kremlin-Bicêtre, France, 9Hospital Bicêtre, Le Kremlin-Bicêtre, France, 10Karolinska Institutet, Stockholm, Sweden, 11Hannover Medical School, Hanover, Germany, 12Carolina’s Medical Center, Charlotte, NC, 13Clinical Immunology Unit, Department of Internal Medicine, Stavanger University Hospital, Stavanger, Norway, 14Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, 15Valley Bone & Joint Clinic, Grand Forks, ND, 16Newcastle University, Newcastle, England, 17University of Minnesota, Minneapolis, MN, 18Hennepin County Medical Center, Minneapolis, MN, 19Oklahoma Medical Research Foundation and Oklahoma Health Sciences Center, Oklahoma City, OK, 20Universidad del Rosario-Corporacion para Investigaciones Biologicas, Bogota, Colombia, 21Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH

11:15 AM

**2672. Genome-Wide Association Analysis Reveals Genetic Heterogeneity of Sjögren’s Syndrome (SS) According to Specific Subphenotypes and Ancestry**

Lindsey A. Criswell1, Kimberly E. Taylor1, Caitlin McHugh2, Cathy Laurie2, Kimberly Doheny3, Mi Y. Lam4, Joanne Nithiam5, Laura Bierut6, Emily L. Harris7, Alan N. Baer7, Stephen Challacombe8, Yi Dong9, Hector Lanfranchi10, Morten Schiodt11, M. Srinivasan12, Susumu Sugai13, Hisanori Umehara14, Frederick B. Vivino15, Zhao Yan16, Steve Shiboski1, Troy Daniels17, John S. Greenspan1, Caroline Shiboski2 and SICCA18, 1University of California, San Francisco, San Francisco, CA, 2University of Washington, Seattle, WA, 3Center for Inherited Disease Research, Baltimore, MD, 4Rosalind Russell Medical Research Center for Arthritis, San Francisco, CA, 5Washington University, St. Louis, MO, 6National Institute of Dental and Craniofacial Research, Bethesda, MD, 7Johns Hopkins University, Baltimore, MD, 8Kings College London, London, United Kingdom, 9Peking Univ Med Coll Hospital, East City Beijing, China, 10University of Buenos Aires, Buenos Aires, Argentina, 11Righospitalet, Copenhagen, Denmark, 12Aravind Eye Hospital, Madurai, India, 13Kanazawa Medical University, Ishikawa, Japan, 14Kanazawa Medical University, Kanazawa, Japan, 15Penn Presbyt Med Ctr, Philadelphia, PA, 16Peking Union Medical College Hospital, Beijing, China, 17UCSF Schools of Medicine & Dentistry, San Francisco, CA, 18San Francisco

11:30 AM

**2673. Sibling Relative Risk and Heritability of Sjögren’s Syndrome: A Nationwide Population Study in Taiwan**

Chang-Fu Kuo1, Matthew J. Grainge2, Kuang-Hui Yu2, Lai-Chu See1, Shue-Fen Luo3, Ana M. Valdes4, I-Jun Chou4, Hsiao-Chun Chang5, Weiya Zhang6 and Michael Doherty7, 1University of Nottingham, Nottingham, United Kingdom, 2Chang Gung Memorial Hospital, Taoyuan, Taiwan, 3Chang Gung University, Taoyuan, Taiwan, 4Dept of Twin Research and Genetic Epidemiology, St. Thomas’ Hospital, King’s College London, London, United Kingdom

11:45 AM

**2674. Cis-Expression Quantitative Trait Loci Analysis of Dysregulated Interferon-Pathway Genes Identifies HLA-C and OAS1 As Novel Candidates for Susceptibility to Sjögren’s Syndrome**

He Li1, John A. Ice2, Jennifer A. Kelly3, Indra Adrianto4, Stuart B. Glenn5, Kimberly S. Hefner5, Evan G. Vista6, Donald U. Stone7, Raj Gopalakrishnan8, Glen D. Houston9, David M. Lewis10, Michael Rohrer11, Pamela Hughes12, John B. Harley13, Courtney G. Montgomery14, James Chodosh15, James A. Lessard16, Juan-Manuel Anaya17, Barbara M. Segal18, Nelson L. Rhodus19, Lida Radfar20, Mark B. Frank21, R. Hal Scofield22, Christopher J. Lessard23 and Kathy Moser Sivils2, 1Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3Hofner Eye Care and Optical Center, Oklahoma City, OK, 4University of Santo Tomas, Taguig City, Philippines, 5University of Oklahoma Health Sciences Center, Oklahoma City, OK, 6National Institute of Dental and Craniofacial Research, Bethesda, MD, 7Johns Hopkins University, Baltimore, MD, 8Kings College London, London, United Kingdom, 9Peking Univ Med Coll Hospital, East City Beijing, China, 10University of Virginia, Charlottesville, VA, 11University of California, San Francisco, San Francisco, CA, 12Washington University, St. Louis, MO, 13National Institute of Dental and Craniofacial Research, Bethesda, MD, 14The University of Texas Health Science Center at San Antonio, San Antonio, TX, 15Penn Presbyt Med Ctr, Philadelphia, PA, 16Peking Union Medical College Hospital, Beijing, China, 17UCSF Schools of Medicine & Dentistry, San Francisco, CA, 18San Francisco

NOON

**2675. Oral and Gut Microbiota Influence Immune Responses to Sjögren’s Syndrome Associated Antigen Ro60**

Agnieszka Szymula, Barbara Szczerba, Harini Bagavant, Shu-Man Fu and Umesh Deshmukh, University of Virginia, Charlottesville, VA

12:15 PM

**2676. Long-Term Humoral Autoimmunity to Ro60 in Primary Sjögren’s Syndrome Is Driven by Clonal Succession**

Rhianna Lindop1, Isabell Bastian1, Georgia Arentz1, Lauren
152 A

**Systemic Lupus Erythematosus - Animal Models**

*Modерators: Keith B. Elkon, MBChB and Ram P. Singh, PhD*

11:00 AM

**2677. IL-23 Controls Autoimmunity by Facilitating Clearance of Apoptotic Bodies in the Marginal Zone in Lupus-Prone BXD2 Mice**

Hao Li1, Hui-Chen Hsu1, Qi Wu1, PingAr Yang1, Jun Li1, Daniel Cua2, Mohamed Oukka2 and John D. Mountz4, 1University of Alabama at Birmingham, Birmingham, AL, 2Merck Research Laboratory, Palo Alto, CA, 3Seattle, WA, 4University of Alabama at Birmingham and Birmingham VA Medical Center, Birmingham, AL

11:15 AM

**2678. Novel Nuclear Export Inhibitors Deplete Autoreactive Plasma Cells and Protect Mice with Lupus-Like Disease From Nephritis**

Teresa Owen1, Wensheng Wang1, Dilara McCauley2, Laura Strojny1, Jennifer Hossler1, Javier Rangel-Moreno1, Michael Kauffman1, Sharon Shacham2 and Jennifer H. Anolik1, 1University of Rochester Medical Center, Rochester, NY, 2Karyopharm Therapeutics Inc., Natick, MA

11:30 AM

**2679. Loss of Caspase 8 in Dendritic Cells Induces a Systemic Lupus Erythematosus-Like Disease That Is Independent of the Necroptosome**

Carla M. Cuda1, Alexander V. Misharin1, Rana Saber1, G. Kenneth Haines III1, Jack Hutcheson1, Chandra Mohan2 and Harris R. Perlman2, 1Northwestern University Feinberg School of Medicine, Chicago, IL, 2Northwestern University, Chicago, IL, 3Yale University, New Haven, CT, 4University of Texas Southwestern Medical Center, Dallas, TX

11:45 AM

**2680. Soluble Receptor for Advanced Glycation End Products Alleviates Nephritis in NZB/WF1 Mice**

Sang-Won Lee1, Kyu-Hyoung Park2, Sungha Park2, Ji-Hye Kim1, Sung-You Hong1, Soo Kon Lee1, Donghoon Choi1 and Yong-Beom Park1, 1Yonsei University College of Medicine, Seoul, South Korea, 2Yonsei University College of Medicine, Seoul, South Korea

**12:15 PM**

**2682. Calcium/Calmodulin-Dependent Protein Kinase IV Suppresses IL-2 Production and Regulatory T Cell Activity in Systemic Lupus Erythematosus**

Tomohiro Koga1, Kunihiko Ichinose2, Masayuki Mizui1, José C. Crispin1 and George C. Tsokos1, 1Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, 2Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan

**Ballroom B**

**Systemic Lupus Erythematosus - Clinical Aspects and Treatment V: Clinical Aspects**

*Moderators: Kenneth C. Kalunian, MD and Maureen A. McMahon, MD*

11:00 AM

**2683. Interferon-Associated Cytokine and Chemokine Expression in Patients with Serologically Active Clinically Quiescent (SACQ) Systemic Lupus Erythematosus (SLE)**

Amanda J. Steiman1, Murray B. Urowitz1, Dominique Ibanez2, Carolina Landolt-Marticorena2, Dafna D. Gladman2 and Joan E. Withers3, 1Toronto Western Hospital and University of Toronto, Toronto, ON, 2University of Toronto, Toronto, ON, 3Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON, 4Toronto Western Research Institute, University Health Network, Toronto, ON

11:15 AM

**2684. Cerebrospinal Fluid IL-6 and Anti-NMDA Receptor NR2 Antibodies As Surrogate Markers for CNS Disease Severity in SLE**

Shunsei Hirohata, Yoshiyuki Arinuma and Eisuke Ogawa, Kitasato University School of Medicine, Sagamihara, Japan

11:30 AM

**2685. Overall and Cause Specific Mortality in Patients with Systemic Lupus Erythematosus. A Meta-Analysis of Observational Studies**

Marko Yurkovich1, Kateryna Vostretsova2 and J. Antonio Avina-Zubieta3, 1University of British Columbia, Vancouver, BC, 2University of British Columbia, Vancouver, 3Arthritis Research Centre of Canada/University of British Columbia, Richmond, BC

**11:45 AM**

**2686. Difference in Clinical Features and Mortality Between Pediatric-Onset and Adult-Onset Systemic Lupus Erythematosus**

So-Yeon Park1, Jeesoo Shim1, Dam Kim1, Ji-Young Choi1, So-Young Bang1, Chan-Bum Choi2 and Sang-Choel Bae2, 1Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea, 2Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea, 3Hanyang University Guri Hospital, Guri, South Korea, 4Hanyang University Hospital for Rheumatic Diseases, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea
2687. Modular Microarray Analysis Fails to Reveal a Significant Biological Effect of Vitamin D3 Treatment in Patients Participating in a Double-Blind Randomized Placebo-Controlled Trial of the Effect of Vitamin D3 On the Interferon Signature in Patients with Systemic Lupus Erythematosus

Michaela Oswald1, Cynthia Aranow2, Diane L. Kamen3, Meggan C. Mackay4, Ellen A. Goldmuntz4, Betty Diamond5, Peter K. Gregersen6 and ALE02 Study Team7, 1The Feinstein Institute for Medical Research, Manhasset, NY, 2Feinstein Institute for Medical Research, Manhasset, NY, 3Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC, 4The Feinstein Institute, Manhasset, NY, 5NIAID/NIH Rm 6807, Bethesda, MD, 6Feinstein Institute Med Rsch, Manhasset, NY, 7Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY, 8Bethesda, MD

12:15 PM
2688. The Health Improvement and Prevention Program in Systemic Lupus Erythematosus Demonstrates Improvement in Mental Health and Framingham Risk Score At One Year

Paul R. Fortin1, Ellie Aghdassi2, Anne Cymet3, Stacey Morrison4, Willy Wynant5, Janet E. Pope6, Sara Hewitt7, Christian A. Pineau8, Carolyn Neville9, Paula Harvey10, Jean-Claude Tardif11, Michal Abrahamowicz12 and Deborah DaCosta13, 1Division of Rheumatology, Centre de recherche du centre hospitalier universitaire de Québec, Faculté de médecine de l’Université Laval, Quebec City, QC, 2University Health Network Research Institute - Western Division, Toronto, ON, 3University Health Network - Western Division, Toronto, ON, 4The Toronto Western Hospital, Toronto, ON, 5McGill University Health Centre and McGill University, Montreal, QC, 6Western University of Canada, St. Joseph’s Health Care, London, ON, 7St. Joseph’s Health Care, University of Western Ontario, London, ON, 8McGill University Health Centre, Montreal, QC, 9Royal Victoria Hospital, Montreal, QC, 10Women’s College Hospital, Toronto, ON, 11Université de Montréal endowed research chair in atherosclerosis, Quebec, QC, 12McGill University, Montreal, QC, 13Montreal General Hospital, Montreal

ARHP SESSIONS
11:00 AM - 12:30 PM
201
Highlights from the 2012 ARHP Sessions

Moderator: To be announced
Speakers: Donah Z. Crawford, BS, MA and Robert R. McLean, DSc, MPH

Upon completion of this session, participants should be able to:
• list the highlights from the 2012 ARHP abstracts, presentations and sessions
• gain better awareness of the diversity of ARHP presentations
• assess the most important trends in ARHP research

206
Shoulder Pain and Rotator Cuff Tear in Rheumatoid Arthritis

Moderator: Elizabeth G. Salt, PhD

Upon completion of this session, participants should be able to:
• review a basic overview of the anatomic structure and function of the shoulder
• describe how rheumatologic conditions result in an abnormal physiologic state
• summarize the clinical assessment of shoulder pain and the use of diagnostic testing
• evaluate the management of shoulder pain (with special focus on rotator cuff tears) from the orthopedic surgeon, physical therapy and physiatrist perspective

11:00 AM
Shoulder Pain: Pathophysiology, Assessment, and Medical Management
Nitin Jain, MD, MSPH

11:45 AM
Shoulder Pain Management from the Physical Therapy Perspective
Robert Gillanders, PT, DPT

ARHP CONCURRENT ABSTRACT SESSIONS
11:00 AM - 12:30 PM
140 A
Factors Associated with Rheumatoid Arthritis

Moderators: Beatriz Y. Hanaoka, MD and Afton L. Hassett, PsyD

11:00 AM
2689. Quality of Sleep, Physical Activity and Fatigue in Patients with Rheumatoid Arthritis. A Cross-Sectional Study
Katrine Loeppenthin1, Bente Appel Esbensen1, Poul Jennum2, Mikkel Østergaard3, Tanja Thomsen1 and Julie Midtgaard4, 1Nursing and Health Science Research Unit, DK-2600 Glostrup, Denmark, 2Danish Centre for Sleep Medicine, Department of Clinical Neuropsychology, DK-2600 Glostrup, Denmark, 3Danish Centre for Sleep Medicine, Department of Clinical Neuropsychology, DK-2600 Glostrup, Denmark, 4Glostrup Hospital, Copenhagen, Denmark, 5Health Care Research Centre, Copenhagen, Denmark

11:15 AM
2690. Assessment of Sleep Quality in Patients with Rheumatoid Arthritis
Ulku Ucar and Mehmet Tuncay Dürüşüz, Celal Bayar University Medical School, Manisa, Turkey

11:30 AM
2691. Factors Related to Objectively Measured Physical Activity in the Rheumatoid Arthritis Population
Marie Tierney1, Alexander D. Fraser1 and Norelee M. Kennedy1, 1University of Limerick, Limerick, Ireland, 2Mid Western Regional Hospital, Limerick, Ireland
11:45 AM
2692. Diet and Other Lifestyle Related Factors and the Risk of Developing Rheumatoid Arthritis
Björn Sundström, Ingegerd Johansson and Solbritt Rantapää
Umeå University, Umeå, Sweden, Umeå University, Umeå, Sweden, Umeå University Hospital, Umeå, Sweden

12:15 PM
2693. Factors Associated with Person-Perceived Disability in Adults Aged 18+ with Rheumatoid Arthritis
Yeliz Greenhill, Alison Hammond and Sarah Tyson, University of Salford, Manchester, United Kingdom

11:00 AM
2695. Benefits of the Chronic Disease Self-Management Program in Low-Income African American Women with Systemic Lupus Erythematosus: Results of a Pilot Test
Cristina Drenkard, Charmayne M. Dunlop-Thomas, Kirk Easley, Gaobin Bao, S. Sam Lim and Teresa J. Brady, Emory University, Atlanta, GA, Centers for Disease Control and Prevention, Atlanta, GA

11:15 AM
2696. The Mary Kirkland Center for Lupus Care General Health Assessment Initiative for Systemic Lupus Erythematosus Patients
Monica C. Richey, Doruk Erkan and Kyriakos A. Kirou, Hospital for Special Surgery, New York, NY

11:30 AM
2697. The Short Term Effect of Individualized Nutrition Counseling On Nutrients and Select Cardiovascular Risk Factors in Patients with Systemic Lupus Erythematosus
Sotiria Everett, Virginia Haiduc, Monica C. Richey and Doruk Erkan, Hospital for Special Surgery, New York, NY

11:45 AM
2698. FMS and SLE Patients Have Higher Treatment Expectations Than RA Patients
Robert S. Katz, Hannah Bond, Jessica L. Polyak, Lauren Kwan and Susan Shott, Rush University Medical Center, Chicago, IL, Rheumatology Associates, Chicago, IL

NOON
2699. Psychosocial Stress and Complement Activation Product C4d On Reticulocytes in Patients with Systemic Lupus Erythematosus
Xiaotian Chen, Yu Cheng, Chau Ching Liu, Amy H. Kao, Susan Manzi, Joseph M. Ahearn and Carol M. Greco, University of Pittsburgh, Pittsburgh, PA, Allegheny Singer Research Institute, Pittsburgh, PA, West Penn Allegheny Health System, Pittsburgh, PA

12:15 PM
2700. A Multi-Center Study of the Appropriateness of Anti-Neutrophilic Cytoplasmic Antibody Testing
Tarun S. Sharma, Vikash Sinha, Vino Unson, Saurav Acharya, Sahar Mohammad and Amer Syed, Mount Sinai School of Medicine-Jersey City Medical Center, Jersey City, NJ

INDUSTRY-SUPPORTED POST SYMPOSIA
1:00 - 4:00 PM

For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit. Please visit the organization’s exhibit booth, the industry-supported symposia booth or see page 317 for more information.
1. Evaluation of Synovial Inflammation Assessed by Macroscopic and Histological Criteria in Patients with Knee Osteoarthritis. Montserrat Romero-Baures Sr., Ramon Valls-Garcia Sr., Antonio Rozadilla Sr., Marta Terricabras Sr.4 and Joan Miquel Nolla Sr., 1Hospital Universitari Bellvitge, Barcelona, Spain, 2Hospital de Palamos, Girona, Palamos (Girona), Spain, 3Hospital Universitari de Bellvitge, Barcelona, Spain, 4Hospital Universitari de Bellvitge, Barcelona, Spain, 5Hospital Universitari de Bellvitge, Barcelona, Spain

2. Microna-558 Regulates the Expression of Cyclooxygenase-2 and IL-1beta Responses in Human Articular Chondrocytes. Su Jin Park, Eun-Jeong Cheon and Hyun Ah Kim, Hallym University Sacred Heart Hospital, Kyunggi, South Korea

3. Mesenchymal Stem Cells Differentiate Into Osteoblasts in Response to Inflammation. Koshiro Sonomoto, Kunihiro Yamaoka, Koichi Oshita, Shunsuke Fukuyo, Xiangmei Zhang, Koshiro Sonomoto, Kunihiro Oshita, Shunsuke Fukuyo, Xiangmei Zhang, Kyunggi, South Korea

4. Pro-Inflammatory Effect of Extracellular RNA on Synovial Fibroblasts From Patients with Rheumatoid Arthritis. Birgit Zimmermann, Silvia Fischer, Markus Rickert, Stefan Rehart, Angela Lehr, Ulf Müller-Ladner, Klaus T. Preisssner and Elena Neumann, 1Justus-Liebig-University of Giessen, Kerckhoff-Klinik, Bad Nauheim, Germany, 2Justus-Liebig-University of Giessen, Medical School, Giessen, Germany, 3University Hospital Giessen and Marburg, Giessen, Germany, 4University Hospital Giessen and Marburg, Giessen, Germany, 5University Hospital Giessen and Marburg, Giessen, Germany


6. The Effect of Hydrogen Sulfide Donors on Inflammatory Mediators in Human Articular Osteoarthritic Chondrocytes. Elena F. Burguera, Angela Vela Anero, Rosa Meijide Failde and Francisco J. Blanco, 1Rheumatology Service, INIBIC-Hospital Universitario A Coruña, A Coruña, Spain, 2Department of Medicine, University of A Coruña, A Coruña, Spain

7. Lamin A Deregulation in Human Mesenchymal STEM CELLS Promotes an Impairment in Their Chondrogenic Potential and Imbalance in Their Response to Oxidative Stress. Jesus Mateos, Alexandre de la Fuente, Ivan A. Lesende-Rodriguez, Maria Carmen Arufe and Francisco J. Blanco, 1Rheumatology Division, Proteomics Unit-ProteoRed/ISCIII, 2INIBIC-Hospital Universitario A Coruña, A Coruña, Spain, 3Department of Medicine, Area of Anatomy and Human Embryology, University of A Coruña-INIBIC, A Coruña, Spain

8. Supercharged Sox9 Protein Induces Chondrogenic Differentiation of Bone Marrow-Derived Mesenchymal Stem Cells. Yuan K. Chou, Shili Wu, Camilo Avendano, Tom Caldwell, Brian Maniaci, Kentaro Yomogida, Yong Zhu and Cong-Qiu Chu, 1Oregon Health & Science University, Portland, OR, 2VivoScript, Inc, Costa Mesa, CA, 3Oregon Health & Science University and Portland VA Medical Center, Portland, OR

9. Function of the Chondrocyte PI-3 Kinase-Akt Signaling Pathway is Stimulus Dependent. Richard F. Loeser and Meredith Greene, Wake Forest School of Medicine, Winston-Salem, NC

10. Fibronectin Fragment Induces Procatabolic Effects Through TLR-2 Signaling Pathway in Human Articular Chondrocytes. Su Jin Park, Eun-Jeong Cheon and Hyun Ah Kim, 1Hallym University Sacred Heart Hospital, Kyunggi, South Korea, 2Hallym university sacred heart hospital, Kyunggi, South Korea


12. Articular Cartilage Expresses the IL-15 Receptor Alpha-Chain and Responds to IL-15 with Increased Matrix Metalloproteinase Release. Anjali Nair, Michael Huvard, Madeline Rollins, Arnazav Hakimiyan, Lev Rappaport, Arkady Margulis, Susanna Chubinskaya and Carla R. Scanzello, 1Rush University Medical Center, Chicago, IL, 2University of Illinois at Chicago, Chicago, IL, 3Northwestern University, Chicago, IL

13. Viscatin/NaMPt in Osteoarthritis: Sites of Production in Human Joints and Role of Its Enzymatic Activity. Marie-Charlotte Laiguillon, Carole Bougault, Xavier Hourd, Marjolaine Gosset, Geoffroy Nourissat, Sabrina Priam, Zvedzana Mladenovic, Claire Jacques, Francis Berenbaum and Jeremie Sellam, 1Pierre et Marie Curie University Paris VI, Paris, France, 2Paris Descartes University, Montrouge, France, 3AP-HP, St Antoine Hospital, Paris, France, 4Hopital Saint-Antoine, Pierre et Marie Curie University Paris 6, AP-HP, 75012, France

14. EPAC1 Activation is Required for NFKB Nuclear Translocation and Osteoclast Differentiation. Aranzazu Mediero and Bruce N. Cronstein, 1NYU School of Medicine, New York, NY, 2NYU School of Medicine, Division of Rheumatology, New York, NY

15. Adenosine A2A Receptor Stimulation Inhibits OC Formation by Suppressing NFkB Translocation to the Nucleus by a PKA-ERK1/2 Mediated Mechanism. Aranzazu Mediero and Bruce N. Cronstein, 1NYU School of Medicine, New York, NY, 2NYU School of Medicine, Division of Rheumatology, New York, NY
16. **Adenosine A1 Receptor Diminishes Bone Destruction At Inflamed Sites, in Part, Via Downregulating Semaphorin4D-PlexinB1 Communication Between Osteoclasts and Osteoblasts.** Aranzazu Mediero1 and Bruce N. Cronstein1, 1NYU School of Medicine, New York, NY, 2NYU School of Medicine, Division of Rheumatology, New York, NY

17. **Synovial Overexpression of Wnt and Wnt-1-Induced Secreted Protein 1 Induces Cartilage Damage by Skewing of TGF-β Signaling and Reduction of the Anti-Hypertrophy Factor Sox9.** Martijn H. van den Bosch1, Arjen B. Blom1, Peter L. van Lent1, Henk M. van Beuningen1, Fons A. van de Loo2, Esmeralda N. Blaney Davidson1, Peter M. van der Kraan1 and Wim B. van den Berg1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Rheumatology Research and Advanced Therapeutics, Department of Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

18. **Identification of 14-3-3 σ As a New Subchondral Bone Mediator Involved in Cartilage Degradation During Osteoarthritis.** Sabrina Priaux Jr1, Carole Bougault1, Xavier Houard1, Marjolaine Gossot2, Colette Salvat3, Francis Berenbaum4 and Claire Jacques1, 1Pierre et Marie Curie University Paris VI, Paris, France, 2Paris Descartes University, Montrouge, France, 3University Pierre and Marie Curie, Paris, France, 4AP-HP, St Antoine Hospital, Paris, France

19. **Stress-Induced Cartilage Degradation Does Not Depend On NLRP3-Inflammasome in Osteoarthritis.** Carole Bougault1, Marjolaine Gossot2, Xavier Houard1, Colette Salvat3, Lars Godmann5, Thomas Pap6, Claire Jacques1 and Francis Berenbaum4, 1Pierre et Marie Curie University Paris VI, Paris, France, 2Paris Descartes University, Montrouge, France, 3University Pierre and Marie Curie, Paris, France, 4University Hospital Münster, Münster, Germany, 5AP-HP, St Antoine Hospital, Paris, France

20. **Osteoclastogenesis Is Inhibited by Immune Complexes Through Activating Fcγ Receptors.** Lilyanne C. Grevers1, Peter L.E.M. van Lent1, Teun J. de Vries1, Vincent Everts2, J. Sjef Verbeek1 and Wim B. van den Berg1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2ACTA, UVA, VU University Amsterdam, Amsterdam, Netherlands, 3Leiden University Medical Center, Leiden, Netherlands, 4Rheumatology Research and Advanced Therapeutics, Department of Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

21. **IL-32 and IL-17 Interact and Aggravate Osteoclastogenesis in Rheumatoid Arthritis.** Bo Young Yoon1, Young-Mee Moon2, Yang-Mi Her3, Hye Jwa Oh2, Jae-Seon Lee2, Kyoung-Woon Kim2, Seon-Young Lee1, Yun-Ju Woo2, Kyung-Su Park2, Sung-Hwan Park2, Ho-Youn Kim2 and Mi-La Cho2, 1Inje University Ilsan Paik Hospital, Goyang, South Korea, 2Catholic University of Korea, Seoul, South Korea, 3The Catholic University of Korea, Seoul St. Mary’s Hospital, Seoul, South Korea

22. **Protective Properties of Conditioned Media from Adipose Stem Cells On Osteoarthritic Chondrocytes.** Maria Isabel Guillén1, Julia Platas1, Vicente Mirabet2, Miguel Angel Castejón3, Francisco Gomar4 and Maria Jose Alcaraz1, 1University of Valencia, Burjassot, Valencia, Spain, 2Generalitat Valenciana, Valencia, Spain, 3De la Ribera University Hospital, Alzira, Spain, 4University of Valencia and University Hospital, Valencia, Spain

23. **Differential Effects of Bone Morphogenetic Protein 2 and 9 On Chondroprotective Transforming Growth Factor β Signaling.** Arjan P. van Caam1, Esmeralda N. Blaney Davidson1, Elly L. Vitters2, Laurie de Kroon1, Ellen W. van Geffen1, Peter ten Dijke1, Wim B. van den Berg1 and Peter M. van der Kraan1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Leiden University Medical Center, Leiden, Netherlands

24. **The Negative Effects of Glucocorticoids On Bone Are Primarily Mediated by Genes Involved in Osteoblast Differentiation and Bone Remodelling.** Katharina Blankenstein1, Tara C. Brennan-Speranza1, Karin Lyon1, Colin R. Dunstan1, Frank Buttgerfeit, Hong Zhou1 and Markus J. Seibel1, 1Bone Research Program, Sydney, Australia, 2Charité University Med-Berlin, Berlin, Germany, 3ANZAC Research Institute, The University of Sydney, Concord, Australia


26. **Quantitative Analysis of Bone Damage/Morphological Changes in the Citrullinated Collagen Induced Arthritis Mouse Model Using Micro-CT.** Anand Dusad1, Michael J. Duruyee1, Dong Wang2, James R. O’Dell3, Ted R. Mikuls4, Geoffrey M. Thiele1 and Lynell W. Klassen1, 1University of Nebraska Medical Center, Omaha, NE, 2Univ of Nebraska Medical Ctr, Omaha, NE, 3Univ of Nebraska Med Ctr, Omaha, NE, 4Omaha VA and University of Nebraska Medical Center, Omaha, NE

27. **Anti-Citrullinated Protein Antibodies As An Indicator of Bone Damage in the Citrullinated Collagen Induced Arthritis Model.** Anand Dusad1, Michael J. Duruyee1, Dong Wang2, Carlos D. Hunter3, Bartlett C. Hamilton III4, James R. O’Dell5, Ted R. Mikuls2, Lynell W. Klassen1 and Geoffrey M. Thiele1, 1University of Nebraska Medical Center, Omaha, NE, 2Univ of Nebraska Medical Ctr, Omaha, NE, 3University of Nebraska Medical Centre and Omaha VA Medical Center, Omaha, NE, 4Univ of Nebraska Med Ctr, Omaha, NE, 5Omaha VA and University of Nebraska Medical Center, Omaha, NE
28. Role of Microrna-455 Networks in Mesenchymal Cell Differentiation and Osteoarthritis. Fumiaki Ayabe1, Shigeru Miyaki2, Diana Brinson1, Satoshi Yamashita1, Hiroyuki Nakahara1, Koji Otake1, Stuart Duffy2, Shawn Grogan1, Shuji Takada1, Martin K. Lotz1 and Hiroshi Ashahara1, 1The Scripps Research Institute, La Jolla, CA, 2Hiroshima University, Hiroshima, Japan, 3National Research Institute for Child Health and Development, Tokyo, Japan

29. Level of IL-1α-Induced Epigenetic Modifications Differ in Chondrocytes From Different Histological Zones of Human Cartilage. Nahid Akhtar1 and Tariq M. Haqqi2, 1Case Western Reserve University/Metrohealth Medical Center, Cleveland, OH, 2Metro Health Medical Center, Cleveland, OH

30. A Mouse Myeloid Precursor with Osteoclastogenic Function in Vivo. Julia F. Charles1, Erene Niemi2, Mary N. Nakamura3 and Antonios O. Aliprantis4, 1Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 2University of California, San Francisco; VA Medical Center, San Francisco, 3SFVAMC/UCSF, San Francisco, CA, 4Brigham and Women’s Hospital, Boston, MA

31. Anti Citrullinated Protein Antibodies from Synovial Fluid of Rheumatoid Arthritis Patients Enhance Osteoclastogenesis. Aklan Krishnamurthy1, Nancy Vivar Pomiano1, Catia Cerqueira1, Elena Ossipova1, Karin Lundberg1, Ulrike Harre1, Vivianne Malmström1, Per Johan Jakobsson1, Lars Klarekrog1, Georg Schett2 and Anca Irinel Catrina1, 1Rheumatology Unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 2Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 3Karolinska Institute, Stockholm, Sweden


33. Novel Targets for Blocking Osteoclast-Mediated Resorption in Inflammatory Disorders. Kevin P. McHugh1, Tania N. Crotti1, Jun Li2, Jon Hill3, Gerald H. Nabozny2, Steven R. Goldring4 and P. Edward Purdu5, 1Center for Advanced Orthopedic Studies, Beth Israel Deaconess Medical Center, Boston, MA, 2Boehringer Ingelheim Pharmaceuticals Inc., Ridgefield, CT, 3Boehringer Ingelheim Pharmaceuticals Inc, Ridgefield, CT, 4Hospital for Special Surgery, New York, NY, 5Hospital for Special Surgery, Weil Cornell Medical Center, New York, NY

34. Rebamipide Attenuates Pain Severity and Cartilage Degeneration in a Rat Model of Osteoarthritis by Downregulating Oxidative Damage and Catabolic Activity in Chondrocytes. Su-Jin Moon1, Mi-La Cho2, Yeon-Sik Hong1, Sung-Hwan Park1 and Jun-Ki Min1, 1Division of Rheumatology, Department of Internal Medicine, School of Medicine, The Catholic University of Korea, Seoul, South Korea, 2Catholic University of Korea, Seoul, South Korea, 3Our Lady of Mercy Hospital, Inchon, South Africa

35. Changes in Tibial Bone and Cartilage Structure in a Mouse Surgical Model of Osteoarthritis. Brett A. Tonkin1, Evange Romas2, Natalie A. Sims3 and Nicole C. Walsh1, 1St Vincent’s Institute of Medical Research, Melbourne, Australia, 2St Vincent’s Hospital, Melbourne, Australia

36. Role of FK506 Binding Protein 5 in Osteoclast Differentiation. Miho Kimura1, Tatsuo Nagai2, Reiko Matsushita1, Atushi Hashimoto2, Toshiyuki Miyashita1 and Shunsei Hirohata1, 1Kitasato University School of Medicine, Sagamihara, Japan, 2Sagamihara National Hospital, National Hospital Organization, Sagamihara, Kanagawa, Japan, 3Kitasato University School of Medicine, Sagamihara

37. Development of a Mouse Model of Natural Osteoarthritis of Knee by Induction of obesity and Bipedal Walking. Hyun Ah Kim1, Su Jin Park2, Eun-Jeong Cheon1, Hyun A. Jung1 and Kyeong Min Son2, 1Hallym university sacred heart hospital, Kyunggi, South Korea, 2Hallym University Sacred Heart Hospital, Kyunggi, South Korea, 3Hallym university Chunchun sacred heart hospital, Chunchun, South Korea


39. SDF-1 Induces Osteoclastogenesis in Rheumatoid Arthritis by Upregulating of RANKL Expression in Synovial Fibroblasts and CD4+ T Cells. Hae-Rim Kim1, Kyong-Woon Kim2, Bo-Mi Kim1, Mi La Cho1 and Sang-Heon Lee1, 1Konkuk University School of Medicine, Seoul, South Korea, 2The Catholic University of Korea, Seoul St. Mary’s Hospital, Seoul, South Korea, 3Catholic University of Korea, Seoul, South Korea, 4Konkuk University Hospital, Seoul, South Korea

40. Syndecan-4 Regulates Activation of WNT Signaling in Chondrocytes. Jessica Bertrand1, Richard Stange1, Giovanna Nalessor1, Joanna Sherwood1, Lars Godmann1, Frank Echtmeyer1, Francesco Dell’Accio1 and Thomas Pap1, 1University Hospital Münster, Münst, Germany, 2Queen Mary University London, London, United Kingdom, 3University hospital Hanover, Hanover, Germany, 4William Harvey Research Institute, Barts and the London Queen Mary’s School of Medicine and Dentistry, Centre for Experimental Medicine and Rheumatology, London, United Kingdom

41. Long-Distance Physical Connections between Chondrocytes; Cell-to-Cell Communication within Articular Cartilage. Maria Dolores Mayan1, Raquel Gago-Fuentes1, Paula Carpintero-Fernandez1, Patricia Fernandez-Puente1, Purificacion Filgueira-Fernandez1, Virgin Vallunas1, Peter Brink1, Gary Goldberg1 and Francisco J. Blanco Garcia1, 1Osteoarticular and Aging Research Group. Rheumatology Division, Biomedical Research Center (INIBIC). Hospital Universitario A Coruña, As Xubias de Arriba 84, 15006, A Coruña, Spain, 2Department of Physiology and Biophysics. State University of New York, Stony Brook, New York.
Role of Stromal Cell-Derived Factor-1 Alpha through Smad and MAPK Pathway On Endochondral Ossification. Gunwoo Kim1, Seungwoo Han1, Younkwon Jung2, Eunju Lee2, Hyeri Park2, Shirine E. Usmani1, Veronica Ulici1 and Frank Beier3, 1Daegu Fatima Hospital, Daegu, South Korea, 2Fatima research institute, Daegu Fatima Hospital, Daegu, South Korea, 3Schulich School of Medicine and Dentistry, London, ON

Serum Amyloid A Level in Knee Osteoarthritis: Systemic and/or Local Production and Pro-Inflammatory Properties On Human Chondrocytes and Fibroblast-Like Synoviocytes. Dominique de Seny1, Gaël Cobaiville1, Sophie Neuville1, Edith Charlier1, Biserka Relic1, Florence Quesada Calvo1, Olivier Malaise1, Denis Malaise1, Laurence Lutteri1, Jean-Paul Chapelle1 and Michel G. Malaise1, 1GIGA Research - University of Liège - CHU Liège, Liège, Belgium, 2University of Liège, Liège, Belgium, 3Medical Chemistry - CHU Liège, Liège, Belgium

Inhibition of WNT Signaling Pathway by Sclerostin Maintains Cartilage Homeostasis. Wafa Bouaziz, Thomas Funck-Brentano, Hilene Lin, Eric Hay and Martine Cohensol, INSERM U606 Paris 7 university, Paris, France

The Effects of Apremilast On Osteoclasts, Osteoblasts, and Osteocytes. Mary Adams and Peter Schafer, Celgene Corporation, Summit, NJ

Synovitis in Secondary Osteoarthritis Due to Rheumatoid Arthritis: A Proof-of-Concept Study. Stefan Vordenbäumen1, Tim Lögters1, Philipp Sewerin1, Thomas Pauly1, Ellen Bleck1, Paulina Filippski1, Matthias Schneider1, Michael Schädel-Höpfner1 and Benedikt Ostendorf1, 1Heinrich-Heine-University, Düsseldorf, Germany, 2Rheinische Rheumazentrum St. Elisabeth-Hospital, Meerbusch, Germany

Accumulation of CD34+ Hematopoietic Stem Cells in the Initial Inflammatory Human Fracture Hematoma Is Mediated Via Chemokine Receptor Type 3 Ligands. Paula Hoff1, Timo Gaber1, Martin Hahne1, Cindy Strehl1, Katharina Schmidt-Bleck1, Gerd R. Burmester1, Gerhard Schmidmaier1, Georg Duda1, Carsten Perka1 and Frank Buttgeré1, 1Charité University Medicine, Berlin, Germany, 2Charité - Universitätsmedizin Berlin, Berlin, Germany, 3Heidelberg University Hospital, Heidelberg, Germany, 4Charite University Med-Berlin, Berlin, Germany

Tissue Engineering for Articular Cartilage Repair, Culturing Bone Marrow Mesenchymal STEM CELLS On Collagen and Heparan Sulphate Scaffolds. Adela Helvia Martinez-Sanchez1, Clara Sanjurjo-Rodriguez2, Silvia Diaz-Prado3, Emma Muiños1, Isaac M. Fuentes2, Francisco J. De Toro2, Julia Bujan1 and Francisco J. Blanco2, 1Osteoarticular and Aging Res. Lab. CIBER-BBN. Rheumatology Div. INIBIC-Complejo Hosp. Univ. A Coruña, A Coruña, Spain, 2Osteoarticular and Aging Res. Lab. CIBER-BBN. INIBIC-University of A Coruña, A Coruña, Spain, 3Department of Medical Specialties. University of Alcala de Henares, Madrid, Spain

The Spatial Energy Expediture Configuration and Possible Applications in an Experimental Model of Arthritis. Susanne Klatt1 and Rainer H. Straub2, 1Laboratory of Exp. Rheumatology and Neuroendocrine Immunology, University Hospital, Regensburg, Germany, 2University Hospital Regensburg, Regensburg, Germany

Human Chondrocyte Dedifferentiation Is Accompanied by CD105 Endoglin Expression, ALK-1/Smad1/5 Phosphorylation and Leptin Production - Stimulation by Prednisolone and Aldosterone Through the Glucocorticoid Receptor. Olivier Malaise, Biserka Relic, Mustapha Zeddou, Edith Charlier, Florence Quesada Calvo, Sophie Neuville, Dominique de Seny and Michel G. Malaise, GIGA Research - University of Liège - CHU Liège, Liège, Belgium

Phosphodiesterase 4 Expression in Rheumatoid Arthritis Synovium and Anti-Inflammatory Effects of Apremilast On Synovial Fibroblasts. Lei Wu, Mary Adams, Stacey Parton and Peter Schafer, Celgene Corporation, Summit, NJ

Epidemiology and Health Services Research: Epidemiology and Outcomes of Rheumatic Disease I

The Validity of the Diagnosis Inflammatory Arthritis in Primary Care. Markus M.J. Nielen1, Jennie Ursum2, François G. Schellevis3 and Jake C. Korevaar1, 1NIVEL (Netherlands Institute for Health Services Research), Utrecht, Netherlands, 2VU University Medical Centre, Amsterdam, Netherlands

Comparison of Decision Rules for Identifying Patients with Rheumatoid Arthritis (RA) in Administrative Healthcare Databases. John G. Hanly, Kara Thompson and Chris Skedgel, Dalhousie University and Capital Health, Halifax, NS

Use of Health Plan Data to Assess Feasibility of Large Pragmatic Clinical Trials in Rheumatoid Arthritis. Jeffrey Curtis1, Lang Chen1, Fenglong Xie1, Jie Zhang1, Kenneth G. Saag2, Stacey Cofield3, Kevin L. Winthrop4, Nicole C. Wright1 and Elizabeth S. Delzell1, 1University of Alabama at Birmingham, Birmingham, AL, 2Univ of Alabama-Birmingham, Birmingham, AL, 3Univ of Alabama at Birmingham, Birmingham, AL, 4Oregon Health & Science University, Portland, OR

Accuracy of Canadian Health Administrative Databases in Identifying Patients with Rheumatoid Arthritis Seen by Rheumatologists. Jessica Widdifield1, Sasha Bernatsky2, J. Michael Paterson1, Karen Tu2, Ryan Ng3, J. Carter Thorne4, Janet E. Pope5 and Claire Bombardier1, 1University of Toronto, Toronto, ON, 2Research Institute of the McGill University Health Ctre, Montreal, QC, 3Institute for Clinical Evaluative Sciences, Toronto, ON, 4Southlake Regional Health Centre, Newmarket, ON, 5St. Joseph Health Care London, University of Western Ontario, London, ON
56. A Validated Mathematical Model Using Electronic Health Records to Identify Rheumatoid Arthritis Patients for Observational Studies. Aatit M. Patel1, Illica D. Metes2, Larry W. Moreland3, Melissa Saul4, Stephen R. Wisniewski5 and Marc C. Levesque6, 1Univ of Pittsburgh Med Ctr / Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA, 2University of Pittsburgh School of Medicine, Pittsburgh, PA, 3University of Pittsburgh, Pittsburgh, PA, 4University of Pittsburgh, Graduate School of Public Health, Pittsburgh, PA

57. A British Survey of Time to Presentation and Treatment of Rheumatoid Arthritis in Subjects of Black and Minority Ethnic Origin. Sonia Panchal1, Ash Samanta2, Arumugam Moorothy3, Sawson Hayat4, Ira Pandey5, Adedwole O. Adebajo6 and Kuntal Chakravarty7, 1University Hospitals of Leicester, Leicester, United Kingdom, 2Nottingham University Hospitals, Nottingham, United Kingdom, 3Academic Rheumatology Group, D, Sheffield, United Kingdom, 4University of Bedfordshire Post Graduate Medical School, Romford, United Kingdom

58. 5 Million Patients and Not 0.34% Is Worrisome: Burden of Rheumatoid Arthritis in India Based on a Bone and Joint Decade India Community Oriented Program for Control of Rheumatic Disease. Arvind Chopra1, R. Ghorpade1, S. Sarumukkadam2, VL Joshi3, AJ. Mathews4, L. Gauri5, A. Rahim6, K. Datta7, S. Chaturvedi8, B. Thakuria9, A. Mahajan10, R. Singh11, A. Ghosh12, R. Handa13, M. Saluja14, A. Venugopalan15, V. Kunjeer16, B. Paul17, S. Pal18, K. Wangjam19, T. Kumar20 and K. Mahendranath21, 1Center for Rheumatic Diseases, Pune, India, 2BJMC, Pune, India, 3Government Medical College Hospital, Trivandrum, India, 4SP Medical College, Bikaner, India, 5Calicut Medical College, Calicut, India, 6Advance Rheumatology Clinic, Hyderabad, India, 7FRCR, Pune, India, 8Guwahati Medical College & Hospital, Guwahati, India, 9Government Medical College, Jammu, India, 10Regional Institute of Medical Sciences, Imphal, Manipur, India, 11Institute of Post Graduate Medical Education and Research, Kolkata, India, 12AllIMS, New Delhi, India, 13Rheumatology Clinic, Bangalore, India

59. A Staggering Burden of Pain and Rheumatic Disorders in India: A National Bone & Joint Decade India Community Oriented Program for Control of Rheumatic Disease Survey 2006-2011. Arvind Chopra1, R. Ghorpade1, S. Sarumukkadam2, VL Joshi3, AJ. Mathews4, L. Gauri5, A. Rahim6, K. Datta7, S. Chaturvedi8, B. Thakuria9, A. Mahajan10, R. Singh11, A. Ghosh12, R. Handa13, M. Saluja14, A. Venugopalan15, V. Kunjeer16, B. Paul17, S. Pal18, K. Wangjam19, T. Kumar20 and K. Mahendranath21, 1Center for Rheumatic Diseases, Pune, India, 2BJ Medical College, Pune, India, 3Government Medical College Hospital, Trivandrum, India, 4SP Medical College, Bikaner, India, 5Calicut Medical College, Calicut, India, 6Advance Rheumatology Clinic, Hyderabad, India, 7FRCR, Pune, India, 8Guwahati Medical College & Hospital, Guwahati, India, 9Government Medical College, Jammu, India, 10Regional Institute of Medical Sciences, Imphal, Manipur, India, 11Institute of Post Graduate Medical Education and Research, Kolkata, India, 12AllIMS, New Delhi, India, 13Rheumatology Clinic, Bangalore, India

60. The Burden of Early Arthritis in Latin America: Utility Analysis Using Patient-Level Data From the Argentinian Consortium for Early Arthritis. Christian A. Waimann1, Gustavo Citera2, Hernan Maldonado Fico3, Oscar L. Rillo4, Mariana Benegas5, Rafael Chaparro del Moral6, Antonio Catalan Pellet7, Anastasias Secco8, Lucila Marino9, Alberto Berman10, Horacio Berman11, Ana Lucia Barbaglia12, Juan Carlos Marcos13, Josefina Marcos14, Francisco Caeiro15, Maria Haye Salinas16, Ana C. Alvarez17, Enrique Soriano18, Zaida Bedran19, Sergio Paira20, Federico Ceccato21, Gabriela Salvatierra22, Ana Quinteros23 and Edson Javier Velozo24, 1Instituto de Rehabilitación Psicofisica, Buenos Aires, Argentina, 2Instituto de Rehabilitacion PsicoFisica, Buenos Aires, Argentina, 3Instituto de Rehabilitacion PsicoFisica, Buenos Aires, Argentina, 4Hospital Tornu, Buenos Aires, Argentina, 5Hospital Tornu, Buenos Aires, Argentina, 6CONAART, Argentina, 7FRCR, Buenos Aires, Argentina, 8Rivadavia Hospital, Buenos Aires, Argentina, 9Rivadavia Hospital, Buenos Aires, Argentina, 10Centro Medico Privado de Reumatologia, Tucuman, Argentina, 11Hospital Padilla, Tucuman, Argentina, 12Hospital San Martin, La Plata, Argentina, 13Hospital privado de Cordoba, Cordoba, Argentina, 14Hospital Privado de Cordoba, Cordoba, Argentina, 15Hospital privado de Cordoba, Cordoba, Argentina, 16Hospital Italliano de Buenos Aires, Buenos Aires, Argentina, 17Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 18Hospital Jose Maria Cullen, Santa Fe, Argentina, 19Centro de enfermedades Reumaticas, Santiago Del Estero, Argentina, 20Centro Integral de Reumatologia San Miguel de Tucumán, San Miguel de Tucumán, Argentina, 21Hospital Señor del Milagro, Salta, Argentina, 22Sanatorio Adventista del Plata, Entre Rios, Argentina

61. Role of Health Literacy in Population Estimates of Musculoskeletal Disorders. Catherine L. Hill1, Sarah L. Appleton1, Tiffany K. Gill2, Julie Black3, Rima E. Rudd4 and Robert J. Adams5, 1The Queen Elizabeth Hospital, Woodville, Australia, 2University of Adelaide, Woodville South, South Australia, Australia, 3University of Adelaide, Adelaide, South Australia, Australia, 4Arthritis SA, Marleston, Australia, 5Harvard School of Public Health, Boston, MA

62. Clinical Implication of Rheumatoid Factor Formation According to Various Hepatitis B Virus Infection Status and Vaccination. Sang Tae Choi1, Hyun Woong Lee1, Jung-Soo Song2, Soo Kon Lee3 and Yong-Beom Park4, 1Chung-Ang University School of Medicine, Seoul, South Korea, 2Chung-Ang University College of Medicine, Seoul, South Korea, 3Yonsei University College of Medicine, Seoul, South Korea
63. The Association between Silica and the Risk of Anti-Citrullinated Protein Antibody Positive RA in the Malaysian and Swedish Epidemiological Investigation of Rheumatoid Arthritis Studies. Abqariyah Yahya1, Camilla Bengtsson1, Lars Klareskog2, Chun Lai Too1, Shahnaz Murad4 and Lars Alfredsson1, 1Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 2Karolinska Institute, Stockholm, Sweden, 3Karolinska Institute, Stockholm, Sweden, 4Institute for Medical Research, Kuala Lumpur, Kuala Lumpur, Malaysia

64. Use of Moist Snuff and the Risk of Developing Rheumatoid Arthritis; Results from the Swedish Epidemiological Investigation of Rheumatoid Arthritis Study. Lars Alfredsson1, Lars Klareskog2 and Camilla Bengtsson3, 1Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden, 2Karolinska Institute, Stockholm, Sweden, 3Karolinska Institute, Stockholm, Sweden

65. Serum Inflammatory Biomarkers Correlated Stronger with a Panel of Serum Steroid and Pituitary Hormones in a Cohort of Pre-Rheumatoid Arthritis (pre-RA) Than in Non-RA Control (CN) Subjects. Alfonse T. Masi1, Kevin B. Elmore1, Azeem A. Rehman2, Jean C. Aldag3 and Robert T. Chatterton2, 1University of Illinois College of Medicine at Peoria, Peoria, IL, 2Northwestern University, Chicago, IL

66. Pre-Rheumatoid Arthritis (pre-RA) Subjects Had a Minority Excess with Clearly Low Serum Cortisol Levels and Females Had Lower Mean androstenedione Levels than Control (CN) Cohorts in Analysis of a Large Panel of Serum Steroids and Pituitary Hormones. Alfonse T. Masi1, Kevin B. Elmore1, Azeem A. Rehman2, Jean C. Aldag3 and Robert T. Chatterton2, 1University of Illinois College of Medicine at Peoria, Peoria, IL, 2Northwestern University, Chicago, IL

67. Increased Prevalence of Hypothyroidism Preceding Rheumatoid Arthritis—an Epidemiological Study. Anne M. Kerola1, Tuomo Nieminen2, Markku J. Kauppi3, Hannu Kautiainen4, Kari Puolakka5, Lauri J. Virta6 and Tuomas Kerola3, 1Medical School, University of Helsinki, Helsinki, Finland, 2Division of Cardiology, Helsinki University Central Hospital, Helsinki, Finland, 3Department of Internal Medicine, Päijät-Häme Central Hospital, Lahti, Finland, 4Unit of Primary Health Care, Kuopio University Hospital, Kuopio, Finland, 5Department of Medicine, South Karelia Central Hospital, Lappeenranta, Finland, 6Division of Cardiology, Helsinki University Central Hospital, Helsinki, Finland

68. Cardiovascular Comorbidities Antedating the Diagnosis of Rheumatoid Arthritis. Anne M. Kerola1, Tuomas Kerola2, Markku J. Kauppi2, Hannu Kautiainen3, Lauri J. Virta4, Kari Puolakka5 and Tuomo Nieminen6, 1Medical School, University of Helsinki, Helsinki, Finland, 2Department of Internal Medicine, Päijät-Häme Central Hospital, Lahti, Finland, 3Department of Internal Medicine, Päijät-Häme Central Hospital, Lahti, Finland, 4Unit of Primary Health Care, Kuopio University Hospital, Kuopio, Finland, 5Department of Medicine, South Karelia Central Hospital, Lappeenranta, Finland, 6Division of Cardiology, Helsinki University Central Hospital, Helsinki, Finland

69. The Presence of Asymptomatic Carotid Plaques in Patients with Inflammatory Joint Disease Results in Inadequate Treatment to Lipid Targets in Cardiovascular Disease Prevention. Anne G. Semb1, Silvia Rollefstad2, Inge C. Olsen2, Desiree van der Heijde3 and Tore K. Kvien2, 1Diakonhjemmet Hospital, Oslo, Norway, 2Diakonhjemmet Hospital, Oslo, Norway, 3Leiden University Medical Center, Leiden, Netherlands

70. The Impact of Systemic Autoimmune Rheumatic Disease on One-Year Mortality in Congestive Heart Failure Patients: A Population-Level Analysis. Stephanie O. Keeling, Asvina Bissonauth, Becky Leung and Padmaja Kaul, University of Alberta, Edmonton, AB

71. The Association between Preclinical Markers for Cardiovascular Disease and Rheumatoid Arthritis-Related Autoantibodies in First-Degree Relatives without Rheumatoid Arthritis. Ryan W. Gan1, Jan M. Hughes-Austin2, Kevin D. Deane3, Elaine M. Urbina4, Peter K. Gregersen5, Michael H. Weisman6, V. Michael Holers3 and Jill M. Norris4, 1Colorado School of Public Health, Aurora, CO, 2Colorado School of Public Health / University of Colorado Anschutz Medical Campus, Aurora, CO, 3University of Colorado School of Medicine, Aurora, CO, 4Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 5Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY, 6Cedars-Sinai Medical Center, Los Angeles, CA

72. Relationships between Air Pollution and Presence of Rheumatoid Arthritis-Related Autoantibodies in Individuals without Rheumatoid Arthritis: Studies of the Etiology of Rheumatoid Arthritis. Ryan W. Gan1, Kevin D. Deane1, Gary O. Zerbe1, Michael H. Weisman1, Jane H. Buckner2, P. K. Gregersen4, Ted R. Mikuls5, James R. O’Dell6, Richard M. Keating7, V. Michael Holers3 and Jill M. Norris4, 1Colorado School of Public Health, Aurora, CO, 2University of Colorado School of Medicine, Aurora, CO, 3Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 4Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY, 5Omaha VA and University of Nebraska Medical Center, Omaha, NE, 6Univ of Nebraska Med Ctr, Omaha, NE, 7The University of Chicago, Chicago, IL

73. Trends in 21st century Health Care Utilization in a Rheumatoid Arthritis Cohort Compared to the General Population. Sofia Hagel1, Ingemar F. Petersson1, Ann B. I. Bremauder1, Elisabet Lindqvist1, Charlotte Bergknut2 and Martin Englund3, 1Department of Clinical Sciences, Lund, Section for Rheumatology, Lund University and Skåne University Hospital, Lund, Lund, Sweden, 2Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund,
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74. **Length of Stay for Rheumatoid Arthritis Related Orthopedic Surgery Has Improved Over the Past 3 Decades and Is Related to Disease Markers. Results From Two UK Multicentre Inception Cohorts (1986-2011) Compared with National Data.** Elena Nikiphorou1, Stephen Morris2, David James3, Patrick D. Kielty4, David Walsh5 and Adam Young6, 1ERAS, St Albans City Hospital and University College London (UCL), St Albans, United Kingdom, 2Research Department of Epidemiology and Public Health, 1-19 Torrington Place, United Kingdom, 3Diana Princess of Wales Hospital, Grimsby, United Kingdom, 4St. Georges Hospital, London, United Kingdom, 5City Hospital, Nottingham, United Kingdom, 6St Albans City Hospital, St Albans, United Kingdom

75. **Patient-Reported Outcomes Associated with Achieving and Maintaining Low Disease Activity in Rheumatoid Arthritis.** Martin J. Bergman1, James W. Shaw2, Mary Cifaldi3, Gourab De4, Tony He5, Rajeev Ayyagari6 and James Signorovitch7, 1Taylor Hospital, Ridley Park, PA, 2Abbott Laboratories, Abbott Park, IL, 3Analysis Group, Inc., New York, NY, 4Analysis Group, Inc., Boston, MA

76. **The Difference in Performance of DAS28 and RADAI During Pregnancy Might Explain Discrepancies Between Older and More Recent Studies On the Impact of Pregnancy On Rheumatoid Arthritis.** Jan Naterop1, Johanna M.W. Hazes2 and Radboud J.E.M. Dolhain3, 1Erasmus Medical Center, University Medical Center Rotterdam, Rotterdam, The Netherlands, 2Rotterdam, Netherlands, 3Erasmus Medical Center, Rotterdam, Netherlands

77. **Comorbid Conditions Do Not Explain Divergent Patient Assessments of Disease Activity and Global Health in Patients with Rheumatoid Arthritis.** Dörte Huscher1, Katja Thiele2, Sascha Bischoff3, Ulrich von Hinüber4, Guido Hoese5, Kirsten Karberg6, Wolfgang Ochs7 and Angela Zink8, 1German Rheumatism Research Centre and Charité University Medicine, Berlin, Germany, 2German Rheumatism Research Centre, Berlin, Germany, 3Rheumatologist in Private Practice, Hildesheim, Germany, 4Rheumatologist in Private Practice, Stadthagen, Germany, 5Rheumatologist in Private Practice, Berlin, Germany, 6Rheumatologist in Private Practice, Bayreuth, Germany

78. **Factors Influencing on the Discordance Between 2011 ACR/EULAR Criteria and Physician’s Clinical Judgment for Remission in Rheumatoid Arthritis Patients.** Yoon-Kyoung Sung1, Bo ‘Young’ Yoon2, Soo-Kyung Cho3, Chan-Bum Choi4, Dae-Hyun Yoo5, Jae-Bum Jun5, Jae-Hwan Kim6, Shin-Seok Lee7, Taek-Jong Kim8, Jisoo Lee9, Jung-Yoon Choe10, Sung-Hoon Park11, Seung-Jae Hong12, Yeon-Ah Lee13, Jinseok Kim14, Eun-Mi Koh15, Hoon-Suk Cha16, Jaejoon Lee17, Won-Tae Chung18, Sung Won Lee19, Choong-Ki Lee20, Hye-Soon Lee21, Wan-Hee Yoo22, Young Mo Kang23 and Sang-Cheol Bae24, 1Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea, 2Inje University Ilsan Paik Hospital, Goyang, South Korea, 3Chonnam National University Medical School, Gwangju, South Korea, 4Ewha Womans University Mokdong Hospital, Seoul, South Korea, 5Catholic University of Daegu School of Medicine, Daegu, South Korea, 6Kyung Hee University, Seoul, South Korea, 7Jeju National University, Jeju, Korea, South Korea, 8Samsung Medical Center, Sunnykunkwan University School of Medicine, Seoul, South Korea, 9Dong-A University Hospital, Busan, South Korea, 10Yeungnam University Hospital, Daegu, South Korea, 11Hanyang University Guri Hospital, Guri, South Korea, 12Department of Internal Medicine, Chonbuk National University Medical School and Research Institute of Clinical Medicine, Jeonju, South Korea, 13Kyungpook National University School of Medicine, Daegu, South Korea, 14Hanyang University Hospital for Rheumatic Diseases, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea

79. **Physician’s Global Assessment Is Affected by Physician’s Age and Gender, but Not by Patient Age and Gender in Rheumatoid Arthritis Patients Treated in Routine Care.** Data from the Danish Nationwide Danish Registry. Cecilie Lindstrom Egholm1, Theodore Pincus2, Lene Dreyer3, Torkell Ellingsen4, Bente Glintborg5, Marcin Kowalski6, Tove Lorenzen7, Ole Rintek Madsen8, Henrik Nordin9, Claus Rasmussen1 and Merete L. Hetland10, 1Copenhagen University Hospital / DANBIO at Glostrup, Copenhagen, Denmark, 2NYU Hospital for Joint Diseases, New York, NY, 3Copenhagen University Hospital at Gentofte, Gentofte, Denmark, 4Region Hospital Silkeborg, Silkeborg, Denmark, 5Aalborg Hospital, Aalborg, Denmark, 6Rigshospitalet, Copenhagen, Denmark, 7Vendsyssel Hospital, Hjørring, Denmark, 8Copenhagen University and Glostrup Hospital, Copenhagen, Denmark

80. **Validation of Remission of Rheumatoid Arthritis by Traditional Disease Activity Score and Provisional Criteria by American College of Rheumatology and European League Against Rheumatism: Patient Reported Outcomes Analyzed From 3 Phase III Golimumab Trials.** Chenglong Han1, E. Keystone2, Roy Fleischmann3, Josef S. Smolen4, Paul Emery5, Mark C. Genovese6, Mittie K. Doyle7 and Elizabeth C. Hsia8, 1Johnson & Johnson Pharmaceutical Services, LLC, Malvern, PA, 2University of Toronto, Toronto, ON, 3University of Texas Southwestern Medical Center, Dallas, TX, 4Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 5Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 6Stanford University Medical Center, Palo Alto, CA, 7Janssen Research and Development, LLC, Spring House, PA

81. **Transitions among Disease Activity States: Estimates and Models of Covariate Associations.** George W. Reed1, David H. Collier2, Andrew S. Koenig3, Katherine C. Saunders4, Joel M. Kremer5 and Sameer Kotak6, 1University of Massachusetts Medical School, Worcester, MA, 2Amgen Inc., Thousand Oaks, CA, 3Pfizer Inc., Collegeville, PA, 4CORRONA,
Variability of the SF-6D Determinants over Time in Early Arthritis: Results From the Espoir Cohort. Cécile Gaujoux-Viala1, Bruno Fautrel2, Kossar Hosseini3, Francis Guillemin4, René-Marc Flipo5 and Anne-Christine Rat4, 1Lorraine University, Paris Descartes University, APEMAC, EA 4360, F- 54 000, Nancy; Paris 6 – Pierre et Marie Curie University; Rheumatology, Pitié-Salpêtrière Hospital, Paris, France, 2Paris 6 – Pierre et Marie Curie University; Rheumatology, Pitié-Salpêtrière Hospital, Paris, France, 3Lorraine University, Paris Descartes University, APEMAC, EA 4360, F-54 000, Nancy, France, 4Rheumatology Department, Lille University Hospital, Lille, France, 5Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F-54 000, Nancy, France

Substantial Functional Disability Is the Key Determinant of Discrepancies Between EQ-5D and SF-6D Utility Measures in Early Arthritis: Results From the Espoir Cohort. Cécile Gaujoux-Viala1, Bruno Fautrel2, Kossar Hosseini3, Francis Guillemin4, René-Marc Flipo5 and Anne-Christine Rat4, 1Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F-54 000, Nancy; Paris 6 – Pierre et Marie Curie University; Rheumatology, Pitié-Salpêtrière Hospital, Paris, France, 2Paris VI University, Paris, France, 3Lorraine University, Paris Descartes University, APEMAC, EA 4360, F-54 000, Nancy, France, 4Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F-54 000, Nancy, France, 5Rheumatology Department, Lille University Hospital, Lille, France

Benefits of Treat-to-Target Guideline Compliance in Patients with Rheumatoid Arthritis: A Retrospective Claims Analysis. Martin J. Bergman1, James W. Shaw2, Mary A. Cifaldi3, Annie Guerin4, Pooja Chopra1 and James Signorovitch1, 1Taylor Hospital, Ridley Park, PA, 2Abbott Laboratories, Abbott Park, IL, 3Analysis Group, Inc., Montreal, QC, 4Analysis Group, Inc., Boston, MA

WITHDRAWN.

Longitudinal Hypertension Diagnosis and Control among a Primary Care Medically Homed Population with Rheumatoid Arthritis. Katya Voelker1 and Christie M. Bartels2, 1Univ of Wisconsin School of Medicine and Public Health, Madison, 2Univ of Wisconsin School of Medicine and Public Health, Madison, WI

Prediction of Mortality in Rheumatoid Arthritis Using a Serum Cytokine Profile. Agustín Escalante1, Roy W. Haas1, Daniel F. Battafarano2 and Inmaculada Del Rincon2, 1University of Texas Health Science Center at San Antonio, San Antonio, TX, 2Brooke Army Medical Ctr, San Antonio, TX

The Effect of Weather on Patient Symptoms in Rheumatoid Arthritis: A Systematic Review of the Literature and Exploration of “weather sensitivity”. Annika Cutinha1, Frederick Wolfe1 and Kaleb Michaud2, 1University of Nebraska Medical Center, Omaha, NE, 2National Data Bank for Rheumatic Diseases, Wichita, KS, 3National Data Bank for Rheumatic Diseases & University of Nebraska Medical Center, Omaha, NE

Poor to Moderate Performance of Patient Self-Report in Indentifying Periodontitis in Patients with Rheumatoid Arthritis. Ted R. Mikuls1, Jeffrey Payne2, Harlan Sayles4, Shawneen Gonzalez2, Jeffrey Markt3, Mark Beatty5, Grant W. Cannon6, David McGowan6, Gail S. Kerr7, Robert Redman6, Andreas M. Reimold8 and Garth Griffiths9, 1Omaha VA and University of Nebraska Medical Center, Omaha, NE, 2University of Nebraska Medical Center, Lincoln, NE, 3University of Nebraska Medical Center, Omaha, NE, 4Omaha, NE, 5George E. Wahlen VA Medical Center, Salt Lake City, UT, 6Washington DC VAMC, Georgetown and Howard University, Washington, DC, 7Washington DC VA, Georgetown and Howard University, Washington, DC, 8Dallas VA and University of Texas Southwestern, Dallas, TX

Physiological Function, Pain and Fatigue Are Related to Sleep Disturbance in Females with Rheumatoid Arthritis. Cathrine Austad1, Tore K. Kvien2 and Till Uhlig3, 1Diakonhjemmet Hospital, Norway, Oslo, Norway, 2Diakonhjemmet Hospital, Oslo, Norway

Correlations of Single Item Health Literacy Screening Questions with Established Measures of Health Literacy in Subjects with Rheumatoid Arthritis. Itziar Quinzanos1, Joel M. Hirsh1 and Liron Caplan2, 1Denver Health Med Ctr, Denver, CO, 2Denver VAMC and Univ of Colorado School of Medicine, Aurora, CO

Combined Response Index in Diffuse Systemic Sclerosis (CRISS)—Which External Anchors to Use When Developing the Index? Baseline Analysis. Dinesh Khanna1, Veronica Berrocal2, James R. Seibold3, Peter A. Merkel4, Maureen D. Mayes5, Kristine Phillips1, Robert W. Simms6, Shervin Assassi7, Philip J. Clements8 and Daniel E. Furst9, 1University of Michigan, Ann Arbor, MI, 2Scleroderma Research Consultants LLC, Avon, CT, 3University of Pennsylvania, Philadelphia, PA, 4University of Texas Health Science Center at Houston, Houston, TX, 5Boston University School of Medicine, Boston, MA, 6UCLA School of Medicine, Los Angeles, CA, 7UCLA Medical School, Los Angeles, CA

Health State Utilities in Systemic Sclerosis: Results From the UCLA Scleroderma Quality of Life Study. Mohsen Sadatsafavi1, Dinesh Khanna2, Paul Maranian3, D. Furst4, Amir Khakban5 and Carlo A. Marra6, 1Univ of British Columbia, Vancouver, BC, 2University of Michigan, Ann Arbor, MI, 3UCLA Medical School, Los Angeles, CA, 4University of California at Los Angeles, Los Angeles, CA
94. Medical Costs and Health Care Resource Use in Patients with Systemic Sclerosis in an Insured Population.
Daniel E. Furst, Ancila W. Fernandes, Serban R. Iorga, Warren Greth and Tim Bancroft, 1UCLA Medical School, Los Angeles, CA, 2MedImmune LLC, Gaithersburg, MD, 3OptumInsight, Eden Prairie, MN, 4MedImmune, LLC, Gaithersburg, MD

95. Smoking Is Associated with Worse and More Widespread Pain, Worse Disease Activity, Function, Fatigue and Health Related Quality of Life in Patients with Axial Spondyloarthritis – Results From a Population Based Cohort.
Ann B. I. Bremaender, Ingemar F. Petersson, Emma Haglund, Stefan Bergman and Lennart TH Jacobsson, 1Halmstad University School of Business and Engineering, Halmstad, Sweden, 2Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden, 3Spenshult Hospital for Rheumatic Diseases, Halmstad, Sweden, 4R&D Center Spenshult, Oskarström, Sweden, 5Department of Rheumatology and Inflammation Research, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden

96. Quality of Care: Reference and Counter Reference from Family Physicians and Rheumatologists’ perspectives– A Pilot Study.
Thiago D. Baumgratz, Raphael Battisti, Mirella Cuziol, Ana Carolina Reiff Janini, R.A. Levy and Mirhelen M. Abreu, 1Medical Student at Universidade Federal de São Carlos, São Carlos, Brazil, 2Hospital Universitário Pedro Ernesto, Rio de Janeiro, Brazil, 3Universidade Federal de São Carlos, São Carlos, Brazil

Daniel A. Albert, Dartmouth-Hitchcock Med Ctr, Lebanon, NH

98. How to Assess Risks for Pulmonary Infection in Patients Receiving Immunosuppressive Treatment for Rheumatic Diseases? A Report from a Large-Scale Prospective Cohort Study.
Hayato Yamazaki,1, Ryoko Sakai,1, Ryuji Hagiyama,15, Nobuyuki Miyasaka1 and Masayoshi Harigai1, 1Tokyo Medical and Dental University, Tokyo, Japan, 2Afﬁliated Tokyo Women’s Medical University, Tokyo, Japan, 3Tokyo Metropolitan Bokutoh Hospital, Tokyo, Japan, 4Yokohama-city Bay Red Cross Hospital, Yokohama, Japan

99. Cancer incidence and Type of Malignancy in Rheumatologic Diseases in Korea: Head-to-Head Comparison.
Sung Hae Chang, Jin Kyun Park and Eun Bong Lee, Seoul National University Hospital, Seoul, South Korea

100. Further Evidence on Biased Cancer Risk Estimation in Studies Comparing A Subpopulation to the General Population.
Koray Tasciyar and Hasan Yazici, 1Istanbul University Cerrahpasa Medical Faculty, Istanbul, Turkey, 2Istanbul University, Cerrahpasa Medical School, Rheumatology, Istanbul, Turkey

Mara McAdams DeMarco, Anna Kottgen, Andrew Law, Janet W. Maynard, Josef Coresh and Alan N. Baer, 1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2University Hospital Freiburg, Freiburg, Germany, 3Johns Hopkins, Baltimore, MD, 4Johns Hopkins University School of Medicine, Division of Rheumatology, Baltimore, MD, 5Johns Hopkins University, Baltimore, MD

Imaging of Rheumatic Diseases: Ultrasound, Nuclear Medicine and Fluorescence Imaging

102. Sonographic Assessment of Normal Peripheral Joints: Evaluation According to Demographics Parameters.
Flavia S. Machado, Rita N.V. Furtado, Rogerio D. Takahashi, Ana Leticia P. de Buosi and Jamil Natour, Universidade Federal de São Paulo, São Paulo, Brazil

103. A Pragmatic Musculoskeletal Ultrasound Screening Protocol Does Not Add to a Predictive Algorithm for Persistent Inflammatory Arthritis in a UK Early Arthritis Clinic.
Arthur G. Pratt, Alice R. Lorenzi, Gillian Wilson, Philip N. Platt and John D. Isaacs, 1Newcastle University, Newcastle Upon Tyne, United Kingdom, 2Freeman Hospital, Newcastle upon Tyne, United Kingdom, 3Musculoskeletal Research Group, Institute of Cellular Medicine, Newcastle University and Newcastle upon Tyne NHS Foundation Trust, Newcastle Upon Tyne, United Kingdom

104. The Usefulness of A NEW Musculoskeletal ULTRASOUND Scoring System of the Hands and Wrist Joints (US10) for Evaluation of EARLY Rheumatoid Arthritis Patients.
Karine R. Luz, Rita N.V. Furtado, Marcelo M. Pinheiro, Giovanna S. Petterle and Jamil Natour, Universidade Federal de São Paulo, São Paulo, Brazil

105. Combined Synovial and Structural Ultrasound Score for the Diagnosis of RA.
Gary A. Kunkel, Grant W. Cannon and Daniel O. Clegg, 1George Wahlen Veterans Affairs Medical Center, Salt Lake City, UT, 2George E. Wahlen VA Medical Center, Salt Lake City, UT
106. Development of a 6 Joint Simplified Ultrasonographic Score to Assess Disease Activity in Patients with Rheumatoid Arthritis. Tomas Cazenave1, Christian A. Waimann2, Gustavo Citera1 and Marcos G. Rosenmft1, 1Instituto de Rehabilitacion Psicosofica, Buenos Aires, Argentina, 2Instituto de Rehabilitación Psicofísica, Buenos Aires, Argentina, 3Instituto de Rehabilitación Psicosofica, Buenos Aires, Argentina

107. Sensitivity to Change of the Ultrasonovisits SONAR Score in RA Patients: Results of the SCQM Cohort. Pascal Zufferey1, Almut Scherer2, Hans Rudolf Ziswiler3, Giorgio Tamboririni4, Laure Bruhlh4 and Burkhard Moeller5, 1Lausanne University Hospital, Lausanne, Switzerland, 2SCQM Foundation, Zurich, Switzerland, 3Institute Bern, Bern, Switzerland, 4University Hospital Zurich, Switzerland, 5Institute in Bern, Bern, Switzerland

108. Disparity Between Sonographic and Clinical Criteria of Remission in Psoriatic Arthritis. Christian Dejaco1, Rusmir Husic2, Judith Gretler3, Winfried B. Graninger4 and Josef Hermann5, 1Medical University Graz, Graz, Austria, 2Auenbruggerplatz 15, Graz, Austria

109. Does Joint Sonography Really Add Clinically Important Information Beyond Clinical Joint Examination? Miriam Gärtner1, Helga Radner2, Gabriela Supp3, Peter Mandl4, Daniel Aletaha5, Klaus P. Machold6 and Josef S. Smolen7, 1Medical University of Vienna, Vienna, Austria, 2Medical University of Vienna and Hietzing Hospital, Vienna, Austria

110. Comparing Palmar and Dorsal Ultrasound Assessment of Small Joint Synovitis in Rheumatoid Arthritis: Dorsal Greyscale Mode Yields Significantly Better Concordance with Power Doppler. Matthias Witt1, Felix Mueller2, Hendrik Schulze-Koops3 and Mathias Grunke1, 1Division of Rheumatology, Medizinische Klinik und Poliklinik IV, University of Munich, Munich, Germany, 2Division of Rheumatology, Medizinische Klinik und Poliklinik IV, University of Munich, Munich, Germany

111. Ultrasound Measurement of Metacarpal Cartilage Thickness Correlates with Joint Space Narrowing in the Metacarpalangeal Joints of Patients with Rheumatoid Arthritis. Peter Mandl1, Helga Radner2, Gabriela Supp3, Peter V. Balint4, Daniel Aletaha5 and Josef S. Smolen6, 1Medical University of Vienna, Vienna, Austria, 2National Institute of Rheumatology and Physiotherapy, Budapest, Hungary, 3Medical University of Vienna and Hietzing Hospital, Vienna, Austria

112. Time-Integrated Synovitis Activity Assessed by Power Doppler Ultrasound Significantly Correlates with Radiographic Progression in Rheumatoid Arthritis Patients Treated with Methotrexate Alone but Not in Those Treated with TNF Antagonists. Kei Ikeda, Daiki Nakagomi, Yoshie Sanayama, Mieko Yamagata, Ayako Okubo, Taro Iwamoto, Hiroshi Kawashima, Kentaro Takahashi and Hiroshi Nakajima, Chiba University Hospital, Chiba, Japan

113. Power Doppler Signal Is Frequently Positive Among Patients with Rheumatoid Arthritis in Clinical Remission and Normal Serum Matrix Metalloproteinase-3 (MMP-3) Levels. Tadashi Okano, Tatsuya Koike, Masahiro Tada, Kenji Mamoto, Yoko Sugio, Kazuoki Kamiyama and Hiroaki Nakamura, Osaka City University Medical School, Osaka, Japan

114. US Examination of Wrists and Hands: A Comparison between Rheumatoid Arthritis and Psoriatic Arthritis. Andrea Delle Sedie1, Elisa Cliffo2, Linda Carli3, Elena Sardano4, Stefano Bombardi5 and Lucrezia Riente6, 1Rheumatology Unit, University of Pisa, Pisa, Italy, 2Immunology Unit, University of Pisa, Italy

115. Composite Ultrasound Score in Spondyloarthropathies. Maria L. Acosta Felquer1, Cristian Quiroz2, Santiago Ruta3, Javier Rosa4, Marina Scolnik1, Leandro Ferreyra Garrot5, Ricardo Garcia-Macaco6 and Enrique R. Soriano7, 1Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 3Radiology and Imageonology Department, Hospital Italiano de Buenos Aires, Buenos Aires, 4Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Instituto Roosevelt Hospital Italiano de Buenos Aires, and Fundacion PM Catoggio, Buenos Aires, Argentina

116. Correlation between Clinical and Ultrasound Examination of the Calcaneal Enthesis in Patients with Ankylosing Spondylitis: A Controlled Study. Suelen Nairamatsu1, Rita N.V. Furtado2, andre Rosenfeld2, Germany, B. O. Estrela2, Jorge E. P. Proglho3 and Jamil Natour4, 1Universidade Federal de Sao Paulo - UNIFESP, Sao Paulo, Brazil, 2Universidade Federal de Sao Paulo, Sao Paulo, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo - UNIFESP, Sao Paulo, Brazil, 4Universidade Federal de Sao Paulo, Sao Paulo, Brazil

117. Ultrasound for Diagnosis of Carpal Tunnel Syndrome – Comparison of Different Methods to Determine Median Nerve Volume and Value of Power Doppler Sonography. Christian Dejaco, Martin Stradner, Dorothea Zauner, Werner Seel, Nicole E. Simmet, Alexander Klammer, Kerstin Brickmann, Judith Gretler, Florentine Moadedi-Fürst, Rene Thonhofer, Rusmir Husic, Josef Hermann and Stefan Quasthoff, Medical University Graz, Graz, Austria

118. Colour Doppler Sonography of the Knee Joint: A Useful Tool to Discriminate Arthritis From Osteoarthritis? Wolfgang Hartung1, Nelly Beiting1, Boris P. Ehrenstein1, Christian Lüng3, Joachim Grifka2, Benno Schreiner2, Martina Müller4 and Martin Fleck2, 1Astekleios Kinikum Bad Abbach, Bad Abbach, Germany, 2University Clinic Aachen, Aachen, Germany, 3University of Regensburg, Bad Abbach, Germany, 4University Clinic Regensburg, Regensburg
119. Ultrasound (US) Findings in Patients with Knee Pain: Sensitivity and Specificity for the Diagnosis of Knee Osteoarthritis and Development of an US Prediction Score. Erika Catay1, Santiago Rutá2, Javier Rosa3, David A. Navarta1, Ricardo García-Monaco1 and Enrique R. Soriano4,
1Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 3Radiology and Imagenology Department, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 4Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 5Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 6Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 7Hospital Italiano de Buenos Aires and Fundacion PM Catoggio, Buenos Aires, Argentina

120. Evaluation of Joint Involvement in Patients Suffering From Early Polytopic Rheumatism Using High Resolution Ultrasound. Sandra Balser1, Emmanuelle LeBras1, Boris P. Ehrenstein2, Martina Müller3, Martin Fleck4 and Wolfgang Hartung1, 1Asklepios Klinikum Bad Abbach, Bad Abbach, Germany, 2University Clinic Regensburg, Regensburg Germany, 3Hospital of Southern Norway HF, Kristiansand, Norway

121. The Diagnostic Value of Color Doppler Ultrasonography in Giant Cell Arteritis. Merete L. Hetland1, Geirmund Myklebust2, Glenn Haugeberg3 and Andreas P. Diamantopoulos4, 1Copenhagen University and Gastro hospit, Copenhagen, Denmark, 2Hospital, Madrid, Spain, 3Hospital, Madrid, Spain, 4Hospital, Madrid, Spain

122. Grey-Scale Ultrasonography with Power Doppler Technique: An Available Tool for the Assessment of Subclinical Joint Inflammatory Activity in Juvenile Idiopathic Arthritis. Paz Collado1, Rosa Merino2, J. Graña Sr.3, Sagrario Bustabad-Reyane4, Mariluz Gamir5, Mari Luz García6 and Inmaculada Calvo7, 1Severo Ochoa University Hospital, Madrid, Spain, 2Hospital Universitario La Paz, Madrid, Spain, 3Hospital Juan Canalejo, Spain, 4Hospital Universitario de Canarias, La Laguna. Tenerife. Tenerife, 5Ramón y Cajal University Hospital, Madrid, Spain, 6Hospital de Basurto, Bilbao, Spain, 7Hospital de La Fe, Valencia, Spain

123. Detection of Synovitis in Clinically Inactive Juvenile Idiopathic Arthritis Patients by Ultrasonography with POWER Doppler. Paz Collado1, Mariluz Gamir2, Rosa Merino3, Consuelo Modesto4, Indalecio Montaeagudo5 and Juan Carlos Lopez-Robledillo6, 1Severo Ochoa University Hospital, Madrid, Spain, 2Ramón y Cajal University Hospital, Madrid, Spain, 3Hospital Universitario La Paz, Madrid, Spain, 4Hospital Valle de Hebron, Barcelona, Spain, 5Gregorio Marañón Hospital, Madrid, Spain, 6Hospital Niño Jesus, Madrid, Spain

124. Reliability of an Ultrasound Scoring Measure for Juvenile Localized Scleroderma (LJS). Suzanne C. Li1, Melissa S. Liebling2, Andrea S. Doria3, Molly Dempsey-Robertson4, Carsten Hamer5, Sven Opitz5, Faridam Ramji6, Stephanie Edgerton6, Jose Jarrin7, Tanicka Kornyat7, Michael Malone8, Arun Mohanta9, Shuhen Zhang9 and Knut M. Wittkowski10, 1Joseph M Sanzani Children's Hospital, Hackensack University Medical Center, Hackensack, NJ, 2Hackensack University Medical Center, Hackensack, NJ, 3Hospital for Sick Children, Toronto, ON, 4Texas Scottish Rite Hospital, Dallas, TX, 5Schon Klinik Hamburg Elbek, Hamburg, Germany, 6University of OK Health Science Center, Okc, OK, 7Rockefeller University, New York, NY

125. Borderline Right Ventricular Involvement in Patients with Systemic Sclerosis without Pulmonary Hypertension. Luna Gargani1, Pietr Gosci1ak2, Cosimo Bruni3, Serena Guiducci4, Silvia Bellando Randone5, Lorenza Pratalli6, Gergely Agoston7, Alberto Moggi Pignone1, Albert Varga8, Rosa Sicari9, Eugenio Picano1 and Marco Matucci Cerinic1, 1Institute of Clinical Physiology, National Research Council, Pisa, Italy, 2WSZ, Department of Cardiology, Szczecin, Poland, 3Department of Biomedicine, Division of Rheumatology AOU, Excellence Centre for Research, Florence, Italy, 4University of Szeged, Faculty of Medicine, 5nd Dept of Internal Medicine & Cardiology Center, Szeged, Hungary, 6University of Florence, Department of Medicine, Division of Rheumatology, Florence, Italy

126. Ultrasoundography of Salivary Glands: Diagnostic and Prognostic Value in Primary Sjögren’s Syndrome. Nicoletta Luciano1, Chiara Baldini2, Rachele Pascale3, Francesco Ferro4, Alessandro Paolicchi2, Davide Caramella2 and Stefano Bombardieri1, 1Rheumatology Unit, University of Pisa, Pisa, Italy, 2Diagnostic and Interventional Radiology, University of Pisa, Pisa, Italy

127. Ultrasoundographic Evaluation of the Hands of Patients with Primary and Secondary Sjögren’s Syndrome. Cristina Hernández-Díaz1, Luis M. Amezquita-Guerra2, Angélica Vargas3, Alberto Lopez-Reyes4 and Carlos Pineda5, 1Instituto Nacional de Rehabilitación, Mexico City, Mexico, 2Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico, 3Instituto Nacional de Rehabilitacion, Mexico City, Mexico

128. Quantitative Assessment of Synovitis in Patients with Rheumatoid Arthritis Using Fluorescence Optical Imaging. Valentin S. Schäfer1, Wolfgang Hartung2, Patrick Hoffstetter3, Jörn Berger1, Martina Müller4, Martin Fleck5 and Boris P. Ehrenstein6, 1Asklepios Klinikum Bad Abbach, Bad Abbach, Germany, 2mivenion GmbH, Berlin, Germany, 3Hospital, Madrid, Spain

129. Comparison of Automated, Computer-Based Assessment and Visually Assessed Disease Activity Scores in ICG-Enhanced Fluorescence Optical Imaging in Patients with Rheumatic Disorders: A Feasibility Study. Stephanie G. Werner1, Michael Schirrer2, Hans-Eckhard Langer3, Mathias Cziumplik4, Jörn Berger5, Marina Backhaus4 and Malte Bahner6, 1RHIO (Rheumatology, Immunology, Osteology) Duesseldorf, Duesseldorf, Germany, 2mivenion GmbH, Berlin, Germany, 3Duesseldorf, Germany, 4Charite University Hospital, Berlin, Germany
130. Is Bone Scintigraphy Still Useful to Diagnose Rheumatoid Arthritis After the Appearance of 2010 ACR/EULAR Classification Criteria? Ji Young Kim1, Soo-Kyung Cho2, Min-Kyung Han2, Yun Young Choi6 and Yoon-Kyong Sung7, 1Hanyang University College of Medicine, Seoul, South Korea, 2Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea

131. Subclinical Arthritis Visualised by Positron Emission Tomography and Macrophage Targeting Precedes Clinical Flare in Rheumatoid Arthritis Patients in DAS28 Remission. Y.Y. Gent, A.E. Voskuyl, N. Ahmadi, N. Hoetjes and C.J. van der Laken, VU University Medical Center, Amsterdam, Netherlands

132. FDG-PET Evaluation of Axillary Lymph Nodes and Large Joints of Patients with Rheumatoid Arthritis Treated with Anti-TNF Drugs. Koichi Okamura1, Yukio Yonemoto1, Tetsuya Kaneko1, Kimihiko Takeuchi2, Tsutomu Kobayashi1 and Kenji Takagishii, 1Gunma University Graduate School of Medicine, Maebashi, Gunma, Japan, 2Isesaki Fukushima Hospital, Isesaki, Gunma, Japan

133. Utility of PET-CT Imaging in IgG4-Related Disease. Arezou Khosroshahi, Leslie Lee, Mollie Carruthers, Rusen Acur, Pietro Bonaffini, Vikram Deshpande, Dushyant Sahani and John H. Stone, Massachusetts General Hospital, Boston, MA

Metabolic and Crystal Arthropathies


135. A Pilot Study of the Efficacy of IL1 Blockade by Anakinra in Acute Calcific Periarthritis of the Rotator Cuff. Pascal Zufferey, Melanie Faucherre, Pierre A. Varisco, Berengere Aubry Sr., Isabelle Fabreguet and Alexander K. So Sr., CHUV, Lausanne, Switzerland

136. A Delphi Exercise to Identify Characteristic Features of Gout – A Study of Opinions From Patients and Physicians to Inform New Classification Criteria. Rebecca Prowse1, Nicola Dalbeth3, H. R. Schumacher1, Tuhina Neogi6, Tim L. Jansen6, Jaap Fransen1 and William Taylor1, 1University of Otago, Wellington, New Zealand, 2University of Auckland, Auckland, New Zealand, 3University of Pennsylvania and VA Medical Center, Philadelphia, PA, 4Boston Univ School of Medicine, Boston, MA, 5St Radboud University Nijmegen Medical Centre, Netherlands, 6Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

137. Monosodium Urate Crystals Inhibit Tenocyte Viability and Function: Implications for Periarticular Involvement in Chronic Gout. Ashika Chhana1, Karen E. Callon1, Bregnna Pool1, Dorit Naot1, Gregory Gamble1, Brendan Coleman2, Fiona M. McQueen1, Jillian Cornish1 and Nicola Dalbeth1, 1University of Auckland, Auckland, New Zealand, 2Middlemore Hospital, Auckland, New Zealand

138. Evaluating Appropriate Use of Prophylactic Colchicine and Urate Lowering Therapy in Gout. Michael George1, Sally W. Pullman-Moore2 and H. Ralph Schumacher3, 1Hospital of the University of Pennsylvania, Philadelphia, PA, 2University of Pennsylvania and Philadelphia Veterans Hospital, Philadelphia, PA, 3University of Pennsylvania and VA Medical Center, Philadelphia, PA

139. Lack of Effect of Supplemental Vitamin C On Serum Urate in Patients with Gout. Lisa K. Stamp1, Christopher Frampton1, John L. O’Donnell2, Jill Drake3 and Peter T. Chapman4, 1University of Otago, Christchurch, Christchurch, New Zealand, 2Canterbury Health Laboratories, Christchurch, New Zealand, 3Christchurch Hospital, Christchurch, New Zealand

140. Patients That Continue to Flare Despite Apparent Optimal Urate Lowering Therapy. Dinesh Khanna1, Puja Khanna1, David Hagerty2, Chris Storgard3, Robert Mischler2 and Robert Morlock4, 1University of Michigan, Ann Arbor, MI, 2Ardea Bioscience, San Diego, CA

141. Effectiveness of Prophylaxis with Anti-Gout Medications on Risk of Gout Attacks. Tuhina Neogi1, Clara Chen2, Jingbo Niu1, Christine E. Chaisson2, David J. Hunter3, Hyon K. Choi1 and Yuqing Zhang2, 1Boston University School of Medicine, Boston, MA, 2Boston University School of Public Health, Boston, MA, 3Royal North Shore Hospital, Sydney, Australia, 4Boston University, Boston, MA

142. Efficacy of Canakinumab versus Triamcinolone Acetonide According to Multiple Gouty Arthritis-Related Health Outcomes Measures. Ari Gnanasakthy1, Andrew Sarkin2, Rachel Lale3, Kyle Choi4 and Jan D. Hirsch1, 1Novartis Pharmaceuticals Corporation, East Hanover, NJ, 2Health Services Research Center, University of California, San Diego, CA, 3Skaggs School of Pharmacy & Pharmaceutical Sciences, University of California, San Diego, CA

143. Proposed Gout Treatment Guidelines and Meeting Serum Urate and Flare Goals. Jasvinder A. Singh1, David Hagerty2, 1Boston University School of Public Health, Boston, MA, 2Ardea Bioscience, San Diego, CA

144. Long-Term Safety of Canakinumab in Patients with Gouty Arthritis. Alexander So1, Reike Alten2, H. Ralph Schumacher3, Mark Bloch3, Thomas Bardin3, Markus R. John3, Gerhard Krammer4, Jan Michael Nebesky5, Aiyang Tao7 and Naomi Schlesinger8, 1CHUV, Univ of Lausanne, Lausanne, Switzerland, 2Charité Univ Medicine, Berlin, Germany, 3Department of Medicine, University of Pennsylvania and VA Medical Center, Philadelphia, PA, 4Holdsworth House Medical Practice, Sydney, Australia, 5Hôpital Lariboisière, Paris, France, 6Novartis Pharma AG, Basel, Switzerland, 7Novartis Pharmaceuticals Corporation, East Hanover, NJ, 8UMDNJ-RWJMS, New Brunswick, NJ
145. Prevalence of Non-Gout Arthritis in Patients with Gout: Not As Sparing As Previously Thought. Fernando Perez-Ruiz² and Ana M. Herrero-Beites¹, ¹Hospital Universitario Cruces, Baracaldo, Spain, ²Hospital de Gorliz, Gorliz, Spain

146. The Treatment of Acute Gouty Arthritis in Complex Hospitalized Patients with Anakinra. Mary Bach, Jane Park, Pradippta Ghosh, Peter A. Simkin and Gregory C. Gardner, University of Washington, Seattle, WA

147. Improvements in Long-Term Health-Related Quality of Life in Chronic Gout Patients Refractory to Conventional Therapies Treated with Pegloticase: Results From Responder Cohort. Dinesh Khanna¹, Puja Khanna¹ and Faith D. Ottery², ¹University of Michigan, Ann Arbor, MI, ²Savient Pharmaceuticals, Inc., East Brunswick, NJ

148. Towards a Preliminary Definition of Remission from Gout. William Taylor¹, Nicola Dabbeth², Jasvinder A. Singh³, Kenneth G. Saag⁴ and H. R. Schumacher⁴, ¹University of Otago, Wellington, New Zealand, ²University of Auckland, Auckland, New Zealand, ³University of Alabama at Birmingham, Birmingham, AL, ⁴Univ of Alabama-Birmingham, Birmingham, AL, ⁵University of Pennsylvania and VA Medical Center, Philadelphia, PA

149. Natural Language Processing in the Evaluation of Gout Quality Indicators. Gail S. Kerr¹, J. Steuart Richards², Carl A. Nunziato³, Olga V. Patterson, Scott L. DuVall⁴, David D. Maron⁵ and Richard L. Amdur⁶, ¹Washington DC VAMC, Georgetown and Howard University, Washington, DC, ²Washington DC VA and Georgetown University, Washington, DC, ³Washington, DC, ⁴VA Salt Lake City Health Care System and University of Utah School of Medicine, Salt Lake City, UT, ⁵Washington DC VA and Georgetown University, Washington, DC

150. Ulodesine (BCX4208) Long-Term Safety When Added to Allopurinol in the Chronic Management of Gout: A Phase 2 24-Week Blinded Safety Extension and Vaccine Challenge Study. Alan S. Hollister¹, Andreas Maetzel¹, Michael A. Becker¹, Robert Terkeltaub², David Fitz-Patrick², Valerie Smith¹ and William P. Sheridan¹, ¹BioCryst Pharmaceuticals, Inc., Durham, NC, ²University of Chicago, Chicago, IL, ³VA Medical Ctr, San Diego, CA, ⁴East-West Medical Research Institute, Honolulu, HI, ⁵Pharpoint Research, Inc., Durham, NC

151. Management of Gout Attacks in the Community. Tuhina Neogi¹, Clara Chen², Christine E. Chaisson², David J. Hunter³, Hyon Choi² and Yuqing Zhang², ¹Boston University School of Medicine, Boston, MA, ²Boston University School of Public Health, Boston, MA, ³Royal North Shore Hospital, Sydney, Australia, ⁴Boston University, Boston, MA

152. Rilonacept for Gout Flare Reduction: Estimation of Number Needed to Treat to Benefit (NNTB). Robert R. Evans¹, Steven P. Weinstein¹, George D. Yancopolous¹ and Yuhwen Soo¹, ¹Regeneron Pharmaceuticals Inc, Tarrytown, NY, ²Regeneron Pharmaceuticals, Inc., Tarrytown, NY

153. Prevention of Recurrent Calcium Stones in Subjects with Hyperuricosuria: A Randomized Controlled Trial of Febuxostat Vs Allopurinol. David S. Goldfarb¹, Patricia A. MacDonald¹, Lhanoon Gunawardhana², Solomon Chefo³ and Lachy McLean³, ¹New York Univeristy Langone Medical Center, New York, NY, ²Takeda Pharmaceuticals USA, Inc., Deerfield, IL, ³Takeda Global Research & Development Center, Inc., Deerfield, IL, ⁴Takeda Global Research & Development Center, Inc, Deerfield, IL

154. Dual-Energy Computed Tomography as a Diagnostic Tool for Gout during Intercritical Periods. Gabriel S. Breuer¹, Naama Bogot² and Gideon Nesher³, ¹Shaare Zedek Medical Center, Jerusalem, Israel, ²Shaare Zedek Medical Center p o box 3235 Jerusalem, Israel, Israel

155. Accuracy of International Classification of Disease Codes for Calcium Pyrophosphate Disease in the Veterans Administration Healthcare System. Karri A. Huber¹, Lawrence M. Ryan² and Ann K. Rosenthal², ¹MCW Froedtert Hospital, Milwaukee, WI, ²Medical College of Wisconsin, Milwaukee, WI

156. Menopause and the Prevalence of Gout and Hyperuricemia: An Age-Matched Case Control Study. Eswar Krishnan¹ and Mihoko Bennett², ¹Stanford University, Palo Alto, CA, ²Stanford University, Palo Alto, CA

157. Prevalence of Gout among Adults with Chronic Kidney Disease in the United States, 2009-10. Eswar Krishnan, Standford University, Palo Alto, CA

158. Focus Groups Reveal Knowledge Gaps in Patients with Gout-A Qualitative Study. Puja Khanna¹, Veronica Berrocal¹, Tonya Hays¹, Daniel J. Clauw¹ and David A. Williams¹, ¹University of Michigan, Ann Arbor, MI, ²UCLA, Los Angeles, CA, ³Univ of MI Hlth System-Lobby M, Ann Arbor, MI

159. Clinical Efficacy Outcomes with up to 3 Years of Pegloticase Treatment for Refractory Chronic Gout. Michael A. Becker¹, Herbert S. B. Baraf², Robert A. Yood², Aileen M. Dillon³, Janitzia Vazquez-Mellado⁴, Faith D. Ottery⁵, Dinesh Khanna⁶ and John S. Sundy⁷, ¹University of Chicago, Chicago, IL, ²Arthritis & Rheumatism Associates, Wheaton, MD, ³Reliant Medical Group, Worcester, MA, ⁴Kaiser Foundation Hospital, San Francisco, CA, ⁵Hospital General de Mexico, Mexico city, Mexico, ⁶Savient Pharmaceuticals, Inc., East Brunswick, NJ, ⁷University of Michigan, Ann Arbor, MI, ⁸Duke University Medical Center, Durham, NC

160. Pegloticase Long-Term Safety: Data from the Open-Label Extension Trial. Michael A. Becker¹, Herbert S. B. Baraf², Robert A. Yood², Aileen M. Dillon³, Janitzia Vazquez-Mellado⁴, Faith D. Ottery⁵, Dinesh Khanna⁶ and John S. Sundy⁷, ¹University of Chicago, Chicago, IL, ²Arthritis & Rheumatism Associates, Wheaton, MD, ³Reliant Medical Group, Worcester, MA, ⁴Kaiser Foundation Hospital, San Francisco, CA, ⁵Hospital General de Mexico, Mexico city, Mexico, ⁶Savient Pharmaceuticals, Inc., East Brunswick, NJ, ⁷University of Michigan, Ann Arbor, MI, ⁸Duke University Medical Center, Durham, NC
161. Increased Serum Uric Acid: Consequence or Cause of Increased Cardiovascular Risk. Inger L. Meek1, Harald E. Vonkeman1 and Mart A.F.J. van de Laar2, 1Rheumatology Center Twente, Medisch Spectrum Twente & Twente University, Enschede, Netherlands, 2Medisch Spectrum Twente & University of Twente, Enschede, Netherlands

162. Metabolic Syndrome: The Genesis of Nephro lithiasis in Gout Patients. Filipi M. Mello1, Rafael B. Tomita1, Ricardo Fuller1, Marco Antonio G. P. Filho,1 Thiago B. M. Barros2, Leandro L. do Prado2, Kristopherson L. Augusto2 and Claudia Goldenstein-Schäinberg3, 1Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Rheumatology Division - University of São Paulo, São Paulo, Brazil

163. Evaluating Allopurinol Therapy and Serum Uric Acid Levels in Medicare Beneficiaries with Gout. Melea Ward1, Anthony M. Louder2, Keith A. Szymanski1 and Leonardo Tamazini2, 1Competitive Health Analytics, Louisville, KY, 2Competitive Health Analytics, Inc., Louisville, KY, 3Takeda Pharmaceuticals America, Inc., Deerfield, IL, 4University of Miami, Miami, FL

164. The Prevalence of Gout in a Large Tertiary Hospital and the Impact of in-Hospital Attacks of Acute Gout On Patient Outcomes and Health Resource Utilization – a Nested Case-Control Study. John HY Moi,1 Mark Tacey1, Carol Roberts2, Caroline Brand1, Alexandra Gorelik2 and Sharon Van Doornum1, 1The Royal Melbourne Hospital, The University of Melbourne, Melbourne, Australia, 2The Royal Melbourne Hospital, Melbourne, Australia

165. Colchicine Is Associated with a Decreased Rate of Myocardial Infarction in Gout Patients: Interim Results From a Retrospective Cohort Study. Daria B. Crittenden1, Cilian J. White1, Michael DeBerardine1, Grace Kim1, Binita Shah2, Jessica C. Kimmel2, Rima D. Patel3, Steven P. Sedlis4, Jeffrey D. Greenberg5, Craig T. Tenner2, Bruce N. Cronstein1 and Michael H. Pillinger1, 1NYU School of Medicine, Division of Rheumatology, New York, NY, 2NYU School of Medicine, Division of Cardiology, New York, NY, 3NYU School of Medicine, Department of Internal Medicine, New York, NY

166. Low-Dose Allopurinol Promotes Greater Serum Urate Lowering in Gout Patients with Chronic Kidney Disease Vs Normal Renal Function. Michael DeBerardine2, Mark C. Fisher2, Robert T. Keenan3, Michael H. Pillinger1 and Daria B. Crittenden1, 1NYU School of Medicine, Division of Rheumatology, New York, NY, 2Massachusetts General Hospital, Boston, MA, 3Duke University, Durham, NC

167. Serum Uric Acid Control and Risk of Flare According to Different Cut-Offs in Patients with Gout: Longitudinal Analysis from the King Study of the Italian Society for Rheumatology. Maria Manara1, Carlo Alberto Scirè2, Marco A. Cimmino1, Marcello Govoni1, Fausto Salaffi2, Greta Carrara1, Carlo Maurizio Montecucco3, Marco Matucci-Cerinic4, Giovanni Minisola4 and Kick-off of the Italien Network for Gout (KING) Study Group6, 1Epidemiology Unit -Italian Society for Rheumatology, Milano, Italy, 2Epidemiology Unit -Italian Society for Rheumatology, Milan, Italy, 3Rheumatology - Department of Internal Medicine - University of Genoa, Genova, Italy, 4Section of Rheumatology - Department of Clinical and Experimental Medicine - University of Ferrara, Ferrara, Italy, 5Rheumatology Unit - Polytechnic University of the Marche, Jesi, Italy, 6Division of Rheumatology - University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy, 7Department of Biomedicine & Division of Rheumatology AOUC - University of Florence, Florence, Italy, 8Rheumatology Unit - San Camillo Forlaniini Hospital, Rome, Italy, 9SIR, Italy

168. Allopurinol Use Is Associated with a Decreased Risk of Myocardial Infarction. Lamiae Grimaldi-Bensouda1, Annick Alpérovitch2, Elodie Aubrun1, Nicolas Danchin3, Michel Rossignol4, Lucien Abenhaim5, Pascal Richette6 and PGRX MI Group7, 1LA-SER, Paris, France, 2Inserm U708-Neuroepidemiology, La Pitié-Salpêtrière Hospital, Paris, France, 3Coronary disease unit, Georges Pompidou European Hospital, Assistance Publique-Hôpitaux de Paris and Paris-DESCARTES University, Paris, France, 4LA-SER, Centre for Risk Research, Montreal, 5LA-SER Europe Ltd, London, United Kingdom, 6Lariboisière Hospital, Paris, France, 7Paris, France

Infection-related Rheumatic Disease


171. Disease Modifying Agents Combined with Isoniazid for Latent Tuberculosis in Patients with Rheumatic Diseases. Josiane Bourré-Tessier1, Mireia Ariño i Torregrosa2 and Denis Choquette3, 1Institut de Rhumatologie de Montréal, Université de Montréal, Montréal, QC, 2Universitat de Valencia, Massanassa, Spain, 3University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC

172. A Systematic Review and Meta-Analysis of Antibiotic Treatment for Reactive Arthritis. Claire E. Barber1, Joseph Kim2, R. D. Inman3, John Esdaile4 and Matthew T. James5, 1University of Calgary, Calgary, AB, 2University of Calgary, Calgary, 3Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, 4University of British Columbia, Vancouver, BC, 5University of Calgary, Calgary

174. Prevalence, Risk Factors, and Functional Impact of Arthralgias among Patients with Chronic Hepatitis C Virus Infection. Samir Bhangle1, Vincent Lo Re1, W. Gina Pang1, Kyong-Mi Chang2, Valeriana Amorosa2, Jay Kostman1, H. Ralph Schumacher3 and Alexis Ogdie1, 1University of Pennsylvania, Philadelphia, PA, 2Philadelphia VA Medical Center, Philadelphia, PA, 3University of Pennsylvania and VA Medical Center, Philadelphia, PA.

175. The Impact of Hepatitis Screening On Diagnosis and Treatment in Rheumatoid Arthritis. Richard Conway, Michele Doran, Finbar (Barry) D. O’Shea and Gaye Cunnane, St James’s Hospital, Dublin, Ireland.

176. Prevalence and Associations of Hepatitis C Arthritis in Chronic Hepatitis C Virus Infection. Elizabeth D. Ferucci1, Holly S. Ryan1, Tammy L. Choromanski2, Lisa J. Townshend-Bulson1, Stephen E. Livingston1, Brian J. McMahon1 and Mark H. Wener2, 1Alaska Native Tribal Health Consortium, Anchorage, AK, 2University of Washington, Seattle, WA.

177. Antibodies to Citrullinated Peptides in Tuberculosis. Isabella Lima1, Rodrigo Oliveira2, Ajay Atta1, Samyra Marchi3, Lúcio Barbosa3, Eliana Reis3, Mitermayer G. Reis3 and Mittermayer Santiago3, 1Escuela Bahiana de Medicina e Saúde Pública, Salvador, Brazil, 2Universidade Federal da Bahia, Salvador, Brazil, 3Fundação Oswaldo Cruz, Salvador, Brazil.


Miscellaneous Rheumatic and Inflammatory Diseases: Periodic Fever Syndromes

179. Evaluation of Anakinra Therapy in Seven Adults After Suboptimal Response to Etanercept Therapy for Tumor Necrosis Factor Receptor-Associated Periodic Fever Syndrome. Amanda K. Ombrello1, Patrycja M. Hoffmann1, Anne Jones2, Karyl S. Barron2 and Daniel L. Kastner2, 1National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, 2NIAID-NIH, Bethesda, MD.

180. Safety of Canakinumab in a Large Cohort of Patients with Cryopyrin-Associated Periodic Syndrome: Results From the β-Confident Registry. H. Hoffman1, J. B. Kuehnerle-Deschner2, P. Hawkins3, T. van der Poll4, Ulrich A. Walker5, B. Rauer6, J. M. Nebeskya6 and H. Tilson6, 1University of California at San Diego, San Diego, CA, 2University Hospital Tuebingen, Tuebingen, Germany, 3University College London Medical School, London, United Kingdom, 4Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 5Universitäts-Poliklinik, Felix-Platter Spital, Basel, Switzerland, 6Novartis Pharma AG, Basel, Switzerland.

181. Thiopurine S-Methyltransferase Levels in Patients with Behçet’s Disease. Hakan Emmungi1, Melike Kalfa1, Raika Durusoy2, Figen Yargucu Zihni1, Gokhan Keser2 and Kenan Aksu1, 1Dep. of Internal Medicine, Division of Rheumatology, Ege University, Izmir, Turkey, 2Department of Public Health, Ege University, Izmir, Turkey.

182. Comprehensive Analysis of Protein Expression in Peripheral Blood Mononuclear Cells From Patients with Behcet’s Disease. Takuya Yoshioka1, Mana Kurokawa2, Yukiko Takakuwa1, Hiromasa Nakano2, Seido Ooka3, Nobuko Iizuka1, Toshiyuki Sato1, Mitsumi Arito4, Kouhei Naga5, Kazuki Okamoto6, Naoya Suehatsu7, Noboru Suzuki7, Shoichi Ozaki2 and Tomohiro Kato7, 1St. Marianna Univ School Med, Kawasaki, Japan, 2St. Marianna University School of Medicine, Kawasaki, Kanagawa, Japan, 3Kinki Univ., Kinokawa, Japan.

183. A Strong Association Between HLA-A*26 and Behçet’s Syndrome in Japanese Patients: From Two-Center Cohort Study of Behcet’s Syndrome. Tatsuo Kobayashi1, Mitsumasa Kishimoto2, Kazuki Yoshida3, Yuri Ohara3, Hiroto Nakano3, Masahiro Minoda3, Hitode Oshikawa3 and Kazuo Matsui3, 1Kameda Medical Center, Kamogawa City, Chiba, Japan, 2St. Luke’s International Hospital, Chuo-ku, Tokyo, Japan.

184. The Retrospective Review of 39 Intestinal Behcet’s Disease Focusing On the Requirement for the Immunosuppressive Drugs Other Than Corticosteroid. Yoshitaka Kimura1, Kurumi Asako2, Hirotoshi Kikuchi3, Akiteru Takeuchi3 and Hajime Kondo4, 1Department of Internal Medicine, Teikyo University school of medicene, Tokyo, Japan, 2Teikyo University, Tokyo, Japan, 3Teikyo University School of Medicine, Tokyo, Japan.

185. Long-Term Efficacy and Safety of Tumour Necrosis Factor Antagonists for Patients with Behçet’s Disease with Uveitis As Main Involvement. M. Victoria Hernández, Marina Mesquida, Gerard Espinosa, Victor Llorenis, Laura Pelegrin, Juan D. Cañete, Ricard Cervera, Alfredo M. Ádan and Raimon Sanmarti, Hospital Clinic de Barcelona, Barcelona, Spain.

186. Long-Term Infliximab Therapy in Patients with Behçet’s Disease Is Well Tolerated without Increasing Risk of Serious Infections. Sho Ueda1, Hiroshi Tsukamoto1, Yasushi Inoue1, Masahiro Ayano1, Satomi Hisamoto1, Naoya Ueki1, Atsushi Tanaka1, Shin-ichiho Ohta1, Naoyasu Ueda1, Yojiro Arinobu2, Hiroaki Niiro1, Takahiko Horiuchi1 and Koichi Akashi1, 1Department of Medicine and Biosystemic Science, Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan.

187. Effect of Colchicine On Cholesterol Levels in Patients with Familial Mediterranean Fever and Behçet’s Syndrome. Serdal Ugurlu1, Emire Seyahi2, Idil Hanci2, Ulu Zogdoi3, Seval Masatioglu-Pehlivani2 and Hasan Yazici5, 1MD, Istanbul, Turkey, 2Cerrahpasa Faculty of Medicine, Istanbul University, Istanbul, Turkey, 3MD, Division of Rheumatology, Department of Public Health, University of North Carolina Gillings School of Global Public Health, Chapel Hill, North Carolina.
188. **Etiology of Uveitis: A Hospital-Based Study in a Referral Centre.** Claudia Ferrari1, Rosaria Talarico1, Michele Figus2, Chiara Stagnaro1, Anna d’Ascanio1 and Stefano Bombardieri1, 1Rheumatology Unit, University of Pisa, Pisa, Italy, 2Ophthalmology Unit, University of Pisa, Pisa, Italy

189. **Pedal Swelling As a Characteristic Phenotype of the New Category of Autoinflammatory Disease Associated with NOD2 Gene Mutations.** Qingping Yao, Cleveland Clinic, Cleveland, OH

190. **NLRP3 Gene Analysis for Patients with Schnitzler’s Syndrome.** Cong-Qiu Chu1, Carrie R. Austin2, Trudy M. Doyle1, Kelley A. Goodwin2, Noha El Torgomen3, Regina Treudler4 and Tammy M. Martin5, 1Oregon Health & Science Univ and Portland VA Medical Center, Portland, OR, 2Oregon Health & Science University, Portland, OR, 3Universitätsklinikum Leipzig AöR, Leipzig, Germany, 4Oregon Health & Science Univ, Portland, OR

191. **Analysis of Genes Involved in Autoinflammatory Diseases in Adult Onset Still’s Disease.** Emma Garcia-Melchor1, Dolors Grados2, Eva Gonzalez-Roca3, Elena Riera4, Manel Juan5, Jordi Yagüe6, Juan Ignacio Aróstegui1, Javier Narváez4 and Alejandra Olivé2, 1Hospital Clinic Barcelona, Barcelona, Spain, 2Hospital Universitario Germans Trias i Pujol, Badalona, Spain, 3Hospital Mutua de Terrassa, Terrassa, Spain, 4Hospital Universitari de Bellvitge, L’Hospitalet de Llobregat, Spain

192. **Clinical and Laboratory Findings in A Cohort of Italian Patients with Adult Onset Still’s Disease: The Role of IL-18 As A Disease Biomarker.** Roberta Priori1, Serena Colafrancesco1, Carlo Perricone1, Antonina Minniti1, Cristiano Alessandri1, Giancarlo Iaiani3 and Guido Valesini1, 1Rheumatology Unit, Sapienza University of Rome, Rome, Italy, 2Sapienza University of Rome, Rome, Italy, 3Department of Infectious Diseases and Tropical Medicine, Sapienza University of Rome, Rome, Italy

193. **Toclizumab in Adult Still’s Disease: The Israeli Experience.** Ori Elkayam1, Nizar Jiries2, Zvi Dranitzki3, Shaye Kivity4, Merav Lidor5, Ofer Levy6, Mahmoud Abu-Shakra7, Hagit Sarvagil-Maman8, Hagit Padova2, Dan Caspi9 and Itzhak Rosner10, 1Tel Aviv Sourasky Medical Center and the Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, 2Bnai Zion Medical Center, Israel, 3Hadassah hebrew university, Jerusalem, Israel, 4Center for Autoimmune Diseases, Sheba Medical Center, Tel-haomer, Israel, 5Tel-Haomer, Israel, 6Sheba Medical Center, Ramat Gan, Israel, 7Asaf Harofe Medical Center, 8Soroka Medical Centre and Ben Gurion University, Beer-Sheva, Israel, 9Tel Aviv, Israel, 10Bnai Zion Medical Center / Technion Faculty of Medicine, Haifa, Israel

194. **LONG-TERM Efficacy of Tocilizumab in A Patient with Amyloidosis and Interstitial Pneumonia Secondary to Multicentric Castleman’s Disease (MCD).** Michihiro Katayama1, Soichiro Tsui2, Satoshi Teshigawara2, Eriko Kudo-Tanaka1, Maiko Yoshimura1, Akane Watanabe1, Akiko Yura2, Yoshinori Harada2, Yoshinori Katada3, Jun Hashimoto4, Masato Matsuhashi5, Yukihiko Saeki6 and Shiro Ohshima7, 1Osaka-Minami Medical Center, Kawachinagano City, Japan, 2Kawachinagano City, Japan, 3Osaka Minami Medical Center, Osaka, Japan

195. **Inflammatory Arthritis in Patients with Myelodysplastic Syndrome: French Multicenter Retrospective Study.** Arsenec Mekinian1, Olivier Decaux2, Geraldine Falgarone1, Thorsten Braun Sr.3, Eric Toussirot4, Loic Raffray5, Bruno Gombert7, Bruno de Wazieres8, Anne Laure Buchdaufl9, Jean-Marc Zia10, David Launay11, Guillaume Denis12, Serge Madaule13, Pierre Fenaux14 and Olivier Fain15, 1Jean Verdier Hospital, Bondy, France, 2Hôpital Sud, Rennes, France, 3Hôpital avicenne, Paris, France, 4Avicenne hospital, Bobigny, France, 5CIC Biotherpy 50° and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 6CHU de Bordeaux, Bordeaux, France, 7La Rochelle hospital, La Rochelle, France, 8CHU de Nimes, Nimes, France, 9Douai hospital, Douai, France, 10Hôpital Croix Saint Simon, Paris, France, 11Internal Medicine, CHRU Claude Huriez, Lille, France, 12Rocheoufaut hospital, Rocheoufaut, France, 13Albi hospital, Albi, France, 14Avicenne Hospital, France, 15Service de médecine interne, Université Paris 13, AP-HP, Hôpital Jean Verdier, 93140, Bondy, France., Bondy, France

196. **Sarcoidosis in Northern New England. Clinical Characteristics and Predictive Factors for More Aggressive Therapy.** Alireza Meysamî1, Kevin F. Spratt2 and Christopher M. Burns3, 1Dartmouth Hitchcock Medical Center, Lebanon, NH, 2Geisel School of Medicine at Dartmouth, Lebanon, NH, 3Dartmouth Medical School, Lebanon, NH

197. **Collapsing Glomerulopathy in Collagen Vascular-Like Disease.** Rawad Nasr4, Christine Johns2 and Elie Gertner3, 1University of Minnesota, Minneapolis, MN, 2Regions Hospital, St Paul, MN, 3Regions Hospital and University of Minnesota Medical School, St. Paul, MN

198. **Diagnostic Predictors and Clinical Outcomes in Patients Presenting Solely with Lymphadenopathy.** Huifang Lu, Xerxes Pundole and Khanh Vu, UT MD anderson Cancer Center, Houston, TX

199. **Joint, Hand and Feet Swelling As a Presenting Symptom of Hereditary Angioedema.** Maria J. Gutierrez4 and Timothy J. Craig2, 1Penn State College of Medicine Milton S. Hershey Medical Center, Hershey, PA, 2Penn State College of Medicine Milton S. Hershey Medical Centre, Hershey, PA
200. Rheumatic Manifestations and Connective Tissue Diseases in Autoimmune Hepatitis of the Child and the Adult. Federico Zazzetti1, Nora C. Fernandez2, Javier Benavidez1, Luis A. Colombo1, Graciela R. Rodriguez2, Graciela Nardi1, Carolina Bru Moron1, Oscar L. Rillo1, Nelo A. Quadriini1, Stella M. Garay2, Mariana Fabi1, Teresita Gonzalez3 and Juan C. Barreira1, 1Buenos Aires British Hospital, Buenos Aires, Argentina, 2Hospital Dr. Ignacio Pirovano, Buenos Aires, Argentina, 3Hospital Dr. Enrique Tornú, Buenos Aires, Argentina, 4Hospital Tornú, Buenos Aires, Argentina, 5Hospital IAEP Sor María Ludovica, La Plata, Argentina

201. High Rate of Autoimmune Manifestations during Idiopathic CD4 Lymphocytopenia. Alexis Régent1, Brigitte Autran2, Guislaine Carcelain2, Benjamin Terrier1, Alain Krivitzky1, Eric Oksenhendler2, Nathalie C outdated-0-1aluemae1, Pascale Hubert2, Olivier Lortholary2, Nicolas Dupin2, Patrice Debré1, Loic Guillet2 and Luc Mouthon2, 1Hôpital Cochin, Paris, France, 2Laboratoire d’Immunologie Cellulaire Et Tissulaire, Paris, France, 3Hôpital Avicenne, AP-HP, Bobigny, France, 4Département de médecine interne, Hôpital Avicenne, AP-HP, Bobigny, France, 5Département d’Immunologie Clinique, Hôpital Saint-Louis, AP-HP, Paris, France, 6Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpétrière, Paris, France, 7Service de maladies infectieuses, Hôpital Necker-Enfants malades, AP-HP, Paris, France, 8Service de Dermatologie, Hôpital Cochin, AP-HP, Paris, France, 9Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, Paris, France


203. Clinical Course Factors Associated with Outcome of Monoarthritis: A Retrospective Study of 173 Cases. Hyemin Jeong1, Eun-Jung Park2, Jiwon Hwang3, Ji Young Chai3, Joong Kyong Ahn1, Eun-Mi Koh1 and Hoon-Suk Cha3, 1Samsung Medical Center, Seoul, South Korea, 2Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea, 3Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea

204. Characterization of Joint Disease in Mucopolysaccharidosis Type I Mice and the Effects of Enzyme Replacement Therapy. Patricia Oliveira1, Guilherme Baldo2, Fabiana Mayer3, Barbara Martinelli1, Luisa Meal1, Roberto Giuliani1, Ursula Matte1 and Ricardo M. Xavier1, 1Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil, 2Hospital de Clínicas de Porto Alegre, 3Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

205. Idiopathic Inflammatory Myositis Is Associated with an Increased Incidence of Systemic Sclerosis. Shreyas H. Chaudhary1, Susanna Proudm2 and Vidya S. Limaye2, 1Medical Student University of Adelaide, Adelaide, Australia, 2Royal Adelaide Hospital, Adelaide, Australia

206. Clinical, Laboratory, and Cellular Responses in the Rituximab in Myositis Trial in Patients Enrolled At the National Institutes of Health. Lisa G. Rider1, Adrienne L. Yip1, Iren Horkayne-Szakaly2, Rita Volochayev2, Joseph A. Shadrer3, Maria L. Turner3, Heidi H. Kong4, Minal S. Jain5, Anna V. Jansen6, Chester V. Odds7, Thomas A. Fleisher8 and Frederick W. Miller1, 1National Institute of Environmental Health Sciences, National Institutes of Health, Bethesda, MD, 2Joint Pathology Center, Silver Spring, MD, 3Rehab Medicine, NIH Clinical Center, Bethesda, MD, 4NCI, NIH, Bethesda, MD, 5University of Pittsburgh, Pittsburgh, PA, 6Laboratory Medicine, NIH Clinical Center, Bethesda, MD

207. Interferon-Driven Chemokines Are Associated with Changes in Disease Activity Among Rituximab-Treated Refractory Myositis Patients with Pulmonary Involvement - the RIM Study. Cynthia S. Crowson1, Ann M. Reed2, Molly Hein1, Abigail B. Green2, Consuelo Lopez de Padilla3, Rohit Aggarwal1, Dana P. Asherman4, Marc C. Levesque1 and Chester V. Odds5, 1Mayo Clinic, Rochester, MN, 2University of Pittsburgh Medical Center, Pittsburgh, PA, 3University of Miami, Miami, FL, 4University of Pittsburgh, Pittsburgh, PA

208. Outcome of Muscle Function and Disease Activity in Patients Recently Diagnosed with Polyomyositis and Dermatomyositis – Preliminary Results of a 1-Year Follow-up Registry Study. Helene Alexanderson1, Jenny Bergegård2, Christina Ottosson1, Maryam Dastmalchi1 and Ingrid E. Lundberg1, 1Karolinska Institutet, Stockholm, Sweden, 2Karolinska University Hospital, Solna, Stockholm, Sweden, 3Rheumatology Unit, Karolinska University Hospital, Stockholm, Sweden, 4Rheumatology Unit, Karolinska University Hospital in Solna, Karolinska Institutet, Stockholm, Sweden

209. Clinical Study of Determination of Myositis-Associated Autoantibodies in Japanese Patients with Connective Tissue Diseases except Autoimmune Myositis. Toshio Kawamoto1, Masakazu Matsushita1, Ken Yamaji1, Naoto Tamura1 and Yoshinari Takasaki2, 1Juntendo University School of Medicine, Tokyo, Japan, 2Division of Rheumatology, Department of Internal Medicine, Juntendo University, Tokyo, Japan

210. An Analysis of Metabolic Syndrome in Adult Dermatomyositis with a Focus On Cardiovascular Disease. Mariana T. Moraes, Fernando H.C. Souza, Thiago B. M. Barros and Samuel K. Shinjo, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil
211. Efficacy and Safety of Disease Modifying Drugs, Biologic Therapies and Immunoglobulin in Patients with Polymyositis and Dermatomyositis: A Systematic Literature Review. JA Martinez-Lopez Sr1, J. Graña Sr2, Santiago Muñoz-Fernandez3, I. Rua-Figueroa4, José M. Pego-Reigosa5, Estibaliz Loza Sr6 and SER group for the study of systemic autoimmune diseases1; 2Fundacion Jimenez Diaz, Madrid, Spain; 3Hospital Juan Canalejo, Spain, 4Hospital Infanta Sofia, Madrid, Spain, 5Hospital de GC Dr Negrin, Las Palmas GC, Spain, 6Hospital do Meixeioeiro, Vigo, Spain. 1Research Unit. Sociedad Española de Reumatología, Madrid, Spain, 2Madrid

212. Distinctive Characteristics of Anti-Mi-2 and -p155/140 Autoantibody Production in Two Cohorts of Mexican Patients with Dermatomyositis. Monica Vazquez-Del Mercado1, Marcelo Petri2, Luis J. Jara-Quezada3, Miguel A. Saavedra-Salinas4, Claudia Cruz-Reyes5, Olga-Lidia Vera-Lastra5, Lilia andrade6, Mario Salazar-Paramo7, Laura González-Lopez7, Jorge Gamez-Nava8, Rosa E. Prieto-Parra9, Teresita Martín Marquez10, Jason Y.F. Chan11, Edward K.L. Chan11 and Minoru Satoh12, 1Universidad de Guadalajara, Guadalajara, Mexico, 2Universidad de Guadalajara, Guadalajara, Jalisco, Mexico, 3Hospital de Especialidades Centro Médico La Raza, IMSS, Mexico City, Mexico, 4Centro Médico Nacional, Méxco, Mexico, 5Centro Medico La Raza Instituto Mexicano del Seguro Social Mexico D.F., Mexico D.F, Mexico, 6Inst Mexicano Seguro Social, Mexico City, Mexico, 7CMN 20 Noviembre ISS STE, Mexico, Mexico, 8Instituto Mexicano Del Seguro Social, Guadalajara, Mexico, 9Hospital Regional de Zona 110, Instituto Mexicano del Seguro Social (IMSS), Guadalajara, Jalisco, Mexico, 10Centro Medico de Occidente, Guadalajara Jal, Mexico, 11University of Florida, Gainesville, FL

213. NSAIDS Suppress the Inflammatory Reaction Related to Muscle Soreness but May Delay Recovery. Matthias Rother1, Egbert J. Seidel1, Alexander Fischer2 and Ilka Rother1, 1IMR Partner GmbH, Graefelfing, Germany, 2Sophien- and Hufeland Clinic, Weimar, Germany

214. Inflammatory Muscle Disease Associated Pulmonary Hypertension- Clinical Features and Survival At a National Referral Centre. Matthew Webber1, D. Dobarro2, Clive Handler1, Christopher P. Denton1, Benjamin E. Schreiber1 and John G. Coughlan1, 1Royal Free Hospital, London, United Kingdom, 2Royal Free Hospital, London, London, United Kingdom, 3UCL, London, United Kingdom

215. Abnormal Videofluoroscopy Swallow Study Finding in Inflammatory Myopathy Patient with Dysphagia As Predictor of Prognosis. Hye Won Kim, Hwang Kim, Sung Hae Chang, Hye Jin Oh, Myeong Jae Yoon, Bong Seung Ku, Byeong Mo Oh and Eun Young Lee, Seoul National University College of Medicine, Seoul, South Korea

216. Clinical and Serological Associations of Malignancy in Adult Patients with Polymyositis and Dermatomyositis. Yuji Hosono, Ran Nakashima, Yoshitaka Imura, Naoihiro Yikawa, Hajime Yoshifuij, Motomu Hashimoto, Koichiro Ohmura, Takao Fujii and Tsuneoy Mimori, Graduate School of Medicine, Kyoto University, Kyoto, Japan

217. Myositis-Associated Usual Interstitial Pneumonia Has Better Survival Than Idiopathic Pulmonary Fibrosis. Christine McCurney1, Rohit Aggarwal2, Kevin Gibson3, Kathleen Lindell4, Carl Fuhrman5, Diane Koontz7, Frank Schneider6, Naftali Kaminski6 and Chester V. Oddis5, 1University of Pittsburgh, Pittsburgh, PA, 2University of Pittsburgh Medical Center, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4Pittsburgh, PA

218. Proteomics Study of a Phase 1b Trial with an Anti-IFN-α Monoclonal Antibody Indicates Association of Soluble Interleukin 2 Receptor with Type I Interferon Activity in Patients with Dermatomyositis or Polymyositis. Xiang Guo, Brandon W. Higgs, Wei Zhu, Yihong Yao and Wendy White, MedImmune, LLC, Gaithersburg, MD

219. Significant Functional Improvement Using Aggressive Immunomodulatory Therapy in Patients with Inflammatory Myopathy and Interstitial Lung Disease. Ramona Mihu1, Roger D. Rossen1, Jovan Popovich1 and Sandra L. Sessoms1, 1Baylor College of Medicine, Houston, TX, 2The Methodist Hospital, Houston, TX

220. Efficacy of Rituximab for the Treatment of Refractory Inflammatory Myopathies Associated with Anti-Histidyl-tRNA Synthetase Antibodies (the FORCE Jo1 Study). Yves Allenbach1, Aude Rigolet1, Marguerite Guiguet1, Isabelle Marie1, Eric Hachulla1, Dominique Farge1, Kubera Karla Mariampillai1, Serge Jacquot6, Fabienne Jouen7, Olivier Boyer8, Lucile Musset9, Serge Herson1 and Olivier Benveniste1, 1Pitie-Salpetriere Hospital, Paris, France, 2Paris, France, 3Service de médecine interne, CHU de Rouen, Rouen, France, 4Research Unit. Rouen, France., Rouen, France, 5Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 6EBMT, Paris, France, 7INSERM U905, Université de Rouen, Rouen, France, 8Rouen University Hospital, Rouen Cedex, France, 9INSERM U905, University of Rouen, Rouen, France, 10CHU Pitié-Salpêtrière, Paris, France

221. Expanding the Clinical and Serological Spectrum of MDAs-Associated Dermatomyositis. John C. Hall1, Livia Casciola Rosen1, Sonye K. Danoff2, Lesly-Anne Samedy1 and Lisa Christopher-Stine1, 1Johns Hopkins University, Baltimore, MD, 2Johns Hopkins School of Medicine, Baltimore, MD

222. Lung Nodules in Patients with Idiopathic Inflammatory Myopathies. Laura C. Cappelli1, Andrew L. Mammen2, Sonye K. Danoff1, Grant H. Louie1, Thomas E. Lloyd2 and Lisa Christopher-Stine1, 1Johns Hopkins University, Baltimore, MD, 2Johns Hopkins School of Medicine, Baltimore, MD
223. High Prevalence and Clustering Over Time of Anti-PL-7 Autoantibody-Positive Idiopathic Inflammatory Myopathies. Yoshioki Yamasaki1, Minoru Satoh2, Hidehiro Yamada3, Machiko Mizushima4, Takahiro Okazaki4, Hiroko Nagafuchi5, Seido Ooka6, Tomohiko Shibata7, Hiromasa Nakano8, Hitoshi Ogawa9, Kohei Azuma10, Akiko Maeda11, Hirofumi Mitomi12, Tomofumi Kiyokawa13, Kosei Tsuchida14, Hidenori Mikage1, Jason Y.F. Chan1 and Shoichi Ozaki15, 1St. Marianna University School of Medicine, Kawasaki, Japan, 2University of Florida, Gainesville, FL

224. Standardized Incidence Ratios and Predictors of Malignancies in 215 Southern Chinese Patients with Inflammatory Myopathies. Chi Chiu Mok1, Chi Hung To2, ML Yip3 and King Yee Ying4, 1Tuen Mun Hospital, Hong Kong, Hong Kong, 2Kwong Wah Hospital, Kowloon, Hong Kong, 3Princess Margaret Hospital, Hong Kong, Hong Kong

225. Polymyositis in HIV+ Patients Is Associated to Uncontrolled Viral Load. Yves Allenbach1, Odile Dubourg2, Thierry Maisonobe3, Anthony Behin4, Charles Duyckaerts5, Guillaume Breton6, Olivier Fain7, Marie-Caroline Meyhoas8, Catherine Leport9, Marc-Antoine Valentin10, Daniel Vittecoq11, Jean-François Bergmann12, Thomas Anslik13, Marie-Paule Chauveheid14, Zahir Amoura15, Thomas de Broucker16, Pierre Bourgeois1, Bruno Eymard1, Serge Herson1 and Olivier Benveniste1, 1Pitie-Salpetriere Hospital, Paris, France, 2Institute of Myology, Pitie-Salpetriere Hospital, Paris, France, 3Service de médecine interne, Université Paris 13, AP-HP, Hôpital Jean Verdier, 93140, Bondy, France., Bondy, France, 4Department of Infectious Diseases, Saint Antoine Hospital, Paris, France, 5Paris, France, 6Department of Infectious Diseases, Pitie-Salpetriere Hospital, Paris, France, 7Department of Infectious Diseases, K Bicetre Hospital, Kremlin-Bicetre, France, 8Internal Medicine, Lariboisiere Hospital, Paris, France, 9Internal Medicine, Ambroise Pare Hospital, Boulogne Billancourt, France, 10Internal Medicine, Bichat Hospital, Paris, France, 11CHU Pitie-Salpetriere, Paris, France, 12Department of Neurology, Delafontaine Hospital, Saint Denis, France

226. Autoantibodies to Small Ubiquitin-Like Modifier Activating Enzymes in Japanese Patients with Dermatomyositis. Manabu Fujimoto, Takashi Matsushita, Yasuhiro Hamaguchi, Kenzo Kaji, Minoru Hasegawa and Kazuhiko Takehara, Kanazawa University Graduate School of Medical Sciences, Kanazawa, Japan

227. Long Term Outcome of Interstitial Lung Disease in Idiopathic Inflammatory Myopathies and Amyopathic Dermatomyositis. Machiko Mizushima1, Hidehiro Yamada2, Yoshioki Yamasaki3, Masaoami Yasamaki4, Minoru Satoh5 and Shoichi Ozaki6, 1St. Marianna University School of Medicine, Kawasaki, Japan, 2St. Marianna University, Kawasaki, Japan, 3St Marianna University, Yokohama City Seibu Hospital, Yokohama, Japan, 4University of Florida, Gainesville, FL, 5St. Marianna University School of Medicine., Kawasaki, Japan

228. Simultaneous Initiating of Glucocorticoids and disease-Modifying Antirheumatic Drug Therapy in Polymyositis and Dermatomyositis Patients Results in the Opportunity to Taper Dosage of Glucocorticoids Early. Kavish J. Bhansing1, Piet LCM Van Riel2, Sigrid Pillen3, Baziel G.M. van Engelen4 and Madelon C. Vonk5, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Catharina Wilhemina Hospital, Nijmegen, Netherlands

229. Clinical Differences between Adult and Juvenile Dermatomyositis Associated with Anti-NXP2 Autoantibodies. Sarah Tansley1, Zoe Betteridge1, Harsha Gunawardena2, Lucy R. Wedderburn3, Hector Chiny4, Robert G. Cooper5, Jiri Vencovsky6, Lenka Plestilova7, Ingrid E. Lundberg6, Katalin Danko8, Melinda Vincze9, Neil McHugh1, UK JDRG10 and EuMyoNet11, 1Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, 2North Bristol NHS Trust, Bristol, United Kingdom, 3University College London (UCL), London, United Kingdom, 4The University of Manchester, Manchester, United Kingdom, 5Hope Hospital, Salford, United Kingdom, 6Institute of Rheumatology, Prague, Czech Republic, 7Institute of Rheumatology, Prague 7, Czech Republic, 8Karolinska Institutet, Stockholm, Sweden, 9University of Debrecen, Debrecen, Hungary, Debrecen, Hungary, 10London, United Kingdom, 11Stockholm, Sweden

230. Hydroxy-3-Methylglutaryl-Coenzyme A Reductase (HMGCoR) Antibody in Necrotizing Myopathy and the Role of Statins. Ashima Malik1, Rohit Aggarwal2, Zengbiao Qi3, Noreen Fertig4, Diane Koontz5, Rufus W. Burlingame6, David Lacomis7 and Chester V. Oddis8, 1University of Pittsburgh, Pittsburgh, PA, 2INOVA Diagnostics, Inc., San Diego, CA, 3University of Pittsburgh Medical Ctr, Pittsburgh, PA

231. Pulmonary Hypertension in the Antisynthetase Syndrome. Helena andersson1, T. Mogens Aalokken2, Torhild Garen3, Oyvind Molberg4 and Jan Tore Gran5, 1Oslo University Hospital, Oslo, Norway, 2Oslo, Norway, 3Oslo University Hospital Rikshospitalet, Oslo, Norway, 4Department of Rheumatology, Oslo University hospital, Rikshospitalet, Oslo, Norway

232. The Natural History of Sporadic inclusion Body Myositis – an Observational Longitudinal Study. Pedro Machado1, Andrea Cortese2, Jasper Morrow3, Liz Dewar4, andy Hiscock5, Adrian Miller6, Stefem Brady7, David Hilton-Jones8, Matt Parton9 and Michael G. Hanna1, 1MRC Centre for Neuromuscular Diseases, UCL Institute of Neurology, London, United Kingdom, 2Oxford Muscle and Nerve Centre, John Radcliffe Hospital, Oxford, United Kingdom

233. IFN Signature Is Associated with Autoantibody Profiles in Patients with Idiopathic Inflammatory Myopathies. Saskia Vosslamber1, Louise Ekholm2, Anna Tjarnlund3, Clio P. Mavragani4, Lenka Plestilova5, Martin Klein6, Mary K. Crow7, Peter J. Charles7, Leonid Padyukov6, Jiri Vencovsky6, Ingrid E. Lundberg7 and Cornelis L. Verweij8, 1VU University Medical Center, Amsterdam, Netherlands, 21Rheumatology
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234. Central Sensitization Is Associated with Spontaneous Pain in Knee Osteoarthritis. Anisha B. Dua1, Tuhina Neogi2, Rachel A. Mikolaitis3, Joel A. Block4 and Najia Shakoor4, 1Rush University Medical Center, Chicago, IL, 2Rush University School of Medicine, Boston, MA, 3Rush University Medical Center, Chicago, IL

235. Peripheral and Central Sensitization in Patients with Different Degree of Knee Osteoarthritis. Lars Arendt-Nielsen1, Thomas Navndrup Eskehave2, Morten Asser Karsdal3, Anne C. Bay-Jensen4, Hans Christian Hocek5 and Ole Simonsen6, 1Aalborg University, Aalborg, Denmark, 2Alborg University, Alborg, Denmark, 3Nordic Bioscience A/S, Herlev, Denmark, 4CA-Pain, Alborg, Denmark, 5Frederikshavn Hospital, Frederikshavn, Denmark

236. The Relationship between Vibratory Sense and Somatosensory Pain Measures in Knee Osteoarthritis. Anisha B. Dua1, Rachel A. Mikolaitis2, Tuhina Neogi1, Joel A. Block4 and Najia Shakoor4, 1Rush University Medical Center, Chicago, IL, 2Rush University Medical Center, Chicago, IL, 3Boston Univ School of Medicine, Boston, MA

237. Association between Pain Threshold, Symptoms and Radiographic Knee and Hip Osteoarthritis: The Johnston County Osteoarthritis Project. Adam P. Goode1, Xiaoyan A. Shi2, Jordan Renner3, Richard Gracely4, Mehrnaz Maleki-Fischbach5 and Joanne M. Jordan6, 1Duke University, Durham, NC, 2SAS Institute, Inc, Cary, NC, 3University of North Carolina, Chapel Hill, NC, 4Chapel Hill, NC, 5National Jewish Health, Denver, CO, 6University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC

238. Inevitable Deterioration? Trajectories and Risk Profiles of Pain in Patients with Radiographic, Symptomatic Knee Osteoarthritis. Jamie E. Collins1, William M. Reichmann2, Jeffrey N. Katz3 and Elena Losina1, 1Rush University Medical Center, Chicago, IL, 2Rehabilitation Institute Chicago, Chicago, IL, 3Brigham and Women's Hospital, Boston, MA, 4Brigham and Womens Hospital, Boston, MA

239. Knee Osteoarthritis Symptom Assessments That Combine Pain and Physical Activity Are Superior to Pain Alone. Grace H. Lo1, Timothy E. McAlindon2, Gillian A. Hawker3, Jeffrey B. Driban4, Lori Lyn Price5, Jing Song6, Charles Eaton7, Marc C. Hochberg8a, Rebecca D. Jackson9, C. Kent Kwoh9, Michael C. Nevitt10 and Dorothy D. Dunlop11, 1Michael E. DeBakey Veterans Affairs Medical Center / Baylor College of Medicine, Houston, TX, 2Tufts Medical Center, Boston, MA, 3Women’s College Research Institute, University of Toronto, Toronto, ON, 4Northwestern University, Chicago, IL, 5Warren Alpert Medical School at Brown University, RI, 6University of Maryland, Baltimore, MD, 7Ohio State University, Columbus, OH, 8University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 9University of California-San Francisco, San Francisco, CA

240. Degenerative Changes in Patients with Knee Pain: A Comparative Study between Ultrasound and Conventional Radiology. Santiago Ruta1, Erika Catay2, Javier Rosa3, David A. Navarta2, Ricardo Garcia-Monaco4 and Enrique R. Soriano4, 1Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 3Radiology and Imagenology Department, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 4Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Instituto Universitario Hospital Italiano de Buenos Aires, and Fundacion PM Catoggio, Buenos Aires, Argentina

241. Excess Body Weight and 4-Year Function Outcomes: Comparison of African-Americans and Caucasians in the Osteoarthritis Initiative. Carmelita J. Colbert, Orit Almagor, Joan S. Chmiel, Jing Song, Dorothy D. Dunlop, Karen W. Hayes and Leena Sharma, Northwestern University, Chicago, IL

242. Relationship of Objective to Self-Reported Physical Activity Measures Among Adults in the Osteoarthritis Initiative. Grace E. Ahn1, Jing Song2, Jungwha Lee3, Pamela A. Semanik4, Rowland W. Chang5, Leena Sharma1, Charles Eaton6, Rebecca Jackson7, Alex Mysiw4 and Dorothy D. Dunlop8, 1Northwestern University, Chicago, IL, 2Warren Alpert Medical School at Brown University, RI, 3Ohio State University, Columbus, OH, 4Denison University, Granville, Ohio, 5University of California, Los Angeles, 6University of Pittsburgh, Pittsburgh, PA, 7University of Kentucky, Lexington, KY, 8University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 9University of California-San Francisco, San Francisco, CA

243. Relationship of Physical Activity with Health Utility in the Osteoarthritis Initiative. Dorothy D. Dunlop1, Jing Song2, Rowland W. Chang3, Jungwha Lee4, Pamela A. Semanik5, Linda S. Ehrlich-Jones6, Kai Sun7, Leena Sharma1, C. Kent Kwoh8, Charles Eaton9 and Larry Manheim9, 1Northwestern University, Chicago, IL, 2Rehabilitation Institute Chicago, Oak Park, IL, 3Rehabilitation Institute Chicago, Chicago, IL, 4University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 5Warren Alpert Medical School at Brown University, RI

244. Minimal Clinically Important Difference and Patient Acceptable Symptom State for the Oarsi-Omeract Intermitent and Constant OA Pain (ICOP) Measure. Z. Anna Liu, Tetyana Kendzerska, Joy Elkayam, Shefali Ram and Gillian A. Hawker, Women’s College Research Institute, University of Toronto, Toronto, ON

245. Similarities of Patient Self-Report Scores From a Multidimensional Health Assessment Questionnaire (MDHAQ), Laboratory Tests, Physician Global Assessment,
and Polyarticular Involvement in Patients with Osteoarthritis and Rheumatoid Arthritis. Isabel Castrejón, Yusuf Yazici and Theodore Pincus, NYU Hospital for Joint Diseases, New York, NY

246. Routine Assessment of Patient Index Data 3 (RAPID3) Is a Valid Index for Routine Care in Patients with Osteoarthritis. Alfredomaria Lurati1, Luca Bertani1, Daniela Bompiane1, Mariagrazia Marrazza1, Katia Angela Re1 and Magda Scarpellini2, 1Rheumatology Unit, Magenta, Italy, 2Ospedale Fornaroli, Magenta, Italy

247. Meager Depression Screening and Mental Health Referral Rates for Patients with Arthritis in a National Sample. Mary Margareten, Patricia P. Katz, Laura Trupin, Gabriela Schmajuk, Jennifer Barton, Jinoos Yazdany and Edward Yelin, UCSF, San Francisco, CA

248. Synovial Fluid Leptin Level Is Associated with Residual Pain and Functional Disability One Year After Total Joint Arthroplasty. Anne Lübbecke1, Gabor J. Puskas1, Axel Finckh2, Domizio Suva1, Sylvette Bas1, Cem Gabay1, Daniel Fritschi1 and Pierre Hoffmeyer1, 1Geneva University Hospitals, Geneva, Switzerland, 2Geneva University Hospitals, Geneva, Switzerland

249. Medial Subchondral Bone Marrow Lesions Increase the Odds of Knee Joint Replacement – Data From the Osteoarthritis Initiative. Frank Roemer1, C. Kent Kwoh2, David Hunter3, Michael J. Hannan4, Robert M. Boudreau5, Felix Eckstein6, Zhijie Wang7 and Ali Guermazi8, 1Klinikum Augsburg, Augsburg, Germany, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 5Novartis Pharma AG, Basel, Switzerland, 6Paracelsus Medical University, Salzburg, Austria, 7Boston University School of Medicine, Boston, MA

250. Incident and Worsening Cartilage Damage in the Lateral Compartment and Multiple Subregions Worsening in the Medial Compartment Increase the Risk for Knee Replacement - Data From the Osteoarthritis Initiative. Frank Roemer1, C. Kent Kwoh2, Michael J. Hannan3, Robert M. Boudreau4, Felix Eckstein5, David J. Hunter6, Zhijie Wang7 and Ali Guermazi8, 1Klinikum Augsburg, Augsburg, Germany, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 5Novartis Pharma AG, Basel, Switzerland, 6Paracelsus Medical University, Salzburg, Austria, 7Boston University School of Medicine, Boston, MA

251. Smaller Baseline and Follow-up Quadriiceps Muscle Cross-Sectional Area Increases the Odds of Knee Replacement in Knee Osteoarthritis. Serter Gumus1, Michael J. Hannan2, Diana Kaya3, C. Kent Kwoh4 and Kyongtae Ty Bae5, 1University of Pittsburgh, Pittsburgh, PA, 2University of Pittsburgh School of Medicine, Pittsburgh, PA, 3University of Pittsburgh and VA Healthcare System, Pittsburgh, PA

252. Presence of Severe Medial Mensical Pathology Increases the Odds for Knee Replacement: Data From the Osteoarthritis Initiative. Frank Roemer1, C. Kent Kwoh2, David J. Hunter3, Robert M. Boudreau4, Michael J. Hannan5, Markus R. John6, Felix Eckstein7, Michel Crema8, Zhijie Wang9 and Ali Guermazi10, 1Klinikum Augsburg, Augsburg, Germany, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3Royal North Shore Hospital, Sydney, Australia, 4University of Pittsburgh, Pittsburgh, PA, 5University of Pittsburgh School of Medicine, Pittsburgh, PA, 6Novartis Pharma AG, Basel, Switzerland, 7Paracelsus Medical University, Salzburg, Austria, 8Boston University, Boston, MA, 9Boston University School of Medicine, Boston, MA


254. Effects of Strontium Ranelate on Knee Osteoarthritis Pain: A Responder Analysis. JY. Reginster1, Roland Chapurlat2, N. Bellamy3, E. Czerwinska4, JP Devogelaer5, L. March6, K. Pavelka7 and Cyrus Cooper8, 1University of Liège, Liège, Belgium, 2Hôpital Edouard Herriot, Lyon, France, 3CONROD. The University of Queensland, Royal Brisbane and Women’s Hospital, Herston, Queensland, Australia, 4Krakow Medical Centre, Kraków, Poland, 5Cliniques Universitaires St. Luc, Brussels, Belgium, 6University of Sydney, Institute of Bone and Joint Research, Royal North Shore Hospital, St Leonards - Sydney, Australia, 7Institute of Rheumatology, Prague 2, Czech Republic, 8University of Oxford; Southampton General Hospital, Southampton, United Kingdom

255. Clinically Meaningful Effect of Strontium Ranelate on Knee Osteoarthritis Symptoms. O. Bruyere1, N. Bellamy1, J. Brown1, P. Richette2, L. Punzi3, X. Chevalier4, Cyrus Cooper5 and Jean-Yves Reginster1, 1University of Liège, Liège, Belgium, 2CONROD. The University of Queensland, Royal Brisbane and Women’s Hospital, Herston, Queensland, Australia, 3Rheumatology Centre, Quebec City, QC, 4Hôpital Lariboisière, Paris, France, 5Azienda Ospedaliera di Padova, Padova, Italy, 6Hôpital Henri-Mondor, Creteil, France, 7University of Oxford; Southampton General Hospital, Southampton, United Kingdom

256. Strontium Ranelate Decreases the Level of Urinary CTX-II in Patients with Knee Osteoarthritis. Julien Collette1, Olivier Bruyere2 and Jean-Yves Reginster3, 1Labo Ria Chu Sart Tilman, Liege, Belgium, 2Universite De Liege, Liege, Belgium, 3University of Liège, Liège, Belgium

257. Meta-Analysis of Four 12-Week Phase III Clinical Trials Investigating the Effect of TDT 064, a Transdermal Gel, in Osteoarthritis of the Knee. Matthias Rothen1, Johannes C. Vester2, Wolfgang W. Bolten3 and Philip G. Conaghan4, 1IRM
258. Efficacy and Safety of the Chinese Herbal Compound Hou-Lou-Xiao-Ling Dan in Patients with Osteoarthritis of the Knee: Results of a Phase II International Study. Marc C. Hochberg1, Lixing Lao1, Patricia Langenberg1, Harry H. S. Fong2, David Y-W. Lee3 and Brian Berman1, 1University of Maryland, Baltimore, MD, 2University of Illinois at Chicago, Chicago, IL, 3University of Illinois Hospital Chicago, Chicago, IL, 4Harvard Medical School, Boston, MA

259. Long-Term Tanezumab Treatment for Osteoarthritis: Efficacy and Safety Results. Alfonso E. Bello1, Evan F. Ekman1, David Radin1, Isabelle Davignon1, Michael D. Smith1, Mark T. Brown1, Christine R. West1 and Kenneth M. Verburg2, 1Illinois Bone & Joint Institute, Glenview, IL, 2Southern Orthopaedic Sports Medicine, Columbia, SC, 3Stanford Therapeutics Consortium, Stanford, CT, 4Pfizer, Groton, CT, 5Pfizer, Williamstown, MA

260. Adjudication of Reported Serious Adverse Joint Events in the Tanezumab Clinical Development Program. Marc C. Hochberg1, Steven B. Abramson2, David S. Hungerford3, Leslie Tive3, Kenneth M. Verburg4 and Christine R. West5, 1University of Maryland, Baltimore, MD, 2University of Illinois at Chicago, Chicago, IL, 3University of Illinois Hospital Chicago, Chicago, IL, 4Harvard Medical School, Boston, MA

261. Effect of Advancing Age on the Gastrointestinal Safety of Celecoxib versus Nonselective Nonsteroidal Anti-Inflammatory Drugs: A Post Hoc Analysis of GI-Reasons. Lee S. Simon1, Byron Cryer2, Gurkirpal Singh1, Chunming Li3 and Margaret Noyes Essex3, 1SDG LLC Consulting, West Newton, MA, 2University of Texas Southwestern Medical Center, Dallas, TX, 3Stanford University School of Medicine, Palo Alto, CA, 4Pfizer Inc, New York, NY, 5Pfizer, Williamstown, MA

262. Flexible Footwear Reduces Dynamic Joint Loads in Knee Osteoarthritis: Results of a 6 Month Randomized Controlled Trial Najia Shakoor1, Roy H. Lidtke1, Louis F. Fogg2, Rachel A. Mikolaits1, Markus A. Wimmer3, Kharma C. Foucher4, Laura E. Thorp1 and Joel A. Block1, 1Rush University Medical Center, Chicago, IL, 2Rush University Medical Center

263. Efficacy of Ketoprofen Vs Ibuprofen and Diclofenac: A Systematic Review of the Literature and Meta-Analysis. Fabiola Atzeni1, Pier Carlo Sarzi-Puttini1, Luigi Lanata2 and Michela Bagnasco2, 1University Hospital L Sacco, Milan, Italy, 2Dompé SpA, Milan, Italy

264. Specialized Footwear Decreases Medial Tibial Bone Mineral Density Over 48 Weeks in Knee Osteoarthritis. Justin B. Gan, Laura E. Thorp, Roy H. Lidtke, Rachel A. Mikolaits, Louis F. Fogg, Joel A. Block and Najia Shakoor, Rush University Medical Center, Chicago, IL

265. Reducing Loads in the Contralateral Side in Medial Knee Osteoarthritis: A 3-Year Follow-up Study. Roy H. Lidtke and Joel A. Block, Rush University Medical Center, Chicago, IL

266. Knee Joint Stabilization Therapy in Patients with Osteoarthritis of the Knee: A Randomized, Controlled Trial. Jesper Knoop1, Joost Dekker2, Marike van der Leeden3, Martin van der Esch1, Carina A. Thorstensson4, Martijn Gerritsen1, Ramon E. Voorneman1, Wilfred FH Peter1, Mariette de Rooij2, Suzanne Romsdahl, Willem F. Lems3, Leo D. Roorda1 and Martijn P.M. Steultjens5, 1Reade, centre for rehabilitation and rheumatology, Amsterdam, Netherlands, 2VU University Medical Centre, Department of Rehabilitation Medicine, EMGO Institute and Department of Psychiatry, Amsterdam, Netherlands, 3Reade, Amsterdam, Netherlands, 4University of Gothenburg, Institute of Neuroscience and Physiology, Gothenburg, Sweden, 5VU University Medical Center, Amsterdam, Netherlands, 6Glasgow Caledonian University, Glasgow, Scotland

267. Osteopontin in Patients with Primary Knee Osteoarthritis: Relation to Disease Severity. Ramy Abdelnabey, Ain Shams University, Cairo, Egypt

268. Knee Osteoarthritis and Serum Uric Acid Concentration: The Third National Health and Examination Survey. Tony Ning, Carl Pieper, Virginia B. Kraus, William E. Kraus and Kim M. Huffman, Duke University Medical Center, Durham, NC

269. Differences Between Patients with Hip and Knee Osteoarthritis. Kim F. Le Marshall1, Bradley Yee2, Paul A. Dieppe2, Albert Leung3, Carolyn Page3, Peter F. Choong3, Michelle Dowsey4 and Keith K. Lim1, 1Western Hospital, Melbourne, Australia, 2University of Sydney, Sydney, Australia, 3University of Melbourne, Melbourne, Australia

270. Use of Drug Combinations in Patients with Osteoarthritis: A Population-Based Cohort Study. Daniel Prieto-Alhambra1 and Rosa Morros2, 1URFQA-IMIM, Parc de Salut Mar; Idiap Jordi Gol; University of Oxford; University of Southampton, Barcelona, Spain, 2IDIAP Jordi Gol; Institut Català de la Salut, Spain

271. Bone Marrow Lesions in Knees with Osteoarthritis: Can Parameters From Dynamic Contrast Enhancement Predict Change in Bone Marrow Lesion Volume or Knee Pain Change? Andrew D. Gait1, Timothy F. Coote’s1, Elizabeth J. Marjanovic1, Matthew J. Parkes2, Charles E. Hutchinson3 and David T. Felson1, 1University of Manchester, Manchester, United Kingdom, 2University of Warwick, Coventry, United Kingdom
272. Interim Safety Analysis of a Phase 2 Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Efficacy Study of Apremilast (CC10004) in Subjects with Erosive Hand Osteoarthritis. Juergen Rech¹, Wolfgang Ochs², Wolfgang Spieler¹, Herbert Kellner¹, Ulf Müller-Ladner¹, Mathias Grunke¹, Matthias Schneider² and Georg Schett², ¹University of Erlangen-Nuremberg, Erlangen, Germany, ²Rheumatology Practice, Bayreuth, Bayreuth, Germany, ³Rheumatology Specialty Practice, Zerbst, Germany, ⁴Centre for Inflammatory Joint Diseases, Munich, Germany, ⁵Kerckhoff-Klinik GmbH, Bad Nauheim, Germany, ⁶Medizinische Klinik und Poliklinik IV, University of Munich, Munich, Germany, ⁷Heinrich-Heine-University, Duesseldorf, Germany, ⁸Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

273. The Prevalence of Periarticular Lesions On Magnetic Resonance Imaging and Its Relation to Knee Pain in the Community Residents in Korea. In Je Kim¹, Kyeong Min Son², DH Kim³, Yeong Wook Song⁴, Ali Guermazi⁵ and Hyun Ah Kim⁶, ¹Hallym University Kangdong Sacred Heart hospital, Seoul, South Korea, ²Hallym university Chunchun sacred heart hospital, Chunchun, South Korea, ³Chunchon, South Korea, ⁴Seoul National University Hospital, Seoul, South Korea, ⁵Boston University School of Medicine, Boston, MA, ⁶Hallym University Sacred Heart Hospital, Kyunggi, South Korea

274. Childhood Onset Angiitis of the Central Nervous System: What Outcomes Can We Expect? Lena Das, SooK Fun Hoh, Terrence Thomas and Thashawee Arkachaisri, KK Women’s and Children’s Hospital, Singapore, Singapore

275. Pediatric Rheumatology Practitioners Experience with Biologics in Juvenile Dermatomyositis: Survey Results. Anjali Patwardhan¹, Kelly Rouster-Stevens², Harry L. Gewanter³, Grant D. Syverson⁴, Renee F. Modica⁵, Kara M. Schmidt⁶ and Charles H. Spencer⁷, ¹Nationwide Childrens Hospital, Columbus, OH, ²Emory-Children’s Center, Atlanta, GA, ³Pediatric & Adolescent HP, Midlothian, VA, ⁴Medical College of Wisconsin, Wauwatosa, WI, ⁵University of Florida, Gainesville, FL, ⁶Univ of Louisville, Louisville, KY

276. Development of a Longitudinal, Propective Cohort of Young Adults with Childhood-Onset Systemic Lupus Erythematosus. Aimee O. Hersh¹, Erica F. Lawson², Emily von Scheven³, Edward Yelin⁴ and John F. Bohnsack⁵, ¹University of Utah, Salt Lake City, UT, ²UC San Francisco, San Francisco, CA, ³University of California San Francisco, San Francisco, CA

277. Dyslipidemia in Juvenile Dermatomyositis: The Role of Disease Activity. Katia T. Kozu¹, Clavis Artur Silva¹, Eloisa Bonfa¹, Adriana M. Salum², Rosa M.R. Pereira², Vilma S. Viana², Eduardo F. Borba³ and Lucia M. A. Campos³, ¹Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo, Brazil, ²Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy, ³Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo-SP, Brazil, ⁴University of Sao Paulo, Sao Paulo, Brazil, ⁵University of Sao Paulo, Sao Paulo, Brazil

278. Evaluating Cardiovascular Risk Factors of Impaired Glucose Tolerance, Diabetes Mellitus, and Metabolic Syndrome in a Primarily Latino Population with Pediatric Rheumatic Diseases Associated with Vasculitits. Sara M. Stern, Jamie Wood, Katherine AB Marzan, Andreas Reiff, Bracha Shaham and Diane Brown, Children’s Hospital Los Angeles, Los Angeles, CA

279. Distribution of Vasculitides in Childhood Arthritis and Rheumatology Research Alliance-Affiliated Pediatric Rheumatology Centers in the United States. Melissa A. Lerman¹, Peter A. Merkel² and for the CARRA Registry Investigators, ¹Children’s Hospital of Philadelphia, Philadelphia, PA, ²University of Pennsylvania, Philadelphia, PA, ³Stanford

280. Pediatric Automated Neuropsychological Assessment Metrics As a Screening Tool for Neuropsychiatric Childhood-Onset Systemic Lupus Erythematosus. Patricia Vega-Fernandez¹, Eyal Muscal², Natasha M. Ruth³, Frank Zelko¹, Andrea Vincent⁴, Erin C. Thomas⁵, Marisa S. Klein-Gitelman⁶, Debra Canter⁷, Alison Tian⁸, Lisa Ravindra⁹, HaiMei Liu¹⁰, Jessica Hummel¹¹, Deborah M. Levy¹², Hermine Brunner¹³ and Tresa Roebuck-Spencer¹⁴, ¹Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, ²Baylor College of Medicine, Houston, TX, ³Medical University of South Carolina, Charleston, SC, ⁴Children’s Memorial Hospital, Chicago, IL, ⁵University of Oklahoma, Norman, OK, ⁶Anne and Robert C Lurie Hospital, Feinstein School of Medicine, Northwestern University, Chicago, IL, ⁷Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, ⁸Baylor College of Medicine, Texas Children’s Hospital, Houston, TX, ⁹The Hospital for Sick Children, Toronto, ON, ¹⁰University Hospital, Cincinnati, Cincinnati, OH, ¹¹Children’s Hospital of Fundan University, Shanghai, China, ¹²Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, ¹³Cincinnati Children’s Hospital Medical Center and PRSGC, Cincinnati, OH

281. The Pediatric Automated Neuropsychological Assessment Metrics - Reproducibility and Responsive to Change in Cognition in Childhood-Onset Lupus. Patricia Vega-Fernandez¹, Marisa S. Klein-Gitelman¹, Jessica Hummel¹, Erin C. Thomas¹, Jennifer L. Huggins⁵, Frank Zelko¹, Tresa Roebuck-Spencer⁴, Jun Ying¹ and Hermine Brunner⁶, ¹Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, ²Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, ³Children’s Hospital Medical Center, Cincinnati, OH, ⁴Children’s Hospital of Chicago, Chicago, IL, ⁵University of Oklahoma, Norman, OK, ⁶University of Cincinnati, Cincinnati, OH, ⁷Cincinnati Children’s Hospital Medical Center and PRSGC, Cincinnati, OH
282. Clinical and Laboratory Features Distinguishing Juvenile Polymyositis and Muscular Dystrophy in Children. Gulnara Mamyrova1, James D. Katz2, Robert V. Jones1, Peter A. Lachenbruch1, Mona Shah3, Olay Y. Jones2, Anupam Chahal1, Seema Agrawal1, Frederick W. Miller2, Lisa G. Rider1, and the Childhood Myositis Heterogeneity Group2, 1George Washington University, Washington, DC, 2NIEHS, NIH, Bethesda, MD, 3Bethesda, MD

283. Hospitalizations for Patients with Childhood-Onset Systemic Lupus Erythematosus in the Pediatric Health Information System Database. Aimee O. Hersh1, Susan L. Bratton1, John F. Bohnsack1 and Rajendu Aimee O. Hersh, Charlie Casper2, Tellen D. Bennett1, Susan L. Bratton1, John F. Bohnsack1 and Rajendu Srivastava1, University of Utah, Salt Lake City, UT

284. Treatment and Outcome of ANCA-Associated Vasculitis in Children: A Pilot Study. Marinka Twilt1, Audrey Bell-Peter1, Ronald M. Laxer1, Christian Pagnoux1, Diane Hebert1, Elizabeth Harvey1, Shehla Sheikh1 and Susanne M. Benseler1, 1The Hospital for Sick Children, Toronto, ON, 2Mount Sinai Hospital, Toronto, ON, 3Hospital for Sick Children, Toronto, ON

285. Rituximab for Severe Disease Flares in Childhood ANCA Vasculitides. Marinka Twilt1, Rayfel Schneider1, Audrey Bell-Peter2, Sharon Dell2 and Susanne M. Benseler1, 1The Hospital for Sick Children, Toronto, ON, 2the Hospital for Sick Children, Toronto, ON

286. The Association of N-Methyl-D-Aspartate Receptor Antibodies and Neurocognitive Dysfunction in Pediatric Lupus Patients and in the Offspring of Adult Patients with Lupus. Natasha M. Ruth1, Mary C. Kral1, Stephanie Slan2, Tamara K. Nowling3, Murray H. Passo3 and Gary S. Gilkeson1, 1Medical University of South Carolina, Charleston, SC, 2MUSC, Charleston, SC, 3Medical University of South Carolina, Charleston, SC

287. Variation in Healthcare Utilization by Region and Number of Rheumatologists Per State Among Pediatric Medicaid Patients with Lupus Nephritis Prior to End-Stage Renal Disease in the United States, 2000-2004. Linda T. Hiraki1, Candace H. Feldman2, Graciela S. Alarcon3, Jun Liu4, Michael A. Fischer5, Wolfgang C. Winkelmayer5 and Karen H. Costenbader6, 1Brigham and Women’s Hospital, Harvard School of Public Health, Boston, MA, 2Brigham and Women’s Hospital, Boston, MA, 3University of Alabama at Birmingham, Birmingham, AL, 4Brigham and Women’s Hospital, Harvard Medical School, Boston, Boston, MA, 5Stanford University School of Medicine, Stanford, CA, 6Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

288. Validation of Promis Modules for Use in Childhood-Onset Lupus. Alexandria J. Greenler1, Laura E. Schanberg2, Michael P. Flannery1, Shannen Nelson1, Janet Wootton1, Esi M. Morgan DeWitt1 and Hermine I. Brunner1, 1Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 2Duke University Medical Center, Durham, NC

289. Mycophenolate Mofetil and Abatacept Combination Therapy in Refractory Pediatric Systemic Lupus Erythematosus Nephritis. Rhina Castillo1, Suhai M. Radhakrishna2, Andreas O. Reiff3 and Katherine AB Marzan4, 1Children’s Hospital Los Angeles, Los Angeles, CA, 2Kaiser Permanente Medical Group, Oakland, CA

290. Long-Term Outcomes in Neonatal Lupus. Amit Saxena5, Peter M. Izmirly1, Deborah Friedman1 and Jill P. Buyon1, 1New York University School of Medicine, New York, NY, 2NYU School of Medicine, New York, NY, 3New York Medical College, Valhalla, NY

291. Illness Features Associated with an Increased Risk of Mortality in Children with Juvenile Idiopathic Inflammatory Myopathies. Adam M. Huber1, Gulnara Mamyrova2, Julia A. Lee1, Peter A. Lachenbruch1, Ira N. Targoff3, Frederick W. Miller4, Lisa G. Rider1 and Childhood Myositis Heterogeneity Study Group5, 1Dalhousie University, Halifax, NS, 2George Washington University, Washington, DC, 3NIEHS, Bethesda, MD, 4NIEHS, NIH, Bethesda, MD, 5Oklahoma Medical Research Foun, Oklahoma City, OK, 6Bethesda, MD

292. Clinical Utility of Anti-CADM-140/Melanoma Differentiation-Associated Gene 5 Autoantibody Titers in Patients with Juvenile Dermatomyositis and Rapidly Progressive Interstitial Lung Disease. Shinji Sato1, Norimoto Kobayashi2, Kazuko Yamazaki3 and Yasuo Suzuki4, 1Tokai University School of Medicine, Isehara, Japan, 2Shinshu University School of Medicine, Matsumoto, Japan, 3Yokohama City University Hospital, Yokohama, Japan

293. Usefulness of Cardiac Magnetic Resonance in the Assessment of Myocardial Inflammation and Fibrosis in Children Born to Mothers with Anti-SSA/Ro Antibodies: A Prospective Study of 23 Cases and 6 Controls. Nathalie Costedoat-Chalumeau, Alice Maltret, Kateri Levesque1, Shelby Kutty1, Elisabeth Villain1, Phalla Ou2 and Gaëlle Guettrot-Imbert1, 1Assistance Publique-Hôpitaux de Paris, Hopital Pitié-Salpétrière, Paris, France, 2Groupe Hospitalier Necker - Enfants Malades, Paris, France, 3Division of Pediatric Cardiology, university of Nebraska Medical Center and Children’s Hospital ans Medical Center, Omaha, NE, USA, Omaha, 4Hopital Gabriel Montpied, Clermont-Ferrand, France

294. Effects of Obesity On Health-Related Quality of Life in Childhood-Onset Systemic Lupus Erythematosus. Rina Mina1, Marisa S. Klein-Gitelman1, Shannen Nelson2, Lori B. Tucker3, B. Anne Eberhard4, Nora G. Singer5, Deborah M. Levy6, Kathleen A. Haines7, Karen Onel9, Marilynn G. Punaro10, Kathleen M. O’Neil11, Michael Henrickson12, Jun Ying13 and Hermine I. Brunner1, 1Cincinnati Children’s Hospital Medical Center/ University of Cincinnati, Cincinnati, OH, 2Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, 3Cincinnati Children’s Hospital, Cincinnati, OH, 4BC Childrens Hospital, Vancouver, BC, 5Cohen Children’s Hospital Medical Center, New Hyde Park, NY, 6Director, Division of Rheumatology, MetroHealth Medical Center, Case Western Reserve University, Cleveland, OH, 7The...

296. A Brazilian Multicenter Study of 71 Children and Adolescents with Takayasu’s Arteritis. Maria Teresa Terreri, Gleice Clemente, Clovis Silva, Silvana Sacchetti, Adriana M. Sallum, Lucia M. A. Campos, Maria Carolina Santos, Flavio Sztajnbok, Rozana Gasparello de Almeida, Virginia P. Ferriani, Blanca E. Bica, Teresa Robazzi, Marcia Bandeira, and Andre Cavalcanti, Marise Lessa, Sheila K. Feitosa de Oliveira and Maria Odete Hilario, 1Universidade Federal de São Paulo / UNIFESP, Sao Paulo, Brazil, 2Universidade Federal de São Paulo - Unifesp, São Paulo, Brazil, 3MD; PhD, São Paulo-SP, Brazil, 4Santa Casa de Misericórdia de São Paulo, São Paulo, Brazil, 5Faculdade de Medicina da Universidade de São Paulo (FMUSP), São Paulo-SP, Brazil, 6University of São Paulo Medical School, São Paulo, Brazil, 7Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil, 8FMUSP-Ribeirao Preto, Ribeirao Preto, Brazil, 9International Investigator Consortium for MAS and Clinical Significance of Hippocampal Atrophy in Childhood-Onset Systemic Lupus Erythematosus. Aline T. Lapa, Renata Brabosa, Mariana Postal, Naiu A. Sinicato, Roberto Marin, Fernando Cendes and Simone Appenzeller, 1State University of Campinas, Campinas, Brazil, 2University of Illinois at Chicago, Chicago, IL, 3State University of Campinas, Campinas, Brazil, 4Faculdade de Ciencias Medicas, Universidade Estadual de Campinas, Campinas, Brazil, 5University of Sao Paulo, Sao Paulo, Brazil, 6State University of Campinas, São Paulo, Brazil, 7State University of Campinas, São Paulo, Brazil

300. Decreased Frequency of Dystrophic Calcifications in Children with Juvenile Dermatomyositis: A 10-Year Study. Lauren M. Pachman, Gabrielle A. Morgan, Megan L. Curran, Lori J. Ferguson and Chiang-Ching Huang, 1Division of Pediatric Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Children’s Hospital of Chicago Research Center, Cure JM Myositis Center, Chicago, IL, 3Department of Preventive Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL

301. Accuracy of Systemic Lupus International Collaborating Clinics Classification Criteria Applied to Juvenile Systemic Lupus Erythematosus Patients. Maria M. Katsicas, Ezequiel Borgia, Ileana Villarreal and Ricardo Russo, 1MD, Buenos Aires, Argentina, 2MD, Caba, Argentina, 3Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy

302. Ancestral Group Differences in Pediatric SLE Early Disease Severity: An Analysis of the Carranet Registry. Jennifer M.P. Woo, Alice DC Hofman, Emily von Scheven, Deborah K. McCurdy, Ornella J. Rullo and CARRA Registry Investigators, 1Mattel Children’s Hospital, University of California, Los Angeles, Los Angeles, CA, 2UC San Francisco, San Francisco, CA, 3Durham


305. Clinicopathologic Correlates for Activity and Damage of Lupus Nephritis in Childhood-Onset Systemic Lupus Erythematosus. Ravi Nunna, Rina Mina, Michael Bennett, Shannen Nelson, Jessica Hummel, Prasad Devarajan, David Witte and Hermine I. Brunner, 1Cincinnati Children's Hospital Medical Center/University of Cincinnati, Cincinnati, OH, 2Cincinnati Children’s Med Ctr, Cincinnati, OH, 3Cincinnati Children’s Hospital, Cincinnati, OH, 4Cincinnati Children's Hospital Medical Center, Cincinnati, OH

306. Children with Probable SLE by ACR Criteria May Need More Aggressive Lupus Treatment Early in the Disease Course. Anjali Patwardhan, Igor Dvorovich and Charles H. Spencer, 1Nationwide Childrens Hospital, Columbus, OH, 2Nationwide Children’s Hospital, Columbus, OH
307. Risk Factors for Poor Outcomes in Hospitalized Patients with Pediatric Systemic Lupus Erythematosus. Mary Beth F. Soni, Victor M. Johnson, Mindy S. Lo and Karen H. Costenbader, 1Children's Hospital Boston, Boston, MA, 2Children's Hospital Boston, Boston, MA, 3Brigham and Women's Hospital, Harvard Medical School, Boston, MA

308. WITHDRAWN.

309. Cell Type Specific Transcriptome Analysis in Patients with Enthesitis Related Arthritis Category of Juvenile Idiopathic Arthritis (JIA-ERA). Amita Aggarwal, Arpita Myles and Priyanka Gaur, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India

310. STAT3 Plays a Central Role in NLRP3 Inflammasome-Mediated IL-1β Production and Pyroptosis. Jehad H. Edwan, Tri M. Tran, Mones Abu-Asab, Raphaela T. Goldbach-Mansky and Robert A. Colbert, 1NIAMS NIH, Bethesda, MD, 2NEI NIH, Bethesda, 3Translational Autoinflammatory Diseases Section NIAMS NIH, Bethesda, MD

311. The DEK Autoantigen Regulates Formation of Neutrophil Extracellular Traps and Zymosan Induced Arthritis in Mice. Nirit Mor-Vaknin, Anjan K. Saha, Maureen Legendre, Marta J. Gonzalez-Hernandez, M. Asif Amin, Bradley J. Rabquer, Julie M. Jorns, Mariana J. Kaplan, Barbara S. Adams, David A. Fox, Alisa E. Koch and David Markovitz, 1University of Michigan, Ann Arbor, MI, 2University of Michigan Medical School, Ann Arbor, MI, 3Ann Arbor, MI, 4Univ of Michigan Health System, Ann Arbor, MI, 5Univ of Michigan Medical Ctr, Ann Arbor, MI

312. Blood-Based Biomarkers of Neurocognitive Dysfunction in Childhood-Onset Systemic Lupus Erythematosus. Hermine I. Brunner, Jessica Hummel, Shannen Nelson, Erin C. Thomas, Jennifer L. Huggins, Megan L. Curran, Jun Ying and Marisa S. Klein-Gitelman, 1Cincinnati Children's Hospital Medical Center, Cincinnati, OH, 2Cincinnati Children's Hospital, Cincinnati, OH, 3Anne and Robert C Lurie Hospital, Feinstein School of Medicine, Northwestern University, Chicago, IL, 4Division of Pediatric Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 5University of Cincinnati, Cincinnati, OH, 6Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

313. Epigenetic Changes in Fibrosis and Myocyte Repair Genes May Contribute to Pathogenesis in Monozygotic Twins Discordant for Cardiac Manifestations of Neonatal Lupus. Paula S. Ramos, Timothy D. Howard, Miranda C. Marion, Satria Sajuthi, Robert M. Clancy, Jill P. Buyon and Carl D. Langefeld, 1Medical University of South Carolina, Charleston, SC, 2Wake Forest School of Medicine, Winston-Salem, NC, 3New York University School of Medicine, New York, NY


316. The Interleukin-10 (IL-10) Producing Regulatory B Cell ("B10 cell") Compartment Expands with Disease Activity in Juvenile Dermatomyositis (JDM) and Pediatric-Onset Systemic Lupus Erythematosus (pSLE). Ioannis Kalampokis, Jeffrey A. Dvergsten and Thomas Tedder, Duke University Medical Center, Durham, NC

317. Fatty Acid Profiling: Potential New Biomarkers in Juvenile Idiopathic Arthritis (pilot study). Weng Tarng Cham, Enzo Ranieri, Janice Fletcher and Christina A. Boros, 1Women's and Children's Hospital, North Adelaide, SA 5006, Australia, 2Royal Childrens Hospital, Parkville, Australia, 3University of Adelaide/Women's and Children's Hospital, Adelaide, Australia

318. Replication Analysis of Non-HLA Gene Variants with Prior Evidence of Association with Juvenile Idiopathic Arthritis. Justine Ellis, Raul Chavez, Anne-Louise Ponsonby, Angela Pezic, Roger Allen, Jonathan Akikusa and Jane Munro, 1Murdock Childrens Research Institute, Parkville, Australia, 2Royal Childrens Hospital, Parkville, Australia

319. Gamma Interferon-Induced Protein-10 (IP-10) As a Potential Biomarker for Disease Activity in Pediatric Localized Scleroderma. Katherine Kurzinski, Carol A. Feghali-Bostwick, Christina Kelsey, Kelsey Magee and Kathryn S. Torok, 1Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA

320. Evaluation of Anti-Citrullinated Type II Collagen and Anti-Citrullinated Vimentin Antibodies in Patients with Juvenile Idiopathic Arthritis. Brooke Gilliam, Anil K. Chauhan and Terry L. Moore, Saint Louis University, St. Louis, MO

321. Glycosylation of Vitamin D Binding Protein Reduced in Juvenile Idiopathic Arthritis Patients At Risk of Disease Extension. David S. Gibson, Sorcha Finnegan, Gwen Manning, Mark Duncan, Stephen R. Pennington, Terry L. Moore and Madeleine Rooney, 1Arthritis Research Group, Queens University Belfast, Belfast, United Kingdom, 2Queen's University, Belfast, United Kingdom, 3Proteome Research Centre, University College Dublin, Dublin, Ireland, 4Division of Endocrinology, University of Colorado, Denver, 5UCD Conway Institute of Biomolecular and Biomedical Research, University College Dublin, Dublin, 6Ireland, 7Saint Louis University, St. Louis, MO, 8Queens University Belfast, Belfast, United Kingdom
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<td>Immune Response to Porphyromonas Gingivalis Citrullinated α-Enolase Cross-Reacts with Human α-Enolase in Polyarticular JIA Patients.</td>
<td>Peggy Lee, Rebecca Howson, Claire Murphy, Sarah Ringold and Anne M. Stevens, University of Washington, Seattle, WA, Seattle Children’s Research Institute, Seattle, WA</td>
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<td>Brooke Gilliam, Sandra Crespo-Pagnussat, Anil K. Chauhan and Terry L. Moore, Saint Louis University, St. Louis, MO</td>
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<td>Brooke Gilliam, Sandra Crespo-Pagnussat, Anil K. Chauhan, Reema H. Syed and Terry L. Moore, Saint Louis University, St. Louis, MO</td>
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<td>Silencing Intraarticular Snail Expression Ameliorates Rat Collagen-Induced Arthritis Through Induction of Mesenchymal- Epithelial Transition in Synovial Fibroblasts. Chrong-Reen Wang, Shih-Yao Chen, Ai-Li Shiau, Yuan-Tsung Li, Ming-Fei Liu and Chao-Liang Wu, College of Medicine, National Cheng Kung University, Tainan, Taiwan</td>
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<td>Bin Ning, Shang-Yu Yang, Jianlu Wei, Weiming Geng and Paul H. Wolley, Shandong University Jinan Central Hospital, Jinan, China, Via Christi Wichita Hospitals, Wichita, KS</td>
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<td>Nathan D. Chamberlain, Seung-jae Kim, Michael Volin, Anjali Mehta, Nadera J. Swies and Shiva Shahrarai, University of Illinois at Chicago, Chicago, IL, Chicago College of Osteopathic Medicine Midwestern University, Downers Grove, IL</td>
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<td>The SYK Inhibitor, Postamatinib, Administered Alone or in Combination with Methotrexate in Rat Collagen-Induced Arthritis, Reduces Bone Erosions, Biomarkers of Cartilage/Bone Destruction, and Synovial Osteoclastogenic Cytokines.</td>
<td>Polly Pine, Ayodele Apatra, Betty Y. Chang, Nathan Schoettler, Elliott B. Grossbard and Ernest Brahman, Rigel Pharmaceuticals, So San Francisco, CA, UCLA School of Medicine, Los Angeles, CA</td>
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<td>Fut1 Plays A Unique Role in K/BxN Serum Transfer Arthritis by Regulating Angiogenesis and Adhesion Molecule Expression.</td>
<td>M. Asif Amin, Phillip L. Campbell, Takeo Isozaki, Jeffrey H. Ruth, Jonathan Vargo, Steven E. Domino and Alisa E. Koch, University of Michigan Medical School, Ann Arbor, MI</td>
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<td>PDL24, a Novel Humanized Monoclonal Antibody, Reveals CD319 As a Therapeutic Target for Rheumatoid Arthritis.</td>
<td>Michel P.M. Vierboom, Jacky Woo, Hakju Kwon, Debra Chao, Shiming Fei, Jianmin Li, Karen Lin, Irene Tang, Nicole Belmar, Taymar Hartman, Elia Breedveld, Bert A. ‘t Hart and Gary C. Starling, Biomedical Primate Research Centre, Rijswijk, Netherlands, Abbott Biotherapeutics, Redwood City, CA</td>
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<td>Kazushisaka Nozawa, Maki Fujisiro, Ayako Yamaguchi, Mikiko Kawashita, Shouzou Ichinose, Mitsuaki Yanagida, Kazushisaka Iwabuchi, Keigo Ikeda, Shini Morimoto, Megumi Morikawa, Yoshinari Takasaki and Iwao Sekigawa, Juntendo University School of Medicine, Tokyo, Japan, Juntendo University Graduate School of Medicine, Chiba, Japan, Juntendo University Graduate School of Medicine, Tokyo, Japan, Juntendo University Urayasu Hospital, Urayasu, Chiba, Japan, Juntendo University Urayasu Hospital, Tokyo, Japan, Nihon Nason Corporation, Kanagawa, Japan</td>
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<td>Pressure and Blood Flow Measurements in Efferent Lymphatics As Biomarkers of Arthritic Flare.</td>
<td>Echo M. Boute, Ronald Wood, Christopher T. Ritchlin, Lianping Xing and Edward M. Schwarz, University of Rochester, Rochester, NY, University of Rochester School of Medicine and Dentistry, Rochester, NY, University of Rochester Medical Center, Rochester, NY</td>
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<td>Selective INOS Inhibition Increases the Lymphatic Pulse and Drainage from Arthritic Joints in TNF-Tg Mice.</td>
<td>Yawen Ju, Ronald Wood, Lianping Xing, Christopher T. Ritchlin and Edward M. Schwarz, University of Rochester Medical Center, Rochester, NY</td>
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<td>Treatment with Bgp-15, a Novel Insulin Sensitizer Attenuates Collagen-Induced Arthritis in DBA/1 Mice.</td>
<td>Peter Mandl, Silvia Hayer, Stephan Blüm, Victoria Saferding, Dospoika Sykoutiri, Kurt Redlich and Josef S. Smolen, Medical University of Vienna, Vienna, Austria, Medical University of Vienna and Hietzing Hospital, Vienna, Austria</td>
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<td>Preclinical Development of ALX-0061, an Anti-IL-6R Nanobody® For Therapeutic Use in Rheumatoid Arthritis with a High in Vitro Affinity and Potency and a Competitive in Vivo Pharmacological Profile.</td>
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337. In Vivo Quantification of Joint Inflammation in a Murine Arthritis Model by Anato-Molecular Imaging. Smriti K. Raychaudhuri1, Anupam Mitra1, Kuang Gong2, Jian Zhou2, Jinly Qi2, Siba P. Raychaudhuri1 and Abhijit J. Chaudhari3, 1UC Davis School of Medicine/VA Sacramento Medical Center, Mather, CA, 2University of California, Davis, Davis, CA, 3UC Davis School of Medicine, Sacramento, CA


339. Differences between Juvenile and Adult Rodents with Collegen Induced Arthritis. Tracy D. Wilson-Gerwing1, Isaac V. Pratt1, David M.L. Cooper1, Tawni I. Silver1 and Alan M. Rosenberg2, 1University of Saskatchewan, Saskatoon, SK, 2Royal University Hospital, Saskatoon, SK

340. Myeloid Deletion of SIRT1 Aggravates Inflammatory Arthritis Via Nuclear Factor-KappaB Activation in Animal Model of Rheumatoid Arthritis. Sang-il Lee and Yun-Hong Cheon, Gyeongsang National University School of Medicine, Jinju, South Korea


342. Novel Combination Therapy of Existing Repurposed Therapies, Designed by Predictive Software Modeling, Shows Profound Impact On Disease Progression in a Murine Collagen-Induced Arthritis Model. Shireen Vali1, Canio Refino2, Jay Dela Cruz2, Robinson Vidva2, Prashant Nair2, Saumya Radhakrishnan1, Pradeep Fernandes1, Taher Abbasi1 and Gurkirpal Singh1, 1CellWorks Group, Saratoga, CA, 2InTouch Bio, Alameda, CA, 3Stanford University School of Medicine, Palo Alto, CA

343. Functional Impairment in an Animal Model for Rheumatoid Arthritis Assessed As Changes in Gait Is Due to Joint Destruction but Not Synovial Inflammation Per Se. Gregor Bauer1, Constantin Aschauer1, Birgit Niederreiter1, Josef S. Smolken2, Kurt Redlich3 and Silvia Hayer4, 1Medical University of Vienna, Vienna, Austria, 2Medical University of Vienna and Hietzing Hospital, Vienna, Austria

344. Non Classical Monocytes Are Required for Initiation Phase While Macrophages Are Necessary for the Resolution Phase in the K/BxN Murine of Inflammatory Arthritis. Alexander V. Misharin1, G. Kenneth Haines III2 and Harris R. Perlman1, 1Northwestern University, Chicago, IL, 2Yale University, New Haven, CT

345. Predictive Software-Based Mathematical Modeling: A Novel Approach to Development of Oral Therapies for Rheumatoid Arthritis – Validation in a Murine Collagen Induced Arthritis Model. Gurkirpal Singh1, Robinson Vidva2, Prashant Nair2, Saumya Radhakrishnan1, Pradeep Fernandes1, Taher Abbasi2, Canio Refino3, Jay Dela Cruz2 and Shireen Vali1, 1Stanford University School of Medicine, Palo Alto, CA, 2CellWorks Group, Saratoga, CA, 3InTouch Bio, Alameda, CA

346. Sclerostin Protects against Inflammatory Bone Loss by Regulating Tnfalpha Mediated p38-Mapkinase Activation. Corinna Wehmeier1, Christina Wunraru1, Anjasnias Stratis1, Ina Kramer1, Michaela Kneissel1, Thomas Pap1 and Bermo Dankbar1, 1University Hospital Muenster, Muenster, Germany, 2Royal University Hospital, Saskatoon, SK

347. The Loss of S100A4 Prevents Induction of Experimental Arthritis in Human Tumour Necrosis Factor Transgenic Mouse Model. Michal Tomcik1, Christine Boehm2, Carina Scholtleysek1, Lucie andres Cerezo1, Wolfgang Baum1, Clara Dees1, Christian Beyer2, Jerome Avouac3, Pawel Zerr4, Katrin Palumbo-Zerr4, Alfiya Akhmetshina1, Radim Bcev4, Oliver Distler5, Mariam Grigorian6, Gerhard Kroenke1, Georg A. Schett1, Joerg HW Distler1 and Lasladis Senol1, 1Institute of Rheumatology, Department of Clinical and Experimental Rheumatology, 1st Faculty of Medicine, Charles University, Prague, Czech Republic, 2Medical University of Vienna, Vienna, Austria, 3Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 4Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 5Department of Rheumatology and Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 6Institute of Cancer Biology, Danish Cancer Society, Copenhagen, Denmark

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348. Liver Fibrosis Evaluated by Shearwave Elastography Is Associated with Body Mass Index and Serum AST, but Not Methotrexate Cumulative Dose and Duration in Patients with Rheumatoid Arthritis. Tae Yeob Kim, So-Young Bang, Joo Hyun Sohn and Hye-Soon Lee, Hanyang University Guri Hospital, Guri, South Korea

349. Preliminary Results From a Controlled Study Assessing the Humoral Immune Response to Vaccines in Rheumatoid Arthritis Patients Treated with Tocilizumab. CO Bingham III1, Warren C. Rizzo1, Micki Klearman1, Azra Hassanalii1, Ruchi Upmanyu1 and Alan J. Kivitz1, 1Johns Hopkins University, Baltimore, MD, 2Advanced Arthritis Care & Research, Scottsdale, AZ, 3Genentech Inc, South San Francisco, CA, 4Genentech Inc, San Francisco, CA, 5Roche, Welwyn Garden City, United Kingdom, 6Altoona Center for Clinical Research, Duncansville, PA
350. Reduction of Inflammation with Abatacept and Tocilizumab Results in Lower N-Terminal Pro Brain Natriuretic Peptide Levels in Patients with Rheumatoid Arthritis: Results from Prospective Cohort Studies. Inge A.M. van den Oever and Mike T. Nurmohamed, Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands

351. Prospective Follow-up of Tocilizumab Treatment in 764 Patients with Refractory Rheumatoid Arthritis: Tolerance and Efficacy Data From the French Registry Regate (REGistry –RoAcTrema). Jacques Morel1, Marie-Odile Duzanski2, Thomas Bardin3, Alain G. Cantagrel4, Bernard Combe5, Maxime Dougados6, Rene-Marc Flipo7, Jacques-Eric Gottenberg8, Xavier Mariette9, Martin Soubrier10, Olivier Vittecoq11, Alain Saraux12, Thierry Schaeverbeke13 and Jean Sibilia13, 1Hôpital Lapeyronie, Montpellier, France, 2Hôpitaux Universitaires de Strasbourg, Strasbourg, France, 3Hôpital Lariboisière, Paris, France, 4Centre Hospitalier Universitaire de Toulouse, Toulouse, France, 5Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 6Hôpital R Salengro CHRU, Lille CEDEX, France, 7Strasbourg University Hospital, Strasbourg, France, 8Université Paris-Sud, Le Kremlin Bicetre, France, 9CHU CLERMONT-FERRAnd, Clermont-Ferrand, France, 10Rouen University Hospital & Inserm905, University of Rouen, Rouen Cedex, France, 11CHU de la Cavale Blanche, Brest Cedex, France, 12Groupe Hospitalier Pellegrin, Bordeaux, France, 13CHU Hautepierre, Strasbourg, France

352. Meta-Analysis: Influence of Methotrexate, Anti-TNF and Rituximab On the Immune Response to Influenza and Pneumococcal Vaccines in Patients with Rheumatoid Arthritis. Charlotte Hua1, Thomas Barnetche2, Bernard Combe3 and Jacques Morel3, 1Hospital Lapeyronie, Montpellier, France, 2CHU Bordeaux Pellegrin, Bordeaux, France, 3Hospital Lapeyronie, Montpellier, France

353. The Effect of Combination Therapy and Prednisolone On Haemostatic Markers in Rheumatoid Arthritis. Inge A.M. van den Oever1, Danka F. Stuijver2, Debby den Uyl1, Breggie van Zaane1, Marieke M. ter Wee1, Willem F. Lems3, D. van Schaardenburg1, Joost C.M. Meijers3, Victor E.A. Gerdes4 and M. T. Nurmohamed1, 1Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 2Academic Medical Center, Amsterdam, Netherlands, 3VU University medical centre, Amsterdam, Netherlands, 4VU University Medical Center, Amsterdam, Netherlands

354. Delayed Onset of Hepatitis and/or Neutropenia in Patients with Rheumatoid Arthritis Treated with Combination Therapy of Methotrexate and Leflunomide. Seung Won Choi1, Ji Seon Oh1, You Jae Kim1, Bon San Koo1, Min Wook So1, Yong-Gil Kim2, Chang-Keun Lee3 and Bin Yoo4, 1University of Ulsan College of Medicine, Ulsan University Hospital, Ulsan, South Korea, 2Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 3University of Ulsan College of Medicine, Asan Medical Center, Seoul, South Korea

355. Metaanalysis of 5-Aminoimidazole-4-Carboxamide Ribonucleotide Transformylase (ATIC) 347C>G Polymorphism Affecting Methotrexate Efficacy and Toxicity in Rheumatoid Arthritis Patients. Fardina Malik1 and Prabha Ranganathan1, 1Alton Memorial Hospital, Alton, IL, 2Washington Univ School of Med, St. Louis, MO

356. Safety of Abatacept in Rheumatoid Arthritis with Chronic Hepatitis B VIRUS Infection. Melissa Padovan1, Elisabetta Lanciano1, Oscar Epis2, Alessandro Mathieu2, Giulia Erba3, Leopoldo Ciani4, Sarah Giacuzzo5 and Marcello Govoni6, 1Section of Rheumatology, Ferrara, Italy, 2Rheumatology Unit, Bari, Italy, 3Rheumatology Unit, Milano, Italy, 4Rheumatology Unit, Cagliari, Italy, 5Medical Clinics, Monza, Italy, 6Unit of Internal Medicine, Legnano, Italy

357. Is the Impact of Methotrexate On Mortality in Rheumatoid Arthritis Independent of its Effect On Disease Activity? Dietmar MJ Krause1, Bernadette Gabriel1, Gertraud Herborn2, and Rolf Rau2, 1Internistische und rheumatologische Gemeinschaftspraxis, Gladbeck, Germany, 2Private Practice, Gladbeck, Germany, 3Evangelisches Fachkrankenhaus, Ratingen, Germany

358. Six Months of an Attenuated Cobra Regimen (‘COBRA-light’) Is Clinically Noninferior to the Original Cobra Regimen: An Open-Label Randomized Trial in Early Rheumatoid Arthritis. Debby den Uyl1, Marije M. ter Wee1, Maarten Boers2, Alexandre Voskuyl3, P.J.S.M. Kerstens4, Mike T. Nurmohamed1, Hennie G. Raterman1, D. van Schaardenburg5, N. van Dillen6, B.A.C Dijkmans2 and W.F. Lems2, 1VU University Medical Center, Amsterdam, Netherlands, 2Reade | Jan van Bremen Research Institute, Amsterdam, Netherlands, 3Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands

359. Improved Radiological Outcome of Rheumatoid Arthritis: Early Treatment with methotrexate might be a key Prognostic Factor. Christoph Fiehn1, Elisabeth Belke-Voss1, Dietmar Krause2, Siegfried Wassenberg2 and Rolf Rau2, 1ACURA Centre for Rheumatic Diseases, Baden-Baden, Germany, 2Dept. for Medical Informatics, Biometry and Epidemiology, Ruhr University, Bochum, Germany, 3Evangelisches Fachkrankenhaus Ratingen, Rheumazentrum, Ratingen, Germany, 4Düsseldorf, Germany

360. Initial Introduction of Treat-to-Target Strategy in Patients with Recent Onset Rheumatoid Arthritis is More Effective Than Delayed Introduction of Strategy with More Clinical and Functional Remission Achieved for 2-Years: Results of the Treating to Twine Targets (T-4) Study. Yukitomo Urata1, Yoshihide Nakamura2 and Ken-ichi Furukawa3, 1Seihoku Central Hospital, Goyogawara, Japan, 2Hirosaki University Graduate School of Medicine, Hirosaki, Japan, 3Hirosaki, Japan

361. Impact of Tumour Necrosis Factor Inhibitor Treatment On Hand Bone Loss in Rheumatoid Arthritis Patients Treated in Clinical Practice. Results from the Nationwide Danish Danbio Registry. Lykke Midtbøll Ørnbjerg1, Mikkel Østergaard1, Pernille Bøyesen1, Trine David Jensen1, Anja Thommann1,
362. **Response to Etanercept, but Not Infliximab or Adalimumab, Is Inversely Associated with Body Mass Index.**

James R. Maxwell, Darren Plant, Anne Barton, Kimmie L. Hyrich, Ann W. Morgan, John Isaacs and Anthony G. Wilson, 1University of Sheffield, Sheffield, United Kingdom, 2University of Manchester, Manchester, United Kingdom, 3Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom, 4NIHR-Leeds Musculoskeletal Biomedical Research Unit and Leeds Institute of Molecular Medicine, University of Leeds, Leeds, United Kingdom, 5Newcastle University, Newcastle upon Tyne, United Kingdom, 6Section of Musculoskeletal Sciences, University of Sheffield, Sheffield, United Kingdom

363. **Risk Factors for Radiographic Progression During TNF-Inhibitor Treatment in 932 Rheumatoid Arthritis Patients Treated in Clinical Practice: Results from the Nationwide Danish Danbio Registry.**

Lykke Midtbøll Ørnbjerg,1, Davide Bava, Christoph Sieper,1, Rieke Alten,1, Amy Pickles, Paul Emery, Maya H. Buch and Jane E. Freeston, University of Leeds, Leeds, United Kingdom

364. **Moderate Rheumatoid Arthritis Despite Methotrexate Treatment: Risk of Radiographic Progression.**

Bruno Faure,1, Gaia Gallo,2, Yves Brault3 and Henk Nab,1, 1APHP-Tarbes, France, 2Pitié Salpetrière Hospital / UPMC, Paris, France, 3Pfizer, Rome, Italy

365. **Improvement of Health-Related Quality of Life in RA Patients Treated with Biologics - One-Year Follow-up Data of the German Biologics Register Rabbit.**

Kerstin Gerhold,1, Adrian Richter,2, Matthias Schneider,1, Hans Joachim Bergerhausen,1, Winfried Demary,1, Anke Liebhaber,1, Joachim Listing,1, Angela Zink1 and Anja Strangfeld,1, 1German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany, 2Heinrich-Heine-University Düsseldorf, Düsseldorf, Germany, 3Wedaun Klinikum - Klinikum Duisburg, Duisburg, Germany, 4Private Practice, Hildesheim, Germany, 5Private Practice, Halle, Germany

366. **Efficacy of Methotrexate (MTX) According to Anti-Citrullinated Protein Antibody (ACPA) Status in an Early Inflammatory Arthritis Cohort.**

Sarah C. Horton, David Pickles, Paul Emery, Maya H. Buch and Jane E. Freeston, University of Leeds, Leeds, United Kingdom

367. **Improved Fatigue-Related Quality of Life in CAPRA-2, a 12 Week Study of 5-Mg Modified (Delayed) Release Prednisone in Rheumatoid Arthritis.**

Rieke Alten1, Amy Grahn2, Patricia Rice3 and Frank Buttgereit4, 1Schlösspark-Klinik, University Medicine, Berlin, Germany, 2Horizon Pharma, Deerfield, IL, 3CliniRx Research, Naperville, IL, 4Charité University Med-Berlin, Berlin, Germany

368. **Impact of Etanercept-Methotrexate Therapy On Patient-Reported Outcomes in Rheumatoid Arthritis Patients with up to 12 Months of Symptoms.**

Paul Emery,1, Piotr Wiland2, Wolfgang Spieler3, Jean Dudler4, Stefanie Gaylord5, Theresa Williams5, Ronald Pedersen6, Andrew S. Koenig6, Bonnie Vlahos7 and Sameer Kotak8, 1Leeds General Infirmary, Leeds, United Kingdom, 2Wroclaw Medical University, Wroclaw, Poland, 3Rheumatology Specialty Practice, Zerbst, Germany, 4University Hospital of Lausanne, Lausanne, Switzerland, 5Pfizer Inc., Collegeville, PA, 6Pfizer Inc., New York, NY

369. **Differences in Short-Term Radiographic Progression Following Early Response to Adalimumab Plus Methotrexate Vs. Methotrexate Alone.**

Ronald F. van Vollenhoven,1, James W. Shaw2, Mary A. Cifaldi3, James Signorovitch4, Eric Q. Wu5, Thomas Samuelson6, Elizabeth Faust7 and Paul Emery8, 1Karolinska Institute, Stockholm, Sweden, 2Abbott Laboratories, Abbott Park, IL, 3Analysis Group, Inc., Boston, MA, 4University of Leeds, Leeds, United Kingdom

370. **Characteristics of the Japanese Patients with Rheumatoid Arthritis (RA) of Rapid Radiographic Progression (RRP) Treated with Synthetic Disease Modifying Anti-Rheumatic Drugs (DMARDs) in Daily Practice: A Large-Scale Prospective Longitudinal Cohort Study (the 1st report of Apple Survey).**

Akitomo Okada1, Atsuki Wajima1, Kenta Takahashi2, Toshihiko Hidaka3, Tomonori Ishii4, Yuki Ueki5, Takao Kodera6, Munetoshi Nakashima7, Yuichi Takahashi8, Seiyo Honda9, Yoshiro Horai10, Tomohiro Koga11, Ryu Watanabe12, Hiroshi Okuno13 and Katsumi Eguchi1, 1Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, 2Kurume University Medical Center, Kurume, Japan, 3Jeninkai Shimin-No-Mori-Hospital, Miyazaki, Japan, 4Tohoku University, Sendai, Japan, 5Sasebo, Japan, 6Tohoku Kosei Nenkin Hospital, Sendai, Japan, 7Japanese Red Cross Nagasaki Genbaku Hospital, Nagasaki, Japan, 8Yu Family Clinic, Sendai, Japan, 9Kurume University School of Medicine, Kurume, Japan, 10Tohoku University Hospital, Sendai, Japan, 11Sasebo City General Hospital, Sasebo, Nagasaki, Japan
ACR POSTER SESSION A

371. Treat-to-Target Strategy Aiming At Achievement of Structural and Functional Remission in Patients with Active Elderly-Onset Rheumatoid Arthritis. Takahiko Sugihara1, Tatsuro Ishizaki2, Tadashi Hosoya3, Shoko Iga4, Waka Yokoyama5, Fumio Hirano6, Nobuyuki Miyasaka7 and Masayoshi Harigai8. 1Tokyo Metropolitan Geriatric Hospital, Tokyo, Japan, 2Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan, 3Tokyo Medical and Dental University, Tokyo, Japan

372. TRAF1/C5 Locus Is Associated with Response to Anti-Tumor Necrosis Factor Therapy in Patients with Rheumatoid Arthritis. Helena Canhao1, Ana M. Rodrigues2, Maria José Santos3, Diana Carmona-Fernandes4, Bruno Bettencourt5, Jing Cui6, Fabiana Rocha7, Jose canas Silva8, Joaquim Polido Pereira9, Jose Alberto Pereira Silva10, José Antonio Costa11, Domingos Araújo12, Candida Silva13, Helena Santos14, Catia Duarte15, Fernando Pimentel-Santos16, Jaime C. Branco17, Robert M. Plenge18, Daniel H. Solomon19, Jacombe Bruges Armas20, José A. P. Da Silva21, João E. Fonseca22 and Elizabeth W. Karlson23. 1Instituto de Medicina Molecular, Lisbon, Portugal, 2Instituto de Medicina Molecular, Faculdade de Medicina da Universidade de Lisboa, Lisbon, Lisbon, Portugal, 3Hospital Garcia de Orta, E.P.E., Almada, Portugal, 4Instituto de Medicina Molecular, Lisbon, Portugal, 5Hospital de Santa Espírito da Ilha Terceira, Ilha Terceira, Portugal, 6Brigham and Women’s Hospital, Boston, MA, 7Santa Maria Hospital, Lisbon, Portugal, 8Centro Hospitalar do Alto Minho, Hospital de Ponte de Lima, Ponte de Lima, Portugal, 9Unidade Local de Saúde, Ponte de Lima, Portugal, 10Instituto Português Reumatologia, Lisboa, Portugal, 11Instituto Português de Reumatologia, Lisboa, Portugal, 12Hospitais da Universidade de Coimbra, Coimbra, Portugal, 13Centro Hospitalar de Lisboa Ocidental, Hospital Egas Moniz, Lisboa, Portugal, 14Centro Hospitalar e Universitário de Coimbra – Hospitais da Universidade de Coimbra, E.P.E., Coimbra, Portugal, 15Instituto de Medicina Molecular, Faculdade de Medicina da Universidade de Lisboa and Rheumatology Department, Centro Hospitalar de Lisboa Norte, EPE, Hospital de Santa Maria, Lisboa, Portugal, 16Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

373. Patient-Reported Outcomes in Early Rheumatoid Arthritis Patients Failing to Achieve Stable Low Disease Activity: Comparing Addition of Adalimumab to Methotrexate Monotherapy with Maintenance On Adalimumab Plus Methotrexate. Arthur Kavanaugh1, Ronald F. van Vollenhoven2, Paul Emery3, James W. Shaw4, Mary A. Cifaldi5, Stefan Florentinus6 and Josef S. Smolen7. 1UCSD School of Medicine, La Jolla, CA, 2Karolinska Institute, Stockholm, Sweden, 3University of Leeds, Leeds, United Kingdom, 4Abbott Laboratories, Abbott Park, IL, 5Abbott, Rungis, France, 6Medical University of Vienna and Hietzing Hospital, Vienna, Austria

374. Prevalence of Biologic Utilization over Calendar Time Among Medicare Beneficiaries with Rheumatoid Arthritis. Jie Zhang1, Fenglong Xie2, Elizabeth S. Delzell3, Lang Chen4, James Lewis5, Kevin Haynes6, Kenneth G. Saag7 and Jeffrey Curtis8. 1University of Alabama at Birmingham, Birmingham, AL, 2University of Pennsylvania, 3University of Pennsylvania, 4University of Pennsylvania., Philadelphia, PA, 5Univ of Alabama-Birmingham, Birmingham, AL

375. Cell Phone Based Automated Monitoring of Patients with Early Rheumatoid Arthritis. Kari Puolakkia1, Tuulikki Sokka2 and Hannu Kautiainen3. 1Department of Medicine, South Karelia Central Hospital, Lappeenranta, Finland, 2Jyväskyla Central Hospital, Jyväskyla, Finland, 3Orton Rehabilitation, Helsinki, Finland

376. Strategies for Use of Prednisolone in Rheumatoid Arthritis Have Changed Over the Past Decade: Data From the NOR-DMARD Register. Anna-Birgitte Aga, Elisabeth Lie, Till Uhlig, Tore K. Kvien and Espen A. Haavardsholm, Diakonhjemmet Hospital, Oslo, Norway

377. Use and Long Term Use of Complementary and Alternative Medicine in Rheumatoid Arthritis Patients. Peri H. Pepmueller1, Ramzy Jandali1, Anu Sharma2, Shannon Grant3 and Katherine C. Saunders4. 1Saint Louis University, St. Louis, MO, 2Center for Rheumatic Diseases, Bethesda, MD, 3Axio Research LLC, Seattle, WA, 4CARRONNA, Inc., Southborough, MA

378. Use of Anti-Tumor Necrosis Factor Monotherapy and Adherence with Non-Biologic Disease-Modifying Anti-Rheumatic Drugs in Combination with Anti-Tumor Necrosis Factor Therapy among Rheumatoid Arthritis Patients in a Real-World Setting. Nicole M. Engel-Nitz1, Sarika Ogale2 and Mahesh Kulakodlu3. 1OptumInsight, Eden Prairie, MN, 2Genentech, South San Francisco, CA

379. Persistence and Predictors of Persistency of Adalimumab among Rheumatoid Arthritis (RA) Patients in a US Registry. Allan Gibofsky1, Katherine C. Saunders2, Arjitt Ganguli3, Mary Cifaldi4, Shannon Grant4, Jerry Clewell5, Neelufar Mozaffarian6, James Shaw7, Reva McCaskill7, George W. Reed8 and Jeffrey D. Greenberg9. 1Hospital for Special Surgery, New York, NY, 2CORRONA, Inc., Southborough, MA, 3Abbott Laboratories, Abbott Park, IL, 4Axio Research LLC, Seattle, WA, 5Abbott, Abbott Park, IL, 6University of Massachusetts Medical School, Worcester, MA, 7NYU Hospital for Joint Diseases, New York, NY

380. DMARD and Biologic Use During Pregnancy Among Rheumatoid and Psoriatic Arthritis Patients in the Corrona Registry. John J. Cush1, George Reed2, Katherine C. Saunders3, Joel M. Kremer4, Jeffrey D. Greenberg5 and Arthur Kavanaugh6. 1Baylor Research Institute, Dallas, TX, 2UMass Medical School, Worcester, MA, 3CORRONA, Inc., Southborough, MA, 4Albany Medical College, Albany, NY, 5NYU Hospital for Joint Diseases, New York, NY, 6UCSD School of Medicine, La Jolla, CA
381. DAS Does Not Predict Increasing Treatment in Early Rheumatoid Arthritis: Results From the CATCH Study. Lonnie Pyne1, Vivian P. Bykerk2, Carol A. Hitchon3, Edward Keystone4, J. Carter Thorne4, Boulos Harauwi5, Ashley Bonner6, Janet E. Pope1 and CATCH Investigators1, 2Western University, London, ON, 3Hospital for Special Surgery, New York, NY, 4University of Manitoba, Winnipeg, MB, 5University of Toronto, Toronto, ON, 5Southlake Regional Health Centre, Newmarket, ON, 6Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 7McMaster University, Hamilton, ON, 8St. Joseph Health Care London, University of Western Ontario, London, ON, 9University of Toronto, ON

382. Does Biased Risk Perception Explain the Underuse of Disease Modifying Anti-Rheumatic Drugs? Richard W. Martin1, Andrew J. Head2, James D. Birmingham1 and Aaron T. Eggebeen1, 1Michigan State University College of Human Medicine, Grand Rapids, MI, 2College of Human Medicine, Michigan State University, Grand Rapids, MI

383. 2002-04 Vs.2007-09: Initiation of Combination, and Tapering/Discontinuation (DC) Patterns of TNFi and MTX in a US (RA) Patient Registry: Analysis with CDAI Scores. Deborah Wenzlert1, Shannon Grant1, David H. Collier1, Andrew S. Koenig1 and Joel M. Kremer1, 1Amgen Inc., Thousand Oaks, CA, 2Axio Research LLC, Seattle, WA, 3Pfizer Inc., Collegeville, PA, 4Albany Medical College, Albany, NY

384. Treating Rheumatoid Arthritis to Target: A Canadian Patient Survey. Boulos Harauwi1, William G. Benson2, J. Carter Thorne1, John P. Wade1, Melissa Deamude3, Jane M. Prince1 and Jean Legare1, 1Institut de Rhumatologie de Montreal, Montreal, QC, 2St. Joseph’s Hospital and McMaster University, Hamilton, ON, 3Southlake Regional Health Centre, Newmarket, ON, 4University of British Columbia, Vancouver, BC, 5Dr. William G. Benson Medicine Professional Corporation, Hamilton, ON, 6Vancouver Coastal Health, Vancouver, BC, 7Arthritis Alliance of Canada, Montreal, QC

385. The Wide Variation in Corticosteroid Use in Early Rheumatoid Arthritis - There Is Need for Guidelines. A. Bharadwaj and Carol Alves, Basildon & Thurrock University Hospital NHS Trust, Basildon, United Kingdom


387. Medication Choices and Medication Survival in a National Multicentre Community Based Rheumatoid Arthritis Cohort. Lynden Roberts1, Kathleen Tynms2, Julian P. de Jager1, Geoffrey O. Littlejohn1, Hedley Griffiths1, Dave Nicholls5, Paul Bird6, Julie Hill5, Philip McCloud4, James C. Scott1, Jane Zochling10 and OPAL Consortium11, 1James Cook University, Townsville, Australia, 2Canberra Rheumatology, Canberra, Australia, 3Suite 2, Osler House, Southport, Australia, 4Monash Medical Center, Melbourne, Australia, 5Barwon Rheumatology Service, Geelong, Australia, 6Coast Joint Care, Maroochydore, Australia, 7Combined Rheumatology Practice, Sydney, Australia, 8McCloud Consulting Group, Sydney, Australia, 9Roche Products Pty Limited, Sydney, Australia, 10Menzies Research Institute Tasmania, Hobart, Australia, 11Melbourne, Australia

388. Retention Rate of the Anti-TNF Biologics in the Treatment of Rheumatic Diseases and Predictive Factors for Drug Withdrawal: Data from the Hong Kong Biologics Registry. Chi Chiu Mok1, Cherry Kwan1, Helen Chan1, Ka Lai Lee1 and Lai-Shan Tam1, 1Tuen Mun Hospital, Hong Kong, Hong Kong, 2Kowloon Hospital, Hong Kong, Hong Kong, 3Pamela Youde Eastern Hospital, Hong Kong, Hong Kong, 4The Chinese University of Hong Kong, Hong Kong, China


390. Performance of Criteria for Remission in a Long-Term Observational Study of Patients with Early Rheumatoid Arthritis. Bjorn Svensson1, Maria LE andersson2, Sidona-Valentina Bal1, Kristina Forslind1 and Ingiáld Hafström1, 1Lund University, Lund, Sweden, 2R&D Center, Spenshult Hospital, Oskarström, Sweden, 3Helsingborgs Lasaretet and Lund University Hospital, Helsingborg, Sweden, 4Karolinska University Hospital, Stockholm, Sweden

391. DAS28 Is Not a Sufficient Disease Activity Measure for Obese Rheumatoid Arthritis Patients - Don’t Leave the Feet Behind. Vikram Garg1, Paul Maranian2, Mihaela B. Taylor3, Harold E. Paulus4, David Elashoff4 and Veena K. Ranganath5, 1UCLA David Geffen School of Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, CA, 2UCLA Medical School, Los Angeles, CA, 3University of California Los Angeles, Los Angeles, CA, 4University of California, Los Angeles, Los Angeles, CA, 5University of California, Los Angeles, Western Consortium of Practicing Rheumatologists, Los Angeles, CA

392. Analysis of Factors Impact on Patient Global Assessment in Daily Practice Based On Observational Cohort IORRA (Institute of Rheumatology, Rheumatoid Arthritis). Yasushi Inoue, Eichi Tanaka, Ayako Nakajima, Eisuke Inoue, Akiko Kobayashi, Daisuke Hoshi, Naoki Sugimoto, Kumi Shidara, Yohei Seto, Atsuo Taniguchi, Shigeki Momohara and Hisashi Inoue, Eiichi Inoue, Ayako Nakajima, Eisuke Inoue, Akiko Kobayashi, Daisuke Hoshi, Naoki Sugimoto, Kumi Shidara, Yohei Seto, Atsuo Taniguchi, Shigeki Momohara and Hisashi Yamanaka, Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan

393. Defining Criteria for Rheumatoid Arthritis Patient-Derived Disease Activity Score That Correspons to Disease Activity Score 28 and Clinical Disease Activity Index Based Statuses and Response Criteria. Alexander MH Leung1, 1Michigan State University College of Human Medicine, Grand Rapids, MI
Daniel Farewell, Chak S. Lau and Ernest Choy, 1Institute of Infection and Immunity, Cardiff University School of Medicine, Cardiff, United Kingdom, 2Cardiff, ENGLAnd, United Kingdom, 3Queen Mary Hospital, Hong Kong, Hong Kong, 4Cardiff University School of Medicine, Cardiff, United Kingdom

394. Remission after One Year in ACPA Positive and ACPA Negative Patients with Early Arthritis. K.V.C. Wevers-de Boer, L. Heimans, K. Visser, A.A. Schouffoer, T.H.E. Molenaar, J.B. Harbers, C. Bijkerk, I. Speyer, M. de Buck, P.B. de Sonnaville, B.A. Grillot, Tom Huizinga and C.F. Allaart, 1Leiden University Medical Center, Leiden, Netherlands, 2Haga Hospital, The Hague, Netherlands, 3Groene Hart Hospital, Netherlands, 4Franciscus Hospital, Roosendaal, 5Reiner de Graaf Gasthuis, Delft, Netherlands, 6Bronovo Hospital, Den Haag, Netherlands, 7MCH, The Hague, 8Admiraal de Ruyter hospital, Goes, Zorgsaam hospital, Terneuzen, Netherlands

395. Trends in Disease Activity, Response and Remission Rates in Rheumatoid Arthritis during the Last Decade: Results from the NOR-DMARD Register. Anna-Birgitte Aga, Elisabeth Lie, Karen M. Fagerli, Till Uhlig, Tore K. Kvien and Espen A. Haavardsholm, Diakonhjemmet Hospital, Oslo, Norway

396. Prevalence, Concordance and Predictors of Early and Sustained Remission Assessed by Various Indices in the French Early Arthritis Espoir Cohort. Cédric Lukas, Ihsane Hmamouchi, Xavier Le Loet, Bruno Fautrel and Bernard Combe, 1Montpellier 1 University, Lapeyronie Hospital, Montpellier, France, 2El Ayachi Hospital, Rabat, Morocco, 3CHU de ROUEN, Rouen, France, 4APHP-Pitie Salpetriere Hospital / UPMC, Paris, France, 5Hospitale Lapeyronie, Montpellier, France

397. Assessment of Global Disease Activity in Rheumatoid Arthritis Patients Monitored in the Measurement of Efficacy of Treatment in the Era of Rheumatology Database: The patient’s versus the rheumatologist’s Opinion. E. Gvozdenovic, R. Roevoets, R. Wolterbeek, Désirée van der Heijde, T.W.J. Huizinga, C.F. Allaart and Robert B. M. Landewé, 1Leiden University Medical Center, Leiden, Netherlands, 2Academic Medical Center/University of Amsterdam & Atrium Medical Center, Amsterdam, Netherlands

398. Basal Metabolic Rate As an Indicator of Rheumatoid Arthritis Disease Activity and Predictor of Remission. Heather Jones, Annette Szumski and Andrew S. Koenig, 1Pfizer Inc, Collegeville, PA, 2Pfizer Inc., Collegeville, PA

399. Can Sustained Remission of Rheumatoid Arthritis Be Predicted? an Analysis From the Japanese National Database of Rheumatic Disease (NinJa). Yoichiro Haji, Mitsumasa Kishimoto, Ryo Rokutanda, Sachiko Ohde, Gautam A. Deshpande, Yuri Ohara, Chisum Min, Yasuhiro Suyama, Hisanori Shimizu, Ken-ichi Yamaguchi, Akira Takeda, Yukio Matsui, Masato Okada and Shigeto Tohma, 1St. Luke’s International Hospital, Tokyo, Japan, 2St.Luke’s Life of Science Institute, Tokyo, Japan, 3Sagamihara National Hospital, Sagamihara City, Japan

400. High Patient Global Assessment Scores Associate with the Residual Disease Activity Unidentified by a 28-Joint Examination in Rheumatoid Arthritis Patients Approaching Clinical Remission. Yasushi Inoue, Eichi Tanaka, Ayako Nakajima, Eiisek Inoue, Akiko Kobayashi, Daisuke Hoshi, Naoki Sugimoto, Kumi Shidara, Yohei Seto, Atsuo Taniguchi, Shigeki Momohara and Hisashi Yamanaka, Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan

401. Can We Improve Outcomes in Early Rheumatoid Arthritis by Determining Best Practices? An Analysis of the Canadian Early Rheumatoid Arthritis Cohort (CATCH). Jamie Harris, Vivian P. Bykerk, Carol A. Hitchon, Edward Keystone, J. Carter Thorne, Gilles Boire, Boulos Harouli, Glen S. Hazlewood, Ashley Bonner, Janet E. Pope and CATCH Investigators, 1Western University, London, ON, 2Hospital for Special Surgery, New York, NY, 3University of Manitoba, Winnipeg, MB, 4University of Toronto, Toronto, ON, 5Southlake Regional Health Centre, Newmarket, ON, 6CHUS - Sherbrooke University, Sherbrooke, QC, 7Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 8McMaster University, Hamilton, ON, 9St. Joseph Health Care London, University of Western Ontario, London, ON, 10Toronto, ON

402. Discordant Inflammatory Markers in Veterans with Rheumatoid Arthritis: Baseline Characteristics and Relationship with Disease Activity. Rebecca Belsom, Archana Jain, Jeffrey Curtis, Shuo Yang, Ted R. Mikuls, Lang Chen and Angelo L. Gatto, 1University of Alabama, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3Omaha VA and University of Nebraska Medical Center, Omaha, NE, 4Birmingham VA Medical Center and University of Alabama at Birmingham, Birmingham, AL

403. The Impact of Reaching Low Disease Activity in the First Year on Future Disability and Damage in Patients with Early Rheumatoid Arthritis. Pooneh Akhavan, George A. Tomlinson, Paul R. Fortin and Claire Bombardier, 1University of Toronto, Toronto, ON, 2Toronto General Hospital, Toronto, ON, 3Division of Rheumatology, Centre de recherche du centre hospitalier universitaire de Québec, Faculté de médecine de l’université Laval, Quebec City, QC

404. Remission is a Difficult Target in Clinical Practice When RA Disease Is Established. Till Uhlig, Elisabeth Lie, Cecillie Kaufmann, Erik Rødevand, Knut Mikkelsen, Synnøve Kalstad and Tore K. Kvien, 1Diakonhjemmet Hospital, Oslo, Norway, 2Vestre Viken, Drammen, Norway, 3St. Olavs Hospital, Trondheim, Norway, 4Lillehammer Hospital for Rheumatic Diseases, Lillehammer, Norway, 5Tromsø, Norway
**405.** Frequencies of Boolean and Index Based ACR-EULAR Remissions Differ Slightly Depending On the Method of Patient Global Assessment. Paul Studenic, Josef S. Smolen and Daniel Aletaha, Medical University Vienna, Vienna, Austria

**Rheumatoid Arthritis - Human Etiology and Pathogenesis**

**406.** βig-h3 Regulates the Inflammatory Arthritis by Mediating Selective Recruitment of Effector/Memory T Cells. Keum Hee Sa, Jin Hee Kang, Mahmudul Md Alam, Kyung Hwa Lee, Churl Hyun Im, Eon Jeong Nam, In San Kim and Young Mo Kang, Kyungpook National University School of Medicine, Daegu, South Korea

**407.** The I50V IL4R SNP Is Associated with Increased Th17 Cell Frequency and Poor Clinical Outcome in Rheumatoid Arthritis. Jan Leipe1, Iryna Prots2, Markus A. Schramm1, Matthias Witt1, Axel P. Nigg1, Christiane S. Reindl1, Claudia Dechant1, Mathias Grunker1, Hendrik Schulze-Koops1 and Alla Skapenko2,1University of Munich, Munich, Germany, 2Junior Research Group III, Interdisciplinary Center for Clinical Research Nikolaus-Fiebiger Center for Molecular Medicine, Erlangen

**408.** Alpha-Enolase Facilitates Migration of Fibroblast-Like Synoviocytes in Rheumatoid Arthritis. Ichul Shin1, Ji Ah Park2, Seyeon Bae1, Jae Seung Kang1 and Yeong Wook Song3,1College of Medicine, Seoul National University, Seoul, South Korea, 2Seoul National Hospital, Seoul, South Korea, 3Seoul National University Hospital, Seoul, South Korea

**409.** Pathway Analysis of Genome-Wide Association Studies On Rheumatoid Arthritis. Young Ho Lee1, Sung Jae Choi1, Jong Dae Ji1 and Gwan Gyu Song2,1Korea University Medical School, Seoul, South Korea, 2Korea Univ College of Med, Seoul

**410.** Early Growth Response-1 (EGR-1) Controls Synoviocyte Apoptosis, and Its Expression Is Regulated by the Direct Binding of Fibroblast Growth Factor-1 (FGF1) or Insulin-Like Growth Factor Factor-1 (IGF1) to Integrin αvβ3. Shino Tanaka1, Jun Saegusa1, Seiji Kawano1, Yoshikazu Kumagai1 and Akio Morinobu1,1Kobe University Graduate School of Medicine, Kobe, Japan, 2University of California, Davis, School of Medicine, Sacramento, CA, 3Shinko Hospital, Kobe, Japan

**411.** Early Menopause, Smoking and Circulating Antibodies against Citrullinated Peptides in the Pre-Clinical Phase of Rheumatoid Arthritis. Mitra Pikwer1, Johan Rönnelid2, Monika Hansson1, Ulf Bergström1, Lennart T.H. Jacobsson1, Linda Mathsson1, Per Johan Jakobsson2, Guy B. Serre1, Rikard Holmdahl1, Lars Klareskog2 and Carl Turesson1, 1Lund University, Malmö, Sweden, 2Uppsala University, Uppsala, Sweden, 3Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 4Centre National de la Recherche Scientifique - Université de Toulouse, Toulouse, France, 5Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden, 6Karolinska Institute, Stockholm, Sweden

**412.** Single Nucleotide Polymorphisms within the HLA-DRB1 Gene in Relation to Antibodies Against Citrullinated Peptides in Individuals Prior to the Development of Rheumatoid Arthritis. Lisbeth Arlestig1, Mikael Brink2, Monika Hansson1, Per Johan Jakobsson1, Rikard Holmdahl1, Linda Mathsson1, Johan Ronnelid2, Lars Klareskog2 and Solbritt M. Rantapaa-Dahlqvist3,1Umeå University, Umeå, Sweden, 2Umeå University, Umeå, Sweden, 3Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 4Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden, 5Uppsala University, Uppsala, Sweden, 6Karolinska Institute, Stockholm, Sweden, 7Institution of Public health and clinical medicine/ Rheumatology, University of Umeå, Umeå, Sweden

**413.** α(1,2)-Linked Fucosylated Cytokines Are Upregulated in Rheumatoid Arthritis. Takeo Izozaki1, Jeffrey H. Ruth1, M. Asif Amin1, Philip L. Campbell7, Christine M. Ha1 and Alisa E. Koch1,1University of Michigan, Ann Arbor, MI, 2University of Michigan Medical School, Ann Arbor, MI

**414.** First-Degree Relatives without Rheumatoid Arthritis Exhibit Reactivity to Multiple Anti-Citrullinated Protein Antibodies in Association with Rheumatoid Arthritis-Related Clinical Characteristics: Studies of the Etiology of Rheumatoid Arthritis. Kendra A. Young1, Kevin D. Deane2, Leslie A. Derber1, Jan M. Hughes-Austin4, Michael H. Weisman3, Jane H. Buckner8, Ted R. Mikuls2, James R. O’Dell2, Richard M. Keating4, Peter K. Gregersen12, V. Michael Hohler4 and Jill M. Norris11,1Colorado School of Public Health, Aurora, CO, 2University of Colorado School of Medicine, Aurora, CO, 3University of Colorado Anschutz Medical Campus, Aurora, CO, 4Colorado School of Public Health / University of Colorado Anschutz Medical Campus, Aurora, CO, 5Cedars-Sinai Medical Center, Los Angeles, CA, 6Benaroya Research Institute at Virginia Mason, Seattle, WA, 7Omaha VA and University of Nebraska Medical Center, Omaha, NE, 8Univ of Nebraska Med Ctr, Omaha, NE, 9The University of Chicago, Chicago, IL, 10Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY

**Hypoxia-Induced Endogenous Prostaglandin E2 Negatively Regulates Hypoxia-Enhanced Aberrant Overgrowth of Rheumatoid Synovial Tissue.** Hirofumi Mitomi1, Hidehiro Yamada1, Toshiko Nozaki Shibata1, Hiroshi Ito1, Yoshioki Yamasaki1, So Nomoto2, Atsushi Kusaba1, Hiroki Yamashita3 and Shoichi Ozaki1, 1St. Marianna University, Kawasaki, Japan, 2Saiseikai Yokohamashi Tobu Hospital, Yokohama, Japan, 3Ebita General Hospital, Ebina, Japan

**Dyslipidaemia in Early Rheumatoid Arthritis Patients Is Common and Not Influenced by Two Years of Effective DMARD Therapy.** The Opera Study. Torkell Ellingsen1, Kim Horslev-Petersen2, Merete L. Hetland1, Peter Junker4, Jan Podenphant1, Mikkel Ostergaard3 and Kristian Stengaard-Pedersen1, 1Regional Hospital, Silkeborg, Denmark, 2Southern University, Denmark, 3Copenhagen University and Glostrup Hospital, Copenhagen, Denmark, 4Odense
417. The Potential Role of PTPRD Gene Copy Number Variation in Susceptibility to Rheumatoid Arthritis. Seung Cheol Shim, Donghyuk Sheen, Mi Kyong Lim and Hyo Park, Eulji University Hospital, Daejeon, South Korea

418. Immediate Early Response Gene X-1 Is Over-Expressed and Regulates Apoptosis and Cytokine Production in Rheumatoid Arthritis Synovial Fibroblasts. Akio Morinobu1, Masaaki Fujita1, Shino Tanaka1, Jun Saegusa2 and Shunichi Kumagai2, 1Kobe university graduate school of medicine, Kobe, 650-0017, Japan, 2Kobe University Graduate School of Medicine, Kobe, Japan, 3Rheumatology and Clinical Immunology, Kobe, Japan, 4Shinko hospital, Kobe, Japan

419. Epigenome Analysis of Rheumatoid Arthritis Synovial Fibroblasts Revealed TBX-5 As a Novel Transcription Factor in Chemokine Regulation. Emmanuel Karouzakis, Michelle Trenkmann, Renate E. Gay, Steffen Gay and Michel Neidhart, Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland

420. Loss-of-Co-Homozygosity Mapping and Exome Sequencing of a Syrian Pedigree Identified the Candidate Causal Mutation Associated with Rheumatoid Arthritis. Yukinori Okada1, Namrata Gupta2, Daniel Mirel1, Stacey Gabriell1, Thurayya Araysi1, Faten Mouassass1, Walid Al Akhrar1, Layla Kazzaz2 and Robert M. Plenge3, 1Brigham and Women’s Hospital, Harvard Medical School, 2Program in Medical and Population Genetics, Broad Institute, Boston, MA, 3The Broad Institute, Cambridge, MA, 4Weill Cornell Medical College-Qatar, Doha, Qatar, 5Molecular Biology and Biotechnology, Damascus, Syria, 6Tishreen Hospital and the Syrian Association for Rheumatology, Damascus, Syria, 7Brigham and Women’s Hospital, Boston, MA

421. Rheumatoid Factor, Not Antibodies to Citrullinated Proteins, Are Associated with High Disease Activity. Josef S. Smolen1, Farideh Alastif and Daniel Aletaha2, 1Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 2Medical University of Vienna, Vienna, Austria

422. Antibodies to Citrulline from Rheumatoid Arthritis Patients Also Bind Homocitrulline. Mathias Scinocca, Radha Joseph, David A. Bell, Ewa Cairns and Lillian J. Barra, Schulich School of Medicine and Dentistry, Western University, London, ON

423. Sputa Autoantibodies in Patients with Established Rheumatoid Arthritis and Subjects At-Risk for Future Clinically Apparent Disease. Van C. Willis1, M. Kristen Demoruelle2, Lezlie A. Derber1, Catherine J. Chartier-Logan1, Mark Parish1, Isabel Pedraza2, Michael H. Weisman1, Jill M. Norris2, V. Michael Holers1 and Kevin D. Deane1, 1University of Colorado School of Medicine, Aurora, CO, 2Cedars Sinai Med Ctr, Los Angeles, 3Cedars-Sinai Medical Center, Los Angeles, CA, 4Colorado School of Public Health, Aurora, CO

424. Influence of Pregnancy on Disease Activity-Associated Genes in Rheumatoid Arthritis. Erik J. Peterson1, Shreyasee Amin2, Hatice Bilgic3, Emily Baechler Gillespie1, Jane E. Salmon1, Ann M. Reed1, Weihua Guan3 and Daniel L. Mueller1, 1University of Minnesota Medical School, Minneapolis, MN, 2Mayo Clinic, Rochester, MN, 3Hospital for Special Surgery, New York, NY, 4University of Minnesota School of Public Health, Minneapolis, MN

425. Slug Is Induced by Benzo(a)Pyrene and EGF Through PI3K/Akt/mTOR Pathway and Is Closely Involved in the Regulation of the Invasive Properties of FLS in Rheumatoid Arthritis. Jaejoon Lee1, Jiwon Hwang2, Chan Hong Jeon3, Joong Kyong Ahn4, Hoon-Suk Cha2 and Eun-Mi Koh5, 1Samsung Medical Center, Sunkyunkwan University School of Medicine, Seoul, South Korea, 2Samsung Medical Center, S Gunyunkwan University School of Medicine, Seoul, South Korea, 3Soonchunhyang University College of Medicine, Bucheon, South Korea, 4Kangbuk Samsung hospital, Sunkyunkwan University School of Medicine, Seoul, South Korea, 5Samsung Medical Center, Sunkyunkwan University School of Medicine, Seoul, South Korea

426. Dickkopf-1 Stimulates Fibroblast-Like Synoviocyte Migration Through Janus Kinase Activation. Yubin Luo1, Bryan Dieffenbach2, Jung-Soo Song3, Jinseok Kim4, David L. Boyle1, Michael Karin1, Gary S. Firestein1 and Maripat Corr3, 1UCSD School of Medicine, La Jolla, CA, 2UCSD School of Medicine, la Jolla, CA, 3Chung-Ang University College of Medicine, Seoul, South Korea, 4Jeju National University, Jeju, Korea, 5Univ of California-San Diego, La Jolla, CA

427. Epigenetic Features as Predictive Markers of Responsiveness to Epitope-Specific Therapy in Rheumatoid Arthritis. Roberto Sprefico, Maura Rossetti, Theodorus Van Der Broek, Olivia Morrow and Salvatore Albani, Sanford-Burnham Medical Research Institute, La Jolla, CA

428. TNFα Modulates the Expression of Cricadian Clock Gene, Per2, Via D-Box Motif in the Promoter Region in Rheumatoid Synovial Cells. Kohsuke Yoshida1, Akira Hashiramoto2, Takaichi Okano3, Nao Shibanuma4 and Shunichi Shiozawa3, 1Hyogo Prefectural Rehabilitation Center at Nishi-harima, Tatsuno, Japan, 2Department of Internal Medicine, Kobe University Graduate School of Medicine / The Center for Rheumatic Diseases, Kobe University Hospital, Kobe, Japan, 3Kobe University Hospital, Kobe, Japan, 4The Center for Rheumatic Diseases, Kobe University Hospital / Departmant of Orthopaedic Surgery, Kobe Kaisei Hospital, Kobe, Japan, 5Kyushu University Beppu Hospital, Beppu, Japan

429. The Significance of the Apoptosis Level and the Apoptosis Related Signal Proteins of CD4+ t AC4D+Foxp3+t Cell in Patients with Rheumatoid Arthritis. Ning Li1, Tianrui Ma2, Jie Han1, Jierui Zhou1 and Songguo Zheng1, 1Shanghai East Hospital, Shanghai, China, 2Ningbo Pediatric Hospital, Ningbo, China, 3KecK School of Medicine of the University of Southern California, Los Angeles, CA
430. Comprehensive Microrna Analysis Identifies Mir-24, Mir-26a, and Mir-125a-5p As Plasma Biomarkers for Rheumatoid Arthritis. Koichi Murata, Moritoshi Furu, Hiroyuki Yoshitomi, Masahiro Ishikawa, Hideyuki Shibuya, Hiromu Ito and Shuichi Matsuda, Kyoto University Graduate School of Medicine, Kyoto, Japan

431. Basic and Clinical Significance of Interleukin 6 (IL-6) in AA Amyloidosis with RA. Kazuyuki Yoshizaki, Prabha Tiwari, Lokesh P. Tripathi, Shandar Ahmad, Kenji Mizuguchi, Teppei Nishikawa-Matsumura, Tomoyasu Isobe and Soken-Nakazawa J. Song, Osaka University, Osaka, Japan

432. Identification and Characterization of Fibrinogen-Specific T Cells in Patients with Rheumatoid Arthritis. Laura Su and Mark M. Davis, Stanford University School of Medicine, Stanford, CA

433. Genome Wide Association Analysis of Pain Reduction in Rheumatoid Arthritis Patients Treated with Anti-TNF Medication. Results of the DREAM and Danbio Registries. Marieke J.H. Coenen1, Masha Umicevic-Mirkov1, Hans Scheffler1, Sophie B. Krintel2, Sita H. Vermeulen1, Julia S. Johansen1, Wietse Kievet1, Mart A.F.J. van de Laar1, Piet L.C.M. van Riel1, Barbara Franke1 and Merete L. Hetland1, 1Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 2Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 3Medisch Spectrum Twente & Twente University, Enschede, Netherlands, 4Copenhagen University Hospital Glostrup, Copenhagen, Denmark

434. IL-22 Mediated Pannus Formation in Autoimmune Arthritis Is PI3K/Akt/mTOR Dependent. Siba P. Raychaudhuri1, Anupam Mitra2, Ananya Datta Mitra2, Christine Abria3 and Smriti K. Raychaudhuri2, 1VA Sacramento Medical Center, 2UC Davis School of Medicine, Mather, CA, 3VA Sacramento Medical Center, Mather, CA

435. CIP2A Facilitates Apoptotic Resistance of Fibroblast-Like Synovioocytes in Rheumatoid Arthritis Independent of c-Myc Expression. Jaejoon Lee1, Jiwon Hwang2, Jinseok Kim3, Jong Kyong Ahn4, Hoon-Suk Cha5 and Eun-Mi Koh6, 1Samsung Medical Center, Sunkyunkwan University School of Medicine, Seoul, South Korea, 2Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea, 3Jeju National University Hospital, Jeju, South Korea, 4Kangbuk Samsung hospital, Sunkyunkwan University School of Medicine, Seoul, South Korea, 5College of Medicine, The Catholic University of Korea, Seoul, South Korea, 6Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, Seoul, Seoul, South Korea

436. Synthetic Anti-CCP Antibody Aggravated Severity of Animal Arthritis and Captured Citrullinated Antigen in the Serum of Patients with Rheumatoid Arthritis. Youngkyun Kim1, Su-Jin Moon1, Hyoju Yi1 and Ji Hyeon Ju2, 1College of Medicine, The Catholic University of Korea, Seoul, South Korea, 2College of Medicine, The Catholic University of Korea & Stanford University, Seoul & Palo Alto, CA

437. SIRT6 Regulates Cigarette Smoke Induced MMP1 Expression in Rheumatoid Arthritis Synovial Fibroblasts. Anna Engler, Renate E. Gay, Beat A. Michel, Steffen Gay and Caroline Ospelt, Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Zurich, Switzerland

438. Methyl Supplementation of Rheumatoid Arthritis Synovial Fibroblasts Regulates the Expression of Transcription Factors and Matrix Metalloproteinases. Edvardas Bagdonas, Emmanuel Karouzakis, Astrid Jungel, Caroline Ospelt, Renate E. Gay, Steffen Gay, Beat A. Michel and Michel Neidhart, Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland

439. Interaction of Antibodies against Citrullinated Peptides with HLA Shared Epitope, PTPN22 185T Variant, and Smoking in Individuals Prior to and After the Development of Rheumatoid Arthritis. Heidi Kokkonen1, Mikael Brink2, Monika Hansson3, Linda Mathsson4, Ewa Lassen5, Per Johan Jakobsson1, Rikard Holmdahl6, Johan Rönnelid7, Lars Klareskog5 and Solbritt M. Rantapaa-Dahlgqvist8, 1Umeå University, Umeå, Sweden, 2Umeå University, Umeå, Sweden, 3Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 4Uppsala University, Uppsala, Sweden, 5Umeå University, Umeå, Sweden, 6Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden, 7Karolinska Institute, Stockholm, Sweden, 8Institution of Public health and clinical medicine/ Rheumatology, University of Umeå, Umeå, Sweden

440. Effects of Fetal Microchimerisms on Disease Onset and Severity in Women with Rheumatoid Arthritis and Systemic Lupus Erythematosus. Marianne Kekow1, Sara Fill Malferttheiner2, Maria Barleben1, Susanne Drynda3, Joern Keating4 and Thomas Brune5, 1Univ of Magdeburg, Children's Hospital, Magdeburg, Germany, 2Univ of Magdeburg, Department of Obstetrics and Gynecology, Magdeburg, Germany, 3Univ of Magdeburg, Vogelsang-Gommern, Germany

441. Performance of Anti-Cyclic Citrullinated Peptide Assays Differ in Healthy Subjects At Elevated Risk for Future Rheumatoid Arthritis and Subjects with Established Disease. M. Kristen Demoruelle1, Mark Parish2, Lezlie A. Derber3, Michael H. Weisman4, William R. Gilliland5, Jess Edison6, James R. O'Dell7, Ted R. Mikuls8, Richard M. Keating9, Peter K. Gregersen10, Jane H. Buckner11, V. Michael Holers1 and Kevin D. Deane12, 1University of Colorado School of Medicine, Aurora, CO, 2University of Colorado Anschutz Medical Campus, Aurora, CO, 3 Cedars-Sinai Medical Center, Los Angeles, CA, 4 Walter Reed National Military Medical Center, Bethesda, MD, 5University of Nebraska Medical Center, Omaha, NE, 6 The University of Chicago, Chicago, IL, 7 North Shore University Hospital Research Center, Manhasset, NY, 8Benaroya Research Institute at Virginia Mason, Seattle, WA, 9Colorado School of Public Health, Aurora, CO
442. Joint Effects of Known Genetic Markers of Rheumatoid Arthritis Risk and 25-Hydroxyvitamin D On Rheumatoid Arthritis Risk. Linda T. Hiraki1, Chia-Yen Chen2, Jing Cui2, Susan Malspeis1, Karen H. Costenbader1 and Elizabeth W. Karlson1, 1Brigham and Women’s Hospital, Harvard School of Public Health, Boston, MA, 2Harvard School of Public Health, Boston, MA, 3Brigham and Women’s Hospital, Boston, MA, 4Brigham and Women’s Hospital, Boston, MA, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

443. Secreted Frizzled-Related Protein 5 Exerts the Anti-Inflammatory Role in Rheumatoid Arthritis Via Down-Regulation of c-Jun N-Terminal Kinase. Yong-Jin Kwon, Tae-Yeon Kim, Sang-Won Lee, Yong-Beom Park, Soo Kon Lee and Min-Chan Park, Yonse University College of Medicine, Seoul, South Korea

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444. Tocilizumab Improves Bone Mineral Density Compared with Abatacept in Patients with TNF Blockers-Resistant Active Rheumatoid Arthritis. An Open Label Randomized Controlled Trial. Kensuke Kume1, Kanzo Amano1, Susumu Yamada1, Kazuhiko Hatta2, Kuniki Amano3, Noriko Kuwaba4 and Hiroyuki Ohta5, Hiroshima Clinic, Hiroshima, Japan, 2Hatta Clinic, Kure, Japan, 3Sky Clinic, Hiroshima, Japan, 4Sanki Clinical Link, Hiroshima, Japan, 5Hiroshima, Japan

445. Combination of Intra-Articular Steroid Injection and Infliximab More Effective Than Infliximab in Rapid Radiographic Progression Patients with Rheumatoid Arthritis: A Randomized, Open Label, X Ray Reader Blinded Study. Kensuke Kume1, Kanzo Amano1, Susumu Yamada1, Kazuhiko Hatta2, Kuniki Amano3, Hiroyuuki Ohta4 and Noriko Kuwaba4, Hiroshima Clinic, Hiroshima, Japan, 2Hatta Clinic, Kure, Japan, 3Sky Clinic, Hiroshima, Japan, 4Hiroshima, Japan

446. Clinical Remission and Rate of Relapse after Tocilizumab Withdrawal in Rheumatoid Arthritis Patients. Cesar Vargas-Serafin1, Luis Aguilar-Lozano2, Jorge Padilla-Ibarra3, Carlos Sandoval-Castro4, Jose Dionisio Castillo-Ortiz5, Jorge Morales-Torres1, Claudia Hernandez1 and Cesar Ramos-Remus1, 1Unidad de Investigacion en Enfermedades Cronico-Degenerativas, Guadalajara, Mexico, 2Hospital Aranda de la Parra, Leon, Mexico

447. Long-Term Safety and Efficacy of Tabulumab, an Anti-B-Cell Activating Factor Monoclonal Antibody, in Patients with Rheumatoid Arthritis: A 52-Week, Open-Label Extension Study. Maria W. Greenwald1, Leszek Szczepanski2, Alastair C. Kennedy1, Chin H. Lee3, Emery Polasek4, Melissa Veenhuizen5, Rebecca Jones-Taha6 and Pierre-Yves Berczal7, 1Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo, Brazil, 2Universidade Federal de Sao Paulo - UNIFESP, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 4Universidade Federal de Sao Paulo, Sao Paulo, Brazil

448. Sustained and Cumulated Response Over Time in Rheumatoid Arthritis Patients Treated with Rituximab After Initial Failure of Anti Tumor Necrosis Factor Agents. Ioan Ancuta1, Catalin Codreanu2, Ruxandra Ionescu3, Magda Parvu4 and Mihai Bojinca5, 1“Dr. I. Cantacuzino” Hospital, Bucharest, Romania, 2“Dr. I. Stoia” Center for Rheumatic Diseases, Bucharest, Romania, 3Clinic Hospital “Sf. Maria”, Bucharest, Romania, 4“N.Gh. Lupu” Clinical Hospital, Bucharest, Romania

449. Rituximab After First Anti Tumor Necrosis Factor Failure Is More Efficient with High Impact in Reducing Time and Costs to Achieve Superior Rates of Low Disease Activity and Remission. Ioan Ancuta1, Catalin Codreanu2, Ruxandra Ionescu3, Magda Parvu4 and Mihai Bojinca5, 1“Dr. I. Cantacuzino” Hospital, Bucharest, Romania, 2“Dr. I. Stoia” Center for Rheumatic Diseases, Bucharest, Romania, 3Clinic Hospital Sf. Maria, Bucharest, Romania, 4“N.Gh. Lupu” Clinical Hospital, Bucharest, Romania

450. Late Onset Neutropenia after Rituximab Treatment for Rheumatological Conditions. Gabriel S. Breuer1, Michael Z. Ehrenfeld2, Itzhak Rosner3, Alexandra Balbir-Gurman4, Devy Zisman5 and Daphna Paran6, 1Shaare Zedek Medical Center, Jerusalem, Israel, 2Chaim Sheba Medical Center, Tel HaShomer, Israel, 3Bnai Zion Medical Center / Technion Faculty of Medicine, Haifa, Israel, 4Rambam Health Care Campus, Haifa, Israel, 5Carmel Medical Center, Haifa, Israel, 6Tel Aviv Sourasky Medical Ctr, Tel Aviv, Israel

451. Pilot Study of Stimulation of the Cholinergic Anti-Inflammatory Pathway with an Implantable Vagus Nerve Stimulation Device in Patients with Rheumatoid Arthritis. Frieda A. Koopman1, Sandra Milijko2, Simeon Grazio2, Sibek Sokolovic3, Kevin Tracey4, Yaaok Levine5, Ralph Zitnik6 and Paul-Peter Tak7, 1Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 2University Clinical Center Mostar, Bosnia, 3Clinical Hospital Center Sestre Milosrdnice, Zagreb, Croatia, 4University Clinical Center, Sarajevo, Bosnia, 5Feinstein Institute for Medical Research, Manhasset, NY, 6SetPoint Medical Corporation, Valencia, CA, 7Academic Medical Center/GlaxoSmithKline, Amsterdam, Netherlands

452. Effectiveness and Tolerance Infiltration Intraarticular Corticosteroid According to Dose. Daniele F. Pereira1, Rita N.V. Furtado2, Natalia P. Machado3 and Jamil Natour4, 1Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo, Brazil, 2Universidade Federal de Sao Paulo - UNIFESP, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 4Universidade Federal de Sao Paulo, Sao Paulo, Brazil

453. Fish Oil in Rheumatoid Arthritis: A Randomised, Double Blind Trial Comparing High Dose with Low Dose. Susanna Proudmoun1, Llew Spargo2, Cindy Hall2, Leah McWilliams3, Anita Lee4, Maureen Rischmueller5, Robert Gibson3, Michael James6 and Leslie G. Cleland7, 1Royal Adelaide Hospital, Adelaide, Australia, 2Queen Elizabeth Hospital, Adelaide, Australia, 3University of Adelaide, Adelaide, Australia
454. Long-Term Efficacy of Tocilizumab Monotherapy in Patients with Rheumatoid Arthritis Previously Methotrexate Naive or Methotrexate Free for 6 Months. Graeme Jones¹, Anthony Sebbá², Denise Lepley³, Jenny Davenport⁴, Corrado Bernasconi⁵, Devi Smart⁶, Chieko Mofou⁷ and Juan J. Gomez-Reino⁸. Umenzies Research Institute Tasmania, Hobart, Australia, ²University of South Florida, Tampa, FL, ³Genentech South, South San Francisco, CA, ⁴Roche, Basel, Switzerland, ⁵Roche Products Ltd, Welwyn Garden City, United Kingdom, ⁶Hospital Clinico Universitario, Santiago, Spain

455. Lack of Additive Benefits of Concomitant Methotrexate Use to Tocilizumab Monotherapy for Rheumatoid Arthritis in Daily Clinical Practice. Keisuke Izumi¹, Yuko Kaneko², Hidekata Yasuoka³, Noriyuki Seta⁴, Hideto Kameda⁵, Masataka Kuwana⁶ and Tsutomu Takeuchi⁷. ¹Keio University School of Medicine, Tokyo, Japan, ²Keio Univ School of Medicine, Shinjuku-ku, Japan, ³Keio university, Tokyo, Japan

456. Factors Influencing Choice of Rituximab Versus an Alternative Tumor Necrosis Factor Inhibitor Following Tumor Necrosis Factor Inhibitor Failure in Patients with Rheumatoid Arthritis: Sub-Analysis of a Global Observational Comparative Effectiveness Study. Axel Finch¹, Jacques-Eric Gottenberg², Chiedo Mofou³, William G. Bensen⁴, Andrea Rubbert-Roth⁵, Fedra Irazoque⁶, Victor Martinez Taboada⁷, Carol Chung⁸, Lykke Hinsch-Gylvin⁹, Clodoveo Ferré¹⁰ and Paul Emery¹¹. ¹University Hospital of Geneva, Geneva, Switzerland, ¹²CHU Strasbourg, Strasbourg, France, ¹³F Hoffmann-La Roche Ltd, Basel, Switzerland, ¹⁴St. Joseph’s Hospital and McMaster University, Hamilton, ON, ¹⁵University Medical Center Freiburg, Freiburg, Germany, ¹⁶Hospital Barmherzige Bruder, Graz, Austria, ¹⁷Institute of Rheumatology, Prague, Czech Republic, ¹⁸Chilem International, Neuilly, France, ¹⁹Docs International, Sèvres, France, ²⁰Bristol-Myers Squibb, Munich, Germany, ²¹Bristol-Myers Squibb, Rueil Malmaison, France

457. Biologic Disease-Modifying Anti-Rheumatic Drugs and the Risk of Non-Vertebral Osteoporotic Fractures in Patients with Rheumatoid Arthritis Aged 50 Years and Over. Jean-Pascal Roussy¹, Louis Bessette², Sasha Bernatsky³, Elham Rahme⁴ and Jean Lachaine⁵. ¹University of Montreal, Montreal, QC, ²Centre Hospitalier Universitaire de Québec, pavillon CHUL, Sainte-Foy, QC, ³McGill University, Montreal, QC

458. Better Retention RATE AT 5 YEARS of ANTI-TNF Agents USED in Conjunction with Methotrexate Over Time in Patients with Rheumatoid Arthritis: REAL-Life DATA From Rhumadata Computarized Database. Denis Choquette¹, Diane Sauvageau², Boulou Harauqui³ and Jean-Pierre Raynauld⁴. ¹Institut de Rhumatologie De Montréal, Montreal, QC, ²Institut de Rhumatologie de Montréal, Montreal, QC, ³Institut de Rhumatologie de Montréal, Montreal, QC

459. Long-Term Safety of Rituximab: 10-Year Follow-up in the Rheumatoid Arthritis Global Clinical Trial Program. Ronald F. van Vollenhoven¹, Paul Emery², Clifton O. Bingham III³, Edward Keystone⁴, Roy M. Fleischmann⁵, Daniel E. Furst⁶, Nicola Tyson⁷, Abdul Mehbob⁷ and Patrica B. Lehane⁸. ¹Karolinska University Hospital, Stockholm, Sweden, ²University of Leeds, Leeds, United Kingdom, ³Johns Hopkins University, Baltimore, MD, ⁴Mount Sinai Hospital, Toronto, ON, ⁵University of Texas Southwestern Medical Center and Metropolex Clinical Research Center, Dallas, TX, ⁶UCLA Medical School, Los Angeles, CA, ⁷Roche Products Limited, Welwyn Garden City, United Kingdom

460. Real-World Efficacy and Safety of Abatacept Treatment for Rheumatoid Arthritis: 12-Month Interim Analysis of the Action Study. H. Nüßlein¹, R. Alten², M. Galeazzi³, H. M. Lorenz⁴, Dimitrios Boumpas⁵, M. T. Nurmohamed⁶, W. Bensen⁷, G. R. Burmester⁸, H.-H. Peter⁹, F. Rainer¹⁰, Karel Pavelka¹¹, M. Chartier¹², C. Poncet¹³, C. Rauch¹⁴ and M. Le Bars¹⁵. ¹University Erlangen, Nürnberg, Germany, ²Schloßpark-Klinik, University Medicine, Berlin, Germany, ³University of Siena, Siena, Italy, ⁴University Hospital Heidelberg, Heidelberg, Germany, ⁵Panepistimio Kritis, Rethymnon, Greece, ⁶VU University Medical Center/Jan van Bremen Research Institute, Amsterdam, Netherlands, ⁷St. Joseph’s Hospital and McMaster University, Hamilton, ON, ⁸Charité-Universitätsmedizin, Berlin, Germany, ⁹University Medical Center Freiburg, Freiburg, Germany, ¹⁰Hospital Barmherzige Bruder, Graz, Austria, ¹¹Institute of Rheumatology, Prague, Czech Republic, ¹²Chilem International, Neuilly, France, ¹³Docs International, Sèvres, France, ¹⁴Bristol-Myers Squibb, Munich, Germany, ¹⁵Bristol-Myers Squibb, Rueil Malmaison, France

461. Patterns of Tocilizumab Use, and Dosing Among Patients with Rheumatoid Arthritis in the Clinical Practice. Preliminary Analyses of ACT-Life Study. J.V. Tovar Beltrán¹, M.A. Guzmán Úbeda², I. Mateo Bernardó³, Rosario García-Vicuña⁴, M. Rodríguez-Gómez⁵, M. Belmonte-Serrano⁶, C. Marras⁷, E. Loza Cortina⁸, E. Pérez Pampín⁹, V. Vila Fayos¹⁰, A.B. Romero Silva¹¹ and A. Balsa¹². ¹Hospital General Universitario de Elche, Alicante, Spain, ²Hospital Universitario Virgen de las Nieves, Granada, Spain, ³Hospital Universitario 12 de Octubre, Madrid, Spain, ⁴Hospital Universitario La Princesa, Madrid, Spain, ⁵Complejo Hospitalario Universitario de Ourense, Ourense, Spain, ⁶Hospital General de Castellón, Castellón, Spain, ⁷Hospital Universitario Virgen de la Arrixaca, Murcia, Spain, ⁸Hospital de Navarra, Navarra, Spain, ⁹Complejo Hospitalario Universitario de Santiago, Santiago de Compostela, Spain, ¹⁰Hospital Comarcal de Vinaroz, Castellón, Spain, ¹¹Roche Farma, Madrid, Spain, ¹²Hospital La Paz, Madrid, Spain

462. Subcutaneous Abatacept: Long-Term Data From the Acquire Trial. M. C. Genovese¹, C. Pacheco-Tena², A. Covarrubias³, G. Leon⁴, E. Mylser⁵, M. Keisermann⁶, R. Valente⁷, P. Nash⁸, J. A. Simon-Campos⁹, J. Box¹⁰, C. Legerton¹¹, C. Navarro¹², E. Nasonov¹³, P. Durez¹⁴, I. Delaet¹⁵ and R. Alten¹⁶. ¹Stanford University, Palo Alto, CA, ²Universidad Autónoma de Chihuahua, Chihuahua, Mexico, ³Centro Medico De Las Americas, Merida, Mexico, ⁴Instituto De Ginecologia Y Reproduccion, Lima, Peru, ⁵Organización Médica de Investigación, Buenos Aires, Argentina, ⁶Pontificial Catholic University of Las Americas, Quito, Ecuador
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ACR POSTER SESSION A

University School of Medicine, Porto Alegre, Brazil, 1Arthritis Center of Nebraska, Lincoln, NE, 1University of Queensland, Brisbane, Australia, Centro De Especialidades Médicas/Universidad Marista, Merida, Mexico, 12Box Arthritis & Rheumatology of the Carolinas, Charlotte, NC, 1Low Country Rheumatology, Charleston, SC, 1Institute of Rheumatology, Moscow, Russia, 14Bristol-Myers Squibb, Princeton, NJ, 1Schloßpark-Klinik, University Medicine, Berlin, Germany

463. Drug Survival, Efficacy and Predictors for Survival on Tocilizumab in Real-Life Patients with Rheumatoid Arthritis: Results From the Swedish Biologics Register. Helena Forsblad-d’Elia1, Karin Bengtsson2, Lars-Erik Kristensen3 and Lennart TH Jacobsson4, 1Department of Rheumatology and Inflammation Research, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden, 2Department of Rheumatology, University Hospital of Skåne, Lund, Sweden

464. Rituximab for Treatment of Rheumatoid Arthritis: Treatment Effectiveness in the Corrona Database. Leslie R. Harrold1, George W. Reed2, Robert P. Magnier3, Katherine C. Saunders4, Jeffrey D. Greenberg5, Joel M. Kremer6, Ani John7, William Reiss8, Steve Zlotnick9 and Ashwini Shewade0, 1University of Massachusetts Medical School, Worcester, MA, 2CORRONA, Inc., Southborough, MA, 3New York University School of Medicine, New York, NY, 4Albany Medical College, Albany, NY, 5Genentech Inc., South San Francisco, CA

465. The Comparative Effectiveness of Oral Methotrexate versus Subcutaneous Methotrexate for the Treatment of Early Rheumatoid Arthritis. Glen S. Hazlewood1, J. Carter Thorne2, Janet Pope3, Gilles Boire4, Boulos Harauqi5, Carol A. Hitchon6, Edward Keystone7, Diane Tin8, CATCH Investigators9 and Vivian P. Bykerk10, 1University of Toronto, Toronto, ON, 2Southlake Regional Health Centre, Newmarket, ON, 3Schulich School of Medicine and Dentistry, Western University, London, ON, 4CHUS - Sherbrooke University, Sherbrooke, QC, 5Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 6University of Manitoba, Winnipeg, MB, 7Toronto, ON, 8Hospital for Special Surgery, New York, NY

466. Synovialitis Plus Articular Cartilage Monitoring Via Magnetic Resonance Imaging and Ultrasound Under Tocilizumab Therapy in Patients with Rheumatoid Arthritis. Maria Hoehle1 and Michael Finkenstaedt2, 1Rheumatology, Hamburg, Germany, 2Private Practice for Radiology and Neuroradiology, Hamburg, Germany

467. Seropositive Rheumatoid Arthritis Patients with an Inadequate Response to Tumor Necrosis Factor Inhibitors Achieve Improved Clinical Effectiveness After Switching to Rituximab Versus Switching to an Alternative Tumor Necrosis Factor Inhibitor. Andrea Rubbert-Roth1, Axel Finckh2, Piercarlo Sarzi-Puttini3, Jacques-Eric Gottenberg4, Denis Choquette5, Victor Martinez Taboada6, Leonor Barile-Fabris7, Carol Chung8, Lykke Hinsch-Gylv9 and Paul Emery10, 1University of Cologne, Cologne, Germany, 2University Hospital of Geneva, Geneva, Switzerland, 3Sacco University Hospital Milan, Italy, 4CHU Strasbourg, Strasbourg, France, 5University of Montreal, Notre-dame Hospital, Montreal, QC, 6Hospital Universitario Marqués de Valdecilla, Santander, Spain, 7Hospital de Especialidades Centro Médico Nacional Siglo XXI, Mexico City, Mexico, 8Genentech Inc., South San Francisco, CA, 9Hoffmann-La Roche Ltd, Basel, Switzerland, 10University of Leeds, Leeds, United Kingdom

468. Adalimumab Treatment Is Associated with Decreased Concomitant Rheumatoid Arthritis Medication Use Over 24 Months. Daniel E. Furst1, Neelufar Mozaffarian2, Shannon Grant3, Mary Cifaldi4, Jerry Clewell5, Joel M. Kremer6 and James Shaw7, 1UCLA Medical School, Los Angeles, CA, 2Abbott Laboratories, Abbott Park, IL, 3Axio Research LLC, Seattle, WA, 4Albany Medical College and The Center for Rheumatology, Albany, NY

469. Intra Articular Injections in Patients with Rheumatoid Arthritis: Analyses from the Behandelstrategiën Study. E. Gvozdenovic1, L. Dirven1, M. van den Broek1, Kh Han2, T.H.E. Molenaar3, R. Landewe4, W.F. Lems5 and C.F. Allaart6, 1Leiden University Medical Center, Leiden, Netherlands, 2Maastricht hospital, Rotterdam, Netherlands, 3Groene Hart Hospital, Netherlands, 4Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 5VU University medical center, Amsterdam, Netherlands

470. Concomitant Assessment of Clinical and Ultrasound Efficacy and Safety of Tocilizumab in Patients with Moderate to Severe Rheumatoid Arthritis: The Torpedo Study. Thierry Schaeverbeke1, Philippe Gaudin2, Aleth Perdriger3, Christian Roux4, Muriel Vray5, Stephanie Rouanet6, Ghislaine Steinberg7 and Fabien Etchepare8, 1Groupe Hospitalier Pellegrin, Bordeaux, France, 2CHU Hôpital Sud, Grenoble Teaching Hospital, Echirolles, France, 3Hôpital Sud, Rennes, France, 4Paris Descartes University, Paris, France, 5Paris, France, 6Roche, Boulogne, France, 7G.H. Pitié-Salpêtrière, Paris, France

471. Efficacy and Safety of Golimumab as Add-On Therapy to Disease-Modifying Antirheumatic Drugs. Bernard Combe1, Bhaskar Dasgupta2, Ingrid Louw3, Sarvajeet Pal4, Jürgen Wollenhaupt5, Cristiano Zerbini6, andre D. Beaulieu7, Hendrik Schulze-Koops8, Patrick Durez9, Ruji Yao10, Nathan Vastesaeger11 and Holly Weng12, 1Hôpital Lapeyronie-Service d’Immono-rhumatologie, Montpellier, France, 2Southend University Hospital, Westcliff-on-Sea, United Kingdom, 3Panorama Medical Centre, Cape Town, South Africa, 4Advance Rheumatology Clinic, Hyderabad, India, 5Schön-Klinik, Hamburg, Germany, 6Centro Paulista de Investigações, Sao Paulo, Brazil, 7Centre de Rhumatologie, St. Louis, QC, 8University of Munich, Munich, Germany, 9UCL Saint-Luc, Brussels, Belgium, 10Merck Sharp and Dohme, Kenilworth, NJ, 11Merck Sharp and Dohme, Brussels, Belgium
472. More Positive Expectations of Treatment with Golimumab for Rheumatoid Arthritis Are Associated with Greater Improvement in Clinical Outcomes. Bhashkar Dasgupta1, Bernard Combe2, Ingrid Louw2, Sarvajeet Pal3, Jürgen Wollenhaupt4, Cristiano Zerbini5, and andre D. Beaulieu

473. The Addition of Another Disease-Modifying Anti-Rheumatic Drug to Methotrexate in Place of Infliximab Reduces the Flare Rate During 2 Years After Infliximab Discontinuation in Patients with Rheumatoid Arthritis. Hitoshi Kameda1, Takahiko Kurasawa1, Hayato Nagasawa2, Koichi Amano3 and Tsutomu Takeuchi4

474. Dose Reduction in Rituximab Retreatment May Delay Achievement of Optimal Responses. Mohammed I. Sharif1, Sudipto Das2, Paul Emery3, Helen Maciver4, Wendy Shingler1, Philip S. Helliwell5, Katharina Sokoll6 and Edward M. Vital7

475. Immunologic Responsiveness in Patients with Juvenile Idiopathic Arthritis On Methotrexate and Etanercept: 23 Valant Pneumococcal Vaccination. Ankur A. Kamdar8, Patricia C. Giclas9, and Barry L. Myones3

476. Effects of Vitamin D Repletion and Maintenance Therapy on Clinical Indicators of Disease Activity in Rheumatoid Arthritis. Uzma J. Haque1, Clifton O. Bingham III2 and Susan J. Bartlett1

477. Impact of Etanercept On Incident Cancer in Taiwanese Patients with Rheumatoid Arthritis. Jiunn Horng Chen1 and Wen-Miin Liang2

478. Body Mass Index Negatively Influences the Response to Infliximab in Rheumatoid Arthritis. Sébastien Ottaviani1, Anais Gardette1, Emilie Quintin1, Karen Dawidowicz2, Ghislaine Gill3, Elisabeth Palazzo4, Olivier Meyer5 and Philippe Dieude6

479. Active Immunization with TNF-Kinoid in Rheumatoid Arthritis Patients with Secondary Resistance to Tumor Necrosis Factor-Alpha Antagonists Is Safe and Immunogenic. Patrick Durez7, Pedro Miranda1, Antoaneta Toncheva1, Alberto Berman Sr.8, Oscar L. Rillo9, Yves Boutsen7, Tatjana Kehler10, Eugenia Mocri11, LiAn Soto Saez12, Bruno Fautrel13, Xavier Mariette14, Panayot Solakov15, Eleonora Lucero16, Tonko Vlak17, Simeon Grazio18, Ksenija Mastrovic19, Rodica Chiriac20, Géraldine Groud-Vogel21, Olivier Dellen12, Stéphane Quary14, Pierre Vandepapeliere22 and Marie-Christophe Boissier19

480. Etanercept Induces A Significant Decrease of Oxidative Stress and Osteoprotegerin Compared with Sdmar in Patients with Rheumatoid Arthritis. Claire I. Daen1, Anne-Marie Dupuy Gorce1, Edith Pinot1, Thibault Mura2, Jean-Paul Cristol3, Bernard Combe1 and Jacques Morel1

481. Duration of Sustained Remission and Differences in Response Between Medications, in Tumor Necrosis factor inhibitor Treated Rheumatoid Arthritis Patients. Jon T. Einarsso1, Pierre Geborek2, Tore Saxne3 and Melhi C. Kapetanovic4

483. An Evaluation of Literature on Discontinuation Rates of Biologics in Rheumatoid Arthritis. Setareh A. Williams¹, Victoria Porter³, Victoria Zarotsky², Sujatha Sundaram¹, Elisabeth Nyman⁴, Cassie K. Gregson⁴ and Paul S. J. Miller⁵, ¹AstraZeneca LP, Wilmington, DE, ²OptumInsight, Mastic Beach, NY, ³OptumInsight, Calabasas, CA, ⁴OptumInsight, Hanover, NH, ⁵AstraZeneca, Mölnndal, Sweden, ⁶AstraZeneca, Macclesfield, United Kingdom

484. Comparison of Rheumatoid Arthritis-Related Health Care Resource Use and Comorbidities Among Patients with Rheumatoid Arthritis Treated with Adalimumab Vs. Etanercept. Jipan Xie¹, Arijit Ganguli², Hongbo Yang³, Kejal Parikh⁴, Eric Q. Wu⁵ and Mary Cifaldi⁶, ¹Analysis Group Inc., Boston, MA, ²Abbott Laboratories, Abbott Park, IL

485. Immunogenicity of Infliximab Is Related to Reduction of Frequency of Infliximab Administration in Rheumatoid Arthritis and Spondyloarthritis Patients. Mathieu Verdet¹, Clément Guillou¹, Marie-Laure Potier², Martine Hiron³, Fabienne Jouen⁴, Olivier Boyer⁵, Thierry Lequerre⁶ and Olivier Vittecoq⁷, ¹Rouen University Hospital, Bois Guillaume, France, ²Inserm 905 & Institute for Biomedical Research, University of Rouen, Rouen, France, ³Rouen University Hospital, Rouen Cedex, France, ⁴INSERM U905, University of Rouen, Rouen, France, ⁵Department of Rheumatology, Rouen University Hospital & Inserm 905, Institute for Biomedical Research, University of Rouen, Rouen Cedex, France, ⁶Rouen University Hospital & Inserm905, University of Rouen, Rouen Cedex, France

486. Impact of Adalimumab Therapy on Laboratory Parameters of Interest in Patients with Early or Long-Standing Rheumatoid Arthritis. De Furst¹, Ana P. Lacerda², Nupun andhivarothai³, Jasmina Kalabic¹ and Neelufar Mozaffarian³, ¹University of California at Los Angeles, Los Angeles, CA, ²Abbott Laboratories, São Paulo, Brazil, ³Abbott Laboratories, Abbott Park, IL, ⁴Abbott GmbH & Co. KG, Ludwigshafen, Germany

487. Functional Disability in Early Rheumatoid Arthritis - Contributions of Disease Activity and Structural Damage, and the Impact of Different Treatment Strategies. Josef S. Smolen¹, Roy Fleischmann², Paul Emery³, Ronald F. van Vollenhoven⁴, Stefan Florentinus⁵, Freddy Faccin⁶, Suchitra S. Rathmann⁷, Hartmut Kupper⁸ and Arthur Kavanaugh⁹, ¹Medical University of Vienna and Hietzing Hospital, Vienna, Austria, ²Eli Lilly and Company, Indianapolis, IN, ³University of Toronto, Toronto, ON, ⁴Kennedy Institute of Rheumatology, London, United Kingdom, ⁵Stanford University Medical Center, Palo Alto, CA, ⁶PharmaNet, ⁷Eden Prairie, MN, ⁸Centro de Alta Especialidad en Reumatología e Investigación del Potosi, San Luis Potosí, San Luis Potosí, Mexico

488. Patient Preferences for Biologic Treatments in Rheumatoid Arthritis. Beenish Nafees¹, Andrew Lloyd², Carol L. Gaich³, Julie Birt⁴ and Rodney A. Hughes⁵, ¹Oxford Outcomes, Oxford, United Kingdom, ²Eli Lilly and Company, Indianapolis, IN, ³St. Peters Hospital, Chertsey Surrey, United Kingdom

489. The Comparative Effectiveness of Anti-TNF Medications among Older and Disabled Rheumatoid Arthritis Patients in the U.S. Medicare Population. Hufifeng Yun¹, Fenglong Xie¹, Elizabeth S. Delzelli², Lang Chen³, Shuo Yang³, Kenneth G. Saag³ and Jeffrey Curtis³, ¹University of Alabama-Birmingham, Birmingham, AL, ²University of Alabama at Birmingham, Birmingham, AL, ³Univ of Alabama-Birmingham, Birmingham, AL

12- and 24-Week Patient-Reported Outcomes From a Phase 2b Dose-Ranging Study of Baricitinib, an Oral Janus Kinase 1/ Janus Kinase 2 Inhibitor. in Combination with Traditional Disease-Modifying Antirheumatic Drugs in Patients with Rheumatoid Arthritis. Josef S. Smolen¹, Douglas E. Schlichting², Kimberly L. Sterling³, Edward Keystone⁴, Peter Taylor⁵, Mark C. Genovese⁶, Louise Johnson⁷, Juan C. Rizo Rodriguez⁸, Chin H. Lee⁹ and Carol L. Gaich¹⁰, ¹Medical University of Vienna and Hietzing Hospital, Vienna, Austria, ²Eli Lilly and Company, Indianapolis, IN, ³University of Toronto, Toronto, ON, ⁴Kennedy Institute of Rheumatology, London, United Kingdom, ⁵Stanford University Medical Center, Palo Alto, CA, ⁶PharmaNet/ i², ⁷Eden Prairie, MN, ⁸Centro de Alta Especialidad en Reumatología e Investigación del Potosi, San Luis Potosí, San Luis Potosí, Mexico

491. Predictors of Initiating Biologic Monotherapy in Biologic Naïve Patients with Rheumatoid Arthritis (RA) in a US Registry Population. Dimitrios A. Pappas¹, George W. Reed², Ani John³, Ashwini Shewade⁴, Katherine C. Saunders⁵, Jenny Devenport⁶, Jeffrey D. Greenberg⁷ and Joel M. Kremer⁸, ¹Columbia University, College of Physicians and Surgeons, New York, NY, ²University of Massachusetts Medical School, Worcester, MA, ³Genentech Inc., South San Francisco, CA, ⁴CORRONA, Inc., Southborough, MA, ⁵Genentech, South San Francisco, CA, ⁶NYU Hospital for Joint Diseases, New York, NY, ⁷Albany Medical College and The Center for Rheumatology, Albany, NY

492. Divergent Toxicity of TNF Inhibitors on Demyelinating Disorders and Neurological Events. Sergio Schwartzman¹, John Clark² and John J. Cush³, ¹Hosp for Special Surgery, New York, NY, ²RiskBenefits LLC, Floutstown, PA, PA, ³Baylor Research Institute, Dallas, TX

493. Effect of Infliximab on Employment Status in Patients with Rheumatoid Arthritis or Ankylosing Spondylitis. W. Bensen¹, J. Carter Thorne¹, Saeed A. Shaikh², Maqbool K. Sheriff³, Susan M. Otowa⁴, Allen J. Lehman⁵ and Hayssam Khalil⁶, ¹St. Joseph’s Hospital and McMaster University, Hamilton, ON, ²Southlake Regional Health Centre, Newmarket, ON, ³McMaster University, St Catharines, ON, ⁴Nanaimo Regional General Hospital, Nanaimo, BC, ⁵Janssen Canada Inc, Mississauga, ON, ⁶Janssen Inc, Toronto, ON, ⁷Janssen Canada Inc, Toronto, ON

490. The Comparative Effectiveness of Anti-TNF Medications among Older and Disabled Rheumatoid Arthritis Patients in the U.S. Medicare Population. Hufifeng Yun¹, Fenglong Xie¹, Elizabeth S. Delzelli², Lang Chen³, Shuo Yang³, Kenneth G. Saag³ and Jeffrey Curtis³, ¹University of Alabama-Birmingham, Birmingham, AL, ²University of Alabama at Birmingham, Birmingham, AL, ³Univ of Alabama-Birmingham, Birmingham, AL
494. Are There Gender Specific Differences in Patient Characteristics At Initiation of Biologic Treatment in Rheumatoid Arthritis? William Bensen1, Denis Choquette2, Isabelle Fortin2, Alice V. Klinkhoff2, Susan M. Otawak1 and Hayssam Khalil1, 1St. Joseph’s Hospital and McMaster University, Hamilton, ON, 1University of Montreal, Notre Dame Hospital, Montreal, QC, 1Centre de Rhumatologie de l’Est du Québec, Rimouski, QC, 4The Mary Park Arthritis Ctr, Vancouver, BC, 1Janssen Canada Inc, Mississauga, ON, 1Janssen Canada Inc, Toronto, ON

495. Comparison of Discontinuation Rates by Biologic Since 1998 in US Patients with Rheumatoid Arthritis. Sofía Ramiro1, Frederick Wolfe2, David J. Harrison3, George Bank for Rheumatic Diseases, Wichita, KS, 3Amgen Inc., Thousand Oaks, CA, 4Leiden University Medical Center, Leiden, Netherlands, 5Academic Medical Center, University of Amsterdam and Atrium Medical Center, Heerlen, Netherlands, 6National Data Bank for Rheumatic Diseases, Washington, DC, 1Janssen Canada Inc, Mississauga, ON, 1Janssen Canada Inc, Toronto, ON

496. Real-World Effectiveness of Infliximab in Improving Routine Assessment of Patient Index Data 3 Outcomes: The Canadian Experience. Andrew Chow1, Majed M. Khraishi2, Jude F. Rodrigues3, Susan M. Otawak1 and Hayssam Khalil1, 1University of Alberta, Edmonton, AB, 2University of Calgary, Calgary, AB, 3University of Manitoba, Winnipeg, MB, 4University of Medicine and Dentistry of New Jersey, New Brunswick, NJ, 5University of California, San Francisco, CA

497. Golimumab Drug Utilization Patterns in Canada – Higher Retention Rate in Golimumab Treated Rheumatoid Arthritis Patients Compared to Etanercept and Adalimumab. Hayssam Khalil1 and Amir Tahami1, 1Janssen Canada Inc, Mississauga, ON, 1Janssen Canada Inc, Toronto, ON

498. LIGHT (TNFSF14), Cathepsin-K, DKK-1 and Sclerostin in Rheumatoid Arthritis Patients: Effect of ANTI TNF-α Treatment in the WNT/β-Catenin Network Signaling. Alberto Caioli, Grazia Dessole, Giovanni Porru, Matteo Piga, Alessandra Vacca, Valentina Ibbba, Pietro Garau and Alessandro Mathieu, University of Cagliari, Cagliari, Italy

499. What is the Right Dose to Start Methotrexate (7.5 or 15mg) in Rheumatoid Arthritis? (A Randomized Controlled Trial). Varun Dhir, Mandeep Singla, Palvi Goyal, Vinay Sagar, Arman Sharma and Shefali K. Sharma, Post Graduate Institute of Medical Education and Research, Chandigarh, India

500. Comparison of Tolerability between Tumor Necrosis Factor-Inhibitors and Tocilizumab for the Treatment of Rheumatoid Arthritis. Yoshihiro Hisihitani, Yoshihiro Shima, Toru Hirano, Keisuke Hagihara, Kosuke Ebina, Yasuo Kunugiza, Kenrin Shi, Masashi Narazaki, Atsushi Ogata, Tetsuya Tomita, Toshiro Tanaka and Atsushi Kumanogoh, Osaka University Graduate School of Medicine, Suita, Japan

501. TNF Inhibitor Treatment in Rheumatoid Arthritis (RA) Patients with Moderate versus High Disease Activity At Baseline: A Comparison of Utility Gains, Response and Remission Rates. Elisabeth Lie, Siri Lillegraven, Karen M. Fagerli, Till Uhlig and Tore K. Kvien, Diakonhjemmet Hospital, Oslo, Norway

502. Safety and Efficacy of Rituximab in Patients with Rheumatoid Arthritis and Lung Involvement. Elena Becerra, Geraldine Cambride and Maria J. Leandro, University College London, London, United Kingdom

503. Safety Update On Certolizumab Pegol in Patients with Active Rheumatoid Arthritis with Long Term Exposure. Xavier Mariette1, RF. van Vollenhoven2, Vivian P. Bykerk3, Marc de Longueville4, Catherine Arendt5, Kristel Luijtens6 and John J. Cush2, 1Université Paris-Sud, Le Kremlin Bicetre, France, 2The Karolinska Institute, Stockholm, Sweden, 3Hospital for Special Surgery, New York, NY, 4UCB Pharma, Brussels, Belgium, 5UCB, Brussels, Belgium, 6Baylor Research Institute, Dallas, TX

Sjögren’s Syndrome - Pathogenesis

504. Pathogenic Autoantibodies to the Anti-Muscarinic Type 3 Receptor Act by Competitive Inhibition of Acetylcholine-Mediated Receptor Signalling in Sjögren’s Syndrome. Michael W. Jackson1, Isabell Bastian2 and Thomas P. Gordon1, 1Flinders University, Adelaide, Australia, 2Flinders University and Flinders Medical Centre, Adelaide, Australia, 3Flinders Medical Centre, Bedford Park, Australia

505. Characterization of an In Vitro Model of Human Salivary Gland for Studying Sjögren Syndrome (SS). M. Jesus Dominguez-Luis1, M. Teresa Arce-Franco1, Estefania Armas-Gonzalez1, Ada Herrera-Garcia1, Teresa Giraldez1, Pablo Miranda1, Diego Alvarez de la Rosa1, Jose Garcia-Verdugo1, Carlos Martinez-Jimeno1 and Federico Diaz-Gonzalez1, 1Rheumatology Service. Hospital Universitario de Canarias., La Laguna, Spain, 2School of Physiology, University of Santiago de Compostela, Spain, 3Cellular Morphology Laboratory, Centro de Investigación Príncipe Felipe., Valencia, Spain, 4Maxillofacial Department, Hospital Universitario de Canarias., La Laguna, Spain

506. Ebv-Mir-Bart13 Affects the Expression of AQP5 in Human Salivary Gland Cell Lines Contributing to the Pathogenesis of Sjögren’s Syndrome. Alessia Gallo1, Mayank Tandon2, Shyh-Ing Jang1, Hwei Ling Ong1, Indu Ambudkar3, Gabor G. Illei1 and Ilia Alevizos1, 1NIDCR, Bethesda, MD, 2NIDCR/ NIH, Bethesda, MD, 3NIDCR/ NIH #10 1N110, Bethesda, MD

507. Expression of Micrornas (miRNAs) Predicted to Target Ro/SSA and La/SSB Autoantigens in Sjögren’s Syndrome (SS). Vasiliki C. Gouri1, Efthasia K. Kapsogeorgou1, Nikolaos C. Kyriakidis1, Menelaos N. Manoussakis1, Haralampos M. Moutsopoulos1 and Athanasios G. Tzioufas2, 1School of Medicine, National University of Athens, Greece, Athens, Greece
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Greece, 2 School of Medicine, University of Athens, Athens, Greece, 3 School of Medicine, National University of Athens, Athens, Greece

508. TLR3-Signaling Induces the Expression of Ro/SSA and La/SSB Autoantigens in Salivary Gland Epithelial Cells (SGECs). Nikolaos C. Kyriakidis1, Efstatia K. Kapsogeorgou1, Vasiliiki C. Gourzi1, Haralampos M. Moutsopoulos1 and Athanasios G. Tzioufas1, 1 School of Medicine, National University of Athens, Athens, Greece, 2 School of Medicine, University of Athens, Athens, Greece, 3 School of Medicine, National University of Athens, Athens, Greece

509. IL-7 and Toll-Like Receptor 7 Synergistically Increase Th1/Th17/Th22 Cytokine Secretion and Activity of B Cells. A. Bikker1, A.A. Kruize1, F. Redegeld4, W. de Jager4, F.P.J.G. Lafeber1 and J.A.G. van Roon1, 1 University of Groningen, Groningen, Netherlands, 2 Dept. Immunology, UMC Utrecht, Utrecht, Netherlands, 3 Dept. Pharmacology UU, Utrecht, Netherlands, 4 Dept. Immunology, UMC Utrecht, Utrecht, Netherlands

510. IL-7 and IL-7 Receptor Blockade to Selectively Inhibit TLR7-Induced B Cell Activation in Primary Sjögren’s Syndrome. A. Bikker1, C.R. Willis2, A.A. Kruize1, J.W.J. Bijlsma2, F.P.J.G. Lafeber1 and J.A.G. van Roon1, 1 University of Medical Center Utrecht, Utrecht, Netherlands, 2 Amgen Inc., Seattle, WA

511. A New Pathogenic Role of Salivary Gland Epithelial Cells in the Costimulation of T Lymphocytes in Primary Sjögren’s Syndrome: OX40 Ligand Expression, T-Cell Induction of OX40 and Promotion of T-Cell Survival, Proliferation and Activation. Yazhuo Gong, Ghada Alsaleh, Jean Sibilia and Jacques-Eric Gottenberg, EA4438 Laboratoire Physiopathologie des Arthrites, Illkirch-Strasbourg, France

512. Memory B Cell Phenotypic and Gene Expression Profiling in Primary Sjögren’s Syndrome: Implications for Disease Diagnosis. Mustimbo E. P. Roberts1, Craig Maguire1, Alex Rosenberg2, andreaa Coca3, Jennifer H. Anolik2 and Inaki Sanz2, 1 University of Rochester School of Medicine and Dentistry, Rochester, NY, 2 University of Rochester, Rochester, NY, 3 Univ of Rochester, Rochester, NY, 4 Rochester, Rochester, NY


514. Frequencies and Numbers of Circulating IL-10 Producing Regulatory B Cells Are Not Disturbed in PSS-Patients but Correlate Negatively with the EULAR Sjögren Syndrome Disease Activity Score (ESSDAI). Wayel H. Abdulahad, Gwenny Verstappen, Arjan Vissink, Minke G. Huitema, Petra M. Meiners, Hendrika Bootsmma and Frans Kroese, University Medical Center Groningen, Groningen, Netherlands

515. Stages of Sjögren’s Syndrome Defined by Immune Mediators. Lakshmanan Suresh1, Julian Ambrus Jr.2 and Long Shen1, 1 IMMCO Diagnostics Inc., Amherst, NY, 2 State University of New York at Buffalo, Buffalo, NY, 3 SUNY at Buffalo, Buffalo, NY

516. Characterization of Dominant B- and Plasma Cell Clones in Patients with Primary Sjögren’s Syndrome and Patients with Sjicca Syndrome. Marieke E. Doersenspleet1, Erlin Haecke2, Paul L. Klarenbeek1, Annie Visser3, Rebecca E. Esvedt1, Fred Spijkervet3, Paul-Peter Tak1, Hendrika Bootsma1, Nieck de Vries1 and Frans Kroese1, 1 Academic Medical Center of the University of Amsterdam, Amsterdam, Netherlands, 2 University Medical Center Groningen, Groningen, Groningen, Netherlands, 3 University Medical Center Groningen, Groningen, Netherlands

517. Overexpression of BMP6 Is Associated with Loss of Salivary Gland Activity in Sjögren’s Syndrome Patients and Mice. Hongen Yin1, Javier Cabrera-Perez2, Zhennan Lai1, Drew Michael1, Melodie Weller1, Bill Swaim1, Noreen Rana1, Xibao Liu1, Ilias Alevizos2, Indu Ambudkar3 and John A. Chiorini1, 1 NIH/NIDCR, Bethesda, MD, 2 NIDCR / NIH #10 1N110, Bethesda, MD, 3 NIDCR, Bethesda, MD

518. Spontaneous Sialadenitis like Sjögren’s Syndrome in Orphan Nuclear Receptor γt (ROSyt) Transgenic Mice. Mana Iizuka1, Hiroto Tsuobi1, Hiromitsu Asashima1, Yuya Kondo1, Satoru Takahashi1, Isao Matsumoto1 and Takayuki Sumida1, 1 Department of Internal Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan, 2 Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan


520. Genetic Associations to Germinal Centre Formation in Primary Sjögren’s Syndrome. Tove Ragna Reksten5, Malin V. Jonsson1, Roland Jonsson1, Gunnel Nordmark1, Ilias Alevizos2, Indu Ambudkar3 and John A. Chiorini1, 1 Broegelmann Research Laboratory, the Gade Institute, University of Bergen, Bergen, Norway, 2 University of Bergen, Bergen, Norway, 3 University of California San Francisco, San Francisco, CA, 4 University of California, Berkeley, Berkeley, CA

521. Differences in Genome-Wide DNA Methylation Profiles across Multiple Cell and Tissue Types in Sjögren’s Syndrome (SS). Lindsey A. Criswell1, Diana Quach2, Hong L. Quach2, Emon Elboudwarej2 and Lisa F. Barcellos2, 1 University of California San Francisco, San Francisco, CA, 2 University of California, Berkeley, Berkeley, CA

522. Genetic Variation in the NCR3 Locus Is Associated with Anti-SSA/SSB Positive Primary Sjögren’s Syndrome in Scandinavian Samples. Gunnell Nordmark1, Maija-Leena Eloranta2, Per Eriksson2, Elke Theander3, Helena Forsblad-Eloranta2, Roald Omdal5, Marie Wahren-Herlenius3, Roland Jonsson2 and Lars Rönnblom2, 1 Rheumatology, Department of Medical Sciences, Uppsala University, Uppsala, Sweden, 2 Bergens Reumatikklinikk, University of Bergen, Bergen, Norway, 3 Rheumatology, Uppsala, Sweden, 4 Rheumatology, University of Bergen, Bergen, Norway, 5 Rheumatology, Department of Rheumatology and Clinical Immunology, University of Bergen, Bergen, Norway, 6 Genetics Department, University of Bergen, Bergen, Norway, 7 Rheumatology, Department of Rheumatology, University of Bergen, Bergen, Norway

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523. Use of Global Gene Expression Profiling to Characterize Sjögren’s Patients Who Underexpress Interferon-Inducible Genes. John A. Ice1, He Li2, Jennifer A. Kelly1, Indra Adrianto1, Stuart B. Glenn1, Kimberly S. Hefner2, Evan G. Vista3, Donald U. Stone4, Raj Gopalakrishnan5, Glen H. D. Houston2, David M. Lewis2, Michael Rohrer5, Pamela Hughes1, John B. Harley6, Courtney G. Montgomery7, James Chodosh8, James A. Lessard8, Juan-Manuel Anaya9, Barbara M. Segal10, Nelson L. Rhodus8, Lida Radfar5, Mark B. Frank1, R. Hal Scofield1, Christopher J. Lessard11 and Kathy Moser Sivils12, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK, 3University of Oklahoma Health Sciences Center, Oklahoma City, OK, 4University of Minnesota, Minneapolis, MN, 5University of Oklahoma Health Sciences Center, Oklahoma City, OK, 6University of Minnesota, Minneapolis, MN, 7Broegelmann Research Laboratory, the Gade Institute, University of Bergen, Bergen, Norway, 8Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 9Universidad del Rosario-Corporacion para Investigaciones Biologicas, Bogota, Colombia, 10Hennepin County Medical Center, Minneapolis, MN, 11Oklahoma Medical Research Foundation, Oklahoma City, OK, 12Hennepin County Medical Center, Minneapolis, MN

524. RNA-Sequencing Identifies Novel Differentially Expressed Coding and Non-Coding Transcripts in Sjögren’s Syndrome. Indra Adrianto1, Graham B. Wiley1, John A. Ice1, He Li2, Jennifer A. Kelly1, Astrid Rasmussen1, Stuart B. Glenn1, Kimberly Hefner2, Donald U. Stone4, Raj Gopalakrishnan5, Glen D. Houston2, David M. Lewis2, Michael Rohrer5, James A. Lessard8, Juan-Manuel Anaya9, Barbara M. Segal10, Nelson L. Rhodus8, Lida Radfar5, Mark B. Frank1, R. Hal Scofield1, Christopher J. Lessard11 and Kathy Moser Sivils12, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK, 3University of Oklahoma Health Sciences Center, Oklahoma City, OK, 4University of Minnesota, Minneapolis, MN, 5University of Oklahoma Health Sciences Center, Oklahoma City, OK, 6University of Minnesota, Minneapolis, MN, 7Broegelmann Research Laboratory, the Gade Institute, University of Bergen, Bergen, Norway, 8Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 9Universidad del Rosario-Corporacion para Investigaciones Biologicas, Bogota, Colombia, 10Hennepin County Medical Center, Minneapolis, MN, 11Oklahoma Medical Research Foundation, Oklahoma City, OK, 12Hennepin County Medical Center, Minneapolis, MN

525. Gene Expression Profiling in a Large Cohort of Europeans with Sjögren’s Syndrome Reveals Candidate Genes in Viral, Immune, and Interferon-Related Pathways. He Li1, John A. Ice2, Jennifer A. Kelly3, Indra Adrianto1, Stuart B. Glenn4, Kimberly S. Hefner5, Evan G. Vista6, Donald U. Stone7, Raj Gopalakrishnan8, Glen D. Houston2, David M. Lewis2, Michael Rohrer5, Pamela Hughes1, John B. Harley6, Courtney G. Montgomery7, James Chodosh8, James A. Lessard9, Juan-Manuel Anaya9, Barbara M. Segal10, Nelson L. Rhodus8, Lida Radfar5, Mark B. Frank1, R. Hal Scofield1, Christopher J. Lessard11 and Kathy Moser Sivils12, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK, 3University of Oklahoma Health Sciences Center, Oklahoma City, OK, 4University of Minnesota, Minneapolis, MN, 5University of Oklahoma Health Sciences Center, Oklahoma City, OK, 6University of Minnesota, Minneapolis, MN, 7Broegelmann Research Laboratory, the Gade Institute, University of Bergen, Bergen, Norway, 8Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 9Universidad del Rosario-Corporacion para Investigaciones Biologicas, Bogota, Colombia, 10Hennepin County Medical Center, Minneapolis, MN, 11Oklahoma Medical Research Foundation, Oklahoma City, OK, 12Hennepin County Medical Center, Minneapolis, MN

526. Use of a Novel Probe to Demonstrate Granzyme B Activity in Sjögren’s Syndrome Salivary Glands. Kimberly Doering Maurer1, Laura Gutierrez-Alamillo2, Efstathia K. Kapsogeorgou2, Athanasios G. Tzioufas2, Livia Casciola-Rosen3 and Antony Rosen4, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2School of Medicine, National University of Athens, Greece, Athens, Greece, 3School of Medicine, National University of Athens, Athens, Greece, 4Johns Hopkins University, Baltimore, MD, 5The Johns Hopkins University, Baltimore, MD

527. Multiplexed Nanestring Screening for Salivary Gland Viral Elements in Sjögren’s Syndrome. Kristin Haffizulla1, Glen Barber1, Juan Chen2 and Eric L. Greidinger3, 1University of Miami Miller School of Medicine, Miami, FL, 2The First Affiliated Hospital of Xiamen University, China, Miami, FL, 3University of Miami, Miami, FL

528. Mxa As a Biomarker for Systemic Interferon Type I Activation in Primary Sjögren’s Syndrome. Naomi l. Maria1, Zana Brkic1, Matti Waris2, Cornelia G. van Helden-Meeuwsen1, Kim Heezen1, Joop P. van de Merwe1, Paul L. van Daele1, Virgil A. Dalm1, Hemmo A. Drexhage1 and Marjan A. Versnel1, 1Erasmus Medical Center, Rotterdam, Netherlands, 2University of Turku, Turku, Finland

529. The Axis P2X7 Receptor-Inflammasome: A Role in Modulating Inflammatory Response in Primary Sjögren’s Syndrome? Chiara Baldini1, Chiara Rossi2, Eleonora Santini1, Francesco Ferro1, Alessia Gallo1, Daniela Martini1, Francesca Sernissi1, Valentina Donati1, Camillo Giacomelli1, 1University of Rome La Sapienza, Rome, Italy, 2University of Pavia, Pavia, Italy, 3University of Padua, Padua, Italy
Spondylarthropathies and Psoriatic Arthritis: Clinical Aspects and Treatment

S100A8/A9 Is Upregulated and Triggers the Secretion of Pro-Inflammatory Cytokines in Primary Sjögren’s Syndrome. Laura Weichselbaum1 and Muhammad S. Soyfoo2. 1Department of rheumatology, Hôpital Erasme, Brussels, Belgium, 2Hôpital Erasme, Université Libre de Bruxelles, Brussels, Belgium

The Association of alpha7 Nicotinic Acetylcholine Receptor Polymorphisms with Psoriatic Arthritis and Its Interaction with Smoking. Lihi Eder1, Vinod Chandran2, Fawnda Pellett3, Remy Pollock2, Fatima Abji2, Sutharshini Shanmugarajah2, Cheryl Rosen2 and D. D. Gladman2, 1Carmel Medical Center, Haifa, Israel, 2Toronto Western Hospital and University of Toronto, Toronto, ON, 3Columbia University, New York, NY

The Prediction of Reduced Work Productivity in Patients with Psoriatic Arthritis. Anjali Papneja1, Matthew Kennedy2, Arane Thavaneswaran3, Daniel Pereira3, Vinod Chandran2 and Dafna D. Gladman2, 1Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, 2INIBIC-Hospital Universitario A Coruña, A Coruña, Spain, 3University of Toronto, Toronto, ON, 4University of Toronto, Toronto, ON, 5Toronto Western Hospital and University of Toronto, Toronto, ON, 6Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, 7Swedish Medical Center, Seattle, WA, 8Stanford University, Portola Valley, CA, 9NIHR Leeds Biomedical Research Unit, University of Leeds and Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, 10Leeds

Psoriasis and Psoriatic Arthritis in a Diverse Ethnic Cohort. Gail S. Kerr1, Seema Qaiyum2, John S. Richards3, Chesahna Kindred4, Sean A. Whelton5 and Florina M. Constantinescu6, 1Washington DC VAMC, Georgetown and Howard University, Washington, DC, 2Washington DC VA and Georgetown University, Washington, DC, 3Howard University Hospital, Washington, DC, 4Georgetown University, Washington, DC, 5Washington Hospital Center, Washington, DC

ACR POSTER SESSION A
542. Validation of a Reference Imaging Module for Calibration of Readers Scoring with the Modified Stoke Ankylosing Spondylitis Spine Score. Walter P. Maksymowych1, Thomas J. Learch2, Robert GW Lambert1, Michael M. Ward1, Nigel Haroon1, David Salonen1, Robert D. Inman1 and Michael H. Weisman1, 1University of Alberta, Edmonton, AB, 2Cedars-Sinai, Los Angeles, CA, 3NIAMS/NIH, Bethesda, MD, 4University Health Network, Toronto Western Research Institute, University of Toronto, Toronto, ON, 5University Health Network, Toronto, ON, 6Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, 7Cedars-Sinai Medical Center, Los Angeles, CA

543. Wnt Pathway Inhibitors in Patients with Psoriatic and Rheumatoid Arthritis Treated with Anti-TNF Therapy. Agnes Szentpetery1, Harjit P. Bhatto2, Peter Antal-Szalmas2, Zoltan Szekanecz2 and Oliver M. FitzGerald1, 1Department of Rheumatology, St. Vincent’s University Hospital, Dublin, Ireland, 2Department of Laboratory Medicine, University of Debrecen, Medical and Health Science Center, Debrecen, Hungary, 3Department of Rheumatology, University of Debrecen Medical and Health Sciences Center, Debrecen, Hungary, 4Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

544. Anterior Chest Wall Pain in Recent Inflammatory Back Pain. Data From the DESIR Cohort. Daniel Wendling1, Clément Prati1, Christophe Demattei1, Damien Loeuille1, P. Richette1, Maxime Dougdous1, Minjoo University Hospital, Besancon, France, 2CHU J Minjoo, Besancon, France, 3CHU, Nimes, France, 4CHU Brabois, Vandoeuvre les Nancy, France, 5Hôpital Lariboisière, Paris, France, 6Paris-Descartes University, APHP, Cochin Hospital, Paris, France

545. Correlates of Inflammatory Back Pain in a Nationally Representative Sample of the US Population. Shervin Assassi1, Michael H. Weisman2, Zhongxue Chen3, Mohammad Rahbar1, Daniel O. Clegg1, Robert A. Colbert4, Atul A. Deodhar5, Laurie M. Savage6, Tiffany Graham1, 1University of California, San Francisco, San Francisco, CA, 2Oregon Health and Sciences University, Portland, OR, 3University of Alabama at Birmingham, Birmingham, AL, 4Hospital La Paz, Madrid, Spain, 5Hospital Universitario La Paz, Madrid, Spain, 6Oregon Health & Science University, Portland, OR

546. The Immunogenicity to the First Anti-TNF Therapy Determines the Outcome of Switching to a Second Anti-TNF in Spondyloarthritis Patients. Chamaida Plasencia1, Dora Pascual-Salcedo, Sara Garcia-Carazo1, Gema Bonilla1, Leticia Lojo1, Laura Nuño1, Alejandro Villalba1, Diana Peiteado1, Concepcion Castillo-Gallego Jr.1, Florencia Arribas2, Daniel Nagore2, E. Martín-Mola2 and Alejandro Balsa2, 1Rheumatology Unit, 2Hospital La Paz, Madrid, Spain, 3Hospital Universitario La Paz, Madrid, Spain, 4Hospital La Paz, Madrid, Spain

547. Comparison and Validation of Screening Questionnaires for Psoriatic Arthritis in Patients with Psoriasis. Devy Zisman7, Lihi Eder1, Bosmat Zamir1, Arie Laor2 and Joy Feld3, 1Carmel Medical Center, Haifa, Israel, 2Clalit Health Services, Haifa and Western Galilee District, Haifa, Israel

548. Assessment of the T1-Weighted Sequence Is Essential in Defining a Positive MRI Scan of the Sacroiliac Joints in Spondyloarthritis. Ulrich Weber1, Veronika Zubler1, Susanne Juhl Pedersen2, Kaspar Rufibach3, Robert GW Lambert4, Stanley Chan5, Mikkel Østergaard6 and Walter P. Maksymowych7, 1Balgrist University Hospital, Zurich, Switzerland, 2Glostrup Hospital, Copenhagen, Denmark, 3University of Zurich, Zurich, Switzerland, 4University of Alberta, Edmonton, AB, 5Copenhagen University Hospital at Glostrup, Glostrup, Denmark

549. A Randomized, Open-Label Study of Maintenance of Partial Remission with Naproxen Vs No Treatment: Results of the Infliximab As First Line Therapy in Patients with Early Active Axial Spondyloarthritis Trial. Part II. Joachim Sieper1, Jan Lenaerts2, Jürgen Wollenhaupt3, Vadim Mazurov4, L. Myasoutova5, Sung-Hwan Park6, Yeong W. Song7, Ruji Yao8, Denesh Chitkara9 and Nathan Vastesaeger10, 1Charité, University Medicine Berlin, Berlin, Germany, 2Reuma-instituut, Hasselt, Belgium, 3Schön-Klinik, Hamburg, Germany, 4St. Petersburg Medical Academy, St. Petersburg, Russia, 5Kazan State Medical University, Kazan, Russia, 6Catholic University of Korea, Seoul, South Korea, 7Seoul National University, Seoul, South Korea, 8MERCK Sharp and Dohme, Kenilworth, NJ, 9MERCK Sharp and Dohme, Brussels, Belgium

550. Differences in the Prevalence of Inflammatory Articular Disease in Psoriatic Patients, Applying Clinical, Ultrasound and/or Radiological Data. Implications in the Classification of Psoriatic Arthritis according to Caspar Criteria. Jose Luis Fernandez-Sueiro1, S. Pertega-Diaz2, JA Pinto and E. Gonzalez3, Complejo Hospitalario Universitario La Coruña, La Coruña, Spain

551. Prevalence of Enthesitis in Psoriatic Patients: Agreement between Clinical and Power Doppler Ultrasound Exploration and Its Implications for the Classification of Psoriatic Arthritis. Jose Luis Fernandez-Sueiro1, JA Pinto1, S. Pertega-Diaz2 and Carlos Fernandez-Lopez2, 1Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, 2INIBIC- Complejo Hospitalario Universitario La Coruña(CHUAC). Rheumatology Division., La Coruña, Spain

552. Simple Questions in the Dermatology Office May Reasonably Exclude, but Do Not Reliably Identify Psoriatic Arthritis Patients: Results From the Center of Excellence for Psoriasis and Psoriatic Arthritis. Neha Garg1, Atul A. Deodhar1, Benjamin Ehst1, Andrew Blauvelt1, Jennifer Ku1 and Brian Truong1, 1Oregon Health and Sciences University, Portland, OR, 2Oregon Health & Science University, Portland, OR
553. Identification of Axial Spondyloarthritis Among Patients with Chronic Back Pain in Primary Care – How Does Determination of HLA B27 Influence the Performance of Clinical Assessments of Inflammatory Back Pain? Annalina Braun1, Holger Gnann2, Ertan Saracabasi3, Joachim Grifka4, Uta Kiltz5, J. Schnittker1, Katrin Letschert6 and Juergen Braun1, 1Rheumazentrum Ruhrgebiet, Herne, Germany, 2Abteilung Biostatistik, GKM Gesellschaft für Therapieforschung mbH, München, Germany, 3University of Regensburg, Bad Abbach, Germany, 4Institut für angewandte Statistik Dr. Jörg Schnitker GmbH, Bielefeld, Germany, 5Abbott Inc., Wiesbaden, Germany

554. A Reduction in Ultrasound Synovitis Score Discriminates Between Clinical Responders and Non-Responders and Is Predictive for a Favourable Clinical Outcome in Early Psoriatic Arthritis. Axel P. Nigg1, Anna M. Malchus1, Joerg C. Prinz2, Mathias Gruenke1 and Hendrik Schulze-Koops3, 1Medizinische Klinik IV, University of Munich, Munich, Germany, 2Department of Dermatology, University of Munich, Munich, Germany

555. Performances of the ASAS Axial Spondyloarthritis Criteria for Diagnosis and Classification Purposes in Patients Visiting a Rheumatologist Because of Chronic Back Pain: The Declic Study. Anna Molto1, Simon Paternotte1, Denis Comet2, Cécile Hacquard-Bouder3, Martin Rudwaleit4, Pascal Claudepierre1, Désirée van der Heijde5 and Maxime Dougdos1, 1Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 2Axonal, Nanterre, France, 3Abbott France, Rungis, France, 4Endokrinologikum Berlin, Berlin, Germany, 5Université Paris Est, Laboratoire d’Investigation Clinique (LIC) EA 4393, AP-HP, Hôpital Henri-Mondor, Rheumatology department, Creteil, France, 6Leiden University Medical Center, Leiden, Netherlands

556. Eos Imaging Could Replace Conventional Computed Radiography for Ankylosis Assessment in Axial Spondyloarthritis. Anna Molto1, Veronique Freire2, Antoine Feydy2, Simon Paternotte1, Walter P. Maksymowych3, Mathilde Benhamou4, François Rannou4, Maxime Dougdos1 and Laure Gossec5, 1Rheumatology B Department, Paris-Descartes University, Cochin Hospital, Paris, France, 2Radiology B Department, Paris Descartes University, Cochin Hospital, APHP, Paris, France, 3University of Alberta, Edmonton, AB, 4University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 5Seattle Rheumatology Associates, Seattle, WA

557. Effect of Certolizumab Pegol On the Multiple Facets of Psoriatic Arthritis As Reported by Patients: 24 Week Patient Reported Outcome Results of a Phase 3 Double Blind Randomized Placebo-Controlled Study. Dafna D. Gladman1, Roy M. Fleischmann2, Geoffroy Coteur3, Franz Woltering4 and Philip Mease5, 1Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON, 2University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 3UCB Pharma, Brussels, Belgium, 4UCB Pharma, Monheim, Germany, 5Seattle Rheumatology Associates, Seattle, WA

558. Rapid Improvements in Patient Reported Outcomes with Certolizumab Pegol in Patients with Axial Spondyloarthritis, Including Ankylosing Spondylitis and Non-Radiographic Axial Spondyloarthritis: 24 Week Results of a Phase 3 Double Blind Randomized Placebo-Controlled Study. Joachim Sieper1, Alan J. Kivitz2, A.M. Van Tubergen1, Atul A. Deodhar3, Geoffroy Coteur4, Franz Woltering5 and Robert B. M. Landewé6, 1Charité University Medicine, Berlin, Germany, 2Maastricht University Medical Center, Maastricht, Netherlands, 3Oregon Health & Science University, Portland, OR, 4UCB Pharma, Brussels, Belgium, 5UCB Pharma, Monheim, Germany, 6Academic Medical Center/University of Amsterdam & Atrium Medical Center, Heerlen, Netherlands

559. Utility of Dual-Energy X-Ray absorptiometry Scanning and Risk of Osteoporosis in Ankylosing Spondylitis; A Prospective Study. Marina N. Magrey1 and Muhammad Asim Khan2, 1Case Western Reserve University School of Medicine at MetroHealth Medical Center, Cleveland, OH, 2CASE at MetroHealth Med Center, Cleveland, OH

560. Proteomic Profiling of Synovial Fluid Reveals Candidate Psoriatic Arthritis Biomarkers. Daniela Cretu1, Ihor Batruch2, Punit Saraon3, Dafna Gladman4, Fawnda Pellett5, Eleftherios Diamandis6 and Vinod Chandran7, 1Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, ON, 2Mount Sinai Hospital, Toronto, ON, 3Toronto Western Hospital and University of Toronto, Toronto, ON, 4The University of Alberta, Edmonton, AB, 5Centocor Inc., Malvern/Philadelphia, PA

561. Performance of Magnetic Resonance Imaging in Detection of Chronic Structural Changes in Sacroiliac Joints As Compared to Conventional X-Rays in Axial Spondyloarthritis. Denis Podubnyy1, Inna Gaydukova2, Hidrun Haibel3, In-Ho Song1 and Joachim Sieper1, 1Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 2Saratov State Medical University, Saratov, Russia

562. Prevalence and Predictors of Significant Liver Fibrosis in Methotrexate Treated Rheumatoid and Psoriatic Arthritis Patients Using Transient Elastography (fibroscan). WC Chan, ML Yip and CK Loo, Kwong Wah Hospital, Kowloon, Hong Kong

563. In Ankylosing Spondylitis, a Decrease in MRI Spinal Inflammation Predicts Improvement in Spinal Mobility Independently of Patient Reported Symptomatic Improvement. Pedro Machado1, Robert Landewé2, Jürgen Braun3, Xenofon Baraliakos1, Kay-Geert A. Hermann3, Benjamin Hsu4, Daniel Baker5 and Désirée van der Heijde6, 1Leiden University Medical Center, Leiden, Netherlands, 2Academic Medical Center, University of Amsterdam and Atrium Medical Center, Heerlen, Netherlands, 3Rheumazentrum Ruhrgebiet, Herne, Germany, 4Charité Medical School, Berlin, Germany, 5Centocor Inc., Malvern/Philadelphia, PA
575. Profiling of Response to Anti-TNFα Therapy by Serum Markers of Tissue Degradation End Products in Ankylosing Spondylitis Patients. Anne Sofie Siebühr¹, Anne C. Bay-Jensen², Morten Asser Karsdal¹, Efstathios Vassiliadis², Stephanie Wichuk³, Claus Christansen⁴ and Walter P. Maksymowych¹, ¹Nordic Bioscience, Herlev, Denmark, ²Nordic Bioscience A/S, Herlev, Denmark, ³University of Alberta, Edmonton, AB, ⁴CCBR, Ballerup, Denmark

576. Reference Intervals of Spinal Mobility Measures in Normal Individuals – the Mobility Study. Sofia Ramiro¹, Carmen Stolwijk², A.M. Van Tubergen³, Patrick Royston³, Désirée van der Heijde¹ and Robert Landewé¹, ¹Academic Medical Center, University of Amsterdam, The Netherlands and Hospital Garcia de Orta, Almada, Portugal, ²Maastricht University Medical Center, Maastricht, Netherlands, ³MRC Clinical Trials Unit, University College of London, London, United Kingdom, ⁴Leiden University Medical Center, Leiden, Netherlands, ⁵Academic Medical Center, University of Amsterdam and Atrium Medical Center, Heerlen, Netherlands

577. MRI of the Spine for Detection of Bone Spurs and Ankylosis in Patients with Ankylosing Spondylitis: Does MRI Offer Any Advantages Over Radiography? Susanne Juhl Pedersen¹, Mikkel Østergaard¹, Robert GW Lambert¹ and Walter P. Maksymowych¹, ¹Glostrup Hospital, Copenhagen, Denmark, ²University of Alberta, Edmonton, AB

578. Assessment of the Link between Inflammation and Fat Metaplasia in Patients with Spondyloarthritides On Non-Biological Therapy: A Long Term Magnetic Resonance Imaging Study. Zheng Zhao¹, Susanne Juhl Pedersen¹, Robert GW Lambert¹, Stephanie Wichuk³, Mikkel Østergaard¹ and Walter P. Maksymowych¹, ¹Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, Beijing, China, ²Glostrup Hospital, Copenhagen, Denmark, ³University of Alberta, Edmonton, AB, ⁴Copenhagen University Hospital at Glostrup, Glostrup, Denmark

579. Prevalence of Psoriatic Arthritis in Psoriasis Patients According to Newer Classification Criteria. Hernan Maldonado-Fico¹, Gustavo Citera¹, Ana Alba Porrini² and Jose A. Maldonado-Cocco², ¹Instituto de Rehabilitacion Psicofisica - Fundacion Reumatologica Argentina Dr. Osvaldo Garcia-Morteo, Buenos Aires, Argentina, ²Hospital Argerich, Buenos Aires, Argentina

580. Spondylarthritis and Psoriatic Arthritis - Pathogenesis, Etiology

581. Examining a Role for Th17 Regulation and Toll-Like Receptor Signaling in Psoriatic Arthritis. Fatima Abji, Remy Pollock, Fawnda Pellett, Vinod Chandran and Dafna D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

582. Proteomic Analysis of Synovial Tissue: A Unique Tool to Predict Response to Anti-TNF Alpha Therapy in Patients with Inflammatory Arthritis. Opeyemi S. Ademowo¹, Emily S. Collins¹, Cathy Rooney², A. W van Kuijk³, Danielle M. Gerlag³, Paul P. Tak⁴, Olivier M. FitzGerald⁵ and Stephen R. Pennington¹, ¹UCD Conway Institute of Biomolecular and Biomedical Research, University College Dublin, Dublin 4, Ireland, ²Academic Medical Centre/University of Amsterdam, Amsterdam, Netherlands, ³Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, ⁴St. Vincent’s University Hospital, Dublin, Ireland

583. Familial Aggregation and Heritability of Ankylosing Spondylitis in Taiwan: A Nationwide Population Study. Chang-Fu Kuo¹, Matthew J. Grainge², Lai-Chu See³, Kuang-Hui Yu⁴, Shue-Fen Luo⁵, Ana M. Valdes⁶, I-Jun Chou⁷, Weiya Zhang⁸ and Michael Doherty¹, ¹University of Nottingham, Nottingham, United Kingdom, ²Chang Gung University, Taoyuan, Taiwan, ³Chang Gung Memorial Hospital, Taoyuan, Taiwan, ⁴St. Thomas’ Hospital, King’s College London, London, United Kingdom

584. Association of Platelet Endothelial Cell Adhesion Molecule-1 and α1 Integrin Gene Polymorphisms with Uveits Development in Ankylosing Spondylitis. Seung Cheol Shim, Donghyuk Sheen, Mi Kyong Lim and Hyo Park, Eulji University Hospital, Daejeon, South Korea

585. Relative Overexpression of Membrane-Bound versus Soluble TNF in Human and Experimental Spondyloarthritides. Carmen Ambarus¹, Leonie M. van Duivenvoorde¹, Huriatul Masdar¹, Melissa N. van Tok¹, Paul P. Tak¹, Nataliya Yeremenko¹ and Dominique L. Baeten¹, ¹Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, ²Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands

586. High Prevalence of Anti-CD-74 Antibodies with Specificity for the Class II-Associated Invariant Chain Peptide in Patients with Axial Spondyloarthritides but Not in Controls. Xenofon Baraliakos¹, Niklas T. Baerlecken¹, Frank Heldmann¹, Torsten Witte² and Jürgen Braun², ¹Rheumazentrum Ruhrgebiet, Herne, Germany, ²MD, Hannover, Germany, ³Rheumazentrum Ruhrgebiet, Herne, Ghana, ⁴Hannover Medical School, Hanover, Germany

587. Changes in Sclerostin, Dickkopf-1 and Serum Markers of Inflammation, Cartilage and Bone Turnover in Patients with Axial Spondyloarthritis Treated with Adalimumab. Susanne Juhl Pedersen¹, Inge Juul Sørensen², Julia S. Johansen³, Patrick Garner⁴, Anne Gitte Loft⁴, Jens Skoedt⁴, Gorm Thamsborg⁴, Karsten Asmussen⁴, Elka Kluger⁴, Jesper Nørregaard⁴, Torben Grube Christensen⁵ and Mikkel Østergaard¹, ¹Glostrup Hospital, Copenhagen, Denmark, ²Hvidovre Hospital, Copenhagen, Denmark, ³Herlev Hospital, Herlev, Denmark, ⁴INSERM, Lyon, France, ⁵Sygehus Lillebaelt, Vejle, Copenhagen, Denmark, ⁶Gentofte Hospital, Copenhagen, Denmark, ⁷Bispebjerg Hospital, Copenhagen, Denmark, ⁸King Christian 10th Rheumatism Hospital at Gråsten, Denmark, ⁹Harsholm Hospital, Denmark, ¹⁰Slagelse Hospital, Slagelse, Denmark

588. Association of Platelet Endothelial Cell Adhesion Molecule-1 and α1 Integrin Gene Polymorphisms with Uveits Development in Ankylosing Spondylitis. Seung Cheol Shim, Donghyuk Sheen, Mi Kyong Lim and Hyo Park, Eulji University Hospital, Daejeon, South Korea

589. Relative Overexpression of Membrane-Bound versus Soluble TNF in Human and Experimental Spondyloarthritides. Carmen Ambarus¹, Leonie M. van Duivenvoorde¹, Huriatul Masdar¹, Melissa N. van Tok¹, Paul P. Tak¹, Nataliya Yeremenko¹ and Dominique L. Baeten¹, ¹Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, ²Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands

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587. **Brain MRI and Psychophysics Analysis Demonstrate Neuropathic Pain to Be a Component of Back Pain in Ankylosing Spondylitis.** Q. Wu1, R. D. Imman2 and Karen Davis1, 1Toronto Western Research Institute, Toronto, ON, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON

588. **Discovery of Two Public T Cell Receptor Clonotypes in B27+ Ankylosing Spondylitis by Deep Repertoire Sequence Analysis.** Malek Faham1, Victoria Carlton1 and R. D. Imman2, 1Sequenta, Inc., South San Francisco, CA, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON

589. **NGF and Trka: A Novel Therapeutic Target in Chronic Inflammation.** Siba P. Raychaudhuri1, Ananya Datta Mitra2 and Smriti K. Raychaudhuri1, 1VA Sacramento Medical Center, Mather, CA, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON

590. **The Association between KIR3DL1 Alleles and Psoriatic Arthritis.** Remy Rollroy, Jeffrey Berinstein, Arane Thavaneswaran, Fawnda Pellett, Dafna Gladman and Vinod Chandran, Toronto Western Hospital and University of Toronto, Toronto, ON

591. **Structural Progression of Ankylosing Spondylitis Associated with Elevation in Two NOVEL, Inflammatory Biomarkers; Matrix Metalloproteinase and Cathepsin-Derived.** Anne C. Bay-Jensen1, Morten Asser Karsdal1, Stephanie Wichuk2, Zheng Zhao3, Robert GW Lambert4, Per Qvist4 and Walter P. Maksymowycz5, 1Nordic Bioscience, Malling, Denmark, 2University of Alberta, Edmonton, AB, 3Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, 4Shanghai Medical Center of Rheumatology, Shanghai, China, 5Nordic Bioscience, Herlev, Denmark

592. **Two Novel Diagnostic Biomarkers of Cartilage Degradation and Connective Tissue Inflammation Are Predictive of Disease Progression in Ankylosing Spondylitis.** Anne C. Bay-Jensen1, Stephanie Wichuk1, Inger Bjyrjalsen1, Zheng Zhao2, Robert GW Lambert2, Morten Asser Karsdal3 and Walter P. Maksymowycz2, 1Nordic Bioscience A/S, Herlev, Denmark, 2University of Alberta, Edmonton, AB, 3Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, 4Shanghai Medical Center of Rheumatology, Shanghai, China

593. **DKK1 Serum Level Is Increased in Recent Spondyloarthritis and Is Associated with Higher Prevalence of Syndesmophytes.** Sclerostin Is Highly Correlated with Age. Data From the DESIR Cohort. Gaetane Nocturne1, Stephan Pavy2, Désirée van der Heijde1, Philippe M. Goupille1, Maxime Dougados2, Christian Roux3, Xavier Mariette4 and Corinne Miceli-Richard5, 1Université Paris Descartes, Paris, France, 2Université Paris Sud, Le Kremlin Bicêtre, France, 3Leiden University Medical Center, Leiden, Netherlands, 4Hôpital Trousseau, Tours, France, 5Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 9Paris Descartes University, Paris, France, 10Université Paris-Sud, Le Kremlin Bicêtre, France

594. **Evidence of Human Leucocyte Antigen-B27 in Healthy Individuals and Patients with Uveitis Is a Risk Factor for Alterations in Bone Metabolism.** Sarah Schmidt1, Stephanie Finzel2, Jürgen Rech3, Matthias Engbrecht4, Silke Winkler5, Isabel Schmidt5, Roula Said-Nahal6, Maxime A. Breban1 and Georg A. Schett7, 1University of Erlangen-Nuremberg, Erlangen, Germany, 2Ambroise Paré Hospital (AP-HP), and Versailles Saint Quentin en Yvelines University, Boulougne-Billancourt, France, 3Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

595. **A Genomewide Association Study of Anterior Uveitis.** Doroth Claushuis1, Adrian Cortes1, Linda A. Bradbury2, Tammy M. Martin3, James T. Rosenbaum4, John D. Reveille5, Paul Wordsworth6, Jennifer Pointon6, Australo-Anglo-American Spondyloarthritis Consortium7, David Evans7, Paul Leo7, Pamela Mukhopadhyay7 and Matthew A. Brown7, 1The University of Queensland Diamantina Institute, Brisbane, Australia, 2The University of Queensland Diamantina Institute, Brisbane, Australia, 3Oregon Health & Science Univ, Portland, OR, 4Oregon Health & Science University, Portland, OR, 5Univ of Texas Health Science Center at Houston, Houston, TX, 6Nuffield Orthopaedic Centre, Oxford, United Kingdom, 7Houston, TX, 8Bristol University, Bristol, United Kingdom

596. **Evolution of Atherosclerosis in Psoriatic Arthritis: Is the Former an Independent Inflammatory Process?** Roberta Ramonda1, Massimo Puato1, Valentina Modesti1, Mariagrazia Lorenzin2, Paola Frallaronalo1, Augusta Ortolani2, Carla Campana2, Alessandro Lo Nigro3 and Leonardo Punzi3, 1Unit of Rheumatology, University of Padova, Padova, Italy, 2Department of Internal Medicine, University of Padova, Padova, Italy, 3Rheumatology Unit - University of Padova, Padova, Italy

597. **Investigating the Genetic Association between ERAP1 and Spondyloarthritis.** Amir Kadi1, Brigitte Izac2, Roula Said-Nahal2, Ariane Leboime2, Kurt L. de Vlam3, Dirk Elewaout4, Gilles Chiocchia1 and Maxime A. Breban2, 1Institut Cochin - INSERM U1016 - CNRS (UMR 8104), Paris, France, 2Ambroise Paré Hospital (AP-HP), and Versailles Saint Quentin en Yvelines University, Boulgogne-Billancourt, France, 3University Hospitals Leuven, Leuven, Belgium, 4Ghent University Hospital, Ghent, Belgium

598. **The Non-Synonymous Polymorphism IL23R Arg381Gln Is Associated with Ankylosis in Spondyloarthritis.** Amir Kadi1, Félicie Costantino1, Brigitte Izac2, Ariane Leboime2, Roula Said-Nahal2, Gilles Chiocchia1 and Maxime A. Breban2, 1Institut Cochin - INSERM U1016 - CNRS (UMR 8104), Paris, France, 2Ambroise Paré Hospital (AP-HP), and Versailles Saint Quentin en Yvelines University, Boulgogne-Billancourt, France

599. **LIGHT (TNFSF14), Cathepsin K, DKK1 and Sclerostin in Ankylosing Spondylitis: Osteoclast/OSTEOLAST Imbalance Unrelated to Disease Activity and Effect of ANTI-TNFα Treatment On the WNT/β Catenin Pathway.** Alberto Cauili, Grazia Dessole, Giovanni Porru, Matteo
Systemic Lupus Erythematosus: Clinical Aspects


603. Cell Bound Complement Activation Products Are Associated with Disease Activity in Systemic Lupus Erythematosus. Kenneth C. Kalunian1, W. Winn Chatham2, Elena M. Massarotti3, Joyce Reyes-Thomas4, Richard Furie5, Jill P. Buyon6, Emily C. Somers7, Chaim Putterman8, Rachel L. Gross9, Kyriakos A. Kirou10, Rosalind Ramsey-Goldman11, Christine Hsieh12, Thierry Dervieux13 and A. Weinstein14, 1UCSD School of Medicine, La Jolla, CA, 2University of Alabama at Birmingham, Birmingham, AL, 3Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 4Albert Einstein College of Med, Bronx, NY, 5North Shore-LIJ Health System, Lake Success, NY, 6New York University School of Medicine, New York, NY, 7University of Michigan, Ann Arbor, MI, 8Albert Einstein College of Medicine, Bronx, NY, 9Albert Einstein College of Medicine, New York, NY, 10Hospital for Special Surgery, New York, NY, 11Northwestern University Feinberg School of Medicine, Chicago, IL, 12University of Chicago, Chicago, IL, 13Exagen Diagnostics, Albuquerque, NM, 14Washington Hospital Center, Washington, DC

604. Comparing the ACR and the SLICC Criteria for the Classification of SLE Patients Using Data from an Existing Multi-Ethnic Cohort. Graciela S. Alarcon1, Gerald McGwin Jr.2, Larry Madger3 and Michelle Petri4, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Maryland, Baltimore, MD, 3Johns Hopkins University School of Medicine, Baltimore, MD

605. Increased Incidence of Herpes Zoster Among Patients with Systemic Lupus Erythematosus. Eliza F. Chakravarty1, Kyle Michaud2, Robert S. Katz3 and Frederick Wolfe4, 1Oklahoma Medical Research Foundation, Oklahoma City, CA, 2National Data Bank for Rheumatic Diseases & University of Nebraska Medical Center, Omaha, NE, 3Rush University Medical Center, Chicago, IL, 4National Data Bank for Rheumatic Diseases, Wichita, KS

606. Risk Factors Associated with Cervical Human Papillomavirus Infection in Women with Systemic Lupus Erythematosus: The Role of Rituximab. Mario Garcia-Carrasco1, Claudia Mendoza Pinto1, Alejandro Taboada-Cole1, Verónica Vallejo-Ruiz2, Julio Reyes-Leyva3 and Aurelio Lopez-Colombo4, 1HGR 36 CMN Manuel Ávila Camacho, Instituto Mexicano del Seguro Social, Puebla, Mexico, 2Centro de Investigación Biomédica de Oriente, Instituto Mexicano del Seguro Social, Hospital General de Zona No. 5, Puebla, Mexico, 3Delegación Estatal, Instituto Mexicano del Seguro Social, Puebla, Mexico

607. Activity Index after Renal Failure in a Cohort of 32 Patients with Lupus Nephritis. Cristina Gonzalez-Pulido1, Sara Croca2 and D.A. Isenberg1, 1University Hospital Virgen del Rocio, Seville, Spain, 2University College of London, London, United Kingdom, 3University College of London, London, United Kingdom


609. Peripheral Neuropathy in Systemic Lupus Erythematosus. Amin Oomata1, Hong Fang2, Michelle Petri3 and Julius Birnbaum4, 1University of Cambridge, Cambridge, United Kingdom, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3Johns Hopkins University, Baltimore, MD

610. B Lymphocyte Stimulator Levels Are Higher in Caucasian SLE Patients Earlier in Disease Course and Predict Damage Accumulation. Eoghan M. McCarthy1, Ruth Lee1, Joan Ni Gabhann2, Siobhan Smith3, Michele Doran3, Gaye Cunnane3, Donough G. Howard1, Paul G. O’Connell4, Grainne M. Kearns1 and Caroline Jeffreys2, 1Beaumont Hospital, Dublin, Ireland, 2Royal College of Surgeons in Ireland, Dublin, Ireland, 3St. James Hospital, Dublin, Ireland

611. Impaired Diffusion Tensor Imaging Findings in the Corpus Callosum and Cingulum May Underlie Impaired Learning and Memory Abilities in Systemic Lupus Erythematosus. Daphna Paran1, Elissa Ash1, Ira Litinsky1, Valerie Aloush1, Marina Anouk1, Dan Caspi2, Talma Hendler2 and Irit Shapiro-Lighter1, 1Tel Aviv Sourasky Medical Ctr, Tel-Aviv University, Tel Aviv, Israel, 2Tel Aviv, Israel, 3Tel-Aviv Sourasky Medical Ctr, Tel-Aviv University, Tel Aviv, Israel
612. Thrombosis Recurrence in Systemic Lupus Erythematosus Patients with and without Antiphospholipid Antibodies. Ibrahim AllHomood, D. D. Gladman, Dominique Ibanez and Murray B. Urowitz, Toronto Western Hospital and University of Toronto, Toronto, ON

613. Serum Level of Syndecan-1 Is Associated with Disease Activity in Patients with Systemic Lupus Erythematosus. In-Woon Baek¹, Ki-Jo Kim¹, Ji-Young Kim¹, Su-Jung Park¹, Chong-Hyeun Yoon¹, Wan-Uk Kim¹ and Chul Soo Cho¹, ¹Internal medicine, Catholic University of Korea, College of Medicine, Seoul, South Korea, ²College of Medicine, Catholic University of Korea, Seoul, South Korea, ³Research Institute of Bone & Joint Diseases, Catholic University of Korea, Seoul, South Korea, ⁴College of Medicine, The Catholic University of Korea, Seoul, South Korea, ⁵New York University School of Medicine, Baltimore, MD, ⁶Hospital Clínic of Barcelona, Barcelona, Spain

614. Predictors of Systemic Lupus Erythematosus Flares: Baseline Disease Activity and Demographic Characteristics from the Combined Placebo Groups in the Phase 3 Belimumab Trials. Ronald F. van Vollenhoven¹, Michelle A. Petri², Roger A. Levy³, Sandra V. Navarra⁴, Jill P. Buynon⁵, Z. John Zhong⁶, William W. Freimuth⁶ and Ricard Cervera⁷, ¹Karolinska University Hospital, Stockholm, Sweden, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³Univ Estado Do Rio De Janeiro, Rio de Janeiro, Brazil, ⁴University of Santo Tomas Hospital, Manila, Philippines, ⁵New York University School of Medicine, New York, NY, ⁶Human Genome Sciences, Inc., Rockville, MD, ⁷Hospital Clinic of Barcelona, Barcelona, Spain

615. Baseline Laboratory Characteristics From the Combined Placebo Groups in the Phase 3 Belimumab Trials Are Predictive of Severe Flare At 52 Weeks. Michelle A. Petri², Ronald F. van Vollenhoven¹, Roger A. Levy³, Sandra V. Navarra⁴, Jill P. Buynon⁵, Z. John Zhong⁶, William W. Freimuth⁶ and Ricard Cervera⁷, ¹Karolinska University Hospital, Stockholm, Sweden, ²Johns Hopkins University School of Medicine, Baltimore, MD, ³University of Santo Tomas Hospital, Manila, Philippines, ⁴Hospital Universitario Pedro Ernesto, Rio de Janeiro, Brazil, ⁵Universidade de Santo Tomas Hospital, Manila, Philippines, ⁶Hospital Clinic, Barcelona, Spain, ⁷Human Genome Sciences, Inc., Rockville, MD, ⁸New York University School of Medicine, New York, NY

616. Bioavailability, Pharmacokinetics, and Safety of Belimumab Administered Subcutaneously in Healthy Subjects. Wendy Cai¹, Cecil Chen¹, Z. John Zhong¹, William W. Freimuth¹, William Lewis² and David Subich¹, ¹Human Genome Sciences, Inc., Rockville, MD, ²Covance Clinical Research Unit Inc., Dallas, TX, ³Covance Clinical Research Unit, Inc., Daytona Beach, FL

617. Soluble Urokinase Plasminogen Activator Receptor (suPAR) Levels Reflect Organ Damage in Systemic Lupus Erythematosus. Helena Encosson¹, Jonas Wetterö², Thomas Skogh² and Christopher Sjöwall³, ¹Linköping University, Linköping, Sweden, ²Linköping University, Linköping, Sweden, ³Linköping University, Linköping, Sweden

618. BAFF/BLyS Gene Expression Predicts Disease Activity in Systemic Lupus Erythematosis Over One Year. Eric Zollars¹, Hong Fang², Jadwiga Bienkowska², Norm Allaire³, Susan Kalled³ and Michelle Petri³, ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Biogen Idec Inc., Cambridge, MA

619. Elevated Plasma Levels of CXCL1² and CXCL10 Have Distinct Predictive Value in Systemic Lupus Erythematosus. Felipe andraede¹, Ehtisham Akhter¹, Hong Fang² and Michelle Petri³, ¹The Johns Hopkins University School of Medicine, Baltimore, MD, ²Johns Hopkins University School of Medicine, Baltimore, MD

620. Development of A Quantitative PCR Method to Determine Interferon Signature Metabolic Status in SLE Patients: Distribution and Clinical & Serological Associations in Two Lupus Clinical Trials. Bruce C. Richardson¹, William P. Kennedy², John C. Davis Jr.¹, R. Maciuca², A. Morimoto², J. M. McBride³, Alexander R. Abbas⁴, Timothy W. Behrens¹ and Michael J. Townsend⁵, ¹University of Michigan, Ann Arbor, MI, ²Genentech, Inc, South San Francisco, CA

621. Prolonged Improvement of Systemic Lupus Erythematosus Following Systematic Administration of Rituximab and Cyclophosphamide. Thomas J. A. Lehman¹, Emily Baird², Anusha Ramanathan³, Risa Alperin¹, Emma J. MacDermott¹, Alex B. Adams³, Laura V. Barinstein³ and Lakshmi N. Moorthy³, ¹Hosp for Special Surgery, New York, NY, ²Hospital for Special Surgery, NY, ³Hospital for Special Surgery, New York, NY, ⁴Maimonides Medical Center, Brooklyn, NY, ⁵Robert Wood Johnson-UMDNJ, New Brunswick, NJ


623. Endothelial Microparticites As A Biomarker for Endothelial Dysfunction in Active Systemic Lupus Erythematosus. Ben Parker¹, Awal Zaki², M. Yvonne Alexander³ and Ian N. Bruce⁴, ¹Arthritis Research UK Epidemiology Unit., Manchester, United Kingdom, ²Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, ³The University of Manchester, Manchester, United Kingdom, ⁴Arthritis Research UK Epidemiology Unit and NIHR Manchester Musculoskeletal Biomedical Research Unit, Manchester, United Kingdom

624. Excess Health Care Utilization Prior to Diagnosis of Systemic Lupus Erythematosus in England. Amy Steffey¹, Trung N. Tran¹, Jie Li² and Herve Caspard³, ¹MedImmune, Gaithersburg, MD, ²MedImmune LLC, Gaithersburg, MD

625. Control of Hypertension and Hypercholesterolemia Is Not Associated with a Decreased Rate of Atherosclerotic Vascular Events in Patients with Systemic Lupus Erythematosus. Joanna Ueng, D. D. Gladman, Dominique
626. The Interferon Alpha Gene Signature Is Not Associated with nor Does It Predict Progression of Coronary Artery Calcium (CAC) or Carotid Intima-Media Thickness (IMT) in Systemic Lupus Erythematosus (SLE). Adnan Kiani, Hong Fang, Jie Xu, Ehtisham Akhter and Michelle Petri, Johns Hopkins University School of Medicine, Baltimore, MD

627. Zostavax Vaccine Is Safe in Lupus Patients with Low Disease Activity. Eliza F. Chakravarty1, Joel M. Guthridge2, Joan T. Merrill3, Abigail Cogman2, Tiny Powe2, Virginia C. Roberts1 and Judith A. James3. 1Oklahoma Medical Research Foundation, Oklahoma City, CA, 2Oklahoma Medical Research Foundation, Oklahoma City, OK, 3OMRF, Oklahoma City, OK, 4OMRF, Oklahoma City, Oklahoma University Health Sciences Center, Oklahoma City, OK

628. Urinary Heparanase Activity Is Elevated in Patients with Lupus Nephritis and Correlate with Protein Excretion. Ki-Jo Kim1, In-Woon Baek1, Chong-Hyeun Yoon2, Wan-Uk Kim3 and Chul-Soo Cho4. 1College of Medicine, The Catholic University of Korea, Seoul, South Korea, 2College of Medicine, The Catholic University of Korea, Seoul, South Korea, 3College of Medicine, The Catholic University of Korea, Suwon, South Korea

629. Inflammatory Biomarkers of Atherosclerosis and Oxidative Stress Are Associated with Disease Flare in SLE. Maureen A. McMahon1, Jennifer M. Grossman1, Brian Skaggs1, Elaine Lourenco1, Cheryl Lee1, Lori Sahakian1, John D. FitzGerald1, Christina Charles-Schoeman2, Alan H. Gorn1, George A. Karpouzas3, Michael H. Weisman4, Daniel J. Wallace5, Weiling Chen1, and Beijing H. Hahn1. University of Medicine, Baltimore, MD, 1University of California, Los Angeles, CA, 2Harbor-UCLA Medical Center, Torrance, CA, 3Cedars-Sinai Medical Center, Los Angeles, CA

630. Risk Factors Associated with Early Central Nervous System Damage Detected Through Diffusion Tensor Imaging (DTI) in Patients with Systemic Lupus Erythematosus. Paolo Tomietto1, Federica Casagrande2, Maja Ukmar1, Luca Weis1, Pia Morassi3, Rita Moretti4, Gianni Biolo2, Carlo Giansante2 and Maria Assunta Cova1. 1AOU Ospedali Riuniti, Trieste, Italy, 2AOU Ospedali Riuniti, Trieste, Italy, 3University of Trieste, Trieste, Italy, 4University of Trieste, Trieste, Italy

631. Peripheral Neuropathy Due to Systemic Lupus Erythematosus (SLE) Itself: Incidence, Disease Risk Factors and Outcome. Simone Fargetti1, Samuel K. Shinjo2, Sandra G. Pasoto1, Ana L. Calich1, Eloisa Bonfa1 and Eduardo F. Borba1. 1University of Sao Paulo, Sao Paulo, Brazil, 2Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo, Brazil, 3University of Sao Paulo, Sao Paulo, Brazil

632. The Effects of Co-Existing Proliferative Histopathology on Membranous Lupus Nephritis. Jennifer L. Graybill, Catarina Vila-Inda, Chaim Puttermann and Irene Blanco, Albert Einstein College of Medicine, Bronx, NY

633. Missed Work Days in Systemic Lupus Erythematosus. Jie Xu, Hong Fang and Michelle Petri, Johns Hopkins University School of Medicine, Baltimore, MD

634. Adherence to Adult Treatment Panel III Guidelines for Systemic Lupus Patients. Matthew Basiaga and Lisabeth Scalzi, Penn State Univer/ Hershey, Hershey, PA

635. Elevated Transglutaminase Levels On Microparticles From Systemic Lupus Erythematosus Patients. Leslie Harris, Ratnesh Chopra, Ann K. Rosenthal and Mary E. Cronin, Medical College of Wisconsin, Milwaukee, WI

636. Retrospective Study of Allogenic Mesenchymal Stem Cells Transplantation in Active and Refractory Lupus Nephritis for Induction Therapy. Lingyun Sun, Dandan Wang, Xia Li and Huayong Zhang, Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China

637. Anti-Mullerian Hormone and Ovarian Reserve in Systemic Lupus Erythematosus. Chi Chiu Mok1, Pak To Chan2 and Chi Hung To2. 1Tuen Mun Hospital, Hong Kong, Hong Kong, 2Hong Kong, Hong Kong

638. The Progression of Brain MRI Biomarker of Cognitive Impairment (White Matter Hyperintensity) in Systemic Lupus: A Clinical and Imaging Longitudinal Study. Jamal Mikkadhi and Umran Ashraf, University of Maryland School of Medicine, Baltimore, MD

639. Safety and Efficacy of Epratuzumab in an Open-Label Extension Study (SL0006). K. Hobbs1, D.J. Wallace2, V. Strand3, K. Kalunian4, B. Kilgallen5, S. Bongardt6, W.A. Wegener7 and D.M. Goldenberg8. 1Denver Arthritis Clinic, Denver, CO, 2Cedars-Sinai Medical Center, Los Angeles, CA, 3Stanford University, Palo Alto, CA, 4UCSD School of Medicine, La Jolla, CA, 5UCB Pharma, Smyrna, GA, 6UCB Pharma, Brussels, Belgium, 7Immunomedics Inc, Morris Plains, NJ

640. Association of Body Weight with Cardiovascular Events in Systemic Lupus Erythematosus. George Stojan1, Homa Timlin2, Hong Fang3, Laurence S. Magder3 and Michelle Petri3. 1Johns Hopkins University School of Medicine, Baltimore, MD, 3West Drayton, United Kingdom, 4University of Maryland, Baltimore, MD

641. Study of Anti-Müllerian Hormone and Probability of Pregnancy in 112 Systemic Lupus Erythematosus Patients Exposed or Not to Cyclophosphamide. Nathalie Morel3, Anne Bachelot1, Zeina Chakhtoura1, Zahir Amoura1, Olivier Aumuire2, Jean-Emmanuel Kahn3, Olivier Lambotte8, Véronique Le Guern9, Jean-Charles Duhaut4, Dominique Farge5, Camille Francès3, Lionel Galicier6, Gaëlle Guettrot-Imbert7, Jean-Robert Harlé7, D.M. Goldenberg7, 1Denver Arthritis Clinic, Denver, CO, 2Cedars-Sinai Medical Center, Los Angeles, CA, 3Stanford University, Palo Alto, CA, 4UCSD School of Medicine, La Jolla, CA, 5UCB Pharma, Smyrna, GA, 6UCB Pharma, Brussels, Belgium, 7Immunomedics Inc, Morris Plains, NJ

642. Study of Anti-Müllerian Hormone and Probability of Pregnancy in 112 Systemic Lupus Erythematosus Patients Exposed or Not to Cyclophosphamide. Nathalie Morel3, Anne Bachelot1, Zeina Chakhtoura1, Zahir Amoura1, Olivier Aumuire2, Jean-Emmanuel Kahn3, Olivier Lambotte8, Véronique Le Guern9, Jean-Charles Duhaut4, Dominique Farge5, Camille Francès3, Lionel Galicier6, Gaëlle Guettrot-Imbert7, Jean-Robert Harlé7, Olivier Lambotte6, Véronique Le Guern6, Jean-Charles Pierre1, Jacques Pourrat1, Karim Sacre2, Damien Sene3, Salim Trad1, Elisabeth Vidal1, Lamiae Grimaldi1, Christiane Coussieu1, Nathalie Cdestoet-Chalumeau1 and PLUS2, 1Groupe Hospitalier Pitié-Salpêtrière, Paris, France, 2Centre Hospitalier de Clermont-Ferrand, Clermont-Ferrand, France

643. **Clinical Characteristics for Future Development of Systemic Lupus Erythematosus in Korean Patients with Idiopathic Thrombocytopenic Purpura.** Yeon-Ah Lee1, Somi Kim1, Ran Song2 and Sang-Hoon Lee2, 1Kyung Hee University, Seoul, South Korea, 2Hospital at GANGDONG, Kyung Hee University, Seoul, South Korea

644. **Pulmonary Hypertension in Systemic Lupus Erythematosus: A 6-Year Follow-up Study Cohort.** Claudia Hübbe-Tena, Selma Gallegos-Nava, Rafael Bojalil and Luis M. Amezcu-Guerra, Instituto Nacional de Cardiología Ignacio Chávez, Mexico City, Mexico

645. **Altered Soluble Inflammatory Mediators Mark Impending Systemic Lupus Erythematosus Disease Flare in European-American Lupus Patients Who Receive Influenza Vaccination.** Melissa E. Munroe1, Jourdan R. anderson1, Joan T. Merrill1, Joel M. Guthridge1, Virginia C. Roberts1, Gillian M. Air1, Linda F. Thompson1 and Judith A. James2, 1University College London, London, United Kingdom, 2Gregorio Marañón Hospital, Madrid, Spain

646. **Comparison of the Lupusqol and SF-36 Scores As Valid Measures of Change in Health Related Quality of Life.** Zahi Touma, Murray B. Urowitz, Dominique Ibanez, Shahrzad Taghabi-Zadeh and D. D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

647. **Adjusted Framingham Risk Factor Scoring for Systemic Lupus Erythematosus: Results from an Inception Cohort Followed for Eight Years.** Murray B. Urowitz1, Dominique Ibanez2, D. D. Gladman1, SLICC2 and Systemic Lupus International Collaborating Clinics (SLICC)2, 1Toronto Western Hospital and University of Toronto, Toronto, ON, 2Toronto, ON

648. **Atherosclerotic Vascular Events in a Multinational Inception Cohort of Systemic Lupus Erythematosus: Incidence over a Ten Year Period.** D. D. Gladman1, Dominique Ibanez2, Murray B. Urowitz2 and SLICC2, 1Toronto Western Hospital and University of Toronto, Toronto, ON, 2Toronto, ON

649. **Increased Male-to-Female Ratio in Children Born to Women with Systemic Lupus Erythematosus.** Evelyne Vinet1, Sasha Bernatsky2, Mohammed Kaoouche2, Emil P. Nashi3, Christian A. Pineau1, Ann E. Clarke2, Robert W. Platt4, Meggan C. Mackay5 and Cynthia Aranow6, 1McGill University Health Centre, Montreal, QC, 2Research Institute of the McGill University Health Ctre, Montreal, QC, 3MUHC, Montreal, QC, 4McGill University, Montreal, QC, 5The Feinstein Institute, Manhasset, NY, 6Feinstein Institute for Medical Research, Manhasset, NY

650. **Clinical Variables Associated with Thrombosis At Systemic Lupus Erythematosus Diagnosis.** Differences between Patients with Positive/Negative Lupus Anticoagulant. Andrea Hinojosa-Azahola1, Alba Cicero-Casarrubias1, Mario César Ocampo-Torres1, Juana Romero-Diaz2 and Jorge Sánchez-Guerrero2, 1Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, Mexico, 2Mount Sinai Hospital and University Health Network, Toronto, Canada

651. **Suicidal Ideation in Patients with Systemic Lupus Erythematosus: Incidence and Relationship with Anxiety/Depression Score, Disease Activity and Organ Damage.** Chi Chiu Mok1, Kelly Chan1 and Paul Yip2, 1Tuen Mun Hospital, Hong Kong, Hong Kong, 2University of Hong Kong, Hong Kong, Hong Kong

652. **Serum Rituximab Levels and Efficiency of B-Cell Depletion: Differences between Patients with Systemic Lupus Erythematosus and Rheumatoid Arthritis.** Venkat Reddy1, Sara Croa1, Delia Gerona2, Inmaculada De La Torre Ortega2, David A. Isenberg1, Maria Leandro3 and Geraldine Cambr1de, 1University College London, London, United Kingdom, 2Hospital for Special Surgery, New York, NY, 3University of Hong Kong, Hong Kong, 4Novo Nordisk A/S, Måløv, Denmark, 5Research Institute of the McGill University Health Centre, Montreal, QC, 6Feinstein Institute, Manhasset, NY

653. **Longitudinal Analysis of Plasma Factors and Disease Activity Identifies Von Willebrand Factor As A Biomarker of LUPUS FLARE.** Mikhail Olferiev1, Kyriakos A. Kirou2, Elena Gkrouzman3, Dorthe Lundsgaard4, Klaus S. Frederiksen5, Jan Fleckner1 and Mary K. Crow1, 1Mary Kirkland Center for Lupus Research, Hospital for Special Surgery, New York, NY, 2Hospital for Special Surgery, New York, NY, 3University of Hong Kong, Hong Kong, 4Novo Nordisk A/S, Malmö, Denmark, 5Novo Nordisk, Copenhagen, Denmark

654. **Incidence Studies of Systemic Lupus Erythematosus in Southern Sweden.** Have the Tides Turned? Ragnar Ingvarsson1, Andreas Jönsen2, Ola Nived3, Gunnar Sturfelt1, Ingvarsson1, Andreas Jönsen2, Ola Nived3, Gunnar Sturfelt1, 1Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden, 2Section of Rheumatology, Lund, Sweden, 3University Hospital - Lund, Lund, Sweden, 4University Hospital Lund, Lund, Sweden

655. **Non-White Race, Younger Age, and Use of Primary and Gynecologic Care Are Associated with Higher Rates of Cervical Cancer Screening in Systemic Lupus Erythematosus Patients At a Public Hospital.** Jennifer Stichman1, Angela Keniston1, Joann Zell2, Jinoos Yazdany3, Itziar Quinzanos1
and Joel M. Hirsh1, 1Denver Health Med Ctr, Denver, CO, 2National Jewish Health, Denver, CO, 3University of California San Francisco, San Francisco, CA

656. Effects of Nelfinavir on Anti-dsDNA Antibody Binding and Pro-Inflammatory Cytokine Gene Expression. Maria Espinosa1, Julisa Patel2, Meggan Mackay3, Cynthia Aranow4 and Betty Diamond3, 3Cohen Children's Hospital-North Shore LIJ, New Hyde Park, NY, 2Cohen Children’s Hospital, New Hyde Park, NY, 1The Feinstein Institute for Medical Research, Manhasset, NY, Feinstein Institute for Medical Research, Manhasset, NY, 4Feinstein Institute Med Rsch, Manhasset, NY

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657. Serial Screening Shows That 28% of Systemic Lupus Erythematosus Adult Patients Carry an Underlying Primary Immunodeficiency. Sandro F. Perazzio1, Reinaldo Salomao1, Neusa P. Silva4, Magda Carneiro-Sampaio2 and Luis Eduardo C. andrade1, 1Federal University of Sao Paulo, Sao Paulo, Brazil, 2Escola Paulista de Medicina - Universidade Federal de São Paulo, Sao Paulo, Brazil, 3Instituto da Criança da Faculdade de Medicina da Universidade de São Paulo (FMUSP), Sao Paulo, Brazil, 4Universidade Federal de São Paulo, Sao Paulo, Brazil

658. Up-Regulation of A Disintegrin and Metalloprotease with Thrombospondin Type I Repeats-13 Correlates with Ischemic Cerebrovascular Disease in Systemic Lupus Erythematosus Patients. Consuelo Lopez de Padilla1, Molly Hein1, Cynthia S. Crowson1, Christopher Choo2, Abigail B. Green1, Michelle Petri3, Hatice Bilgic4, Emily Baechler Gillespie4 and Ann M. Reed1, 1Mayo Clinic, Rochester, MN, 2Rochester, MN, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4University of Minnesota Medical School, Minneapolis, MN

659. The Small Molecule Activator to ACE2 Prevents the Inhibition of ACE2 Activity by Autoantibodies. Shiori Haga1, Yoko Takahashii, Yukihito Ishizaka1 and Akio Mimori1, 1National Center for Global Health and Medicine, Research Institute, Tokyo, Japan, 2National Center for Global Health and Medicine, Tokyo, Japan

660. Abnormal Neutrophil Development in Human Systemic Lupus Erythematosus. Namrata Singh1, Mariana J. Kaplan1, Philip L. Cohen2 and Michael F. Denny3, 1Temple University, Philadelphia, PA, 2University of Michigan, Ann Arbor, MI

661. Co-Localization of C - reactive protein, Immunoglobulin G and Complement in Renal Subendotheial Immune Deposits of Proliferative Lupus Nephritis Detected Using Immunogold Electron Microscopy. Christopher Sjowall1, anders I. Olin1, Thomas Skogh1, Jonas Wetterö1, Mattias Mörgelin2, Ola Nived1, Gunnar Sturfelt1 and anders A. Bengtsson1, 1Linkoping University, Linkoping, Sweden, 2Infection Medicine, Department of Clinical Sciences, Lund University, Lund, Sweden, Lund, Sweden, 3Linköping University, Linköping, Sweden, 4University Hospital Lund, Lund, Sweden, 5Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden

Increased C1q, C3 and C5 Deposition on Platelets in Patients with Systemic Lupus Erythematosus – A Possible Link to Venous Thrombosis? Christian Lood1, Sam Eriksson2, Birgitta Gullstrand3, Andreas Jönsson1, Gunnar Sturfelt1, Lennart Truedsson4 and anders A. Bengtsson1, 1Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden, 2Department of Laboratory Medicine, Section of Microbiology, Immunology and Glycobiology, Lund, Sweden

The Clinical Significance and Expression of P2X7 Purinergic Receptor in Peripheral Blood from Patients with New-Onset Systemic Lupus Erythematosus. Xiangpei Li, Meiyun Wang, Jinhui Tao, Xiaomei Li and Ning Yu, Anhui Medical University Affiliated Provincial Hospital, Hefei, Anhui, China

664. Estrogen Upregulates Interleukin-21 Production of Clusters of Differentiation 4 Positive T Lymphocytes in Patients with Systemic Lupus Erythematosus. Jennifer Lee1, Daejun Kim1, Jae Ho Lee1, Seung Min Jung1, Mi-La Cho1, Seung Ki Kwok1, Ji Hyeon Ju1, Kyung-Su Park1 and Ho-Youn Kim1, 1Division of Rheumatology, Department of Internal Medicine, School of Medicine, The Catholic University of Korea, Seoul, South Korea, 2Rheumatic research center, Catholic University of Korea, Seoul, South Korea

Cytokines and Their Relation to Autoantibodies before Disease Onset in Systemic Lupus Erythematosus. Catharina Eriksson1 and Solbritt Rantapaa Dahlqvist2, 1Department of Clinical Immunology/clinical microbiology, Umeå, Sweden, 2Umeå University Hospital, Umeå, Sweden

666. Leukadhelin 1, a CR3 Mimetic, Negatively Regulates Toll Like Receptor (TLR) Dependent Inflammatory Responses via Degradation of an Adaptor Protein. Kristen Lee1, Joanne H. Reed1, Vineet Gupta2, Tejaskumar Pateli1, Jill P. Buyon3 and Robert M. Clancy1, 1New York University School of Medicine, New York, NY, 2Division of Nephrology and Hypertension, Department of Medicine, University of Miami, Miami, FL 33136, U.S.A., Miami, FL, 3NYU School of Medicine, New York, NY

667. Interferon-Alpha Impairs the Survival and Function of Circulating Angiogenic Cells in Vitro: A Model of Failed Endothelial Repair in SLE. John A. Reynolds1, David W. Ray1, Terence O'Neill2, M. Yvonne Alexander3 and Ian N. Bruce1, 1The University of Manchester, Manchester, United Kingdom, 2University of Manchester, Manchester, United Kingdom, 3Arthritis Research UK Epidemiology Unit and NIHR Manchester Musculoskeletal Biomedical Research Unit, Manchester, United Kingdom

668. Markers of Nitric Oxide and Hydroxyl Radical Formation Are Increased in Proliferative Lupus Nephritis and May Emanate From Increased Nitric Oxide Synthase and NADPH Oxidase Production and Reduced Endothelial Nitric Oxide
669. Serum Anti N-Methyl-D-Aspartate Receptor Subunit 1 Antibodies Are Elevated in SLE. Ogawa Eisuke, Nagai Tatsuo, Arinuma Yoshiyuki and Hirohata Shunsei, Kitasato University School of Medicine, Kanagawa, Japan

70. Prolidase Deficiency Induces Antibodies to Sm, Ro60 and Double Stranded DNA. Biji T. Kurien1, Anil D’souza2, Skyler P. Dillon1, Benjamin F. Bruner1, Timothy Gross3, Judith A. James3, Ira N. Targoff2, Jacen S. Maier-Moore1, Isaac T.W. Harley4, Heng Wang5 and Robert H. Scofield1, 1Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation; Department of Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, OK, 2University of Oklahoma Health Sciences Center, Oklahoma City, OK, 3Harding University, Searcy, AR, 4Oklahoma Medical Research Foundation, Oklahoma City, OK, 5Oklahoma Medical Research Foundation and Oklahoma University Medical Research Foundation, Oklahoma City, OK, 6Oklahoma Medical Research Foundation; Department of Medicine, University Health Network, Toronto, ON, 7Das Deutsch Center Clinic for Special Needs Children, Middlefield, OH

671. Differences in the SLE Clinical Phenotype by Age of Diagnosis. T. Clark Powell1, Elizabeth E. Brown on behalf of PROFILE1, Gerald McGwin Jr1, Lui M. Vila2, Yesenia C. Santiago-Casas3, Michelle Petri6, Rosalind Ramsey-Goldman2, John D. Reveille6, Sergio Duran6, Sergio M.A. Toloza6, Robin L. Brey6, Agustin Escalante6,7, Randy Q. Cron11, Robert P. Kimberly on behalf of PROFILE investigators12 and Graciela S. Alarcon1, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Puerto Rico Medical Sciences Campus, San Juan, PR, 3University of Puerto Rico Medical Sciences Campus, San Juan, PR, 4Johns Hopkins University School of Medicine, Baltimore, MD, 5Northwestern University Feinberg School of Medicine, Chicago, IL, 6Univ of Texas Health Science Center at Houston, Houston, TX, 7UIECD, Guadalajara, Mexico, Guadalajara, Mexico, 8Hospital San Juan Bautista, Catamarca, Argentina, 9UTHSCSA, San Antonio, TX, 10University of Texas Health Science Center at San Antonio, San Antonio, TX, 11Univ of Alabama-Birmingham, Birmingham, AL, 12Department of Medicine, University of Alabama at Birmingham, Birmingham, AL

672. Immune Complexes and Autoantibodies to Oxidized Lipids in Systemic Lupus Erythematosus. Yujin Ye, Tianfu Wu and Chandra Mohan, University of Texas, Southwestern Medical Center at Dallas, Dallas, TX

673. Altered Soluble Mediators in Individuals with Incomplete Lupus (ILE) in the Lupus Autoimmunity in Relatives (LAUREL) Study. Melissa E. Munroe1, Jill M. Norris2, Joel M. Guthridge1, Diane L. Kamen1, Kathy Moser Sivils1, Timothy B. Niewold4, Gary S. Gilkeson1, Michael H. Weisman2, Mariko L. Ishimori3, Daniel J. Wallace4, David R. Karp5, John B. Harley6 and Judith A. James7, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2Colorado School of Public Health, Aurora, CO, 3Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, 4University of Chicago, Chicago, IL, 5Medical University of South Carolina, Charleston, SC, 6Cedars-Sinai Medical Center, Los Angeles, CA, 7UTH Southwestern Medical Center, Dallas, TX, 8Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 9Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK

674. Altered Response to B Cell Receptor (BCR) Crosslinking in SLE: Correlation with Genetic Risk Variants Predicted to Impact BCR Signaling. Nan-Hua Chang1, Timothy Li2, Paul R. Fortin1, Dafna D. Gladman3, Carolina Landolt-Marticorena4, Jorge Sanchez-Guerrero5, Murray B. Urowitz5 and Joan E. Wither1, 1Toronto Western Research Institute, University Health Network, Toronto, ON, 2University of Laval, Quebec, 3Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON, 4University Health Network, University of Toronto, Toronto, ON, 5Mount Sinai Hospital, University Health Network, Toronto, ON

675. Differential Impairment of Serum Cholesterol Efflux Capacity in Patients with Rheumatoid Arthritis and Systemic Lupus Erythematosus. Pier Luigi Monini1, Nicoletta Ronda1, Elda Favari1, Orietta Borghi2, Francesca Zimetti3, Maria Adorni1, Francesca Ingegnoli4, Maria Gerosa1, Claudia Grossi5 and Franco Bernini5, 1Istituto G. Pini, University of Milan, Milan, Italy, 2Parma, Italy, 3University of Parma, Parma, Italy, 4University of Milan, Milan, Italy, 539-02-58318176, Parma, Italy, 6Rheumatology, Istituto G. Pini, University of Milan, Milan, Italy, 7Division of Rheumatology, Istituto Ortopedico Gaetano Pini, Milan, Italy, 8Lab of immunology, IRCCS Istituto Auxologico Italiano, Milano, Italy

676. A Novel Biomarker: Nucleotide-Binding Oligomerization Domain 27 in Systemic Lupus Erythematosus. Annika Cutinha1, Yangsheng Yu2, Kaihong Su2, James R. O’Dell2, Lynell W. Klassen1, Amy C. Cannella1, Ted R. Mikuls3, Alan R. Erickson4, Gerald F. Moore5 and Michelene Heath-Holmes6, 1University of Nebraska Medical Center, Omaha, NE, 2Department of Pathology and Microbiology, Omaha, NE, 3UNMC Physicians - Brentwood, La Vista, NE

677. Antibodies to Oxidized Low Density Lipoprotein or Anti-Lipoprotein Lipase May Lead to More Atherosclerotic Plaque in a Sub-Set of SLE Patients. Biji T. Kurien1, James Fesmire2, Skyler P. Dillon1, Marianne Reichlin3, Norris Reichlin3 and Robert H. Scofield1, 1University of Oklahoma Health Sciences Center, Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation; US Department of Veterans Affairs Medical Center, Oklahoma City, OK, 2Oklahoma Medical Research Foundation, 3University of Oklahoma Health Sciences Center, Oklahoma City, OK
678. **Estrogen Modulation of ZAS3 Is Mediated Through Estrogen Receptor α: An Underlying Mechanism of Gender-Bias in Systemic Lupus Erythematosus?** Nicholas Young¹, Alexandra Friedman¹, Lai-Chu Wu¹ and Wael N. Jarjour², ¹The Ohio State University Medical Center, Columbus, OH, ²Ohio State University, Columbus, OH

679. **ZAP70+ B Cells and Plasmablasts as Markers of Disease Activity and Remission in Systemic LUPUS Erythematosus Nephritis.** Elsa Gremsese, Barbara Tolusso, Laura Messutti, Marcin Nowik, Silvia Canestri, Luca Petricca, Maria Rita Gigante and Gianfranco Ferraccioli, Division of Rheumatology, Institute of Rheumatology and Affine Sciences, Catholic University of the Sacred Heart, Rome, Italy

680. **Plasma Level of Galectin-3 Binding Protein Reflects Type I Interferon Activity and Is Highly Increased in Patients with Systemic Lupus Erythematosus.** Christoffer T. Nielsen¹, Ole Østergaard², Line V. Iversen³, Christian Lood¹, anders A. Bengtsson¹, Anne Voss³, Søren Jacobsen¹ and Niels H. H. Heegaard¹, ¹Statens Serum Institut, Copenhagen, S, Denmark, ²Statens Serum Institut, Amsterdam, The Netherland, ³Department of Clinical Sciences Lund, Lund, Sweden, ⁴Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden, ⁵Odense University Hospital, Odense C, Denmark, ⁶Copenhagen University Hospital, Copenhagen, Denmark

681. **Interferon Alpha Decreases Endothelial Nitric Oxide Synthase Function and Expression in Human Umbilical Vein Endothelial Cells.** Joy Buie and Jim Oates, Medical University of South Carolina, Charleston, SC

682. **IL-12p70 Levels Play a Role in Damage Accrual in SLE Patients.** Eoghan M. McCarthy¹, Ruth Lee¹, Joan Ni Gabbann², Siobhan Smith³, Michele Doran³, Gaye Cunnane³, Donough G. Howard¹, Paul G. O’Connell¹, Caroline Jefferyes² and Grainne M. Kearns¹, ¹Beaumont Hospital, Dublin 9, Ireland, ²Royal College of Surgeons in Ireland, Dublin, Ireland, ³St. James’s Hospital, Dublin, Ireland

683. **Prevalence of Inhibitory or Non-Inhibitory Autoantibodies to Angiotensin Converting Enzyme 2 (ACE2) in Patients with Systemic Lupus Erythematosus.** Yoko Takahashi¹, Shiori Haga¹, Yukihito Ishizaka² and Akio Mimori³, ¹National Center for Global Health and Medicine, Tokyo, Japan, ²Research Institute, National Center for Global Health and Medicine, Tokyo, Japan

684. **Correlation of Signal Transducers and Activators of Transcription-1 and Microrna-146a with Anaemia and Other Clinical Features in Systemic Lupus Erythematosus Patients.** Paul R. Dominguez-Gutierrez, Angela Cereblli, Minoru Satoh, Eric S. Sobel, Yi Li, Westley H. Reeves and Edward K.L. Chan, University of Florida, Gainesville, FL

685. **Using a Library of Synthetic Autoantigen Mimics to Discover Biomarkers of Systemic Lupus Erythematosus.** Akshai Lakanpal¹, Jieoxia Quan¹, Sayed Zaman¹, Nancy J. Olsen¹ and David R. Karp², ¹UT Southwestern Medical Center, Dallas, TX, ²Penn State MS Hershey Medical Center, Hershey, PA

686. **Cell-Type Specific Type I Interferon Signatures in Autologous Stem Cell Transplanted Lupus Patients: Different Molecular Behavior between CD4+ T Cells and Monocytes.** Chieko Kyogoku¹, Joachim R. Grün¹, Tobias Alexander², Robert Biesen², Falk Hiepe², Thomas Häupl², Andreas Radbruch¹ and Andreas Grützkau¹, ¹German Rheumatism Research Centre Berlin (DRFZ), an institute of the Leibniz Association, Berlin, Germany, ²Charité University Hospital Berlin, Berlin, Germany

687. **Gammadelta T Cells and Their Intracellular Cytokine Profile in Peripheral Blood of Patients with Systemic Lupus Erythematosus.** Lingyun Sun, Xia Li and Zhimin Lu, Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China

688. **Expression of the Mer Receptor Tyrosine Kinase on Peripheral Blood Mononuclear Cells from Systemic Lupus Erythematosus Patients.** Brendan A. Hilliard¹, Gaetano Zizzo¹, Margaret K. Linan¹ and Philip L. Cohen¹, ¹Temple University School of Medicine, Philadelphia, PA, ²Temple University, Philadelphia, PA

689. **Activation of the Interferon Pathway Is Dependent Upon Autoantibodies in African-American SLE Patients, but Not in European-American SLE Patients.** Kichul Ko, Yelen Koldobskaya, Elizabeth Rosenzweig and Timothy B. Niewold, University of Chicago, Chicago, IL

690. **Molecular Analysis of 9G4+ Antibodies in Systemic Lupus Erythematosus.** Christopher Richardson¹, Asiya Seema Chida², Erin Fox², Lin Silver³, Diana G. Adlowitz¹, Scott Jenks³, Elise Palmer¹, Christopher Tipton¹ and Ignacio Sanz³, ¹University of Rochester, Rochester, NY, ²Emory University, Atlanta, GA

691. **Characterization of Pro-Inflammatory Cytokines and Vitamin D Levels in a Lupus Cohort and Correlation with Disease Activity.** Rohan Willis¹, Praveen Jajoria¹, Brock E. Harper¹, Emilio B. Gonzalez¹, Michelle Petri¹, Ehtisham Akhter², Hong Fang³ and Silvia S. Pierangeli¹, ¹University of Texas Medical Branch, Galveston, TX, ²Johns Hopkins University School of Medicine, Baltimore, MD

**Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics**

692. **A Phase 1 Multicenter, Open-Label Study of MEDI-546, a Human Anti-Type I Interferon Receptor Monoclonal Antibody, in Adults with Scleroderma.** Avram Z. Goldberg¹,
Thomas D. Geppert1, Elena Schiopu1, Tracy M. Frech4, Vivien M. Hsu2, Robert W. Simms3, Stanford L. Peng1, Yihong Yao3, Nairouz Elgeioushi2, Bing Wang2, Linda Chang1 and Stephen Yoo2, 1North Shore-LIJ Health System, Lake Success, NY, 2Metropolitan Clinical Research Center, LLC, Dallas, TX, 3University of Michigan, Ann Arbor, MI, 4University of Utah School of Medicine, SLC, UT, 5RWJ Med Sch Scleroderma Prog, New Brunswick, NJ, 6Boston University School of Medicine, Boston, MA, 7Benaroya Research Institute at Virginia Mason Medical Center, Seattle, WA, 8MedImmune, Gaithersburg, MD, 9MedImmune, Hayward, CA

694. Nilotinib (Tasigna™) in the Treatment of Early Diffuse Systemic Sclerosis: A Single Group, Open Label Pilot Clinical Trial. Jessica K. Gordon1, Morgana L. Davids1, Kamini Doobay1, Cynthia Magro2, Horatio F. Wildman3, Stephen L. Lyman1, Mary K. Crow1 and Robert F. Spiera1, 1Hospital for Special Surgery, New York, NY, 2Weill-Cornell Medical Center, New York, NY, 3Weill-Cornell Medical Center, New York

695. Comparison of Intense Pulsed Light and Laser Treatment of Telangiectases in Systemic Sclerosis. Graham Dinsdale1, Andrea Murray1, Tonia Moore1, Janice E. Ferguson1, Holly Ennis1, Christopher E.M Griffiths1 and Ariane Herrick3, 1School of Translational Medicine, University of Manchester, Manchester Academic Health Science Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 2Dermatology Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 3Dermatology Centre, University of Manchester, Manchester Academic Health Science Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 4University of Manchester, Salford, United Kingdom

696. Risk Factors for EARLY Mortality in Scleroderma Patients: a Report From the EULAR Scleroderma Trials and Research Group (EUSTAR) Database. Patricia E. Carreira1, Loreto Carmona2, Beatriz E. Joven1, Christopher P. Denton1, Yannick Allano3, Ulrich A. Walker4, Marco Matucci-Cerinic5, Ulf Müller-Ladner6 and Eustar1, 1Hospital Universitario 12 de Octubre, Madrid, Spain, 2Universidad Camilo José Cela, Villanueva de la Cañada, Spain, 3HOSPITAL UNIVERSITARIO 12 DE OCTUBRE, Madrid, Spain, 4UCL, London, United Kingdom, 5Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 6Universitäts-Poliklinik, Felix-Platter Spital, Basel, Switzerland, 7University of Florence, Florence, Italy, 8Kerckhoff-Klinik GmbH, Bad Nauheim, Germany, 9Florence


698. External Validation of a Two-Year Mortality Risk Prediction Rule in Early Diffuse Systemic Sclerosis Patients. Robyn T. Domsic1, Svetlana Nihytyanova2, Stephen R. Wisniewski3, Michael J. Fine1, C. Kent Kwoh4, Christopher P. Denton5 and Thomas A. Medsger Jr.6, 1University of Pittsburgh, Pittsburgh, PA, 2Royal Free Hospital, Medical School, London, England, 3University of Pittsburgh, Graduate School of Public Health, Pittsburgh, PA, 4University of Pittsburgh and Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare, Pittsburgh, 5University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 6UCL, London, United Kingdom, 7Univ of Pittsburgh, Pittsburgh, PA

699. Endothelial Dysfunction and Vascular Stiffness in Early Diffuse Systemic Sclerosis. Robyn T. Domsic1, Dana Ivanco2, Hunter C. Champion2, Ali Shoushtari1 and Thomas A. Medsger Jr.1, 1University of Pittsburgh, Pittsburgh, PA, 2Univ of Pittsburgh, Pittsburgh, PA

700. Clinical Correlation of Flow-Mediated Endothelium-Dependent Vasodilatation in Systemic Sclerosis. Takehiro Takahashi1, Yoshihide Asano1, Eisuke Amiya2, Masaru Hatano3, Atsuko Ozeki4, Aya Watanabe5, Shuichi Karawasaki6, Tomoko Nakao1, Zenshiro Tamaki1, Takashi Taniguchi1, Yohei Ichimura1, Tetsuo Toyama1, Masafumi Watanabe1, Yasunobu Hirata1, Ryozo Naga2 and Shinichi Sato1, 1Department of Dermatology, University of Tokyo Graduate School of Medicine, Tokyo, Japan, 2Department of Cardiovascular Medicine, University of Tokyo Graduate School of Medicine, Tokyo, Japan

701. Vascular Differences Associated to Genetic Polymorphisms of Endothelial Nitric Oxide Synthase in Mexican Patients with Systemic Sclerosis. A Preliminary Report. Maria Pilar Cruz-Dominguez1, Maria Angeles Martinez-Godinez2, Angel Miliar-Garcia3, Daniel Hector Montes-Cortes3, Olga Vera-Lastra4, Luis J. Jara-Quezada5 and Anabel Reyes-Salazar4, 1Hospital de Especialidades Centro Medico Nacional La Raza., Mexico, DF, Mexico, 2Escuela Superior de Medicina. IPN., Mexico, D.F., Mexico, 3Hospital General CMN La Raza, IMSS, Mexico DF, Mexico, 4, MD, Mexico City, Mexico, 5Hospital de Especialidades Centro Médico La Raza, IMSS, Mexico City, Mexico, 6Hospital de especialidades Centro Medico National “La Raza”, IMSS, Mexico, D.F., Mexico

702. Arterial Stiffness Is Increased in Systemic Sclerosis: A Cross-Sectional Comparison with Matched Controls. Gene-Siew Ngian1, Joonie Sahar2, Ian Wicks1 and Sharon Van Doornum1, 1The University of Melbourne, Parkville, Australia, 2Monash Medical Centre, Clayton, Australia, 3Royal Melbourne Hospital, Parkville, Australia, 4The University of Melbourne, The Royal Melbourne Hospital, Melbourne, Australia
**703.** **Vascular Ischemic Events in Systemic Sclerosis - A Cross-Sectional Comparison with Population-based Controls.**
Annica Nordin, Kerstin Jensen-Urstad, Lena Björnådal and Elisabet Svenungsson, 1Rheumatology Unit, Karolinska Institutet, Stockholm, Sweden, 2Department of Clinical Physiology, Södersjukhuset, Karolinska Institutet, Stockholm, Sweden

**704.** **Decreased Number of Endothelial Progenitor Cells in Systemic Sclerosis Patients with Early Disease.**
Fernando V. andrigueti, Maria I. Arismendi, Pâmela C.C. Ebbing and Cristiane Kayser, Universidade Federal de São Paulo, São Paulo, Brazil

**705.** **Adipose Derived Stem Cells As an Alternative Source of Cellular Repair for Vascular Dysfunction in Systemic Sclerosis.**
Nevin Hammam and Hazem Orabi, 1Assiut University, Assiut, Egypt, 2Knuppe Molecular Laboratory, San Francisco, CA

**706.** **Excess Mortality From Atherosclerotic Cardiovascular Disease in Systemic Sclerosis Compared to Lupus and Rheumatoid Arthritis.**
Amish J. Dave, Bharathi Lingala, David Fiorentino, Eswar Krishnan and Long Liu, 1Stanford University, Stanford, CA, 2Stanford University, Redwood City, CA, 3Stanford University School of Medicine, Redwood City, CA, 4Stanford University, Palo Alto, CA, 5Stanford Univ Medical Center, Palo Alto, CA

**707.** **Risk of Cancer in Systemic Sclerosis: Meta-Analysis of Population-Based Cohort Studies.**
Akira Onishi, Daisuke Sugiyama, Akio Morinobu and Shunichi Kumagai, 1Kobe University Graduate School of Medicine, Kobe, Japan, 2School of Medicine, Keio University, Tokyo, Japan, 3Shinko Hospital, Kobe, Japan

**708.** **Histological Features of Localized Scleroderma’sen Coup De Sabre’: A Study of 16 Cases.**
Takahiro Taniguchi, Yoshihide Asano, Zenshiro Tamaki, Kaname Akamata, Naohiko Aozasa, Shinni Noda, Takehiro Takahashi, Yohei Ichimura, Tetsuo Toyama, Miki Sugita, Hayakazu Sumida, Yoshihiro Kuwano, Miki Miyazaki, Koichi Yanaba and Shinichi Sato, University of Tokyo Graduate School of Medicine, Tokyo, Japan

**709.** **Fingertip Skin Hardness in Limited Scleroderma: Durometry versus Manual Assessment.**
Thomas Osborn, Eric Matteson, Floranne Ernste, Cynthia S. Crowson, Deana D. Hoganson and Irene Z. Whitt, 1Mayo Clinic, Rochester, MN, 2Mayo Clinic Rochester, Rochester, MN, 3Mercy Arthritis and Osteoporosis Center, Urbandale, IA, 4NIH/NIEHS/Environmental Autoimmunity Group, Bethesda, MD

**710.** **Optical Density Measure of the Papillary Dermis Discriminates As Abnormal Clinically Uninvolved Skin in Systemic Sclerosis and Correlates with Severity of Skin Thickness.**
Giuseppina Abignano, Sibel Z. Aydin, Concepcion Castillo-Gallego Jr., Daniel Woods, Adam Meekings, Dennis McGonagle, Paul Emery and Francesco Del Galdo, 1University of Leeds, Leeds Institute of Molecular Medicine and LMBRU, Leeds, United Kingdom, 2Medeniyet University, Goztepe Training and Research Hospital, Istanbul, Turkey, 3Hospital Universitario La Paz, Madrid, Spain, 4Michelson Diagnostics Ltd, Kent, United Kingdom

**711.** **Myopathy Is a Poor Prognostic Feature in Systemic Sclerosis: Results From the Canadian Scleroderma Research Group.**
Michelle Jung, Murray Baron, Marie Hudson, Ashley Bonner, Janet E. Pope and Canadian Scleroderma Research Group, 1Western University, London, ON, 2Jewish General Hospital, Montreal, QC, 3McGill University, Montreal, QC, 4McMaster University, Hamilton, ON, 5St. Joseph Health Care London, University of Western Ontario, London, ON, 6Montreal, QC

**712.** **Autoantibodies to Survival of Motor Neuron (SMN) Complex Are Common in Patients with Anti-U1RNP/Sm and Are Associated with Features of Scleroderma and Myopathy.**
Jason YF Chan, Yi Li, Angela Ceribelli, Eric S. Sobel, Westley H. Reeves, Edward K.L. Chan and Minoru Satoh, University of Florida, Gainesville, FL

**713.** **Rpp25 Is a Major Target of Autoantibodies to the Th1/2 Complex As Measured by ELISA and a New Chemilumiscence Assay.**
Michael Mahler, Cristina Gascon, Sima Patel, Angela Ceribelli, Edward K.L. Chan and Minoru Satoh, 1INOVA Diagnostics, Inc., San Diego, CA, 2University of Florida, Gainesville, FL

**714.** **Line Blot Assay, a Screening Test for Autoantibodies in Systemic Sclerosis (SSc).**
Kae Takagi, Yasushi Kawaguchi, Sayuri Kataoka, Yuko Ota, Yuko Okamoto, Masanori Hanaoka, Hisae Ichida, Takahisa Gono, Yasuhiro Katsumata and Hisashi Yamanaka, 1Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 2Tokyo Women’s Medical University, Tokyo, Japan, 3Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan

**715.** **WITHDRAWN.**

**716.** **Utility of Novel Patient-Reported Outcome Instruments in Predicting Cardiac Involvement and Pulmonary Hypertension in Patients with Systemic Sclerosis.**
Monique E. Hinchcliff, Mary A. Carns, Sofia Podlusky, John Varga and Sanjiv J. Shah, Northwestern University Feinberg School of Medicine, Chicago, IL

**717.** **Results From a Multi-Tiered Item Collection On Linking Systemic Sclerosis to the International Classification of Functioning, Disability and Health: A EULAR Scleroderma Trials and Research Initiative.**
Lesley Ann Saketkoo, Reuben Escorpizo, Kevin J. Keen, Kim Fibelstone and Oliver Distler, 1Louisiana State University Health Science Center, New Orleans, LA, 2ICF Research Branch in cooperation with the WHO Collaborating Centre for the Family of International Classifications Department of Health Sciences; and Health Policy, University of Lucerne, Switzerland, 3University of Northern British Columbia, Prince George, BC, 4Royal Free Hospital, Scleroderma Unit and Scleroderma Research Group.
718. *Worsening Carbon Monoxide Diffusing Capacity Predicts Mortality in Patient with Systemic Sclerosis and Pulmonary Arterial Hypertension Enrolled in the Pulmonary Hypertension Assessment and Recognition of Outcomes in Scleroderma Registry*. Elena Schiopu1, Dinesh Khanna1, Virginia D. Steen1 and PHAROS Investigators2, 1University of Michigan, Ann Arbor, MI, 2Georgetown Univ Medical Center, Washington, DC, 3Washington DC

719. *Biomarkers of Pulmonary Hypertension in Patients with Scleroderma: A Case-Control Study*. Zsuzsanna H. McMahan1, Florian Schoenhoff2, Jennifer van Eyk3, Fredrick M. Wigley1 and Laura K. Hummers1, 1Johns Hopkins University, Baltimore, MD, 2Berne, Switzerland

720. *Left-Heart Disease Is a Frequent Cause of Pulmonary Hypertension in Systemic Sclerosis, Is Associated with Increased Levels of MR-ProANP and MR-ProADM but Is Unrelated to Elevated NT-ProBNP Levels: A Retrospective Cohort Analysis*. Lada Miller1, Sandra Chartrand1, Martial Koenig2, Jean-Richard Goulet1, Eric Rich1, Michal Abrahamowicz3, Jean-Luc Senécal4 and Tamara Grodzicky5, 1Hôpital Notre-Dame du CHUM, Montreal, QC, 2Hôpital Notre-Dame du CHUM, Montréal, QC, 3Centre Universitaire de Santé McGill (CUSM), Montreal, QC

721. *Measurement of Pulmonary Arteries by Cardiac Magnetic Resonance Imaging: A Simple and Useful Tool for the Detection of Pulmonary Hypertension in Systemic Sclerosis Patients without Overt Cardiac Microvascular Perfusion Defects or Fibrosis*. Sandra Chartrand1, Lada Miller1, Martial Koenig2, Jean-Richard Goulet1, Eric Rich1, Anne S. Chin1, Yves Provost1, Carl Chartrand-Lefebvre1, Pauline Gou1, Jean-Luc Senécal4 and Tamara Grodzicky5, 1Hôpital Notre-Dame du CHUM, Montréal, QC, 2Hôtel-Dieu de Montréal du CHUM, Montréal, QC

722. *Systemic Sclerosis Associated Pulmonary Hypertension - Is Pulmonary Veno-Occlusive Disease As Common As They Say?*. Benjamin E. Schreiber1, Greg Keir2, D. Dobarro1, Clive Handler1, Svetiana Nihtyanova4, Jay Suntharaligam5, Nicola Sverzelatti6, Graham Robinson1, David Hansell1, Athol U. Wells2, Christopher P. Denton8 and John G. Coghlan2, 1Royal Free Hospital, London, London, United Kingdom, 2Royal Brompton Hospital, United Kingdom, 3Royal Free Hospital, London, United Kingdom, 4Royal Free Hospital, Medical School, London, England, 5Royal United Hospital, Bath, United Kingdom, 6University of Parma, Parma, Italy, 7Royal Brompton Hospital, London, United Kingdom, 8UCL, London, United Kingdom

723. *Renal Dysfunction and Disease Severity in Scleroderma-Associated Pulmonary Arterial Hypertension*. Stephen C. Mathai1, Laura K. Hummers1 and Virginia D. Steen2, 1Johns Hopkins University, Baltimore, MD, 2Georgetown Univ Medical Center, Washington, DC

724. *Survival, Hospitalization or Need for Combination Therapy at One Year in Patients with Scleroderma-Associated Pulmonary Arterial Hypertension*. Robyn T. Domsic1, Lorinda Chung1, Jessica K. Gordon1, Yona Cloonan2, Virginia D. Steen4 and PHAROS Investigators5, 1University of Pittsburgh, Pittsburgh, PA, 2Stanford Univ Medical Center, Palo Alto, CA, 3Hospital for Special Surgery, New York, NY, 4Georgetown Univ Medical Center, Washington, DC, 5Washington, DC
ACR POSTER SESSION B

MONDAY, NOVEMBER 12, 2012

Poster Hall (Hall B)

Cytokines, Mediators, and Gene Regulation

872. Monocyte Chemoattractant Protein-1 and Eotaxin Are Associated with Parameters of Cardiac Dysfunction in Juvenile Dermatomyositis. Thomas Schwartz1, Ivor Sjaastad2, Berit Flatah, Maria Vistnes1, Geir Christensen1 and Helga Sanner1, 1Institute for Clinical Medicine, University of Oslo, Oslo, Norway, 2Institute for Experimental Medical Research, Oslo University Hospital, Oslo, Norway

873. Imbalance between Histone Acetyl Transferase and Histone Deacteylsyase Activities and Modulation of HDAC Activity and Tnfα Production by HDAC Inhibitors in Patients with Ankylosing Spondylitis or Rheumatoid Arthritis. Eric Toussrirot1, Wasim Abbas1, Kashiif Aziz Khan1, Marion Tissot1, Alicia Jeudy1, Lucile Baud1, Ewa Bertolini1, Daniel Wendling1, Georges Herbein1 and CIC Biotherap1, 1CIC Biotherap 501 and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 2EA 4266 Pathogens and Inflammation, Besançon, France, 3EA Pathogens and Inflammation, Besançon, France, 4Rheumatology, Besançon, France, 5InnoJy University Hospital, Besançon, France, 6Virology and EA 4266 Pathogens and Inflammation, Besançon, France, 7University Hospital, Besançon, France

874. TNFs Induces Sustained Signaling and a Prolonged and Unremitting Inflammatory Response in Synovial Fibroblasts. Angela Lee, Galina Grigoriev, Janice Chen, Lionel B. Ivashkiv and George D. Kalliolias, Hospital for Special Surgery, New York, NY

875. Discovery of Pharmacologic MIF Antagonists by Structure-Based Molecular Design. William L. Jorgensen1, Alissa A. Hare1, Zoe Cournia1, Sunilkumar Gandavadi1, Xin Du1, Lin Leng1 and Richard J. Bucala1, 1Yale University, New Haven, CT, 2Yale University School of Med, New Haven, CT

876. Xanthine Oxidase-Derived ROS Direct Context-Dependent Action of NFAT5 Toward Inflammatory Response in Macrophages. Nam Hoon Kim, Catholic university of Korea, Seoul of Korea, Seoul, South Korea

877. Aberrant Expression of BAFF Receptor (BR3) in Peripheral Monocytes of Patients with Primary Sjögren’s Syndrome Impacts Abnormal Activation of BAFF Signaling Through IKK-Alphaand IKK-Beta. Keiko Yoshimoto1, Maiko Tanaka1, Masako Kojima1, Hideko Ogata1, Hideo Kameda1, Katsuya Suzuki1, Tohru Abe2 and Tsutomu Takeuchi1, 1Keio University School of Medicine, Tokyo, Japan, 2Saitama Medical School, Kawagoe-shi Saitama, Japan

878. Differential Regulation of Cytokines by Extracellular-Signal Regulated Kinase and c-Jun N-Terminal Kinase in Map Kinase Kinase-1 and -6 Deficiency. Deepa Hammaker, Kathryn Topolewski, Monica Guma, David L. Boyle and Gary S. Firestein, UCSD School of Medicine, La Jolla, CA

879. Fucosyltransferase 1 (fut1) is Overexpressed in Rheumatoid Arthritis Synovial Tissue and Modifies Cytokine Production. Takeo Isozaki1, Jeffrey H. Ruth1, M. Asif Amin1, Phillip L. Campbell1, Steven E. Domino1, G. Kenneth Haines III1 and Alisa E. Koch1, 1University of Michigan, Ann Arbor, MI, 2University of Michigan Medical School, Ann Arbor, MI

880. Interferon Regulatory Factor 8 Regulates BAFF Production in Murine Macrophages and Is a Nexus for Cross Talk Between IFN-γ and TGF-β. Weijia Yuan, Sanjay Gupta, Jane E. Salmon and Alessandra B. Pernis, Hospital for Special Surgery, Weill Cornell Medical College, New York, NY

881. Microrna-155 Regulates Chemokines and Chemokine Receptors in Rheumatoid Arthritis Monocyte. Aziza Elmesmari, Derek S. Gilchrist, Alasdar R. Fraser, Diane Vaughan, Ross McQueenie, Gerard J. Graham, James Brewer, Iain B. McInnes and Mariola Kurowska-Stolarska, Institute of Infection,Immunity and Inflammation, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom

882. Anti-Inflammatory Effects of Phosphodiesterase 4 Inhibition Are Mediated by Mitogen-Activated Protein Kinase Phosphatase-1. Riku Korhonen, Tuija Hännö, Mirka Laavola, Tiina Keränen, Mari Hämäläinen and Eva Moilanen, University of Tampere School of Medicine and Tampere University Hospital, Tampere, Finland

883. Role of Phospholipase D1 (PLD1) in the Expression of Proinflammatory Genes in Rheumatoid Arthritis Synovial Fibroblasts (RASF). Sean C. Friday and David A. Fox1, 1The University of Michigan, Ann Arbor, MI, 2Univ of Michigan Med Ctr, Ann Arbor, MI

884. Receptor Activator of Nuclear Factor KB Ligand-Mediated Osteoclastogenesis Is Augmented by Interleukin-1β via up-Regulation of Endoplasmic Reticulum Stress Signals. Myong-Joo Hong1, Myung-Soon Sung1, Eun-Gyeong Lee1, Yoon Kyung Hong1, Chang-Hoon Lee2, Myeung Su Lee2 and Wan-Hee Yoo1, 1Department of Internal Medicine, Chonbuk National University Medical School and Research Institute of Clinical Medicine, Jeonju, South Korea, 2Department of Internal Medicine, School of medicine, Wonkwang university, Iksan, Chonbuk, South Korea, 3Reumatology, Iksan, Chonbuk, South Korea

885. Interferon α and Self-Organized Criticality Theory. Shunichi Shiozawa1, Yumi Miyazaki2 and Ken Tsuniyama3, 1Kyushu University Beppu Hospital, Beppu, Japan, 2Kyushu University Beppu Hospital/ Kobe University Graduate School of Health Sciences, Beppu/ Kobe, Japan

886. Association between Neutrophil Gene Signature and Disease Characteristics in Systemic Lupus Erythematosus Patients. Michelle Petri1, Hong Fang1, Jadwiga Bienkowska1, Norm Allaire2, Jeff Browing2 and Susan Kalled2, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2Biogen Idec Inc., Cambridge, MA
887. WITHDRAWN.

888. Plasma Cells Express the Novel Cytokine Interleukin-36α in Psoriatic and Rheumatoid Arthritis Synovium. Anja Derer¹, Silke Frey¹, Maria-Elena Messbacher¹, Serena Bugatti², D. Baeten³, Carlomaurizio Montecucco⁴, Georg A. Schett¹ and Axel J. Hueber¹, ¹University of Erlangen, Erlangen, Germany, ²Division of Rheumatology, University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy, ³Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, ⁴University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy, ⁵Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

889. Modeling Environmental and Genetic Determinants to identify the Association of Risk Genes in Anti-Ro60-Mediated Injury: Relaxin Receptor I and Tumor Necrosis Factor. Joanne H. Reed¹, Paula S. Ramos², Jiri Zavadil², Jill P. Buyon¹ and Robert M. Clancy¹, ¹New York University School of Medicine, New York, NY, ²Medical University of South Carolina, Charleston, SC

890. The Role of Adipocytokines in Osteocyte Formation in Osteoarthritis. Susann Junker¹, Grit Krumholz¹, Klaus Frommer¹, Angela Lehr¹, Stefan Rehart¹, Jürgen Steinmeyer³, Markus Rickert¹, Georg A. Schett², Ulf Müller-Ladner¹ and Elena Neumann⁴, ¹Justus-Liebig-University of Giessen, Kerckhoff-Klinik, Bad Nauheim, Germany, ²Markus-Hospital, Frankfurt, Germany, ³University Hospital Giessen and Marburg, Giessen, Germany, ⁴University Hospital Giessen and Marburg, Giessen, Germany, ⁵Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ⁶Justus-Liebig-University of Giessen, Kerckhoff-Klinik, Bad Nauheim, Germany

891. Fatty Acids Promote Secretion of Proinflammatory and Prodestructive Factors by Synovial Fibroblasts. Klaus W. Frommer¹, Andreas Schäffer¹, Stefan Rehart¹, Angela Lehr¹, Ulf Müller-Ladner² and Elena Neumann³, ¹Justus-Liebig-University of Giessen, Bad Nauheim, Germany, ²University of Regensburg, Regensburg, Germany, ³Markus-Hospital, Frankfurt, Germany

892. The Epigenetically Repressed Long Noncoding RNA Hotair Influences the Expression of Matrix Metalloproteases in Synovial Fibroblasts. Michelle Trenkmann¹, Matthias Brock¹, Renate E. Gay¹, Beat A. Michel¹, Lars C. Huber² and Steffen Gay¹, ¹Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, ²Department of Internal Medicine, University Hospital Zurich, Zurich, Switzerland, ³Department of Rheumatology, University Hospital Zurich, Zurich, Switzerland

893. Nuclear Factor-κB Activation by Type II Collagen Peptide in Osteoarthritic Chondrocytes: Its Inhibition by Hyaluronic Acid via CD44. Tadashi Yasuda, Tenri University, Tenri, Japan

894. Genetic Variants in the IL-1 and IL-4 Receptor Genes in Association with the Severity of Joint Damage in Rheumatoid Arthritis: A Study in Seven Cohorts. A. Krabben¹, A. G. Wilson⁴, R. Knevel¹, A. Zernakova⁵, E. Brouwer¹, E. Lindqvist⁶, T. Saxne⁷, G. Stoeken-Rijnsbergen⁸, J. A. B. van Nies¹, D. P. C. de Rooy¹, T.W.J. Huizinga¹, B. P. C. Koeleman¹, R. E. M. Toes¹, P. K. Gregersen⁹ and A. H. M. van der Helm-van Mil¹, ¹Leiden University Medical Center, Leiden, Netherlands, ²University of Sheffield, Sheffield, United Kingdom, ³University of Groningen, University Medical Center, Groningen, Netherlands, ⁴Lund University, Lund, Sweden, ⁵University Medical Center Utrecht, Utrecht, Netherlands, ⁶Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY

895. Transcriptomics of Synovial Tissue of Early Human (CHECK) and Experimental OA Identify Pathways Associated with Cartilage Damage. Arjen B. Blom¹, Peter L.E.M. van Lent², Martijn H. van den Bosch¹, Hans Cats², Peter M. van der Kraan³ and Wim B. van den Berg³, ¹Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, ²Sint Maartenskliniek, Nijmegen, Netherlands, ³Rheumatology Research and Advanced Therapeutics, Department of Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

896. Tyro³, Axl, MerTK-Receptor Activation by Gas6 or Pros1 Gene Delivery, ameliorates Collagen-induced arthritis. Fons A.J. van de Loo¹, Ben T. van Den Brand¹, Shahla Abdollahi-Roodsaz², Eline A. Vermeij³, Miranda B. Bennink³, Onno J. Arntz² and Wim B. van den Berg³, ¹Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, ²Sint Maartenskliniek, Nijmegen, Netherlands, ³Rheumatology Research and Advanced Therapeutics, Department of Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

897. IL-33 Promotes Mast Cell Survival Via Inhibition of Apoptosis Associated with Enhanced Expression of Bcl-XL. Shinjiro Kaieda¹, Jun-Xia Wang¹ and Peter A. Nigrovic², ¹Weill Cornell Medical College, New York, NY, ²Special Surgery, New York, NY

898. Nuclear Receptor Related 1 Induces Synovial Hyperplasia via Transcriptional Regulation of Novel Target Genes. Kimberlee S. Mix, Loyola University New Orleans, New Orleans, LA

899. A Role for Soluble Interleukin-6 Receptor as an Antagonist of Interleukin-27 Signaling. Misato Hashizume, Keiko Esaki and Yoshihiro Matsumoto, Chugai Pharmaceutical Co., Ltd., Gotemba, Japan

900. Deletion of RBP-J in a Murine Model of Inflammatory Arthritis Reveals Differential Pro-Inflammatory Cytokine and FoxP3 Gene Expression. Soumya D. Chakravarty, Carmen Au, Xiaooyu Hu and Lionel B. Ivashkiv, Hospital for Special Surgery, New York, NY

901. Colony-Stimulating Factor (CSF) Receptor 1 Blockade Overcomes Overlapping Effects of M-CSF and Interleukin-34 On Myeloid Differentiation and Gene Expression. Toru Nakamura, Osaka University, Osaka, Japan, ¹Hiroaki Koyama, Osaka University, Osaka, Japan
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902. Activation of NF-κB Via Poly(I:C)-Induced Monocyte-Derived Microparticles Decreases TRAIL-Induced Apoptosis of Rheumatoid Arthritis Synovial Fibroblasts. Mojca Frank Bertoncelj1, Blaz Rozman2, Beat A. Michel1, Renate E. Gay1, David S. Pisetsky4, Oliver Distler3, Steffen Gay2 and Astrid Juengel1, 1Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Zurich, Switzerland, 2Department of Rheumatology, University Medical Centre Ljubljana, Ljubljana, Slovenia, 3Department of Rheumatology, University Hospital Zurich, Zurich, Switzerland, 4Duke University Medical Center, Durham, NC, 2Department of Rheumatology and Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 3Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Zurich, CH-8091, Switzerland

903. NR4A1 Mediates Anti-Inflammatory Effects of Apoptotic Cells. Natacha Ipseiz1, Stefan Uderhardt1, Georg A. Schett2 and Gerhard Kronke1, 1University of Erlangen, Erlangen, Germany, 2Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

907. Use of Patient Preferences to Inform the Development of Disease Modifying Drugs for Osteoarthritis. Liana Fraenkel1, Charles Cunningham2, Gillian A. Hawker3 and Lisa G. Suter4, 1Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 2McMaster University, Hamilton, ON, 3Women’s College Research Institute, University of Toronto, Toronto, ON, 4Yale University, New Haven, CT

908. Race, Gender and Total Knee Replacement Consideration: The Role of Social Support. Ernest R. Vina1, Yona Cloonan1, Said Ibrahim2, Michael J. Hannon1, Robert M. Boudreau1 and C. Kent Kwoh3, 1University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, 4University of Pittsburgh School of Medicine, Pittsburgh, PA

909. Determinants of Patient Preferences for Total Knee Replacement: A Comparison of Whites and African-Americans. C. Kent Kwoh1, Robert M. Boudreau2, Yona Cloonan1, Michael J. Hannon1, Ernest R. Vina1 and Said Ibrahim1, 1University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

910. The Cost-Effectiveness of Total Joint Arthroplasty: A Systematic Review of Published Literature. Meghan E. Daigle, Alexander M. Weinstein, Jeffrey N. Katz and Elena Losina, Brigham and Women’s Hospital, Boston, MA

911. Race- and Sex-Specific Estimates of 10-, 20-, 30-Year, and Lifetime Risk of Diagnosed Symptomatic Knee Osteoarthritis and the Need for TKR in the US. Elena Losina, Meghan E. Daigle, Sara A. Burbine and Jeffrey N. Katz, Brigham and Women’s Hospital, Boston, MA

912. Clinical Features Associated with Progression of Knee Radiographic Osteoarthritis: Data From the Osteoarthritis Initiative. Michelle S. Yau1, Laura Yerges-Armstrong1, Braxton D. Mitchell1 and Marc C. Hochberg1, 1University of Maryland School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

913. Consultation Prevalence of Osteoarthritis in Southern Sweden. Aleksandra Turkiewicz1, Ingemar F. Petersson1, Jonas Björk1, Leif E. Dahlberg1 and Martin Englund1, 1Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden, 2Division of Occupational and Environmental Medicine, Lund University, Lund, Sweden, Lund, Sweden

914. Prognosis for the Year 2030: The Consultation Prevalence of Osteoarthritis in Sweden May Increase by 50%. Aleksandra Turkiewicz1, Ingemar F. Petersson1, Jonas Björk1, Leif E. Dahlberg1 and Martin Englund1, 1Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden, 2Division of Occupational and Environmental Medicine, Lund University, Lund, Sweden, Lund, Sweden
915. Incidence of Knee, Hip, and Hand Clinical Osteoarthritis: A Population-Based Cohort Study. Daniel Prieto-Alhambra1, Aina Pagés-Castellá1, M. Kassim Javadi2, Andrew Judge3, Cyrus Cooper2, Nigel K. Arden1 and Adolfo Diez-Pérez2, 1URFOA-IMIM, Parc de Salut Mar; Idiap Jordi Gol; University of Oxford; University of Southampton, Barcelona, Spain, 2IDIAP Jordi Gol; Institut Català de la Salut, Barcelona, Spain, 3Oxford NIHR Musculoskeletal Biomedical Research Unit, University of Oxford, Oxford, UK, Oxford, United Kingdom, 4Oxford University, Oxford, United Kingdom, 5University of Oxford; Southampton General Hospital, Southampton, United Kingdom, 6Hospital del Mar-IMIM, Universitat Autònoma de Barcelona, Barcelona; and RETICEF, ISCIII Madrid; Spain, Barcelona, Spain

916. Population Incidence of Soft Tissue Knee Injury: Estimating From a Swedish Health Care Register. Charlotte Bergknut1, George Peat5, Richard Frobell1 and Martin Englund1, 1Lund University, Lund, Sweden, 2Arthritis Research UK Primary Care Centre, Keele University, United Kingdom, 3Department of Orthopedics, Clinical Sciences Lund, Lund University, Sweden, Sweden

917. Feasibility of Remote Activity and Functional Status Monitoring of Patients with Hip or Knee Pain. Pim Jetanalin1, Hyeon Eui Kim1, Zia Agha3, Nathaniel Heintzman1, Lucila Ohno-Macado1 and Susan J. Lee1, 1University of California, San Diego, La Jolla, CA, 2San Diego Veterans Affairs Medical Center, San Diego, CA

918. Impact of Comorbidities On Measuring Indirect Utility by the Medical Expenditure Study Short Form 6D in Lower-Limb Osteoarthritis. Kossar Hosseini1, Cécile Gaujoux-Viala2, Joel Coste1, Jacques Pouchot1, Bruno Fautrel1, Anne-Christine Rat1 and Francis Guillemin1, 1Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, France, Nancy, France, 2Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, Nancy; Paris 6 – Pierre et Marie Curie University; Rheumatology, Pitié-Salpêtrière Hospital, Paris, France, 3Paris VI University, Paris, France

919. Sedentary Time, Physical Activity, and Concurrent Blood Pressure in Osteoarthritis Participants. Min-Woong Sohn1, Rowland W. Chang1, Grace Ahn1, Linda S. Ehrlich-Jones2, Marc C. Hochberg3, Jungwha Lee1, Michael C. Nevitt4, Pamela A. Semanik1, Jing Song1, Kai Sun1 and Dorothy D. Dunlop1, 1Northwestern University, Chicago, IL, 2Rehabilitation Institute Chicago, Chicago, IL, 3University of Maryland, Baltimore, MD, 4University of California-San Francisco, San Francisco, CA, 5Northwestern University, Illinois, 6Northwestern University, Feinberg School of Medicine, Chicago, IL

920. A Multimodal Intervention to Improve Osteoporosis Care in Home Health Settings: Results from a Cluster Randomized Trial. Meredith Kilgore1, Kenneth G. Saag3, Jeroan Allison5, Elizabeth Kitchin4, Julie L. Locher1, Amy Mudano4, Ryan C. Outman4 and Jeffrey R. Curtis4, 1University of Alabama at Birmingham, Birmingham, AL, 2Univ of Alabama-Birmingham, Birmingham, AL, 3University of Massachusetts Medical School, 4Birmingham, AL


922. Risk of Fracture among Treated and Untreated Men with Osteoporosis. Karen Tomic1, Joanne Lafleur2, Liisa Palmer3, David M. Smith1, Carly J. Paoli1, Irene Agodoa3 and Nicole Yurgin3, 1Truven Health Analytics, Washington, DC, 2University of Utah College of Pharmacy, Salt Lake City, UT, 3Amen Inc, Thousand Oaks, CA

923. Low Bone Mineral Density and Higher Parathyroid Hormone Levels As Independent Factors to All-Cause Mortality in Community-Dwelling Older Adults: the São Paulo Ageing & Health Study (SPAH). Diogo S. Domiciano, Luana G. Machado, Jaqueline B. Lopes, Camille P. Figueiredo, Valéria Caparbo, Liliam Takayama, Eloisa Bonfa and Rosa M.R. Pereira, University of São Paulo, São Paulo, Brazil

924. Methods to Link a U.S. Arthritis Cohort with Medicare Administrative Claims Data. Jeffrey R. Curtis1, Lang Chen2, Timothy Beukelman3, Aseem Bharat4, Fenglong Xie5, Kenneth G. Saag2 and Elizabeth S. Delzell2, 1University of Alabama-Birmingham, Birmingham, AL, 2University of Alabama at Birmingham, AL

925. Use of Rheumatology Services for Arthritis: The Role of SES and Geographic Availability of Rheumatologists and Primary Care Physicians. E. M. Badley1, Mayilee Canizares2 and Aileen M. Davis3, 1Division of Health Care and Outcomes Research,Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, ON, 2Division of Health Care and Outcomes Research,Toronto Western Research Institute, Toronto, ON, 3Division of Health Care and Outcomes Research, Toronto Western Research Institute, Departments of Rehabilitation Science and Health Policy, Management and Evaluation, University of Toronto, Toronto, ON

926. Accuracy of Canadian Health Administrative Databases in Identifying Patients with Rheumatoid Arthritis Using a Random Sample of 7500 Patients Seen in Primary Care. Jessica Widdifield2, Claire Bombardier1, Sasha Bernatsky1, J. Michael Paterson3, Jacqueline Young3, Diane Green1, J. Carter Thorne4, Noah Ivers5, Debra Butt6, R. Liisa Jaakkimainen1, Myra Wang3, Vandana Ahluwalia3, George A. Tomlinson6 and Karen Tu2, 1University of Toronto, Toronto, ON, 2Research Institute of the McGill University Health Ctre, Montreal, QC, 3Institute for Clinical Evaluative Sciences, Toronto, ON, 4Southlake Regional Health Centre, Newmarket, ON, 5William Osler Health Center, Mississauga, ON, 6Toronto General Hospital, Toronto, ON
927. Shared Decision Making in Secondary Care: Rheumatologic Patient’s Perspective. Raphael Battisti1, Thiago D. Baumgratz2, Mirella Cuziò3, Ana Carolina Reifl Janini2, Roger A. Levy Sr. and Mirhelen M. Abreu, 1Medical Student, São Carlos, Brazil, 2Medical Student at Universidade Federal de São Carlos, São Carlos, Brazil, 3Hospital Universitário Pedro Ernesto, Rio de Janeiro, Brazil, 4Universidade Federal de São Carlos, São Carlos, Brazil

928. Is There an Optimal Treatment Strategy for Disease-Modifying-Antirheumatic-Drug Naïve Patients with Rheumatoid Arthritis? Roopa Akkineni and Daniel A. Albert2, 1Dartmouth Hitchcock Medical Center, Lebanon, NH, 2Dartmouth-Hitchcock Med Ctr, Lebanon, NH


930. Disease Burden and Cost of Illness in SLE During 8 Years Follow up. Andreas Jönsson1, anders A. Bengtsson2, Frida Hjalte3, Minna Willim3, Ragnar Ingvarsson1, Ulf Persson3, Ingemar F. Petersson3 and Ola Nived3, 1Section of Rheumatology, Lund, Sweden, 2Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden, 3Lund, Sweden, 4Musculoskeletal Sciences, Department of Orthopedics, Clinical Sciences, Lund, Sweden, 5University Hospital - Lund, Lund, Sweden

931. Health Care Utilization among Medicaid Enrolees with Systemic Lupus Erythematosus Preceding the Development of End-Stage Renal Disease: Sociodemographic Variation. Candace H. Feldman1, Linda T. Hiraki2, Graciela S. Alarcon1, Jinoos Yazdany3, Jun Liu4, Michael A. Fischer1, Wolfgang C. Winkelmaier5 and Karen H. Costenbader, 1Harvard Medical School, Boston, MA, 2Brigham and Women’s Hospital, Boston, MA, 3University of Alabama at Birmingham, Birmingham, AL, 4University of California San Francisco, San Francisco, CA, 5University of California at Los Angeles, Los Angeles, CA

932. Medical Costs and Health Care Resource Use in Patients with Systemic Lupus Erythematosus in an Insured Population. Daniel E. Furst1,2, Ann E. Clarke2, Ancilla W. Fernandes1, Tim Bancroft1, Kavita Gajria3, Warren Greth4 and Serban R. Iorga4, 1UCLA Medical School, Los Angeles, CA, 2McGill University, Montreal, QC, 3MedImmune LLC, Gaithersburg, MD, 4OptumInsight, Eden Prairie, MN, 5MedImmune, LLC, Gaithersburg, MD

933. Economic Burden of Systemic Lupus Erythematosus by Flare Severity in a Commercially Insured Population in the United States. Siva Narayanan1, Emily Durden2, Alan Oglesby3, Paul Juneau4 and Kathleen L. Wilson, 1Human Genome Sciences, Inc., Rockville, MD, 2Thomson Reuters, Austin, TX, 3GlaxoSmithKline, Research Triangle Park, NC, 4Truven Health Analytics, Washington, DC, 5Thomson Reuters Healthcare, Cambridge, MA

934. Direct Cost of Illness in SLE Patients with Systemic Lupus Erythematosus Compared to Others in Their Community. Cristina Drenkard1, Kimberley Rask1, Gaobin Bao1, Gnaresh Patel1, Suparna Bagchi2 and S. Sam Lim3, 1Emory University, Atlanta, GA, 2Human Genome Sciences, Inc., Rockville, MD, 3Thomson Reuters Healthcare, Cambridge, MA

935. Autoimmune Diseases: Declining Mortality Between 1999 and 2008 However Continuing to be a Leading Cause of Death in Children-A 10-Year Retrospective Review. Eric Y. Yen1 and Deborah K. McCurdy2, 1Mattel Children’s Hospital, University of California at Los Angeles, Los Angeles, CA, 2Mattel Children’s Hospital, University of California, Los Angeles, Los Angeles, CA


937. Shared High Risk of Intensive Care Unit Admission in Three Autoimmune Inflammatory Diseases. Christine Peschken, Carol A. Hitchon, Allan Garland, Charles N. Bernstein, Randy Fransoo and Ruth Ann Marrie, University of Manitoba, Winnipeg, MB

938. Incidence of Systemic Lupus Erythematosus in England, 1998-2010. Herve Caspard1, Amy Steffey2, Jie Li2 and Trung N. Tran3, 1MedImmune LLC, Gaithersburg, MD, 2MedImmune, Gaithersburg, MD

939. Validity and Reliability of the Systemic Lupus Activity Questionnaire (SLAQ): A Prospective Study. Yuko Okamoto, Yasuhiro Katsumata, Yasushi Kawaguchi, Sayumi Baba, Kae Takagi, Hisae Ichida, Takahisa Gono, Masanori Hanaoka, Yuko Ota and Hisashi Yamanaka, Tokyo Women’s Medical University, Tokyo, Japan

940. Validity and Reliability of the Lupus Damage Index Questionnaire (LDIq): A Prospective Study. Yuko Okamoto, Yasuhiro Katsumata, Yasushi Kawaguchi, Sayumi Baba, Kae
947. Impact of Systemic Lupus Erythematosus on Work Productivity and Income in the United States. Alan Oglesby1, Ellen Sulcs2, Siva Narayanan3, Mechele Lee2 and Cindy Garris1, 1GlaxoSmithKline, Research Triangle Park, NC, 2Harris Interactive Inc., Rochester, NY, 3Human Genome Sciences, Inc., Rockville, MD

944. Job-Related Burden and Effort-Reward Imbalance in Patients with Systemic Lupus Erythematosus. Jutta G. Richter, Thomas Muth, Ralph Brinks, Tobias Koch, Johannes Siegrist, Nicole Hoffmann, Peter Angerer and Matthias Schneider, Heinrich-Heine-University, Duesseldorf, Germany

943. The Impact of Dyspigmentation and Scarring in Cutaneous Lupus On Quality of Life. Saroj M. Verma1, Joyce Okawa2, Kathleen Propert1 and Victoria P. Werth3, 1University of Pennsylvania, Philadelphia, PA, 2Perelman School of Medicine at the University of Pennsylvania and Philadelphia V.A. Medical Center, Philadelphia, PA, 3University of Pennsylvania and Philadelphia V.A. Medical Center, Philadelphia, PA

948. Antibody-Based Prediction Rules for Connective Tissue Disease: Analysis of 12,555 Patients with Antinuclear Antibody Testing. Ryo Rokutanda1, Mitsumasa Kishimoto1, Yasuharu Tokuda2, Ken-ichi Yamaguchi3, Hisanori Shimizu4, Yasuhiro Suyama5, Yuri Ohara1, Yoichiro Haji6, Chisun Min1, Akira Takeda1, Yuko Matsui1 and Masato Okada1, 1St. Luke’s International Hospital, Tokyo, Japan, 2University of Tsukuba, Ibaraki, Japan

949. The Inverse Association between Obesity and Anti-Nuclear Antibodies Is Modified by Systemic Inflammation and Maybe Associated with Body Composition. Irene Blanco, Monalyn Labitigan and Matthew Abramowitz, Albert Einstein College of Medicine, Bronx, NY

950. Performance of Various Anti-Nuclear Antibody Methodologies in the Assessment of Autoimmune Connective Tissue Diseases. Xiaoli Deng, Cynthia S. Crowson, Helen Khun, Melissa R. Snyder and Kevin G. Modér, Mayo Clinic, Rochester, MN

951. A Systematic Review of Quality of Prognosis Studies in Systemic Lupus Erythematosus. Lily Siok Hoon Lim1, Senq-J Lee2, Brian M. Feldman3, D. D. Gladman4, Eleanor Pullenayegum3 and Earl D. Silverman3, 1Hospital for Sick Children, Toronto, ON, 2The Hospital for Sick Children, Toronto, ON, 3Toronto Western Hospital and University of Toronto, Toronto, ON, 4McMaster University, Hamilton, ON, 5Pediatric Rheumatology Collaborative Study Group (PRSCG), Toronto, ON

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952. Cognitive Behavioral Therapy and Milnacipran in Combination Appears to Be More Efficacious Than Either Therapy Alone. Dennis C. Ang1, Mark P. Jensen2, Jennifer L. Steiner3, Janna Hilligoss1, Richard Gracely4 and Chandan Saha5, 1Indiana University, Indianapolis, IN, 2Seattle, WA, 3Indianapolis, IN, 4Chapel Hill, NC, 5Indiana University

953. How to Explore? Severe of Patients Satisfying Chronic Widespread Pain and Fibromyalgia Criteria. Frederick Wolfe1, Brian Wallitt2, Robert S. Katz3 and Winfried Häuser4, 1National Data Bank for Rheumatic Diseases, Wichita, KS, 2Washington Hospital Center, Baltimore, MD, 3Rush University Medical Center, Chicago, IL, 4Klinikum Saarbrücken, Saarbrücken, Germany

954. Diagnosis of Secondary Fibromyalgia in an Established Rheumatoid Arthritis Cohort. Yvonne C. Lee1, Christine K. Iannacco1, Michelle A. Frits1, M. Weinblatt2 and Nancy A. Shadick3, 1Brigham and Women’s Hospital, Boston, MA, 2Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 3Department of Medicine, Division of Rheumatology, Immunology and Allergy, Brigham and Women’s Hospital, Boston, MA

955. Post – Surgical Outcome Is Correlated with Pre – Surgical Symptoms of Fibromyalgia in Patients Undergoing Spinal Surgery. Jacob N. Ablin1, Mark Berman1, Eyal Behrbalk2, Dan Buskila3, Gilad Regev2 and Zvi Lidar2, 1Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, 2Department of Neurosurgery and Orthopedic, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, 3Beer-Sheva, Israel

956. Learning Disability in Fibromyalgia Patients: FMS Patients Report More Language and Spatial Difficulties. Robert S. Katz1, Alexandra Small2, Carlen Katz3 and Susan Shott3, 1Rush University Medical Center, Chicago, IL, 2University of Illinois Medical School, 3Rheumatology Associates, Chicago, IL

957. Key Psychological Processes Associated with the Fibromyalgia Phenotype Exist On a Continuous Spectrum with Asymptomatic People. Katrina Malini1 and Geoffrey O. Littlejohn2, 1Monash University, Clayton, Australia, 2Monash Medical Centre and Monash University, Clayton, Victoria, Australia
958. Prevalence of Spondyloarthropathy in Fibromyalgia Patients. A.Eftal Yucel, Derya Kaskari and Muhtesem Agýldere, Baskent University, Ankara, Turkey

959. Treatment of Lateral Epicondylitis with Injection of Platelet-Rich Plasma or Corticosteroid Versus Saline: A Randomized, Double-Blind, Placebo-Controlled Trial. Thøger Krogh1, Ulrich Fredberg1, Kristian Stengaard-Pedersen2, Pia Jensen3, Robin Christensen4 and Torkell Ellingsen1, 1Diagnostic Centre Region Hospital Silkeborg Denmark, Silkeborg, Denmark, 2Arhus University Hospital, Aarhus, Denmark, 3Copenhagen University Hospital at Frederiksberg, Copenhagen, Denmark


961. Cerebral Grey and White Matter Changes in Fibromyalgia Depend On Patients’ Age. Marta Ceko, Mary-Ann Fitzcharles, M. Catherine Bushnell and Petra Schweinhardt, McGill University, Montreal, QC

962. Pain, Sleep Disturbance, and Depression Mediate the Association Between Body Mass Index and Fatigue in Fibromyalgia. Mary O. Whipple1, Loren L. Toussaint2, Daniel J. Clauw3, David A. Williams3, Terry H. Oh1, Jeffrey M. Thompson3, Connie A. Luedtke1 and Ann Vincent1, 1Mayo Clinic, Rochester, MN, 2Luther College, Decorah, IA, 3University of Michigan, Ann Arbor, MI, 4Univ of MI Hlth System-Lobby M, Ann Arbor, MI

963. Efficacy of Long-Term Milnacipran Treatment in Patients Meeting Different Thresholds of Clinically Relevant Pain Relief: Subgroup Analysis of a Double-Blind, Placebo-Controlled Discontinuation Study. Daniel J. Clauw1, Philip Mease2, Robert H. Palmer2, Joel M. Trugman2 and Yimin Ma2, 1University of Michigan, Ann Arbor, MI, 2Swedish Medical Center and University of Washington, Seattle, WA, 3Forest Research Institute, Jersey City, NJ


965. Increased Number of Painful Body Sites Is Associated with Worse Pain and Disability-Associated Outcomes Among Returning Operations Enduring Freedom/Operation Iraqi Freedom Service Members. Dennis C. Ang1, Jingwei Wu1, Samantha Outcalt2, Zhangesheng Yu3 and Matthew Bair4, 1University of Michigan, Ann Arbor, MI, 2Indiana University, Indianapolis, IN, 3Indiana University School of Medicine

966. A Systematic Review of Evidence for the Effectiveness of Practitioner-Based Complementary and Alternative Therapies in the Management of Fibromyalgia. Gareth T. Jones1, Priva Paudyal1, Gary J. Macfarlane1 and the Arthritis Research UK Working Group on Complementary and 1University of Aberdeen, Aberdeen, United Kingdom, 2University of Plymouth, Plymouth, United Kingdom, 3Aberdeen

967. Haplotypes of GTP Cyclohydrolase Gene Polymorphisms Are Protective in the Susceptibility of Fibromyalgia Syndrome. Hwajeong Lee1, Shin-Seok Lee2, Seong-Kyu Kim3, Jung-Yoon Choe3, Seong-Ho Kim4, Seong-Su Nah5, Ji Hyun Lee6, Seung-Jae Hong7, Hyun-Sook Kim8, Hye-Soon Lee9, Hyun Ah Kim10 and Chung-Il Joung11, 1Catholic University of Daegu School of Medicine, Daegu, South Korea, 2Chonnam National University Medical School, Gwangju, South Korea, 3and Autoimmunity Research Center, Catholic University of Daegu School of Medicine, Daegu, South Korea, 4Inje University Haeundae Paik Hospital, Busan, South Korea, 5Soochunhyang University, College of Medicine, Cheonan, South Korea, 6Maryknoll Medical Center, Busan, South Korea, 7Kyung Hee University, Seoul, South Korea, 8Internal Medicine, Chosun University Hospital, Gwangju, South Korea, 9Hanyang University Guri Hospital, Guri, South Korea, 10Hallym university sacred heart hospital, Kyunggi, South Korea, 11Konyang University Medical School, Daejeon, South Korea

968. Sympathetic Nervous System Dysfunction in Fibromyalgia and in Overlapping Central Sensitivity Syndromes. A Systematic Review of Controlled Studies. Laura Aline Martinez, Tania Mora, Angelica Vargas, Mario Fuentes and Manuel Martinez-Lavin, National Institute of Cardiology, Mexico City, Mexico

969. Presence of Small Fiber Neuropathy in a Cohort of Patients with Fibromyalgia. Todd Levine1, Victoria Lawson2 and Aidan Levine1, Kevin V. Hackshaw3 and David Saperstein1, 1Phoenix Neurologic Associates, Phoenix, AZ, 2Ohio State University, Columbus, OH, 3Ohio State Univ/Wm Davis Res, Columbus, OH

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970. Genetic Interactions between SNP Variants in C3 Receptor Subunits in Patients with SLE. Jeffrey C. Edberg1, Christine W. Duarte1, Amit Patki2, Elizabeth E. Brown MPH1, Kenneth M. Kaufman1, Jennifer A. Kelly1, Mary E. Comeau1, Marta E. Alarcon-Riquelme on behalf of BIOLUPUS and GENLES6, Sang-Cheol Bae7, Lindsey A. Criswell8, Barry I. Freedman9, Sang-Cheol Bae8, Lindsey A. Criswell8, Barry I. Freedman9, Patrick M. Gaffney10, Gary S. Gilkeson11, Chaim O. Jacob12, Judith A. James13, Diane L. Kamen14, Kathy Moser Sivils1, Timothy B. Niewold15, Robert H. Scofield16, Betty P. Tsao17, 1Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3Cincinnati Children’s Hospital Medical
975. Dense Genotyping of Risk Loci in Black South Africans with Rheumatoid Arthritis: An Association Study. Nimmisha Govind¹, Ananya Choudhury², Bridget Hodkinson³, Claudia Ickinger¹, Jacqueline Frost¹, Annette T. Lee², Peter K. Gregersen³, Richard J. Reynolds³, S. Louis Bridges Jr.³, Scott Hazielhurst³, Michèle Ramsay⁴ and Mohammed Tikly⁴, ¹Division of Rheumatology, University of the Witwatersrand, Johannesburg, South Africa, ²Wits Bioinformatics Department, University of the Witwatersrand, Johannesburg, South Africa, ³Division of Human Genetics, National Health Laboratory Service, University of the Witwatersrand, Johannesburg, South Africa, ⁴Feinstein Institute for Medical Research, Manhasset, NY, ⁵Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, Birmingham, AL

976. Effect of Interactions between Validated Rheumatoid Arthritis Genetic Factors and Environmental Factors On Rheumatoid Arthritis Risk. Chia-Yen Chen¹, Linda T. Hiraki², Susan Malspeis³, Jing Cui³, Bing Lu³, Robert M. Plenge³, Karen H. Kostenbader³ and Elizabeth W. Karlson³, ¹Harvard School of Public Health, Boston, MA, ²Brigham and Women’s Hospital, Boston, MA, ³Emory Children’s Hospital, Atlanta, GA, ⁴University of Utah, Salt Lake City, ⁵Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

977. 14-3-3 Eta Is A Novel Citrullination Target in Rheumatoid Arthritis That Enhances Diagnostic Utility in Anti-CCP Negative Patients. Walter P. Maksymowych¹, Vivian P. Bykerk², Désirée van der Heijde³, R. Landewe⁴ and Anthony Marotta⁵, ¹Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, ²University of Texas Southwestern Medical Center, Dallas, TX, ³Leiden University Medical Center, Leiden, Netherlands, ⁴Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, ⁵Emory Children’s Center, Atlanta, GA, ⁶Department of Medicine, University of Utah, Salt Lake City, ⁷University of Nebraska Medical Center, Omaha, NE

978. A Genome-Wide Interaction Study with Smoking Suggests New Risk Loci for Two Different Subsets of Rheumatoid Arthritis: Results From Swedish Epidemiological Investigation of Rheumatoid Arthritis Study. Xia Jiang¹, Henrik Källberg², Leonid Padyukov³, Lars Klareskog³, Lars Alfredsson¹, ¹Karolinska Institutet, Stockholm, Sweden, ²Rheumatology Unit, Karolinska Institutet, Stockholm, Sweden, ³Division of Rheumatology, University of Bergen, Bergen, Norway

979. Cell-Type Specific Type I Interferon Signatures in Systemic Lupus Erythematosus and Viral Infection: What Makes the Difference? Chieko Kyogoku¹, Joachim R. Grün², Tobias Alexander³, Robert Biesen³, Falk Hiepe², Thomas Häupl²

971. Association of adam33 Polymorphisms with Systemic Lupus Erythematosus. Seung Cheol Shim¹, Mi Kyoung Lim¹, Donghyuk Sheen¹, and Hyo Park, Eulji University Hospital, Seoul, South Korea

972. Associations of Genetic Polymorphisms of Microrna-146a and Its Target Interleukin-1-Receptor-Associated Kinase 1 with Ankylosing Spondylitis. Chun-Huang Huang¹, Jia-Yan Zhan¹, Kai-Jieh Yeo¹, James C. Wei¹, Chi-Hsin Chuang¹ and Ruey-Hong Wong¹, ¹Chung Shan Medical University, Taichung, Taiwan, ²Chung Shan Medical University Hospital, Taichung, Taiwan, ³Chung Shan Med Univ Hospital, Taichung, Taiwan

973. New Genetic Risk Loci for the Radiographic Severity of Rheumatoid Arthritis. Diediker P.C. de Rooy¹, Sacha Zhernakova¹, Roula Tsonaka¹, Fina Kurreeman¹, René E.M. Toes¹, Tom W. J. Huizinga¹, Jeanine Houwing-Duistermaat¹, Peter K. Gregersen⁴ and Annette H.M. van der Helm-van Mil¹, ¹Rheumatology, Leiden University Medical Center, Leiden, Netherlands, ²Statistics, Leiden University Medical Center, Leiden, Netherlands, ³Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY

974. Identification of Susceptibility Loci for Inflammatory Arthritis. K. J. A. Steel¹, Anne Hinks², John Bowes³, Joanna Cobb¹, Edward Flynn¹, Carl D. Langefeld¹, Sampath Prahalad¹, Johannes Peter Haas³, John F. Bohnsack¹, Stephen Guthery¹, Anne Barton¹, Susan D. Thompson¹ and Wendy Thomson¹, ¹Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, ²University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom, ³Wake Forest School of Medicine, Winston-Salem, NC, ⁴Emory Children’s Center, Atlanta, GA, ⁵Children's Hospital, Erlangen, Germany, ⁶University of Utah, Salt Lake City, ⁷University of Nebraska Medical Center, Omaha, NE
980. Genomewide Association Study in Systemic Lupus Erythematosus: Known Loci. Antonio Fernandez-Nebro\textsuperscript{1}, Patricia E. Carreira\textsuperscript{2}, Ricardo Blanco\textsuperscript{3}, Victor M. Martínez-Taboada\textsuperscript{4}, Luis Carreño\textsuperscript{5}, Alejandro Olive\textsuperscript{6}, José Luis andreu\textsuperscript{7}, M. Angeles Aguirre\textsuperscript{8}, Paloma Vela\textsuperscript{9}, Jose Javier Pérez Venegas\textsuperscript{10}, Jose Luis Marenco\textsuperscript{11}, Joan Miquel Nolla\textsuperscript{12}, Antonio Zea\textsuperscript{13}, José M. Pego-Reigosa\textsuperscript{14}, Mercedes Freire González\textsuperscript{15}, Gabriela Ávila\textsuperscript{16}, María América López-Lasanta\textsuperscript{17}, Raül Tortosa\textsuperscript{18}, Antonio Juli\textsuperscript{19} and Sara Marsal\textsuperscript{20}, Hospital Regional Universitario Carlos Haya, Málaga, Spain, 2Instituto de Investigación Hospital 12 de Octubre, Madrid, Spain, 3Hospital Universitario Marques De Valdecilla, Santander, Spain, 4Hospital Universitario Marques De Valdecilla. IFIMAV, Santander, Spain, 5Gregorio Marañón Hospital, Madrid, Spain, 6Germans Trias Pujol Hospital, Barcelona, Spain, 7HU Puerta de Hierro Majadahonda, Madrid, Spain, 8IMIBIC-Reina Sofia Hospital, Cordoba, Spain, 9Hospital General Universitario de Alicante, Alicante, Spain, 10Hospital del SAS de Jerez de la Frontera, Jerez De La Frontera, Spain, 11Hospital Universitari de Bellvitge, Barcelona, Spain, 12Hospital Universitario Ramon y Cajal, Madrid, Spain, 13Hospital do Meixoeiro, Vigo, Spain, 14Complejo Hospitalario Universitario de La Coruña, La Coruña, Spain, 15Vall d’Hebron Hospital Research Institute, Barcelona, Spain

981. Aggregated Genetic Information Explains Variations On Hand Radiographic Scores in Rheumatoid Arthritis Patient. Jing Cui\textsuperscript{1}, Nancy A. Shadick\textsuperscript{2}, Katherine P. Liao\textsuperscript{3}, Michael Weinblatt\textsuperscript{4}, Robert M. Plenge\textsuperscript{5} and Elizabeth W. Karlson\textsuperscript{6}, 1Brigham and Women’s Hospital, Boston, MA, 2Department of Medicine, Division of Rheumatology, Immunology and Allergy, Brigham and Women’s Hospital, Boston, MA, 3Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 4Brigham and Women’s Hospital, Boston, MA, 5Oxford NIHR Musculoskeletal Biomedical Research Unit, University of Oxford, Oxford, UK, Oxford, United Kingdom, 6UC Davis School of Medicine, Sacramento, CA

982. Genetic Variants near Insulin-Like Growth Factor Binding Protein 3 (IGFBP3) Are Associated with Hip Osteoarthritis. Daniel S. Evans\textsuperscript{1}, Neeta Parimi\textsuperscript{2}, Ana M. Valdes\textsuperscript{3}, Hanneke J.M Kerkhof\textsuperscript{4}, Frederic Callotto\textsuperscript{5}, Michael C. Nevitt\textsuperscript{6}, Steven R. Cummings\textsuperscript{7}, Rik J. Lories\textsuperscript{8}, Timothy D. Spector\textsuperscript{9}, Nigel K. Arden\textsuperscript{10}, Joyce B. van Meurs\textsuperscript{11}, Joanne M. Jordan\textsuperscript{12}, Youfang Liu\textsuperscript{13}, Jordan B. Renner\textsuperscript{14}, T. McSherry\textsuperscript{15}, D.M. Taverna\textsuperscript{16}, David Duggan\textsuperscript{17}, W.J. Mysiw\textsuperscript{18} and Rebecca D. Jackson\textsuperscript{19}, 1University of Maryland, Baltimore, MD, 2University of Maryland School of Medicine, Baltimore, MD, 3University of North Carolina Thompson Arthritis Research Center, Chapel Hill, NC, 4University of North Carolina, Chapel Hill, NC, 5University of North Carolina at Chapel Hill Dept of Radiology, Chapel Hill, NC, 6TGen, Pheonix, AZ, 7Ohio State University, Columbus, 8Ohio State University, Columbus, OH

983. Genome-Wide Association Study and Gene Expression Analysis Identifies CD84 As a Predictor of Response to Etanercept Therapy in Rheumatoid Arthritis. Jing Cui\textsuperscript{1} and International RA Consortium on Therapy (InteRACT)\textsuperscript{2}, 1Brigham and Women’s Hospital, Boston, MA, 2Boston, MA

984. Association of Elevated C5a Levels, but Not the Presence of Anti-Cfh IgG Autoantibodies, with the Deletion of CFHR\textsuperscript{3} and CFHR1 in SLE. Jian Zhao\textsuperscript{1}, Seema Kambhale\textsuperscript{2}, Yun Deng\textsuperscript{3}, Magdangal Erika\textsuperscript{4}, Daisuke Sakurai\textsuperscript{5}, Ronggu Li\textsuperscript{6}, Weiling Chen\textsuperscript{7}, Jennifer M. Grossman\textsuperscript{8}, Bevra H. Hahn\textsuperscript{9} and Betty P. Tsoa\textsuperscript{10}, 1Division of Rheumatology, David Geffen School of Medicine, University of California Los Angeles, Los Angeles, CA, 2UCLA David Geffen School of Medicine, Los Angeles, CA

985. Inverse Relation Between the tumor Necrosis Factor Promoter Methylation and Transcript Levels in Leukocytes from Patients with Rheumatoid Arthritis. James R. Maxwell\textsuperscript{1}, Lyndsey H. Taylor\textsuperscript{2}, Richardo A. Pachecho\textsuperscript{3}, Neil Lawrence\textsuperscript{4}, Gordon W. Duff\textsuperscript{5}, M. Dawn. Teare\textsuperscript{6} and Anthony G. Wilson\textsuperscript{7}, 1University of Sheffield, Sheffield, United Kingdom, 2University of Sheffield, United Kingdom, 3Royal Hallamshire Hospital, Sheffield, United Kingdom, 4Section of Musculoskeletal Sciences, University of Sheffield, Sheffield, United Kingdom

986. Genome Wide Association Studies of Knee Osteoarthritis in 2 Large North American Cohorts: A Meta-Analysis with 2667 Cases. Marc C. Hochberg\textsuperscript{1}, Laura Yerges-Armstrong\textsuperscript{2}, Changwan (Larry) Lu\textsuperscript{3}, Michelle S. Yau\textsuperscript{4}, Braxton D. Mitchell\textsuperscript{5}, Joanne M. Jordan\textsuperscript{6}, Youfang Liu\textsuperscript{7}, Jordan B. Renner\textsuperscript{8}, T. McSherry\textsuperscript{9}, D.M. Taverna\textsuperscript{10}, David Duggan\textsuperscript{11}, W.J. Mysiw\textsuperscript{12} and Rebecca D. Jackson\textsuperscript{13}, 1University of Maryland, Baltimore, MD, 2University of Maryland School of Medicine, Baltimore, MD, 3University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC, 4University of North Carolina, Chapel Hill, NC, 5University of North Carolina at Chapel Hill Dept of Radiology, Chapel Hill, NC, 6TGen, Pheonix, AZ, 7Ohio State University, Columbus, 8Ohio State University, Columbus, OH

987. Autoimmune Susceptibility Genes Are Regulators of Gene Expression Response to ER Stress. William E. Bernal\textsuperscript{1}, Michael P. Morley\textsuperscript{2} and Vivian G. Cheung\textsuperscript{3}, 1The Children’s Hospital of Philadelphia, Philadelphia, PA, 2University of Pennsylvania, Philadelphia, PA, 3Howard Hughes Medical Institute, Chevy Chase, MD; University of Pennsylvania, Philadelphia, PA

988. Zone-Specific Protein Profiles in Human Cartilage Unraveled by a Quantitative Proteomic Approach. Patricia Fernandez-Puente\textsuperscript{1}, Lucia Lourido\textsuperscript{2}, Valentina Calamia\textsuperscript{3}, Jesus Mateos\textsuperscript{4}, Cristina Ruiz-Romosa\textsuperscript{5}, Martin K. Lotz\textsuperscript{6} and Francisco J. Blanco\textsuperscript{7}, 1Osteoarticular and Aging Research Unit, University of Sheffield, Sheffield, United Kingdom, 2Osteoarticular and Aging Research Group. Rheumatology Division, Biomedical Research Center (INIBIC). Hospital Universitario A Coruña, As Xubias de
995. Functional Genomics of the Human ITGAM Locus. Yebin Zhou1, Dan C. Bullard1, Alexander Szalai2, Jianming Wu3, and Jeffrey C. Edberg4, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3University of Minnesota, St. Paul, MN, 4Department of Medicine, University of Alabama at Birmingham, Birmingham, AL

996. Evidence of Novel Genetic Predictors of Methotrexate Efficacy in Rheumatoid Arthritis. Stella Aslibekyan1, Maria I. Danila2, Jin Sha3, David T. Redden4, Richard J. Reynolds5, Elizabeth Brown1, Laura B. Hughes1, Molly S. Bray1, Sarah L. Morgan6, Larry W. Moreland7, James R. O’Dell8, Jeffrey R. Curtis9, and Donna K. Arnett1, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Pittsburgh, Pittsburgh, PA, 3Univ of Nebraska Med Ctr, Omaha, NE, 4Univ of Alabama-Birmingham, Birmingham, AL, 5Marguerite Jones Harbert-Gene V. Ball, MD Professor of Medicine, and Director, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, Birmingham, AL

997. A Genome-Wide DNA Methylation Analysis Reveals Different Methylation Patterns in the OA Disease. Ignacio Rego-Pérez1, Juan Fernandez-Tajes1, Mercedes Fernandez-Moreno1, Maria Tamayo Novas2, Alejandro Mosquera Rey3, Natividad Oreiro1, Carlos Fernandez-Lopez1, Jose Luis Fernandez Garcia1 and Francisco J. Blanco1, 1INIBIC-Hospital Universitario A Coruña. Rheumatology Division. Genomic Group, A Coruña, Spain, 2INIBIC-Hospital Universitario A Coruña. Genetic Deparment., A Coruña, Spain

998. Association Study of Genetic Risk Variants for Psoriasis in a Large Cohort of Psoriatic Arthritis, Psoriasis and Controls of the Spanish Population and Association with Relevant Clinical Subphenotypes. J. D. Cafete1, Jose Luis Fernandez-Sueiro2, Raimon Sanmartí3, Jesus Rodriguez4, Jordi Gratakós5, Rubén Queiro6, Juan Carlos Torre-Alonso7,
Jose Perez Venegas, Santiago Muñoz-Fernandez, Carlos Gonzalez, Carlos Montilla, Daniel Roig, Alba Erra, Isabel Acosta, Antonio Fernandez-Nebro, Pedro Zarco, Arnald Alonso, Maria America Lopez-Lasanta, Antonio Julià, Raúl Tortosa and Sara Marsal, Hospital Clinico de Barcelona, Barcelona, Spain, Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, Hospital Clinico de Barcelona, Barcelona, Spain, Hospital Universitario de Bellvitge, Barcelona, Spain, Hospital Parc Taulí, Sabadell (Barcelona), Hospital Universitario Central de Asturias, Oviedo, Spain, Hospital Monte Naranco, Oviedo, Spain, Hospital del SAS de Jerez de la Frontera, Jerez De La Frontera, Spain, Hospital Infanta Sofia, Madrid, Spain, Hospital Gregorio Marañon, Madrid, Spain, Hospital Universitario de Salamanca, Salamanca, Spain, Hospital Universitario de Bellvitge, Hospital de Llobregat- Barcelona, Spain, Hospital San Rafael, Barcelona, Spain, Hospital Universitari Vall d’Hebron, Barcelona, Spain, Hospital Regional Universitario Carlos Haya, Malaga, Spain, Fundacion Hospital Alcorcon, Alcorcon, Madrid, Spain, Vall d’Hebron Hospital Research Institute, Barcelona, Spain, University Hospital Vall d’Hebron, Barcelona, Spain

Identification of New Epistatic Interactions with the HLA Region in the Genetic Etiology of Psoriasis and Psoriatic Arthritis. Sara Marsal1, Juan D. Cañete1, Jose Luis Fernandez-Sueiro1, Raïmoun Sammarti1, Jesus Rodriguez Moreno1, Jordi Gratacos1, Rubén Queiro1, Carlos Montilla2, Juan Carlos Torre-Alonso1, Jose Perez Venegas3, Santiago Muñoz-Fernandez3, Carlos M. Gonzalez3, Daniel Roig4, Alba Erra5, Isabel Acosta6, Antonio Fernandez-Nebro6, Pedro Zarco6, Arnald Alonso6, Maria America Lopez-Lasanta6, Raúl Tortosa6 and Antonio Julià6, Hospital Clinico de Barcelona, Barcelona, Spain, Hospital Universitario Vall d’Hebron, Barcelona, Spain, Hospital Clinico de Barcelona, Barcelona, Spain, Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, Hospital Universitario de Bellvitge, Barcelona, Spain, Hospital Parc Taulí, Sabadell (Barcelona), Hospital Universitario Central de Asturias, Oviedo, Spain, Hospital Universitario de Salamanca, Salamanca, Spain, Hospital Universitari Vall d’Hebron, Barcelona, Spain, Hospital Universitari Vall d’Hebron Hospital Research Institute, Barcelona, Spain, Hospital del SAS de Jerez de la Frontera, Jerez De La Frontera, Spain, Hospital Infanta Sofia, Madrid, Spain, Hospital Gregorio Marañon, Madrid, Spain, Hospital Universitario de Salamanca, Salamanca, Spain, Hospital Universitario de Bellvitge, Hospital de Llobregat- Barcelona, Spain, Hospital San Rafael, Barcelona, Spain, Hospital Universitari Vall d’Hebron, Barcelona, Spain, Hospital Regional Universitario Carlos Haya, Malaga, Spain, Fundacion Hospital Alcorcon, Alcorcon, Madrid, Spain, Vall d’Hebron Hospital Research Institute, Barcelona, Spain, University Hospital Vall d’Hebron, Barcelona, Spain

Epistatic Interaction between BANK1 and BLK in Rheumatoid Arthritis: Results From a Large Trans-Ethnic Meta-Analysis. Emmanuelle Genin1, Baptiste Coustet1, Yannick Allanore1, Maria Teruel1, Arnaud L. Constantin1, Shigeto Toma1, O. Vittecoq2, Hiroshi Furukawa3, Alejandro Balsa4, Thierry Schaeverbeke5, Miguel Angel Gonzalez-Gay1, Gilles Chiocchia1, Naoyuki Tsuchiya1, Javier Martin1 and Philippe Dieude1, INSERM UMR-S946, Paris, France, Université Paris Descartes, Hospital Cochin, Paris, France, Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, Instituto de Parasitología y Biomedicina Lopez-Neyra, CSIC, Granada, Spain, Purpan University Hospital, Toulouse Cedex, France, Sagamihara National Hospital, Sagamihara City, Japan, University Hospital, Rouen, France, Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, National Hospital Organization, Sagamihara, Japan, La Paz Hospital, IdiPaz, Madrid, Spain, Groupe Hospitalier Pellegrin, Bordeaux, France, Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain, Institut Cochin - INSERM U1016 - CNRS (UMR 8104), Paris, France, Molecular and Genetic Epidemiology Laboratory, University of Tsukuba, Tsukuba, Japan, Instituto de Parasitología y Biomedicina Lopez-Neyra (CSIC), Granada, Spain, APHP, Hopital Bichat, Paris, France

CNStream2: Improved SNP and CNV Genotyping Reveals New Loci Associated with Rheumatic Diseases. Arnald Alonso, Antonio Julià, Raúl Tortosa and Sara Marsal, Vall d’Hebron Hospital Research Institute, Barcelona, Spain

Micronu RNA Expression Profiles in Peripheral Blood Mononuclear Cells of Early Onset Psoriatic Arthritis. G. Ciancio1, Manuela Ferracin2, Barbara Zagetti3, Elena Saccenti4, Valentina Bagnari5, Ilaria Farina6, Matteo Colina7, Marco Seri8, Francesco Trotta9, Massimo Negrini10 and Marcello Govoni11, 1Rheumatology Unit-Azienda Ospedaliera-Universitaria Sant’Anna, Ferrara, Italy, Laboratory for Technologies of Advanced Therapies (LTTA), University of Ferrara, Ferrara, Italy, 3Section of Internal Medicine A.Ospedale Maggiore, Bologna, Italy, 4Medical Genetics Unit, Bologna, Italy

Role of Particular Class I MHC Haplotypes in Determining Different Traits within the Psoriatic Arthritis Phenotypes. Muhammad Haroon1, Jon T. Giles1, Robert Winchester1 and Oliver M. FitzGerald1, 1Dublin Academic Medical Center, St. Vincent’s University Hospital, Dublin, Ireland, 2Columbia University Medical Center, New York, NY, 3Columbia University, New York, NY

A Unique Single Nucleotide Polymorphism in the 3’ UTR of the MED29 Gene On Chromosome 19 Is Associated with the Clinical Outcome of Different Biologic Response Modifiers. Susanne Drynda, David Leech, Marietta Gloeztner and Joern Kekow, Univ of Magdeburg, Vogelsang-Gloetz, Germany

The Identification of Pathway Markers in Behcet’s Disease Using Genomewide Association Data from Two Different Populations. Burcu Bakir-Gungor1, Elaine Remmers1, Daniel L. Kastner2, Akira Meguro3, Nobuhisa Mizuki4, Ahmet Gul5 and Osman Ugur Sezerman1, 1Bahcesehir University, Istanbul, Turkey, 2National Institutes of Health, National Human Genome Research Institute, Bethesda, MD, 3National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, 4Yokohama City University Graduate
School of Medicine, Yokohama, Japan, 1Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey, 2Sabancı University, Istanbul, Turkey

1006. Dynamic Gene Expression of Wnt Signaling Pathway during Osteogenic Stimulation in Vitro of Osteoarthritis Mesenchymal Stem Cells. A. Peralta-Sastre1, M. Hernandez-Molino2, P. Tornero-Esteban3, E. Villafuertes2, B. Fernandez-Gutierrez4 and Jose Ramon Lamas4, 1UGC de Reumatología, Hospital Clínico San Carlos, Instituto de Investigación Sanitaria del Hospital Clínico San Carlos (IdISSC), Madrid, Spain, 2Hospital Clínico San Carlos, Madrid, Spain, 3Department of Rheumatology, Hospital Clínico San Carlos, Madrid, Spain, 4Hospital clinico San Carlos, Madrid, Spain

Imaging of Rheumatic Diseases: Magnetic Resonance Imaging, Computed Tomography and X-ray

1007. High Resolution Peripheral Quantitative CT Detects Marked Differences in Metacarpal Head and Shaft and Ultra-Ultra-Distal Radius Bone Volumetric Density and Microstructure in Early Rheumatoid Arthritis. Lynne M. Feehan1, Helen R. Buie1, Linda C. Li1, Kamran Shojaiania1, Cheryl Barnabé2 and Heather A. Mckay3, 1Arthritis Research Centre of Canada and University of British Columbia, Vancouver, BC, 2University of Calgary, Calgary, AB, 3University of British Columbia, Vancouver, BC

1008. Segmentation and Quantification of Bone Erosions in the Hands of Patients with Rheumatoid Arthritis Using High Resolution Computed Tomography. Dominique Toepfer1, Stephanie Finzel2, Oleg Museyko2, Klaus Engelke1 and Georg A. Schett1, 1University of Erlangen-Nuremberg, Erlangen, Germany, 2Department of Internal Medicine III and Institute of Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany


1010. Bone Loss before Clinical Onset of Rheumatoid Arthritis o Subjects with Anti-Citrullinated Protein Antibodies. Stephanie Finzel1, Veronika Lang2, Arnd Kleyer1, Juergen Rech1, Bernhard Manger2, Elizabeth Araujo1, Axel J. Hueber1, Ulrike Harre1 and Georg Schett1, 1University of Erlangen-Nuremberg, Erlangen, Germany, 2University of Erlangen-Nuremberg, Germany, 3Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1011. Structural Damage Is Reduced by Early Achievement of Clinical Remission. Paul Emery1, Vibeke Strand2, Andrew S. Koenig3, Ronald Pedersen4 and Eustrofios Bananis1, 1Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 2Stanford University, Portola Valley, CA, 3Pfizer Inc., Collegeville, PA

1012. Radiographic Deformity of the Foot Is Starting From the Early Stage of Rheumatoid Arthritis. Kenji Mamoto, Tatsuya Kolke, Tadashi Okano, Atsuko Kamiyama, Yoko Sugioka, Masahiro Tada and Hiroaki Nakamura, Osaka City University Graduate School of Medicine, Osaka, Japan

1013. The Influence of Vertebral Fractures On the Functional Disability of Patients with Rheumatoid Arthritis. Soo-Kyung Cho1, Joo-Hyun Lee1, Min-Kyung Han1, Seunghun Lee4, Ji Young Kim1, Jeong Ah Ryu1, Yun Young Choi5, Sang-Cheol Bae2 and Yoon-Kyong Sung2, 1Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea, 2Ilsan Paik Hospital, Inje University, Goyang, South Korea, 3Hanyang University Hospital for Rheumatic Disease, Seoul, South Korea, 4Hanyang University College of Medicine, Seoul, South Korea, 5Hanyang University Hospital for Rheumatic Diseases, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea

1014. Trimmed Analyses, a New Approach to the Analysis of Sharp Score Data in the Assessment of Progression in Patients with Rheumatoid Arthritis. Robert B. M. Landewé1, Désirée van der Heijde2, Carol Connell3, John Bradley4, David Gruben5 and Michael Brown5, 1Academic Medical Center/University of Amsterdam & Atrium Medical Center, Amsterdam, Netherlands, 2Leiden University Medical Center, Leiden, Netherlands, 3Professor of Medicine, Toronto, ON, 4Abbott, Abbott Park, IL

1015. Analysis of Integrated Radiographic Data for Two Long-Term, Open-Label Extension Studies of Adalimumab. Désirée van der Heijde1, Robert Landewé2, Edward C. Keystone3, Ferdinand C. Breedveld4, Shufang Liu5 and Neelufar Mozaffarian4, 1Leiden University Medical Center, Leiden, Netherlands, 2Academic Medical Center, Amsterdam, Netherlands, 3Professor of Medicine, Toronto, ON, 4Abbott, Abbott Park, IL

1016. The Effect of Evaluation Variability At the Unit of Measurement On the Reliability of Omeract Ramris and Van Der Heijde-Modified Sharp Score. Ruben Tavares1, Naveen Parasu2, Karen Finlay3, Erik Jurriaansa, Hao Wu4, Karen A. Beattie1, Maggie Larche1, Lawrence E. Hart1, William G. Benson1, Raja S. Bobba1, Alfred A. Cividino1, Colin E. Webber3, Jean-Eric Tarride4 and Jonathan D. Adachi5, 1McMaster University, Hamilton, ON, 2Hamilton Health Sciences, Hamilton, ON, 3St. Joseph’s Health Care, Hamilton, ON, 4St. Joseph’s Hospital and McMaster University, Hamilton, ON, 5Hanyang University College of Medicine, Seoul, South Korea, 6Programs for Assessment of Technology in Health (PATH) Research Institute, Hamilton, ON, 7Chariton Medical Centre, Hamilton, ON

1017. Bye Bye Biopsy: Diffusion Tensor and Dynamic Contrast Enhance Magnetic Resonance Imaging Parameters Reflect Molecular Events of Inflammation in the Synovium. Vikas Agarwal1, Rishi Awasthi2, Deepak Tripathi3, Vinita Agrawal1, Ram Kishore Singh Rathore4, Kusum Sharma5, CM Pandey6 and Rakesh K. Gupta1, 1Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Lucknow,
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**ACR POSTER SESSION B**

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**1018. Reliability of the Early Erosions in Rheumatoid Arthritis Software When Quantifying Bone Loss.** Melissa XP. Koh1, Joshua WJ. Barbosa1, Ruben Tavares3, Stephen Tytus1, Patrick Emond1, Chris Gordon1, George Ioannidis1, Karen A. Beattie1, William G. Benson3, Raja S. Bobba1, Alfred A. Cividino1, Lawrence E. Hart1, Maggie Larche1, Arthur N. Lau1 and Jonathan D. Adachi1, 3McMaster University, Hamilton, ON, 3St. Joseph’s Hospital and McMaster University, Hamilton, ON, 3St. Joseph’s Health Care, McMaster University, Hamilton, ON, 3St. Joseph’s Hospital and McMaster University, Hamilton, ON, 3St. Joseph’s Health Care, Hamilton, ON, 3St. Joseph’s Hospital and McMaster University, Hamilton, ON

**1019. Visualization of Cartilage in High-Resolution Magnetic Resonance Imaging Is a New Imaging Biomarker for the Quantification of Joint Damage in Rheumatoid Arthritis.** Barbara Herz1, Stephanie Finzel1, Andreas Albrecht1, Juergen Rech1, Matthias Englbrecht3, Goetz Welsch1 and Georg Schett1, 1University of Erlangen-Nuremberg, Erlangen, Germany, 2Department of Traumatic Surgery, University Clinic of Erlangen-Nuremberg, Erlangen, Germany, 3Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

**1020. Location of Erosions At the Metatarsophalangeal Joints in Patients with Rheumatoid Arthritis.** Heidi J. Siddle1, Richard J. Hodgson1, Andrew J. Grainger1, Anthony C. Redmond4, Richard J. Wakefield4 and Philip S. Helliwell1, 1University of Leeds, Leeds, United Kingdom, 2NIHR Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 3Leeds Teaching Hospitals NHS Trust and NIHR Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 4University of Leeds and NIHR Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 5NIHR Leeds Musculoskeletal Biomedical Research Unit, University of Leeds and Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom

**1021. Magnetic Resonance Imaging in Follow-up of Clinical Remission in Juvenile Idiopathic Arthritis.** Mira van Veenendaal1, Robert Hemke1, Marjolein I. Bos1, Mario Maas2, Marion A. J. Van Rossum1 and Taco W. Kuipers1, 1Emma Children’s Hospital / Academic Medical Center (AMC), Amsterdam, Netherlands, 2Academic Medical Center (AMC), Amsterdam, Netherlands

**1022. Imaging of Ankle Joints by MRI in Murine Models of Inflammatory Arthritis.** Shawn M. Rose1, Harris R. Perlman1, Emily Alex Waters2 and Thomas Meade1, 1Northwestern University, Chicago, IL, 2Northwestern University, Evanston, IL

**1023. Scoring Radiographic Progression in Axial Spa: Should We Use the Modified Stoke in Ankylosing Spondylitis Spine Score or the Radiographic Ankylosing Spondylitis Spinal Score?** Sofia Ramiro1, A.M. Van Tubergen1, Carmen Stolwijk1, Robert Landewé8 and Désirée van der Heijde4, 1Academic Medical Center, University of Amsterdam, The Netherlands and Hospital Garcia de Orta, Almada, Portugal, 2Maastricht University Medical Center, Aachen, Germany, 3Academic Medical Center, University of Amsterdam and Atrium Medical Center, Heerlen, Netherlands, 4Leiden University Medical Center, Leiden, Netherlands

**1024. What Constitutes the Characteristic Fat Lesion On MRI of the Sacroiliac Joints in Early Spondyloarthritis?** Ulrich Weber2, Susanne Juhl Pedersen1, Veronika Zuber1, Kaspar Fuhrbach4, Stanley Chan3, Robert GW Lamert1, Mikkel Østergaard2 and Walter P. Maksymowycz1, 1Balgrist University Hospital, Zurich, Switzerland, 2Copenhagen University Hospital Glostrup, Copenhagen, Denmark, 3University of Zurich, Zurich, Switzerland, 4University of Alberta, Edmonton, AB, 5Copenhagen University Hospital at Glostrup, Glostrup, Denmark

**1025. Spinal Inflammation in the Absence of SI Joint Inflammation on MRI in Patients with Active Non-Radiographic Axial Spondyloarthritis.** Désirée van der Heijde1, Joachim Sieper2, Walter P. Maksymowycz1, Matthew A. Brown1, Suchitrita S. Rathmann2 and Aileen L. Pangan1, 1Leiden University Medical Center, Leiden, Netherlands, 2Charité Universitätesmedizin Berlin, Berlin, Germany, 3University of Alberta, Edmonton, AB, 4University of Queensland Diamantina Institute, Brisbane, Australia, 5Abbott Laboratories, Abbott Park, IL

**1026. Psoriatic Arthritis and Spondyloarthritis: Inflammation Assessed by “Head to Toe” Wholebody Magnetic Resonance Imaging - A Comparison with Clinical Joint Examination.** René Panduro Poggenborg1, Susanne Juhl Pedersen1, Iris Eshed1, Inge Juul Sorensen1, Ole Rintek Madsen4, J.M. Möller1 and Mikkel Østergaard2, 1Copenhagen University Hospital in Glostrup, Copenhagen, Denmark, 2Glostrup Hospital, Copenhagen, Denmark, 3Sheba Medical Center, Tel Hashomer, Israel, 4Copenhagen University Hospital in Gentofte, Copenhagen, Denmark, 5Copenhagen University Hospital in Herlev, Copenhagen, Denmark, 6Copenhagen University Hospital Glostrup, Glostrup, Denmark

**1027. Frequency of MRI-Detected Hip Osteoarthritis Features in Persons with Chronic Hip Pain and the Diagnostic Performance of Radiography Using MRI as the Reference.** Li Xu1, Daichi Hayashi1, Ali Guermazi2, David J. Hunter2, Anton Winterstein1, Ling Li1, Klaus Bohndorf1 and Frank Roemer3, 1Boston University School of Medicine, Boston, MA, 2Royal North Shore Hospital, Sydney, Australia, 3Klinikum Augsburg, Augsburg, Germany, 4New England Baptist Hospital, Boston, MA
1028. Semi-Quantitative Assessment of Bone Marrow Edema and Synovitis-Effusion in Osteoarthritis with the Knee Inflammation MRI Scoring System: A Target Lesion Based Methodology. Walter P. Maksymowycz1, Ulrich Weber2, Marcus Planta3 and Robert GW Lambert1, 1University of Alberta, Edmonton, AB, 2Balgrist University Hospital, Zurich, Switzerland, 3University of Alberta, AB

1029. Frequency of Mediapatellar Plica in Persons with Chronic Knee Pain and Its Cross-Sectional Association with Patellofemoral Cartilage Damage and Bone Marrow Lesions: Data From the Joints On Glucosamine Study. Li Xu1, Daichi Hayashi9, Ali Guermazi1, C. Kent Kwoh2, Michael J. Hannon3, Mohamed Jarra2,1, Carolyn E. Moore4, John M. Jakicic5, Stephanie M. Green6 and Frank Roemer7, 1Boston University School of Medicine, Boston, MA, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4Texas Women’s University, Houston, TX, 5University of Pittsburgh, PA, 6University of Pittsburgh, Pittsburgh, PA, 7Klinikum Augsburg, Augsburg, Germany

1030. Frequency and Fluctuation of Susceptibility Artifacts in the Tibio-Femoral Joint Space in Painful Knees On 3T MRI and Association with Meniscal Tears, Radiographic Joint Space Narrowing and Calcifications. Daichi Hayashi9, Mohamed Jarra2,1, Ali Guermazi1, C. Kent Kwoh2, Michael J. Hannon3, Carolyn E. Moore4, John M. Jakicic5, Stephanie M. Green6 and Frank Roemer7, 1Boston University School of Medicine, Boston, MA, 2University of Pittsburgh and VA Healthcare System, Pittsburgh, PA, 3University of Pittsburgh School of Medicine, Pittsburgh, PA, 4Texas Women’s University, Houston, TX, 5University of Pittsburgh, PA, 6University of Pittsburgh, Pittsburgh, PA, 7Klinikum Augsburg, Augsburg, Germany

1031. High Degree of Symmetricity of MRI-Detected Articular Tissue Damage in Subjects with Knee Pain: A Within-Person Analysis From the JOG Study. Frank Roemer7, C. Kent Kwoh2, Michael J. Hannon3, Robert M. Boudreau4, Stephanie M. Green6, John M. Jakicic5, Carolyn E. Moore4 and Ali Guermazi1, 1Klinikum Augsburg, Augsburg, Germany, 2University of Alabama at Birmingham, Birmingham City, AL

1032. Medial Meniscal Root Tears and the Association with Meniscal Extrusion, Prevalent Cartilage Damage and Longitudinal Cartilage Loss: The MOST Study. Mohamed Jarra2,1, David T. Feslon1, Daichi Hayashi9, Frank Roemer7, Yuqing Zhang1, Jingbo Niu2, Michel Crema3, Martin Englund1, John A. Lynch1, Michael C. Nevitt4, James Torner1, C.E. Lewis2 and Ali Guermazi1, 1Boston University, Boston, MA, 2Klinikum Augsburg, Augsburg, Germany, 3Lund University, Lund, Sweden, 4University of California at San Francisco, San Francisco, CA, 5University of California-San Francisco, San Francisco, CA, 6University of Iowa, Iowa City, IA, 7University of Alabama at Birmingham, Birmingham City, AL

1033. Reliability and Responsiveness of Two Methods for Assessment of Magnetic Resonance Imaging Abnormalities in Hip Osteoarthritis in a Placebo-Controlled Trial of Intra-Articular Steroid Injection. Walter P. Maksymowycz1, Jolanda Cibere2, Ulrich Weber1, Jacob Jaremko1, Damien Loueille4, Veronika Zuber4, Frank Roemer7, Eric C. Sayre8 and Robert GW Lambert1, 1University of Alberta, Edmonton, AB, 2Arthritis Research Ctr of CA, Vancouver, BC, 3Balgrist University Hospital, Zurich, Switzerland, 4CHU Brabois, Vandoeuvre les Nancy, France, 5Klinikum Augsburg, Augsburg, Germany, 6Arthritis Research Centre of Canada, Vancouver, BC

1034. Changing Osteoarthritis Treatment Assessment Paradigms: Subchondral Bone Is a More Responsive Measure of Progression Than the Current Radiographic Standard. Michael A. Bowes1, Christopher B. Wolstenholme1, Devan Hopkinson1, Graham R. Vincent1 and Philip G. Conaghan2, 1Imorphics Ltd, Manchester, United Kingdom, 2University of Leeds, Leeds, United Kingdom

1035. Characterisation of New Bone Formation in Gout: A Quantitative Site-by-Site Analysis Using Plain Radiography and Computed Tomography. Nicola Dalbeth4, Aaron Milligan1, Barnaby Clark2, Fiona M. McQueen1 and Anthony Doyle1, 1University of Auckland, Auckland, New Zealand, 2Department of Radiology, Auckland District Health Board, Auckland, New Zealand


1037. Magnetic Resonance Imaging (MRI) Assessment of Inflammatory Myopathy: Quantitative Fat-Corrected Muscle T2 and Conventional T2 Measurement Versus Standard MRI and Clinical Metrics. Lawrence Yao1, Adrienne L. Yip2, Sepehr Mesdaghinia1, Ashkan Shademan3, Joseph A. Shrader1, Anna V. Jansen2, Frederick W. Miller2 and Lisa G. Rider1, 1Clinical Center, NIH, Bethesda, MD, 2NIEHS, NIH, Bethesda, MD, 3NIEHS, NIH, Bethesda

1038. Assessment of Aortic Stiffness by Cardiac Magnetic Resonance Imaging in Systemic Autoimmune Rheumatic Diseases. Galia Karp1, Arik Wolak2, Nina Baram1, Victor Novack1, Philip Rosen1, Yael Perl1, Talia Wolak1, Ilan Sheli3 and Mahmoud Abu-Shakra1, 1Department of Medicine, Soroka Medical Centre and Ben Gurion University, Beer-Sheva, Israel, 2Dept. of Cardiology, Cardiac MRI unit, Soroka University Medical Center, and Ben Gurion University, Beer-Sheva, Israel, 3Radiology division, Soroka University Medical Centre and Ben Gurion University, 4Department of Medicine, Clinical Research center, Soroka University Medical Centre and Ben Gurion University, 5Clinical Research center, Soroka University Medical Center and Ben Gurion University, 6Department of Medicine and Hypertension
1040. **Combined High-Resolution Single Photon Emission Computed Tomography and Magnetic Resonance Imaging for Therapy Monitoring in Rheumatoid Arthritis.** Philipp Sewerin\(^1\), Christian Buchbender\(^2\), Katalin Mattes-György\(^1\), Falk Miese\(^1\), Hans-Jörg Wittsack\(^1\), Christof Speckter\(^1\), Gerald Antoch\(^1\), Matthias Schneider\(^1\), Axel Scherer\(^1\) and Ben Ostendorf\(^1\), \(^1\)Heinrich-Heine-University, Düsseldorf, Germany, \(^2\)Hospital Essen Sued, Essem, Germany, \(^3\)Heinrich-Heine-University, Duesseldorf, Germany

1041. **Whole-Body Magnetic Resonance Imaging - A New Diagnostic Tool in the Assessment of Activity in Juvenile Dermatomyositis Patients?** Tania Monteiro de Castro\(^1\), Henrique Lederman\(^1\), Maria Teresa Terreri\(^1\), Wanda I. Caldana\(^1\), Edmar Zanoteli\(^2\) and Maria Odete Hilario\(^1\), \(^1\)Federal University of São Paulo, São Paulo, Brazil, \(^2\)University of São Paulo, São Paulo, Brazil

1042. **Psoriatic Arthritis Patients Assessed by Dynamic Contrast-Enhanced MRI in High Disease Versus Minimal Disease Activity State - a Cross-Sectional Study Correlating Conventional MRI and Clinical Composite Measures.** René Panduro Poggenborg\(^1\), Pernille Bøyesen\(^1\), Charlotte Wiell\(^1\), Susanne Juul Pedersen\(^1\), Inge Juul Sorensen\(^1\), Ole Rintek Madsen\(^1\), Ole Slot\(^1\), Jakob M. Møller\(^1\), Mikael Boesen\(^1\), Henning Bliddal\(^1\), Olga Kubassova\(^1\) and Mikkel Østergaard\(^1\), \(^1\)Copenhagen University Hospital in Glostrup, Copenhagen, Denmark, \(^2\)Diakonhjemmet Hospital, Oslo, Norway, \(^3\)Copenhagen University Hospital in Gentofte, Copenhagen, Denmark, \(^4\)Copenhagen University Hospital Glostrup, Copenhagen, Denmark, \(^5\)Glostrup Hospital, Copenhagen, Denmark, \(^6\)DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Copenhagen, Denmark, \(^7\)Copenhagen University Hospital in Herlev, Copenhagen, Denmark, \(^8\)Copenhagen University Hospital at Frederiksberg, Copenhagen, Denmark, \(^9\)Image Analysis Ltd., Leeds, United Kingdom, \(^10\)Glostrup Hospital, Glostrup, Denmark

1043. **Assessment of Rheumatoid Arthritis Disease Activity by Power Doppler Ultrasonography: Association with Routine Clinical Indices and Its Usefulness in Detecting Remission.** Hiroaki Taguchi, Kazuo Nishi, Takeo Kudo and Yutaka Okano, Kawasaki Municipal Kawasaki Hospital, Kawasaki, Japan

1044. **Ultrasound Scores of Enthesitis and Dactylitis Do Not Correlate with Corresponding Clinical Findings in Psoriasis Arthritis.** Rusmir Husic\(^1\), Josef Herrmann\(^1\), Judith Gretler\(^2\), Winfried B. Graninger\(^1\) and Christian Dejaco\(^1\), \(^1\)Medical University Graz, Graz, Austria, \(^2\)Auenbruggerplatz 15, Graz, Austria

1045. **Dynamic Contrast-Enhanced Magnetic Resonance Imaging of the Wrist in Rheumatoid Arthritis Patients Treated with Methotrexate.** Intra-Articular Glucocorticoid and Adalimumab/Placebo. Mette Bjørndal Axelsen\(^1\), Merete L. Hølten\(^2\), Kim Hørslev-Petersen\(^1\), Kristian Stengaard-Pedersen\(^1\), Peter Junker\(^1\), Jan Pædemanhant\(^1\), Jakob M. Møller\(^1\), Henning Bliddal\(^1\), Olga Kubassova\(^1\), Mikael Boesen\(^1\) and Mikkel Østergaard\(^1\), \(^1\)Copenhagen University Hospital at Glostrup, Copenhagen, Denmark, \(^2\)Copenhagen University and Glostrup Hospital, Copenhagen, Denmark, \(^3\)University of Southern Denmark, Graasten, Denmark, \(^4\)Arhus University Hospital, Aarhus, Denmark, \(^5\)Odense University Hospital, Odense C, Denmark, \(^6\)Copenhagen University at Gentofte, Hellerup, Denmark, \(^7\)Copenhagen University Hospital in Herlev, Copenhagen, Denmark, \(^8\)The Parker Institute, Copenhagen University Hospital at Frederiksberg, Copenhagen, Denmark, \(^9\)Image Analysis Ltd., Leeds, United Kingdom, \(^10\)Copenhagen University Hospital at Frederiksberg, Copenhagen, Denmark

1046. **Automated Breast Volume Scanner (ABVS), a New Automated Ultrasound Device, Is Useful to Examine Joint Injury in Patients with Rheumatoid Arthritis.** Shin-ya Kawashiri\(^1\), Takahisa Suzuki\(^2\), Yoshikazu Nakashima\(^2\), Akitomo Okada\(^2\), Naoki Iwamoto\(^1\), Kunihiro Ichinose\(^1\), Mami Tamai\(^1\), Kazuhiro Arima\(^1\), Hideki Nakamura\(^1\), Tomoki Origuchi\(^1\), Masatake Uetani\(^1\), Kiyoshi Aoyagi\(^1\) and Atsushi Kawakami\(^1\), \(^1\)Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, \(^2\)Nagasaki University, Nagasaki, Japan, \(^3\)Nagasaki University, Nagasaki, Japan

1047. **Evaluation of Ankle Swelling Due to Löfgren’s Syndrome: A Pilot Study Using B-mode and Power Doppler Ultrasonography.** Emmanuelle LeBras\(^1\), Sandra Balser\(^1\), Valentin S. Schäfer\(^1\), Boris P. Ehrenstein\(^1\), Patrick Hoffstetter\(^1\), Martina Müller\(^1\), Martin Fleck\(^2\) and Wolfgang Hartung\(^1\), \(^1\)Asklepios Klinikum Bad Abbach, Bad Abbach, Germany, \(^2\)University Clinic Regensburg, Regensburg

1048. **Tenosynovitis in Carpal Tunnel Syndrome – Prevalence and Comparison between Ultrasonography, Surgery and Histology.** David F. Ten Cate\(^1\), Nick Glauser\(^1\), Jolanda J. Luime\(^2\), K.H. Lam\(^3\), Johannes W.G. Jacobs\(^1\), Ruud W. Selles\(^1\), Johanna Hazes\(^1\) and M. Bertleff\(^3\), \(^1\)Erasmus Medical Center, Rotterdam, Netherlands, \(^2\)Erasmus MC - University Medical Center, Rotterdam, Netherlands, \(^3\)Erasmus Medical Center, Rotterdam, Netherlands
1049. The Prevalence of the Ultrasonographic Positive Power Doppler Synovitis Is High and Predicts the Risk of Relapse and Structural Progression in Rheumatoid Arthritis in Clinical Remission: A Systematic Literature Review and Meta Analysis. Huong Nguyen1, Adeline Ruyssev-Witrand1, Arnaud L. Constantini1, Violaine Foltz2, Frédérique Gandjákách3 and Alain G. Cantagrel1, 1Purpan University Hospital, Toulouse, France, 2Pitié Salpêtrière Hospital, Paris, France

1050. Assessment of Validity of Magnetic Resonance Imaging Measures of Joint Inflammation and Damage in Rheumatoid Arthritis Wrist/Hand — a Systematic Literature Review. TG Woodworth1, O. Morgacheva1, OM Trom1, OL Pimenta2, P. Maranian1, V.K. Ranganath1 and D.E. Furst2, 1Visiting Clinical Researcher, David Geffen School of Medicine, UCLA, Los Angeles, CA, 2David Geffen School of Medicine, UCLA, Los Angeles, CA, 3USC Keck School of Medicine, Santa Monica, CA

1051. Magnetic Resonance Imaging in Inflammatory Bowel Disease Patients with Arthralgia. W. Stomp1, L.K.P.M. Brakenhoff1, F.A. van Gaalen1, D. van der Heijde1, H.H. Fidder2, D.W. Hommes3, M. Reijnierse1 and J.L. Bloem4, 1Leiden University Medical Center, Leiden, Netherlands, 2University Medical Center Utrecht, Utrecht, Netherlands, 3University of California Los Angeles, Los Angeles, CA

1052. Systematic Review of the Association between Magnetic Resonance Imaging and Radiographic Detection of Erosions in Rheumatoid Arthritis. Ruben Tavares1, Stephen R. Tytus2, Karen A. Beattie3, Maggie Larche1, Naveen Parasu3, Colin E. Webber4, Lawrence E. Hart5 and Jonathan D. Adachi6, 1McMaster University, Hamilton, ON, 2Northern Ontario School of Medicine, Sudbury, Qatar, 3Hamilton Health Sciences, Hamilton, 4Hamilton Health Sciences, Hamilton, ON, 5St. Joseph’s Health Care, Hamilton, ON, 6Charlton Medical Centre, Hamilton, ON

1053. Severe Joint Injury Assessed by Musculoskeletal Ultrasonography (MSKUS) Predicts the Presence of MRI-Proven Osteitis in Patients with Rheumatoid Arthritis. Shin-ya Kawashiri1, Takahisa Suzuki1, Yoshikazu Nakashima1, Yoshio Horai1, Naoki Iwamoto1, Kunihiro Ichinose1, Kazuhiko Arima1, Mami Tamai2, Hideki Nakamura3, Tomoki Origuchi1, Kiyoshi Aoyagi1 and Atsushi Kawakami1, 1Systemic Lupus Erythematosus (SLE). Ken Tsumiyama Organized Criticality Theory’ Explaining the Cause of Systemic Lupus Erythematosus (SLE). Ken Tsumiyama, Toulouse, France, 2Pitié Salpêtrière Hospital, Paris, France

1054. Diffusion Tensor and Dynamic Contrast Enhanced Perfusion Imaging Metrics Discriminate Chronic Tubercular Synovitis From Chronic Inflammatory Synovitis of the Knee. Vikas Agarwal1, Rakesh K. Gupta2, Rishi Awasthi2, Deepak Tripathi2, Prativa Sahoo2, Vinita Agrawal2, Kusum Sharma2, Rungmei Marak2, Ram Kishore Singh Rathore1 and CM Pandey1, 1Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Lucknow, India, 2Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Lucknow, India, 3Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Lucknow, India, 4Indian Institute of Technology, Kanpur, India, 5Postgraduate Institute of Medical Education and Research, Chandigarh, India, 6Microbiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, Lucknow, India

Innate Immunity and Rheumatic Disease

1055. Sec61 Is Indispensable for Antigen Cross-Presentation and the Development of Lupus Nephritis: A Novel ‘Self-Organized Criticality Theory’ Explaining the Cause of Systemic Lupus Erythematosus (SLE). Ken Tsumiyama and Shunichi Shiozawa, Kyushu University Beppu Hospital, Beppu, Japan

1056. Fc Receptor Gamma-Dependent Autoimmune Endocarditis in K/BxN Mice. Patricia M. Hobday1, Jennifer L. Auger2, J. Sjef Verbeek1, Jeffrey V. Ravetch3 and Bryce A. Binstadt1, 1University of Minnesota, Minneapolis, MN, 2Leiden University Medical Center, Leiden, Netherlands, 3The Rockefeller University, New York, NY

1057. A Specific Inhibitor of Spleen Tyrosine Kinase, PRT06260, Is a Potent Modulator of Innate Immune Cell Function. Lynn A. Kamen, Gillian Stephens, Anjali Pandey and Uma Sinha, Portola Pharmaceuticals, South San Francisco, CA


1059. Endogenous Complement Factor H Plays an Important Role in Controlling Immune Complex-Induced Inflammatory Arthritis. Nirmal K. Banda1, Gaurav Mehta2, Viviana P. Ferreira2, Claudio Cortes2, Michael K. Pangburn3, William P. Arend1 and V. Michael Holers1, 1University of Colorado School of Medicine, Aurora, CO, 2University of Toledo Health Science Campus, Toledo, OH, 3University of Texas Health Sciences Center, Tyler, TX

1060. Protein Kinase C Inhibitor Generates Human Tolerogenic Dendritic Cells That Induce Tr- and Foxp3+ Regulatory T Cells. Takuya Matsumoto, Hitoshi Hasegawa, Jun Ishizaki, Koichiro Suemori, Sachiko Onishi and Masaki Yasukawa, Ehime University Graduate School of Medicine, Toon, Japan

1061. Generation of Myeloid-Derived Suppressor Cells in Vitro from Murine Bone Marrow Precursors. Julia Kurko, Beata Tryniszewska, Tibor A. Rauch, Colt Egelston, Tibor T. Giant and Katalin Mikesz, Rush University Medical Center, Chicago, IL
1062. Identification of Highly Potent and Selective Interleukin-1 Receptor-Associated Kinase 4 Inhibitors for the Treatment of Rheumatic Diseases. Divya Chaudhary1, Shaughnessy Robinson2, Craig E. Masse3, Matthew D. Wessel4, Shawn Watts5, Jeremy Greenwood2, Mee Shelley1, Mark Brewer2, Geraldine Harriman1, Leah L. Frye2, Ronald T. Wester3, Rosana Kapeller1 and Donna Romero1, 1Academic Medical Center Utrecht, Utrecht, Netherlands, 2Academic Medical Center / University of Amsterdam and 2Hoffmann La Roche, Nutley, NJ

1063. Dysfunction of Natural Killer and Natural Killer T Cells in Patients with Adult Onset Still's Disease. Young-Nan Cho1, Sung-Ji Lee1, Tae-Jong Kim2, Hye-Mi Jin1, Dong-Jin Park3, Seung-Jung Kee1 and Yong-Wook Park1, 1Chonnam National University Medical School and Hospital, Gwangju, South Korea, 2Chonnam National University Medical School, Gwangju, South Korea

1064. CD1c-Expressing Myeloid Dendritic Cells From Joints of Rheumatoid Arthritis Patients Produce Increased Levels of T Cell-Attracting Chemokines and Strongly Activate Autologous T Cells. F.M. Moret, C.E. Hack, F.P.J.G. Lafeber, T.R.D.J. Radstake and J.A.G. van Roon, University Medical Center Utrecht, Utrecht, Netherlands

1065. Hypoxia-Inducible Factor-1α: Trigger of Toll-Like Receptor Signalling-Engaged Inflammation in Rheumatoid Arthritis. Fanlei Hu1, Rong Mu1, Jiaxin Zhu1, Wenwei Shao2, Lianjie Shi3, Philip L. Cohen4, Xiaoyan Qiu2 and Zhanqiao Li2, Peking University People’s Hospital, Beijing, China, 3School of Basic Medical Science, Peking University, Beijing, China, 4Temple University, Philadelphia, PA

1066. Extrathymic Autoimmune Regulator (AIRE) Expression in Rheumatoid Arthritis. A.R. Noort1, K.P.M. van Zoest1, M.C. Lebre1, P. P. Tak2 and S.W. Tas1, 1Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 2Academic Medical Center / University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

1067. Spontaneous Aggregation of the Anti-Viral Mavs Protein in Certain Systemic Lupus Erythematous Patients May Explain Excessive Type I Interferon Production. Philip L. Cohen1 and Wen-Hai Shao2, 1Temple University, Philadelphia, PA, 2Temple University School of Medicine, Philadelphia, PA

1068. A Selective Inhibitor of Endosomal Toll-Like Receptors, IMO-8400, Suppresses Activation of Multiple Cytokines, Th17 Response and Inflammamosome Activation. Weiwen Jiang, Fugang Zhu, Dong Yu, Ekambar R. Kandimalla, Nicola La Monica and Sudhir Agrawal, Idera Pharmaceuticals, Federal de Sao Paulo, Brazil, 2Escola Paulista de Medicina - Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil

1069. The Effects of TNF Stimulation on Control of Apoptosis in Neutrophils. Direkrit Chiewchongkol, Connie Lam, Kate Roberts, Helen Wright, Huw Thomas, Robert Moots and Steven Edwards, University of Liverpool, Liverpool, United Kingdom

1070. CD11c+ Dendritic Cells Play an Important Proinflammatory Role in Inflammatory Arthritis. Antonia Puchner1, Stephan Blüml2, Harald Leiss2, Victoria Saferding2 and Kurt Redlich2, 1Medical University Vienna, Vienna, Austria, 2Medical University of Vienna, Vienna, Austria

1071. WITHDRAWN.

1072. Enzymatic Lipid Oxidation Contributes to the Maintenance of Self-Tolerance by Regulating Antigen Clearance and Dendritic Cell Function. Stefan Uederhardt1, Tobias Rothe1, Elisabeth Zinser2, Olga Oskolkova3, Martin Herrmann4, Alexander Steinkasserer5, Valery Bochkov2, Georg Schett2 and Gerhard Kronke1, 1University of Erlangen, Erlangen, Germany, 2Department of Vascular Biology and Thrombosis Research, Center for Physiology and Pharmacology, Medical University of Vienna, Vienna, Austria, Vienna, Austria, 3PhD, Erlangen, Germany, 4Department of Immune Modulation at the Department of Dermatology, University Hospital Erlangen, Erlangen, Germany, 5Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1073. Increased Oxidative Burst in Neutrophils but Not Monocytes in Systemic Lupus Erythematous. Sandro F. Perazza1, Reinaldo Salomao1, Neusa P. Silva2 and Luis Eduardo C. andrade3, 1Federal University of Sao Paulo, Sao Paulo, Brazil, 2Escola Paulista de Medicina - Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil

1074. TLR2 Deletion Promotes Arthritis and Joint Destruction Through Reduction of IL-10. Qi Quan Huang1, Renee E. Koessler2, Robert Birkett3, Harris R. Perlman3, Qianping Xing2 and Richard M. Pope2, 1Northwestern University, Chicago, IL, 2Northwestern University Feinberg School of Medicine, Chicago, IL, 3University of Rochester, Rochester, NY, 4Northwestern Univ Med School, Chicago, IL

1075. Effects of siRNA Depletion of Interferon Regulatory Factor 5 on Pro-Inflammatory Cytokine Production and IgG Secretion by Primary Human Immune Cells in Response to TLR7/8 Stimulation. Dinesh Sririvasan1, Sandip Panicker2, Gang Lu1, Yajuan Gu1, Rothschild Soto2, Seng-Lai Tan1 and Julie Demartino1, 1Hoffmann-La Roche, Nutley, NJ, 2Hoffmann La Roche, Nutley, NJ

1076. FLIP in Dendritic Cells May Regulate Hematopoietic Homeostasis and Modulating Inflammation and Immunity. Qi Quan Huang1, Robert Birkett3, Harris R. Perlman3 and Richard M. Pope2, 1Northwestern University, Chicago, IL, 2Northwestern University Feinberg School of Medicine, Chicago, IL, 3Northwestern Univ Med School, Chicago, IL

1077. p21 Promotes Inflammatory Arthritis Resolution by Facilitating Alternative Activation of Macrophages. Angelica K. Gierut1, Carla M. Cuda1, Alexander V. Misharin1, Rana Saber1 and Harris R. Perlman1, 1Northwestern Med Faculty Found, Chicago, IL, 2Northwestern University Feinberg School of Medicine, Chicago, IL, 3Northwestern University, Chicago, IL


Orthopedics, Low Back Pain, and Rehabilitation Poster


1085. Differences in Baseline Characteristics between TKR and THR Patients: Results from a National Research Consortium. Patricia D. Franklin, Benjamin Snyder, Jeroan Allison, Wenjun Li, Milagros Rosal, Leslie R. Harrold, Bruce Barton and David Ayers.

1086. Has the Level of Disability At Time of TKR Changed Over the Past 10 Years?: Results From Two National Cohorts. Patricia D. Franklin, Wenjun Li, Benjamin Snyder, Courtland Lewis, Philip Noble and David Ayers.

1087. Do Younger TKR Patients Have Similar Disability At Time of Surgery As Older Adults? Patricia D. Franklin, Wenjun Li, Leslie R. Harrold, Benjamin Snyder, Courtland Lewis, Philip Noble and David Ayers.

1088. Factors Influencing Long-Term Recovery of Total Knee Arthroplasty. C. Allyson Jones, Gail S. Jangri and Maria E. Suarez-Almazor.

1089. The Number of Ruptured Tendons as a Prognostic Factor for Reconstructing Extensor Tendon Rupture in Patients with Rheumatoid Arthritis. Yu Sakuma, Kensuke Ochi, Takuji Iwamoto, Shini Yoshida, Asami Saitou, Katsunori Ikari and Shigeki Momohara.


1093. University of Massachusetts Medical School, Worcester, MA, 2University of Massachusetts Medical School, 3UMass Medical School, Worcester, MA.
1093. Obesity Is Not a Risk Factor for Poor Pain and Function Two Years after Total Knee Replacement. Lisa A. Mandl, Mark P. Figgie, Alejandro Gonzalez Della Valle, Michael Alexiades and Susan M. Goodman, Hospital for Special Surgery, New York, NY

1094. The Relationship between Lumbar Spine Individual Radiographic Features and Low Back Symptoms with and without Associated Leg Symptoms: The Johnston County Osteoarthritis Project. Adam P. Goode, Janet K. Freburger, Timothy S. Carey, Chad E. Cook, Jordan Renner, Sean D. Rundell and Joanne M. Jordan, Duke University, Durham, NC, University of NC CB 7590, Chapel Hill, NC, 2Cecil G. Sheps Center for Health Services Research University of North Carolina, Chapel Hill, NC, 3Walsh University, OH, University of North Carolina, Chapel Hill, NC, 4University of Washington, Seattle, WA, University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC

1095. Metal Concentrations in Patients with Failed Metal-On-Metal Hip Prostheses Determine the Inflammatory Phenotype in Peri-Implant Tissue. Erja-Leena Paukkeri, Riku Korhonen, Antti Eskelinen, Marko Pesu, Kajia Vasama, Teemu Moilanen and Eeva Moilanen, 1The Immunopharmacology Research Group, University of Tampere School of Medicine and Tampere University Hospital, Tampere, Finland, 2Coxa Hospital for Joint Replacement, Tampere, Finland, 3Immunoregulation, Institute of Biomedical Technology, University of Tampere, Tampere, Finland, 4Fimlab Laboratories, Tampere, Finland

1096. Lower Income Paradoxically Associated with Better Patient-Reported Outcomes After Knee Arthroplasty in the U.S. Jasvinder A. Singh and David Lewallen, 1University of Alabama at Birmingham, Birmingham, AL, 2Mayo Clinic college of medicine, Rochester

Osteoarthritis - Clinical Aspects

1097. The Association of Fat Distribution and Clinically Defined Hand Osteoarthritis: The Netherlands Epidemiology of Obesity Study. A. Willemien Visser, Marieke Loef, andreea Ioan-Fascian, Marten den Heijer, Frits R. Rosendaal and Margreet Kloppenburg, Leiden University Medical Center, Leiden, Netherlands

1098. Knee Osteoarthritis and Frailty in Older Adults: Findings from the Multicenter Osteoarthritis Study and Osteoarthritis Initiative. Devyani Misra, Michael C. Nevitt, Cora E. Lewis, James Torner, David T. Felson and Tuhina Neogi, 1Boston University School of Medicine, Boston, MA, 2University of California-San Francisco, San Francisco, CA, 3University of Alabama, Birmingham City, Birmingham, AL, 4University of Iowa, Iowa City, Iowa City, IA

1099. Whole Blood Lead Is Associated with Symptoms, but Not Radiographic Osteoarthritis, in Multiple Joint Sites: The Johnston County Osteoarthritis Project. Amanda E. Nelson, Xiaoyan A. Shi, Todd A. Schwartz, Jordan B. Renner, Kathleen L. Caldwell, Charles G. Helmick and Joanne M. Jordan, 1University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC, 2SAS Institute, Cary, NC, 3University of North Carolina Gillings School of Global Public Health, Dept of Biostatistics, Chapel Hill, NC, 4University of North Carolina School of Medicine, Dept of Radiology, Chapel Hill, NC, 5Centers for Disease Control and Prevention, Atlanta, GA

1100. A Functional Growth Hormone Receptor Polymorphism, Exon 3 Deleted Ghr, Is Associated with Radiographic Knee Osteoarthritis in Females with Familial Osteoarthritis At Multiple Sites: The Garp Study. Kim M.J.A. Claessen, Margreet Kloppenburg, H.M. Kroon, Jessica Bijsterbosch, Alberto M. Pereira, Hans A. Romijn, Tahar Straaten van der, Marian Beekman, P.E. Slagboom, Nienke R. Biermasz and Ingrid Meulenbelt, 1Leiden University Medical Center, Leiden, Netherlands, 2Department Rheumatology and Department of Clinical Epidemiology, Leiden University Medical Centre, Leiden, The Netherlands, 3The Netherlands Genomics Initiative-Sponsored Netherlands Consortium for Healthy Aging, Rotterdam, Netherlands

1101. Condroitin Sulfate Decreases Chemokine Levels and Synovitis in knee osteoarthritis Patients. Jordi Monfort, Paula Escudero, Cristobal Orellana, Laura Piqueras, Laura Tio, Francisco Montañés, Natalia García, Chantal Company, Pere Benito and Maria Jesús Sanz, 1Hospital del Mar, Barcelona, Spain, 2Univesrity Clinic Hospital Research Foundation-INCLIVA, University of Valencia, Valencia, Spain, 3Corporació Sanitaria Parc Taulí, Sabadell, Spain, 4University Clinic Hospital Research Foundation-INCLIVA, University of Valencia, Valencia, Spain, 5GRICIC. FIMIM, Barcelona, Spain

1102. Immunoreactive Collagen Type II Cleavage Products and Their Nitrated Forms in Rheumatoid Arthritis and Osteoarthritis: An Outpatient Cross-Sectional Study. Ruediger Mueller, Axel Finckh, Guy Heynen and Johannes von Kempis, 1Cantonal Hospital, St. Gallen, Switzerland, 2Geneva University Hospitals, Geneva 14, Switzerland, 3Consulting, CH-6300 Zug, Switzerland, 4MD, St. Gallen, Switzerland


ACR POSTER SESSION B

1105. Lateral Tibio-Femoral Shift Related to Medial Knee Osteoarthritis. Roy H. Lidtke1, Berna Goker2, Abdurrahman Tufan2, Laura E. Thorp3 and Joel A. Block4, 1Rush University Medical Center, Chicago, IL, 2Gazi University Medical School, Ankara, Turkey


1107. Baseline Knee Flexion Pain, Age and Joint Line Tenderness Predict the Progression of Asymptomatic, Radiographic Knee Osteoarthritis to Symptomatic Knee Osteoarthritis Over 5 Years. Abhiram Gande1 and James J. Irgang2, 1University of Pittsburgh School of Medicine, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA

1108. A Randomized Controlled Trial of Hylan G-F 20 for the Treatment of Carpometacarpal Osteoarthritis. Lisa A. Mand1, Scott Wolfe2, Aaron Daluiski2, Robert N. Hotchkiss3, Stephen L. Lyman4 and Jeffrey N. Katz5, 1Hospital for Special Surgery, New York, NY, 2Hospital For Special Surgery, New York, NY, 3Hospital Special Surgery, New York, NY, 4Brigham and Women’s Hospital, Boston, MA

1109. Effects of Strontium Ranelate On Hand Osteoarthritis – Analysis of Data From the Sekoia Trial. E. Maheu1, C. Cadet2 and F. Berenbaum3, 1AP-HP St Antoine Hospital, Paris, France, 2Paris, France

1110. Radiologic Progression in Hand Osteoarthritis (OA) Over 2.6 Years - Data from the Sekoia Trial. Emmanuel Maheu1, Christian Cadet2 and Francis Berenbaum3, 1AP-HP St Antoine Hospital, Paris, France, 2Rheumatology, Paris, France

1111. Erosive Evolution in Hand Osteoarthritis Is Associated with Incident Joint Tenderness Independent of MRI-Defined Bone Marrow Lesions and Synovitis. Ida K. Haugen1, Barbara Slatkowsky-Christensen2, Pernille Boysen2, Selve Sesseng3, Désirée van der Heijde4 and Tore K. Kvien5, 1Diakonhjemmet Hospital, Oslo, Norway, 2Leiden University Medical Center, Leiden, Netherlands

1112. Patients with Erosive Osteoarthritis Have Less Extensive Synovitis Than Patients with Rheumatoid Arthritis On Histopathology. Allen P. Anandarajah1, Stephen Kates2, Kate Burns3 and Ellen Giampoli4, 1Univ of Rochester Medical Ctr, Rochester, NY, 2University of Rochester Medical Center, Rochester, 3University of Rochester, Rochester, NY, 4University of Rochester Medical Ctr, Rochester, NY

1113. Characterization of Lumbar Spine Individual Radiographic Features in African American and White Women and Men: The Johnston County Osteoarthritis Project. Adam P. Goode1, Amanda E. Nelson2, Kelli D. Allen3, Jordan Renner4, Timothy S. Carey5 and Joanne M. Jordan6, 1Duke University, Durham, NC, 2University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC, 3Duke and Durham VA Medical Center, Durham, NC, 4University of North Carolina, Chapel Hill, NC, 5Cecil G. Sheps Center for Health Services Research University of North Carolina, Chapel Hill, NC


1115. Relation between Hip Dysplasia, Pain, and Osteoarthritis in a Cohort of Patients with Hip Symptoms. Johanne Morvan1, Ronan Bouttier2, Bernard Mazieres3, Evelyne Verrouill4, Jacques Pouchot5, Anne-Christine Rat6, Joel Costel7 and Alain Saraux8, 1CH Quimper, Quimper, France, 2CHU Brest, Brest, 3Hopital de Rangueil, Toulouse, FRANCE, France, 4Hopital Louis Mourier, Colombes, FRANCE, France, 5Nancy Teaching Hospital, Nancy, France, 6Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, France, Nancy, France, 7Université Brest Occidentale, Brest, France

1116. Diagnostic Value of Internal Rotation Measurement in Patients with Cam- and Pincer-Type Deformities of the Hip. Stephan Reichenbach1, Michael Leunig2, Stefan Werlen3, Andreas Lämmerer4, Christian W. Pifrannmann, Reinhold Ganz1 and Peter Jüni5, 1University of Bern, Bern, Switzerland, 2Schulthess Clinic, Zurich, Switzerland, 3Hospital Sonnenhof, Bern, Switzerland, 4Balgrist University Hospital, Zurich, Switzerland

1117. Association between Hip Bone Marrow Lesions (BMLs) and Bone Mineral Density: A Cross-Sectional and Longitudinal Population-Based Study. Harbeer Ahedi2, Dawn Dore3, Leigh Blizzard4, Flavia Cicuttini5 and Graeme Jones1, 1Menzies Research institute Tasmania, University of Tasmania, Hobart, 7000, Australia, 2Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, 3004, Australia

1118. Association Between Hip and Knee Cartilage Measured Using Radiographs and Magnetic Resonance Imaging: The Tasmanian Older Adult Cohort Study. Hussain Ijaz Khan1, Dawn Dore3, Guanguo Zhai2, Shanghai Ding3, Jean Pierre Pelletier4, Johanne Martel-Pelletier5, Flavia Cicuttini5 and Graeme Jones1, 1Menzies Research institute Tasmania, University of Tasmania, Hobart, 7000, Australia, 2Discipline of Genetics, Faculty of Medicine, Memorial University of Newfoundland, St John’s, NL, 3Menzies research institute & Monash University, Hobart, Australia, 4Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Notre-Dame Hospital, Montreal, QC, 5Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, 3004, Australia

1119. Prediction of MRI-Detected Cartilage Loss Over 30 Months Using Simplified Radiographic and Clinical Stratification: The MOST Study. Frank Roemer1, David T. Felson2, Jingbo Niu3, Yuqing Zhang4, Michael C. Nevitt5, Michel Crema6, Cora E. Lewis7, James Torner8 and Ali Guermazi9, 1Klinikum Augsburg, Augsburg, Germany, 2Boston Univ School of Medicine, Boston, MA, 3Boston University, Boston, MA, 4University of California-San Francisco, San Francisco, CA, 5University of Alabama, Birmingham City, Birmingham,
1120. Cartilage Volume Loss Occurs in Most Older Adults and the Rate of Loss Increases with Age. andreana M. Harsanyi1, Dawn Dore2, Changhui Ding3, Jean-Pierre Pelletier3, Johanne Martel-Pelletier4, Flavia Cicuttini5 and Graeme Jones2, 1Menzies Research Institute Tasmania, Hobart, Australia, 2Menzies Research Institute Tasmania, University of Tasmania, Hobart, 7000, Australia, 3Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Notre-Dame Hospital, Montreal, QC, 4Monash University, Melbourne, Australia, Melbourne, Australia.

1121. Degenerative Medial Meniscal Pathology May Initiate in the Posterior Horn: Data From the Osteoarthritis Initiative. Robert J. Ward1, Jeffrey B. Driban1, Eric E. Wong1, Jonathan W. Pack2, Kunal K. Kothari3, Grace H. Lo4 and Timothy E. McClendon5, 1Tufts Medical Center, Boston, MA, 2Tufts University School of Medicine, Boston, MA, 3Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX.

1122. Identifying Radiographic Phenotypes of Early Knee Osteoarthritis Using Separate Quantitative Features Might Improve Patient Selection for More Targeted Treatment. Margot B. Kinds1, Anne C. A. Marjinsen1, Max A. Viergever1, P.J. Emans2, J.W.J. Biljsma3, F.P.J.G. Lafeber4 and P.M.J. Welsing5, 1University Medical Center Utrecht, Utrecht, Netherlands, 2Erasmus MC - University Medical Center, Rotterdam, Netherlands, 3Department of Radiology, Erasmus MC, University Medical Center, Rotterdam, Netherlands, 4Maastricht University Medical Center, Maastricht, Netherlands.


1124. Total Knee Replacement As an Osteoarthritis Study Outcome: Predictors Derived From Long-Term Observation Following a Randomized Clinical Trial. Jean-Pierre Raynaud1, Johanne Martel-Pelletier1, Marc Dorais2, Boulos Harroui3, Denis Choquette3, François Abram1, André Beauleu1, Louis Bessette5, Frédéric Morin6, Lukas M. Wildi7 and Jean Pierre Pelletier7, 1Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 2StatSciences Inc., Notre-Dame de l’Île Perrot, QC, 3Imaging Research & Development, ArthroLab Inc., Montreal, QC, 4Faculty of Medicine, Laval University, Quebec, QC, 5Centre Hospitalier Universitaire de Québec, pavillon CHUL, Sainte-Foy, QC, 6Centre de Recherche Musculo-squelettique, Trois-Rivières, QC, 7Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Notre-Dame Hospital, Montreal, QC.

1125. Three Trajectories of Activity Limitations in Early Symptomatic Knee Osteoarthritis: A 5-Year Follow-up Study. Jasmijn F. M. Holla1, Marike van der Leeden1, Leo D. Roorda1, Martijn W. Heymans2, Sita M.A. Bierma-Zeinstra3, Maarten Boers4, Willem F. Lems5, Martijn P.M. Steultjens6 and Joost Dekker7, 1Reade, Amsterdam, Netherlands, 2VU University Medical Center, Amsterdam, Netherlands, 3Erasmus MC - University Medical Center, Rotterdam, Netherlands, 4Glasgow Caledonian University, Glasgow, Scotland.

1126. Comparison between Osteoarthritis Initiative and CHECK study (Cohort Hip & Cohort Knee): Development of pain and function during 4 years follow-up. Janet Wesseling1, Sita M.A. Bierma-Zeinstra2, Margreet Kloopenburg3, Johannes WJ Bijlsma4 and CHECK steering group5, 1University Medical Center Utrecht, Utrecht, Netherlands, 2Erasmus Medical Center Utrecht, Utrecht, Netherlands, 3Department Rheumatology and Department of Clinical Epidemiology, Leiden University Medical Centre, Leiden, The Netherlands, 4Univ of Pittsburgh, Pittsburgh, PA, 5Utrecht, Netherlands.


1128. Different of Patterns Knee Pain Trajectories: Longitudinal Data from the Osteoarthritis Initiative (OAI). Joseph Devich Jr5, Michael J. Hannon6, Zhijie Wang7, Robert M. Boudreau8 and C. Kent Kwoh9, 1UPMC Shadyside, Pittsburgh, PA, 2University of Pittsburgh School of Medicine, Pittsburgh, PA, 3University of Pittsburgh, Pittsburgh, PA, 4University of Pittsburgh and VA Healthcare System, Pittsburgh, PA.


1130. The Effect of Age On the Number of Osteoarthritis Flares with Continuous Versus Intermittent Celecoxib Treatment. George H. Sands, Pritha Bhadra and Margaret Noyes Essex, Pfizer, Inc, New York, NY.

1131. Intraarticular Infliximab for Knee Osteoarthritis: High Baseline Levels of Synovial Cellularity and High MRI Cartilage Injury At the Lateral Tibial Plateau Predict Improvement in Total WOMAC Score. Jeremy R. Schue1, Ossama Tawfik1, Rebecca Boile1, Donald D. Smith2, Gary Hinson3, Jo A. Wick4 and Herbert B. Lindsley1, 1Kansans University Med Ctr, Kansas City, KS, 2Crescendo Biosciences Inc., South San Francisco, CA.

1132. Prevalence of Knee Pain in Ultramarathon Runners. Victoria M. Kelly1, Martin Hoffman2, Bharathi Lingala3, Mihoko Bennett4 and Eswar Krishnan5, 1Stanford University, Palo Alto, CA, 2Department of Veteran’s Affairs, Northern California Health Care System and University of California Davis Medical Center, Sacramento, CA.
1133. Gait Differences Are Present in Subjects with Symptomatic Vs. Asymptomatic Mild Radiographic Hip Osteoarthritis. Samir S. Chabra1, Najia Shakoor2 and Kharna C. Foucher2, 1University of Illinois at Chicago, Chicago, IL, 2Rush University Medical Center, Chicago, IL

1134. What Are the Levels of Physical Activities and Their Associations with Quality of Life in Patients with Symptomatic Hip and/or Knee Osteoarthritis? Irawati Lemmonnier1, Anne Vuillemin2 and Anne-Christine Rat3, 1Lorraine Université Paris Descartes University, EA 4360 Apemac, Nancy, France, Nancy, France, 3Université de Lorraine, Paris Descartes University, EA 4360 Apemac, Nancy, France, Nancy, France, 3Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, Nancy, France

1135. Combined Glucosamine and Chondroitin Sulfate, Once of Three Times Daily, Provide Clinically Relevant Analgesia in Knee Osteoarthritis. Jose R. Provenza1, Samuel K. Shinjo2, Joyce M. Silva3, Carla RGS. Peron4 and Francisco AC Rocha5, 1Pontificia Universidade Católica de Campinas, Campinas, Brazil, 2Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 3Sao Paulo, Brazil, 4Laboratórios Achê Ltda, Sao Paulo, Brazil, 5Federal University of Ceara, Fortaleza, Brazil

1136. Aesthetic Dissatisfaction in Hand Osteoarthritis Patients, Its Impact and Risk Factors. R. Liu, L.J.J. Beaart-van de Voorde, T.W.J. Huizinga and M. Kloppenburg, Leiden University Medical Center, Leiden, Netherlands

1137. Clinimetric Properties of a New Outcome Measure: The Hand-Osteoarthritis Aesthetic Damage Index. N. Bellamy and Joan Hendrikz, The University of Queensland, Herston, Queensland, Australia


Pediatric Rheumatology - Clinical and Therapeutic Aspects: Juvenile Idiopathic Arthritis

1139. Inhaled Nitrous Oxide Facilitates Access to Intra-Articular Corticosteroid Injections in Children with Juvenile Idiopathic Arthritis. Mercedes O. Chan1, Ruth Wylie2 and H. E. Foster3, 1University of British Columbia and British Columbia’s Children’s Hospital, Vancouver, BC, 2Newcastle Hospitals, NHS Foundation Trust, Newcastle Upon Tyne, United Kingdom, 3Newcastle Hospitals NHS Foundation Trust, Great North Children’s Hospital and Newcastle University, Newcastle Upon Tyne, United Kingdom

1140. Response to Adalimumab in 40 Patients with refractory juvenile Idiopathic Arthritis-Associated Uveitis. A Multicenter Study. Vanesa Calvo-Rio1, Ricardo Blanco2, Manuel Diaz-Llopis1, David Salom1, Carmen García-Vicuña1, Miguel Cordero-Coma1, Norberto Ortego1, Marta Suarez-de-Figueroa2, J. Carlos Fernandez-Cid3, A. Fonollosa Calduch3, Ángel M. García-Aparicio10, Jose M. Benitez-del-Castillo11, Jose L. Olea11, Javier Loricer12 and Miguel Angel González-Gay11, 1Hospital Universitario Marqués de Valdecilla-IFIMAV, Santander, Spain, 2Hospital Universitario La Fe de Valencia, Valencia, 3Hospital Universitario La Fe de Valencia, Valencia, Spain, 4Hospital Sant Joan de Déu, Barcelona, Barcelona, 5Hospital de León, León, Spain, 6Hospital Santa Cecilia, Granada, Spain, 7Hospital Ramon y Cajal, Madrid, Spain, 8Hospital de Pontevedra, Pontevedra, Spain, 9Hospital de Cruces, Barakaldo, Spain, 10Hospital Virgen Salud, Toledo, Toledo, 11Hospital Clínico San Carlos, Madrid, 12Hospital Son Dureta, Palma de Mallorca, Spain, 13Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain

1141. Safety of Celecoxib and Non-Selective Non-Steroidal Anti-Inflammatory Drugs in Juvenile Idiopathic Arthritis. Rachel E. Sobel1, D. J. Lovell2, Hermine I. Brunner3, Jennifer E. Weiss4, Paula W. Morris5, Beth S. Gottleib6, Elizabeth C. Chalom7, Lawrence K. Jung8, Karen Onel9, Lisa Petinoit10, Donald P. Goldsmith11, Staci Abramsky-Risman12, James P., Young13 and Edward H. Giannini14, 1Pfizer, Inc., New York, NY, 2Cincinnati Children’s Hospital, Cincinnati, OH, 3Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 4Hackensack Univ Med Ctr, Hackensack, NJ, 5Univ of Arkansas for Med Sci, Little Rock, AR, 6Cohen Children’s Medical Center of New York, New Hyde Park, NY, 7St. Barnabas Medical Center, Livingston, NJ, 8Children’s National Medical Center, Washington, DC, 9University of Chicago, Chicago, IL, 10Specially for Children, Dell Children’s Medical Center, Austin, TX, 11St Christopher’s Hospital for Children/Drexel College of Medicine, Philadelphia, PA, 12Pfizer Inc, New York, NY, 13United BioSource Corporation, Ann Arbor, MI, 14PRCSG-Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

1142. Efficacy of Biologic Agents in Juvenile Idiopathic Arthritis: A Systematic Review Using Indirect Comparisons. Janneke Anink1, Marije H. Otten1, Sandra Spronk2 and Lisette W.A. Van Suijlekom-Smit1, 1Erasmus MC Sophia Children’s Hospital, Rotterdam, Netherlands, 2Erasmus MC, Rotterdam, Netherlands

1143. Tocilizumab Therapy in Children with Systemic Onset Juvenile Idiopathic Arthritis. Russian Experience. Ekaterina Alekseeva, Rina Denisova, Saniya Valieva, Tatyana Bzorova, Kseniya Isayeva, Alexandra Chomakhidze, Evgeniya Chistyakova, Tatyana Slepsova and Elena Mitenko, Scientific Center of Children’s Health, Moscow, Russia

1144. Phenotypic Characterization of Childhood Onset Rheumatoid Arthritis. Emily G. Ferrell1, Lori Ponder2, Lauren Minor3, Sheila T. Angeles-Han3, Christine W. Kennedy3, Kelly A. Rouster-Stevens4, Mina Pichavant2, Larry B. Vogler4 and Sampath Prahalad4, 1Emory University School of Medicine, Atlanta, GA, 2Emory University, Atlanta, GA, 3Emory University School of Medicine, Atlanta, GA, 4Emory Children’s Center, Atlanta, GA, 5Emory University, Atlanta, GA, 6Emory University, Atlanta, GA

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1145. Use of Non-Etanercept Biologics in Children with Juvenile Idiopathic Arthritis: Results from the Biologics for Children with Rheumatic Diseases Study. Lianne Kearsley-Fleet1, Eileen Baldiam, Michael Beresford2, Rebecca Davies2, Helen E. Foster1, Katy Mowbray1, Taunton R. Southwood3, Wendy Thomson1, and Kimme L. Hyrich4. 1Arthritis Research UK Epidemiology Unit, Manchester Academic Health Science Centre, Manchester, United Kingdom, 2Alder Hey Children’s Foundation NHS Trust, Liverpool, United Kingdom, 3Institute of Translational Medicine (Child Health), Alder Hey Children’s Foundation NHS Trust, Liverpool, United Kingdom, 4Musculoskeletal Research Group, Newcastle upon Tyne, United Kingdom, 5University of Birmingham and Birmingham Children’s Hospital Birmingham, United Kingdom, 6Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom.

1146. Choice of Systemic JIA Treatment among Childhood Arthritis and Rheumatology Research Alliance (CARRA) Rheumatologists. Jennifer E. Weiss1, Esi M. Morgan DeWitt2, Timothy Beukelman3, Laura E. Schanberg4, Rayfel Schneider4 and Yukiko Kimura5. 1Joseph M. Sanzari Children’s Hospital, Hackensack University Medical Center, Hackensack, NJ, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 3Univ of Alabama-Birmingham, Birmingham, AL, 4Duke University Medical Center, Durham, NC, 5The Hospital for Sick Children, Toronto, ON.

1147. Definition of Improvement Thresholds in Juvenile Idiopathic Arthritis Using the JADAS. Gerd Horneff1, and Ingrid Kaul2. 1Centre of Pediatric Rheumatology, Sankt Augustin, Germany, 2Institute of Medical Statistics, Informatics and Epidemiology, University of Cologne, Cologne, Germany.


1149. Long-Term Safety of Etanercept in Patients with Juvenile Idiopathic Arthritis (JIA). Kirsten Minden1, Martina Niewerth2, Jens Klotsche3, Michael Hammer4, Johannes Peter Haas1, Gerd Ganse4 and Gerd Horneff1. 1German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany, 2German Rheumatism Research Centre, Berlin, Germany, 3German Rheumatism Research Center, a Leibniz institute, Berlin, Germany, 4St. Josef-Stift, Sendenhorst, Germany, 5German Center for Pediatric and Adolescent Rheumatology, Garmisch-Partenkirchen, Germany, 6Sankt Josef Stift, Sendenhorst, Germany, 7Centre of Pediatric Rheumatology, Sankt Augustin, Germany.

1150. Adverse Events in Juvenile Idiopathic Arthritis: Results From the Enhanced Drug Safety Surveillance (EDSS) Pilot Project. Sarah Ringold1, Audrey F. Hendrickson1, Carol A. Wallace1 and Rachel E. Sobel1. 1Seattle Children’s Hospital, Seattle, WA, 2Seattle Childrens Hospital, Seattle, WA, 3Pfizer Inc., New York, NY.

1151. Low-Dose Methotrexate and the Selective Accumulation of Intracellular Aminomimidazolecarboxamide Ribotide. Ryan S. Funk, Leon van Haandel, Mara L. Becker and J.S. Leeder. Children’s Mercy Hospital, Kansas City, MO.

1152. Improvement in Health-Related Quality of Life for Children with Juvenile Ideopathic Arthritis after Start of Treatment with Etanercept. Jens Klotsche1, Kirsten Minden2, and Gerd Horneff3. 1German Rheumatism Research Center, a Leibniz institute, Berlin, Germany, 2German Rheumatism Research Centre, Berlin, Germany, 3Centre of Pediatric Rheumatology, Sankt Augustin, Germany, 4German Center for Pediatric and Adolescent Rheumatology, Garmisch-Partenkirchen, Germany, 5German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany.

1153. Perceived Health-Related Quality of Life and Its Determining Factors in Children with Recent-Onset JIA. Jens Klotsche1, Ina Liedmann1, Martina Niewerth2, Gerd Horneff3, Johannes Peter Haas4 and Kirsten Minden5. 1German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany, 2German Rheumatism Research Centre, Berlin, Germany, 3Centre of Pediatric Rheumatology, Sankt Augustin, Germany, 4German Center for Pediatric and Adolescent Rheumatology, Garmisch-Partenkirchen, Germany, 5German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany.

1154. Impact of FokI VDR and TNFalpha–308 Polymorphism on Disease Severity and Long Term Outcome in JIA Patients On Anti-TNF Treatment. Jelena Vojinovic1, Jelena Basic2, Gordana Susic1, Dragana Lazarevic2 and Nemanja Damjanov1. 1Prof, Nis, Serbia, 2Dr, Nis, Serbia, 3Dr, Belgrade, Serbia, 4Prof, Belgrade, Serbia.

1155. A New Measure of Visual Function for Children with Juvenile Idiopathic Arthritis-Associated Uveitis. Sheila T. Angeles-Han1, Steven Yeh1, Courtney McCracken1, Larry B. Vogler1, Kelly A. Rouster-Stevens1, Christine W. Kennedy2, Kirsten Jenkins3, Matthew Kent1, Scott Lambert1, Carolyn Drews-Botsch4 and Sampath Prahalad1. 1Emory Univ School of Medicine, Atlanta, GA, 2Emory Children’s Center, Atlanta, GA, 3Children’s Healthcare of Atlanta, Atlanta, GA, 4Emory University School of Public Health, Atlanta, GA.


1157. The Phenotypic Characterization of Juvenile Idiopathic Arthritis in African American Children. Lauren Minor1, Lori Ponder2, Emily G. Ferrell1, Sheila Angeles-Han1, Christine W. Kennedy2, Kelly Rouster-Stevens1, Mina Pichavant2, Larry B. Vogler1 and Sampath Prahalad1. 1Emory University School of Medicine, Atlanta, GA, 2Emory Children’s Center, Atlanta, GA.

1158. Development of Cut-off Values for High Disease Activity in Juvenile Idiopathic Arthritis Based On the Juvenile Arthritis Disease Activity Score. Alessandro Consolaro1, Stefano
1159. Reasons and Predictors of Methotrexate Discontinuation in Children with JIA: Results From the Childhood Arthritis Prospective Study (CAPS). Suzanne Verstappen, Lucy R. Wedderburn, Eileen Baildam, Janet Gardner-Medwin, Joyce Davidson, Alice Chieng, Wendy Thomson and Kimme L. Hyrich. University of Manchester, Manchester Academic Health Sciences Centre, Manchester, United Kingdom, University College London (UCL), London, United Kingdom, Newcastle Hospitals NHS Foundation Trust and Great North Children’s Hospital, Newcastle Upon Tyne, United Kingdom, Alder Hey Children’s Foundation NHS Trust, Liverpool, United Kingdom, University College London (UCL), London, United Kingdom, Royal Hospital for Sick Children, Glasgow, United Kingdom, Manchester Children’s Hospital, Manchester, United Kingdom, Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom.

1160. Assessment of Subclinical Synovitis by Power Doppler Ultrasonography in Patients with Juvenile Idiopathic Arthritis. Maria Teresa Terreri, Vanessa M. Bugnì, Claudio A. Lenò, Sónia de A.V. Mitraud, Rita N.V. Furtado and Jamil Natour. Universidade Federal de São Paulo / UNIFESP, São Paulo, Brazil, Universidade Federal de São Paulo / UNIFESP, São Paulo, Brazil, Universidade Federal de São Paulo / UNIFESP, São Paulo, Brazil, Universidade Federal de São Paulo, Sao Paulo, Brazil, Universidade Federal de São Paulo, Sao Paulo, Brazil.


1162. Patients with Juvenile Idiopathic Arthritis From a Low Socio-Economic Background Perceive Their Disease Activity and Physical Limitations Higher Than Patients from a High Socio-Economic Background. Suzanne Verstappen, Joanna Cobb, E. E. Foster, Eileen Baildam, Lucy R. Wedderburn, Janet Gardner-Medwin, Alice Chieng, Joyce Davidson, Wendy Thomson and Kimme L. Hyrich. University of Manchester, Manchester Academic Health Sciences Centre, Manchester, United Kingdom, Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester, United Kingdom, Newcastle Hospitals NHS Foundation Trust, Newcastle Upon Tyne, United Kingdom, Alder Hey Children’s Foundation NHS Trust, Liverpool, United Kingdom, University College London (UCL), London, United Kingdom, Royal Hospital for Sick Children, Glasgow, United Kingdom, Manchester Children’s Hospital, Manchester, United Kingdom, Arthritis Research UK Epidemiology Unit, Manchester, United Kingdom, Arthritis Research UK Epidemiology Unit, University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom.


1164. Orofacial Anomalies in Children with Confirmed Juvenile Idiopathic Arthritis. Bernd Koos, Franka Stahl de Castrillon, Robert Ciesielski and Nikolay Tarzbachev. University Medical Center Schleswig-Holstein, Campus Kiel, Kiel, Germany, Department of Orthodontics, University of Rostock, Germany, Rostock, Germany, Center for Rheumatic Diseases, Bad Bramstedt, Germany.

1165. Factors Associated with Achievement of Inactive Disease in Children with Juvenile Idiopathic Arthritis Treated with Etanercept. Nicoletta Solari, Elena Palmisani, Alessandro Consolaro, Sara Dalprà, Benedetta Schiappapietra, Giulia Braccioli, Silvia Rosina, Giorgia Negro, Alberto Martini and Angelo Ravelli. Istituto Giannina Gaslini, Genova, Italy, Pediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy.

1167. Golumumab in 25 Young Adults Affected by Juvenile Idiopathic Arthritis NON Responders to OTHER Biological Agents: Preliminary DATA. Irene Pontikaki1, Orazio De Lucia2, Maurizio Gattinara3, Alessandra Salmaso1, Pier Luigi Meroni2 and Valeria Gerloni1, Orthopedic Institute Gaetano Pini, Milano, Italy, 1Istituto G. Pini, University of Milan, Milano, Italy

1168. Cost-Effectiveness Analysis of Early Biologic Treatment in Polycarticular Juvenile Idiopathic Arthritis. Nadia Luca1, Heather Burnett2, Wendy Ungar3, Timothy Beukelman1, Brian M. Feldman2, Gwen Schwartz4 and Ahmed Bayouni3, 1Hospital for Sick Children, Toronto, ON, 2The Hospital for Sick Children, Toronto, ON, 3 Univ of Alabama-Birmingham, Birmingham, AL, 4St. Michael's Hospital, Toronto, ON, 5Keenan Research Centre of the Li Ka Shing Knowledge Institute, Saint-Petersburg, Russia, 6Pediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, 7Univ of Alberta-Birmingham, Birmingham, AL

1169. Obstetrical Complications in Women with Juvenile Idiopathic Arthritis. Evelyne Vinet1, Sasha Bernatsky2, Mohammed Kaoouche1, Christian A. Pineau1, Ann E. Clarke1, Elizabeth Haziel1, Ciaran M. Duffy4, Anick Bérard5, 1Univ of Alabama-Birmingham, Birmingham, AL, 2Children's Hospital of Eastern Ontario, Ottawa, ON, 3Univ of Alabama-Birmingham, Birmingham, AL, 4St. Michael's Hospital, Toronto, ON, 5Keenan Research Centre of the Li Ka Shing Knowledge Institute, Saint-Petersburg, Russia, 6Pediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, 7Univ of Alberta-Birmingham, Birmingham, AL

1170. Folate Usage in Methotrexate -Treated Juvenile Idiopathic Arthritis Patients Is Inconsistent and Highly Variable. Gil Amariyo1, Ornella J. Rolfo1, Deborah K. McCurdy1, Jennifer M.P. Woo2 and De Furst1, 1Mettel Children’s Hospital, University of California, Los Angeles, Los Angeles, CA, 2University of California at Los Angeles, Los Angeles, CA

1171. Validation of BASDAI and BASFI in Children with Spondyloarthritis. Alisa C. Rachlis1, Bertha Wong2, Kristi J. Whitney-Mahoney3, Michelle Batthish4, Michelle anderson5, JoAnne Marcuz2, Margaret Reaumé6, Ashley DeLaurier7, Ronald M. Laxer2, Brian M. Feldman1 and Shirley M. Tse2, 1Hospital for Sick Children, Toronto, ON, 2The Hospital for Sick Children, Toronto, ON

1172. Delineating the Role of Multiple Corticosteroid Joint Injections in the Management of Juvenile Idiopathic Arthritis in the Biologic Era. Charalampia Papadopoulou1, Maria I. Gonzalez2, Juan C. Nieto3, Mikhail Kostik1, Marek Bohm4, Stefano Lanni1, Valentina Muratore4, Alessandro Consolaro1, Alberto Martin1 and Angelo Ravelli5, 1Istituto Giannina Gaslini, Genova, Italy, 2Fondazione IRCCS Policlinico San Matteo, Pavia, Italy, 3Pediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, 4Univerist of Genova, Genova, Italy

1173. Targeting Remission in Juvenile Idiopathic Arthritis in Routine Clinical Care: Experience in 175 Newly-Diagnosed Patients. Alessandro Consolaro1, Giorgia Negro1, Nicoletta Solari1, Cristina Ferrari1, Sergio Davi2, Silvia Pederzoli1, Giulia Braccioli1, Maria C. Gallo1, Alberto Martin1 and Angelo Ravelli1, 1Istituto Giannina Gaslini, Genova, Italy, 2Pediatric Rheumatology Collaborative Study Group [PRSCG], Cincinnati, OH, 3Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy

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1175. Decreased Frequency of Th17 Cells in Early Rheumatoid Arthritis. Irene Arroyo-Villa1, M. Belén Bautista-Caro2, Alejandro Balsal1, Pilar Aguado2, Laura Nuño3, Gema Bonilla1, Amaya Puig-Krörger4, Emilio Martín-Mola1 and M. Eugenia Miranda-Carús1, 1Hospital La Paz-IldaPaz, Madrid, Spain, 2Hospital Gregorio Marañón, Madrid, Spain

1176. Galactosylation, and Not Sialylation, of Immunoglobulin G Is Associated with Improvement of Rheumatoid Arthritis During Pregnancy. Albert Bondt1, Maurice H.J. Selman2, André M. Deelder1, Johanna M.W. Hazes1, Manfred Wuhrer3 and Radboud J.E.M. Dolhain1, 1Erasmus University Medical Center, Rotterdam, Netherlands, 2Leiden University Medical Center, Leiden, Netherlands

1177. Talin Is Cleaved and Expressed As a Short Form in Patients with Rheumatoid Arthritis. Kensei Tsuzaka1, Masako Takao1, Naoshi Shinozaki2 and Jiro Nishida3, 1Ichikawa General Hospital, 2Ichikawa, Chiba, Japan, 3Ichikawa, Japan

1178. IL-6 and IL-21 in Rheumatoid Arthritis. Gustavo Carbone1, Augusta Wilson1, Sean Diehl1, Janice Bunn1, Sheldon Cooper1 and Mercedes Rincon1, 1University of Vermont College of Medicine, Burlington, VT, 2University of Vermont College of Medicine, 3University of Vermont, Burlington, 4Univ Vermont College of Med, Burlington, VT

1179. Vitamin D Receptor Polymorphisms Are Associated with Clinical Outcomes and IgM Responses to Common Pathogens but Not Baseline Disease Activity in Early Inflammatory Arthritis. Carol A. Hitchon1, Linda Larcombe1,
Neeloffer Mookherjee1, Christine A. Peschken1, Marianna M. Newkirk2 and Hani S. El-Gabalawy2,1 University of Manitoba, Winnipeg, MB,3 McGill University Health Centre, Montreal, QC

The Sex-Determining Region Y Box 6 Locus: Shared Genetic Susceptibility Between Rheumatoid Arthritis and Psychotic Disorder. Tony R. Merriman1, Nicola Dalbeth2, Andrew Harrison1, John Highton4, Lisa K. Stamp3, Malcolm D. Smith5, Benedicte A. Lie1, Tore K. Kvien8, Timothy Radstake3, Marieke J.H. Coenen10, Barbara Franke10, Jasper Broen10, Piet Van Riel12, Pilar Barrera13, Sophia Steer12, Marilyn E. Merriman1, Amanda Phipps-Green1, Ruth Topless1, Mansour Zamanpoor1 and Wan Rohani Wan Tain13,1 University of Otago, Dunedin, New Zealand, 2University of Auckland, Auckland, New Zealand, 3Hutt Hospital, Lower Hutt, New Zealand, 4Univ of Otago Med Sch, Dunedin, New Zealand, 5University of Otago, Christchurch, Christchurch, New Zealand, 6Rheumatologist, Adelaide, Australia, 7Oslo University Hospital, Oslo, Norway, 8Diakonhjemmet Hospital, Oslo, Norway, 9Radboud University Nijmegen Medical Centre, University Medical Center Utrecht, Nijmegen, Utrecht, Netherlands, 10Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 11Department of Rheumatology & Clinical Immunology, University Medical Center, Utrecht, Netherlands, 121 Sloan Ct East Flat 7, London, United Kingdom, 13Universiti Sains Malaysia, Malaysia

The Role of á-Defensin-1 and its Signal Transduction Mechanisms in the Production of IL-6, IL-8 and MMPs in Rheumatoid Fibroblast-Like Synoviocytes. Joong Kyong Ahn1, Bo Huang2, Eun-Jung Park2, Jiwoon Hwang2, Jaejoon Lee2, Chan Hong Jeon3, Eunmi Koh4 and Hoon-Suk Cha3,1 Kangbuk Samsung hospital, Sungkyunkwan university Hospital of Medicine, Seoul, South Korea, 2Sungkyunkwan University School of Medicine, Seoul, South Korea, 3Soonchunhyang University College of Medicine, Bucheon, South Korea

Familial Aggregation and Heritability of Rheumatoid Arthritis in Taiwan: A Nationwide Population Study. Chang-Fu Kuo1, Matthew J. Grainge1, Kuang-Hui Yu2, Lai-Chu See3, Shue-Fen Luo3, Ana M. Valdes1, Milo J. Chou2, Hsiao-Chun Chang2, Weiya Zhang4 and Michael Doherty1,1 University of Nottingham, Nottingham, United Kingdom, 2Chang Gung Memorial Hospital, Taoyuan, Taiwan, 3Chang Gung University, Taoyuan, Taiwan, ST. Thomas’ Hospital, Kings College London, London, United Kingdom

Podoplanin-Mediated Interaction of Rheumatoid Arthritis Synovial Fibroblasts with Platelets Modulates IL-8 Expression. Manuel J. Del Rey1, Elena Izquierdo1, Regina Faré2, Alicia Usategui2, Vanessa Miranda3, Gabriel Criado3, J.D. Cafieter3 and Jose L. Pablos1,1 Instituto de Investigación Hospital 12 de Octubre (I+12), Madrid, Spain, 2Hospital Clinic de Barcelona, Barcelona, Spain

Negative Association Between Testosterone Levels and Risk of Future Rheumatoid Factor Negative Rheumatoid Arthritis in Men. Mitra Pikwer1, Aleksander Giwercman2, Ulf Bergström1, Jan-Åke Nilsson3, Lennart T.H. Jacobsson1 and Carl Turesson3,1 Lund University, Malmö, Sweden, 2Skåne University Hospital, Malmö, Sweden

Regulatory Role of 1, 25 Dihydroxyvitamin D3 in the Pathogenesis of Autoimmune Arthritis. Siba P. Raychaudhuri1, Ananya Datta Mitra1, Anupam Mitra1, Christine Abria2 and Smriti K. Raychaudhuri2,1 VA Sacramento Medical Center/UC Davis School of Medicine, Mather, CA, 2VA Sacramento Medical Center, Mather, CA

A Single Nucleotide Polymorphism of Tumor Necrosis Factor Receptor-Associated Factor 1 Predicts Clinical Response to Anti-Tumor Necrosis Factor Treatments in Japanese Patients with Rheumatoid Arthritis. Tetsuya Nishimoto1, Noriyuki Seta3, Ryusuke Anan1, Tatsuya Yamamoto1, Yoko Kaneko2, Masataku Kuwana4 and Tsutomu Takeuchi1,3 Keio university, Tokyo, Japan, 1Keio Univ School of Medicine, Shinjuku-ku, Japan, 2Keio University School of Medicine, Tokyo, Japan

Smoking Status Is Associated with Inflammatory Cytokine Profile and Disease Activity in Anti-Citrullinated Protein Antibody Positive Rheumatoid Arthritis: Decreased Inflammation and Disease Improvement with Smoking Cessation? Catriona Cram1, Jeremy Sokolove2, Geoffrey M. Thiele2, Gail S. Kerr3, Grant W. Cannon3, Andreas M. Reimold4, Ted R. Mikuls5 and William H. Robinson5,1 VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 2VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 3Univ of Nebraska Med Ctr, Omaha, NE, 4Washington DC VAMC, Georgetown and Howard University, Washington, DC, 5Salt Lake City VA and University of Utah, Salt Lake City, UT, 6Dallas VA and University of Texas Southwestern, Dallas, TX, 7OMA VA and University of Nebraska Medical Center, Omaha, NE, 8Stanford University, Palo Alto, CA

Fibrinogen Induced Inhibition of Osteoclastogenesis Is Reversed by Citrullination of Fibrinogen by Peptidylarginine Deiminase. Eun Young Lee1, Ji Soo Kim2, Hye Won Kim1, Sung Hae Chang1, Jin-Su Song1, Hie-Joon Kim1, Kyung-Hyun Park-Min1, Lionel B. Ivashkov1, Eun Bong Lee2 and Yeong Wook Song1,1 Seoul National University College of Medicine, Seoul, South Korea, 2Seoul National University, Seoul, South Korea, 3Hospital for Special Surgery, New York, NY

Stromal Cell Markers in the Synovial Tissue of Patients with Early Arthritis and Preclinical Rheumatoid Arthritis. Yuen Kei Choi1, Olga N. Karpus1, Paul Peter Tak2, Jörg Hamann3, Christopher D. Buckley1, Andrew Filer4 and Danielle M. Gerlag1,1 Academic Medical Center, Amsterdam, 2Division of Clinical Immunology and Rheumatology, Department of Experimental Immunology, Academic Medical Center, Amsterdam
1190. Fine Specificity of Anti-Citrullinated Peptide Antibodies Discloses a Heterogeneous Antibody Population in Rheumatoid Arthritis (RA). John D. Goulès, Andreas V. Goulès and Athanasios G. Tzioufas, School of Medicine, National University of Athens, Athens, Greece

1191. Nicotinamide Adenine Dinucleotide Phosphate Oxidase Mediated Angiogenesis and Inflammation in the Arthritic Joint. Monika Biniecka, Wei Gao, Chin Teck Ng, Emese Balogh, Douglas J. Veale and Ursula Fearon, Translation Research Group, Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, St. Vincent’s University Hospital, Dublin, Ireland

1192. IL-21 Regulates B Cell Proliferation and Differentiation in Rheumatoid Arthritis. Lingyun Sun, Rui Liu and Xia Li, Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China

1193. Podoplanin Expression in Rheumatoid Stroma Correlates with Lymphoid Neogenesis and Is Downregulated by Anti-TNF-α Therapy. Regina Faré, Elena Izquierdo, Manuel J. Del Rey, Raquel Celis, Alicia Usategui, Juan D. Cañete and Jose L. Pablos, Instituto de Investigación Hospital 12 de Octubre (I+12), Madrid, Spain, Hospital Clinic of Barcelona, Barcelona, Spain


1195. Identification of Follicular Helper T Cells As a Novel Cell Population Potentially Involved in the Pathogenesis of Rheumatoid Arthritis. Sharon Ing, Anika Alarakhia, Elvira Lindwall, Austin Fraser, Jerald M. Zakem, William E. Davis, Tamika A. Webb-Detiege, Robert Quinet and Xin Zhang, Ochsner Medical Center, New Orleans, LA, Ochsner Clinic, New Orleans, LA, Ochsner Medical Ctr, New Orleans, LA, Ochsner Medical Center - New Orleans, New Orleans, LA, Ochsner Clinic Foundation, New Orleans, LA

1196. Analysis of Gene Expression Patterns in Rheumatoid Arthritis (RA) Synovial Macrophages from Patients Undergoing Disease Flare. Karen L. Berg, Adedayo Hanidu, Jon Hill, Xiaoyu Jiang, Tom Freeman, Jennifer Swantek, Anna Yarlina, George D. Kalliolias, Lionel B. Ivashkov and Gerald H. Nabozy, Boehringer Ingelheim Pharmaceuticals Inc., Ridgefield, CT, Boehringer Ingelheim Pharmaceuticals Inc, Ridgefield, CT, Hospital for Special Surgery, New York, NY

1197. Porphyromonas Gingivalis and the Pathogenesis of Rheumatoid Arthritis: Analysis of the Synovial Tissue and of Other Compartments. Michele C. Totaro, Sara D’Onghia, Elisa Gremske, Luca Petricca, Simona Marchetti, Silvia Canestri, Barbara Toluoso, Stefano Alverinni, Paola Cattani and Gianfranco Ferraccioli, Division of Rheumatology, Institute of Rheumatology and Affine Sciences, Catholic University of the Sacred Heart, Rome, Italy, Laboratory of Clinical Analyses CIC, Catholic University of the Sacred Heart, Rome, Italy

1198. Cardiovascular Risk Factors and Events Are More Frequent Prior to the Onset of Rheumatoid Arthritis Than in the General Population. Helen Pahau, Vibeke Videm, Sanjoy Paul and Ranjeny Thomas, University of Queensland Diamantina Institute, Brisbane, Australia, Department of Laboratory Medicine, Children’s and Women’s Health, Norwegian University of Science and Technology, and Department of Immunology and Transfusion Medicine, Trondheim University Hospital, Trondheim, Norway, University of Queensland School of Population Health, Brisbane, Australia


1200. Anti-Cyclic Citrullinated Peptide Antibodies in Idiopathic Pulmonary Fibrosis Are Not Citrulline-Specific: Implications for the Pathogenesis of Rheumatoid Arthritis. Elena B. Lugli, Muslima Chowdhury, Peter J. Charles, Michael G. Crooks, Simon P. Hart, Patrick J. Venables and Benjamin A. Fisher, Oxford University, London, United Kingdom, Hull York Medical School, Cottingham, United Kingdom, University of Birmingham, Birmingham, United Kingdom

1201. Anti-Citrullinated Protein Antibody Specificity in Idiopathic Glycosylation Patterns in Arthralgia Patients. Hans Ulrich Scherer, Yoann Rombouts, Ewoud Ewing, Lotte van de Stadt, Maurice H.J. Selman, André M. Deelder, Tom W.J. Huizinga, Manfred Wuhrer and René E.M. Toes, Leiden University Medical Centre, Leiden, Netherlands, Leiden University Medical Center, Leiden, Netherlands, Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands

1203. High Expression of Genes in the Toll-Like Receptor and Interferon Pathways Are Associated with Radiographic Damage in African-Americans with ACPA-Positive RA. Maria I. Danila1, A. D. Steg1, Xiangqin Cui1, David Redden1, M. R. Johnson2, Richard J. Reynolds3, M. van der Heijde1, Doyt L. Conn5, Beth L. Jonas6, Leigh F. Callahan1, Larry W. Moreland3, P. K. Gregersen4 and S. Louis Bridges Jr.1, 1Univ of Alabama-Birmingham, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3University of Alabama at Birmingham, Birmingham, AL, 4Leiden University Medical Center, Leiden, Netherlands, 5Emory Univ School of Medicine, Atlanta, GA, 6University of North Carolina at Chapel Hill, Chapel Hill, NC, 7University of North Carolina, Chapel Hill, NC, 8University of Pittsburgh, Pittsburgh, PA, 9Feinstein Institute Medical Research and North Shore-Long Island Jewish Health System, Manhasset, NY, 10Marguerite Jones Harbert-Gene V. Ball, MD Professor of Medicine, and Director, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, Birmingham, AL.

1204. Porphyromonas Gingivalis Antibody Responses and Clinical Associations in Patients with Early Rheumatoid Arthritis. Sheila L. Arvika1, Klemen Strle1, Deborah S. Collier1, Mark C. Fisher1, Gail McHugh1, Yoshinori Kawai2, Alpdogan Kantarci3 and Allen C. Steere1, 1Massachusetts General Hospital, Boston, MA, 2Forsyth Institute, Cambridge, MA.

1205. Study of Association of CD40-CD154 Gene Polymorphisms with Disease Susceptibility and Cardiovascular Risk in Spanish Rheumatoid Arthritis Patients. Mercedes García-Bermúdez2, Carlos González-Juanatey1, Alfonso Corrales3, Raquel López-Meijas4, Maria Teruel5, Jose A. Miranda-Filloy6, Santos Castañeda-San5, Alejandro Balsa2, B. Fernández-Gutierrez5, Isidoro González-Alvaro6, Carmen Gómez-Vaquero7, R. Blanco Alonso7, Javier Llorca1, Javier Martin1 and Miguel Angel González-Gay8, 1Instituto de Parásitología y Biomedicina Lopez-Neyra (IPBLN-CSIC), Granada, Spain, 2Hospital Xeral-Calde, Lugo, Spain, 3Hospital Universitario Marques de Valdecilla, IFIMAV, Santander, Spain, 4Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain, 5Instituto de Parasitologia y Biomedicina Lopez-Neyra, CSIC, Granada, Spain, 6Hospital Universitario Lucas Augusti, Lugo, Spain, 7Hospital de La Princesa, Madrid, Spain, 8Hospital Xeral-Calde, Lugo, Spain, 9Hospital Universitario de Bellvitge, IDIBELL, Barcelona, Spain, 10Hospital Universitario Marques de Valdecilla, Santander, Spain, 11Department of Epidemiology and Computational Biology, School of Medicine, University of Cantabria, and CIBER Epidemiología y Salud Pública (CIBERESP), Santander, Spain.
1212. **Elevated Fecal Secretory Immunoglobulin A, Anti-Cyclic Citrullinated Peptide Antibodies, and Cytokine Levels in Rheumatoid Arthritis Patients.** Sam Dalvi, Jose U. Scher*, Mukundan Attur, Jyoti Patel and Steven B. Abramson, NYU Hospital for Joint Diseases, New York, NY

**Rheumatoid Arthritis - Clinical Aspects II: Clinical Features and Comorbidity/Cardiovascular Disease**

1213. **The Serum Cytokine Profile of Interstitial Lung Disease in Rheumatoid Arthritis.** Jose Felix Restrepo*, Inmaculada del Rincon2, Roy Haas3, Daniel F. Battafarano4 and Agustin Escalante5, 1University of Texas Health Science Center, San Antonio, TX, 2University Of Texas, Health Science Center, San Antonio, TX, 3TX, 4Brooke Army Medical Ctr, San Antonio, TX, 5University of Texas Health Science Center at San Antonio, San Antonio, TX

1214. **The Impact of Periodontal Disease On Early Inflammatory Arthritis Persists Even After All Teeth Are Lost.** Gisela Westhoff1, Paola de Pablo2, Thomas Dietrich3, Georg Schett4 and Angela Zink5, 1German Rheumatism Research Center Berlin, Berlin, Germany, 2University of Birmingham, Birmingham, United Kingdom, 3The School of Dentistry, University of Birmingham, Birmingham, UK, Birmingham, United Kingdom, 4Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 5German Rheumatism Research Center and Charité University Medicine, Berlin, Germany

1215. **Rates of Orthopaedic Interventions for Rheumatoid Arthritis Have Changed Over the Last 25 Years.** A Report From Two UK Inception Cohorts Reflecting Treatment Changes From Sequential DMARD Monotherapy to Anti-TNF Agents (1986-2011). Elena Nikipherou1, Lewis Carpenter2, Sam Norton3, David James4, Patrick D. Kiely5, David Walsh6, Richard Williams7 and Adam Young3, 1ERAS, St Albans City Hospital and University College London (UCL), London, United Kingdom, 2University of Hertfordshire, Hatfield, United Kingdom, 3ERAS, St Albans City Hospital, St Albans, United Kingdom, 4Diana Princess of Wales Hospital, Grimsby, United Kingdom, 5St. Georges Hospital, London, United Kingdom, 6University Hospital, Leipzig, Germany, 7Evelyn Hospital, Hereford, United Kingdom

1216. **Flare Self Management Strategies Used by Patients with Rheumatoid Arthritis.** Susan J. Bartlett1, Clifton O. Bingham II1, Juan Xiong2, Ernest Choy3, Gilles Boire4, Carol A. Hitchon5, Janet E. Pope6, J. Carter Thorne7, Diane Tin8, Boulos Harauzi8, E. Keystone9, Vivian P. Bykerk10, OMERACT Flare Working Group11, 1McGill University Health Centre, Montreal, QC, 2Johns Hopkins University, Baltimore, MD, 3Mount Sinai Hospital, Toronto, ON, 4Cardiff University School of Medicine, Cardiff, United Kingdom, 5CHUS - Sherbrooke University, Sherbrooke, QC, 6University of Manitoba, Winnipeg, MB, 7St. Joseph Health Care London, University of Western Ontario, London, ON, 8Southlake Regional Health Centre, Newmarket, ON, 9Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 10University of Toronto, Toronto, ON, 11Hospital for Special Surgery, New York, NY, 12Ottawa, 13Toronto, ON

1217. **Decreased Survival in Rheumatoid Arthritis Complicated with Bronchiectasis: A Family-Based Cohort Study.** Xavier Puéchal1, Emmanuel Génin2, Thierry Bienvenu3 and Daniel J. Dusser4, 1Hôpital Cochin, AP-HP, Université Paris Descartes, Sorbonne Paris Cité, Paris, France, 2INSERM UMR-5946, Université Paris Diderot, Paris, France

1218. **Genetic Markers of Functional Stress Response in Patients with Rheumatoid Arthritis.** Olga Malysheva and Christoph G. Baerwald, University Hospital, Leipzig, Germany

1219. **Periodontal Disease Is Associated with Rheumatoid Arthritis but Its Severity Is Not Correlated with Rheumatoid Arthritis Disease Activity.** In Ah Choi1, Jin-Hee Kim1, Kyung Hwa Kim2, Hye Won Kim3, Myeong Jae Yoon1, Bon Seung Ku1, Hyejin Oh1, Joo Yoon Lee1, Eun Young Lee1, Eun Bong Lee1, Yong-Moo Lee2 and Young Wook Song3, 1Department of Internal Medicine, School of Medicine, Seoul National University, Seoul, South Korea, 2Department of Periodontology, School of Dentistry, Seoul National University, Seoul, South Korea

1220. **Occurrence and Morbidity of Lower Extremity Ulcer in Rheumatoid Arthritis - A Population Based Study.** Adlene Jebakumar, Cynthia S. Crowson, Prabhu D. Udakumar, Sherine E. Gabriel and Eric L. Matteson, Mayo Clinic, Rochester, MN

1221. **Low Muscle Density in Rheumatoid Arthritis and Modified Association with Total Fat Mass, Results of a Pilot Study.** Joshua Baker1, Joan Marie Von Feldt2 and Mary Beth Leonard1, 1University of Pennsylvania, Philadelphia, PA, 2Univ of Pennsylvania/Philadelphia VAMC, Philadelphia, PA, 3The Children’s Hospital of Philadelphia, Philadelphia, PA


1223. **Frequency of Deep Vein Thromboses and Pulmonary Emboli in Rheumatoid Arthritis.** Christian A. Pineau1, Evelyne Vinet1 and Sasha Bernatsky2, 1McGill University Health Centre, Montreal, QC, 2Research Institute of the McGill University Health Ctre, Montreal, QC

1224. **Rheumatoid Arthritis Disease Activity During Pregnancy Affects the Postnatal Catch-up Growth of the Child.** Florentien D.O. de Steenwinkel1, Anita C.S. Hokken-Koelega2, Maria A.J. de Ridder1, Johanna M.W. Hazes1 and Radboud J.E.M. Dolhain1, 1Erasmus Medical Center, Rotterdam, Netherlands, 2Erasmus Medical Center- Sophia Children’s Hospital, Rotterdam, Netherlands

1225. **Self Reported Comorbidity Is Common in Early Inflammatory Arthritis and Associated with Poorer Function and Quality of Life and Greater Disease Activity: Results From the Canadian Early Arthritis Cohort.** Carol A.
1226. Transition Time to Osteoporosis in Patients with Rheumatoid Arthritis. Jiwon Hwang, Joong Kyong Ahn, Ji Young Chai, Hoon-Suk Cha, Jaejoon Lee and Eunmi Koh, 1Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea, 2Kangbuk Samsung hospital, Sungkyunkwan University School of Medicine, Seoul, South Korea, 3Jesang Hospital, Seongnam-si Gyeonggi-do, South Korea

1227. Rheumatoid Arthritis-Associated Interstitial LUNG Disease: Clinical Spectrum of A Large Cohort From A Respiratory Referral Center. Joshua J. Solomon, Gloria M. Russell, Jill B. Keter, Amy L. Olson, Evans R. Fernandez-Perez, Tristan J. Huie, Jeffrey J. Swigris, Kevin K. Brown and Aryeh Fischer, 1Denver, 2Pontificia Universidad Católica Madre y Maestra, Santiago, Dominican Republic, 3National Jewish Health, Denver, 4National Jewish Health, Denver, CO, 5National Jewish Hospital, Denver, CO

1228. Contributions of Inflammation, Inactivity, and Low Blood Pressure to Skeletal Muscle Insulin Resistance in Well-Controlled Rheumatoid Arthritis. Hibam Abouassaly, Lori Bateman, Gary E. McDaniel, Lorraine Elliott-Penry, Michael Muehlbauer, E. William St. Clair, William E. Kraus and Kim M. Huffman, Duke University Medical Center, Durham, NC

1229. Rheumatoid Arthritis and Risks of Malignant Lymphoma - Are Risks Still Increased? Karin Hellgren, Eva Baecklund, Karin E Smedby, Carin Backlin, Christer Sundstrom, 1Unit of Rheumatology, Stockholm, Sweden, 2Unit of Rheumatology, Uppsala, Sweden, 3Clinical Epidemiology Unit, Stockholm, Sweden, 4Department of Medical Sciences, Uppsala, Sweden, 5Department of Genetics and Pathology, Uppsala, Sweden, 6Rheumatology Unit & Clinical Epidemiology Unit, Stockholm, Sweden

1230. The Role of Sleep Problems in Conditioned Pain Modulation in Rheumatoid Arthritis. Yvonne C. Lee, Bing Lu, Robert R. Edwards, Ajay Wasan, Nicholas Nassikas, Daniel J. Clawson, Daniel H. Solomon and Elizabeth W. Karlsson, 1Brigham and Women’s Hospital, Boston, MA, 2Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 3Brigham & Womens Hospital, Chestnut Hill, MA, 4Brigham and Women’s Hospital, Chestnut Hill, MA, 5University of Michigan, Ann Arbor, MI

1231. Rheumatoid Arthritis Is Associated with Likelihood of Being Overweight in Women. Irum-Mona Idrees, H. Lester Kirchner and androniki Bili, 1Geisinger Medical Center, Danville, PA, 2Geisinger Health System, Danville, PA


1233. Effect of Insoles on the Rheumatoid Foot. Emilia Moreira, Anamaria Jones, Hilda A. Oliveira, Fabio Jennings, Artur R.C. Fernandes and Jamil Natour, 1Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 2Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 3Universidade Federal de Sao Paulo, Sao Paulo, Brazil

1234. Barriers, Benefits and Preferences for Exercise in RA Patients: A Cross Sectional Study. Yves Henchou, Pascal Zufferey and Alexander So, 1Université du Québec à Trois-Rivières, Trois-Rivières, QC, 2Lausanne University Hospital, Lausanne, Switzerland, 3CHUV, Univ of Lausanne, Lausanne, Switzerland


1236. Important Prognostic Factor in Rheumatoid Arthritis Patients with Interstitial Lung Disease Is Not Usual Interstitial Pneumonia Pattern but Interstitial Lung Disease Extent On Chest High-Resolution Computed Tomography. Hwa Jean Lee, Jung-Yoon Choe, Seong-Kyu Kim, Sung Hoon Park, Ji Hun Kim, Dae Sung Hyun, Kyung Jae Jung and Jisuk Bae, 1Division of Rheumatology, Department of Internal Medicine, Catholic University of Daegu School of Medicine, Daegu, South Korea, 2Division of Pulmonology, Department of Internal Medicine, Catholic University of Daegu School of Medicine, South Korea, 3Radiology, Catholic University of Daegu School of Medicine, South Korea, 4Department of Preventive Medicine, Catholic University of Daegu School of Medicine, South Korea

1237. Baseline Evaluation of Insulin Resistance in Patients with early Non-Treated Rheumatoid Arthritis. Sara Manrique-Arja, Maria Améria López-Lasanta, Pilar Espiño-Lorenzo, Pedro Valdivielso, José Ríoja, Inmaculada Ureña, Francisco Gabriel Jimenez-Núñez, Carmen M. Romero-Barco, Veronica Rodríguez-García, Laura Nieves, Mari Carmen Ordoñez-Cañizares, Laura Cano, María Victoria Irigoyen and Antonio Fernández-Nebro, 1Hospital Carlos Haya. University of Malaga, Malaga, Spain, 2Department of Medicine. University of Malaga, Malaga, Spain

1238. Effects of Stress on Clinical Presentation of Patients with Early Rheumatoid Arthritis. Yun A. Kim, Jane E. Salmon, Juan Xiong, Boulou Harouci, Carol A. Hitchon, Edward Keystone, Janet Pope, Diane Tin, J. Carter Thorne, Gilles Boire, Vivian P. Bykerk and CATCH, 1Hospital for Special Surgery (and Kwangju Christian Hospital, Gwangju, Korea), 2012 Program Book | 227
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New York, NY, 1Hospital for Special Surgery, New York, NY, 2Mount Sinai Hospital, Toronto, ON, 3Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 4University of Manitoba, Winnipeg, MB, 5University of Toronto, Toronto, ON, 6Schulich School of Medicine and Dentistry, Western University, London, ON, 7Southlake Regional Health Centre, Newmarket, ON, 8CHUS - Sherbrooke University, Sherbrooke, QC, 9Toronto

1239. Soluble Glycoprotein VI: A Novel Risk Marker for Thrombosis in Patients with Inflammatory Arthritis. Leann Bell1, Anne M. Madigan1, Paul A. MacMullan1, Eimear Dunne2, Dermot Kenny2 and Geraldine M. McCarthy1, 1Mater Misericordiae University Hospital, Dublin 7, Ireland, 2RCSI, Dublin 2, Ireland

1240. Serum Anti-Müllerian Hormone Can Be Used to Determine Ovarian Reserve in Women with Rheumatoid Arthritis. Jenny Brouwer, Johanna M.W. Hazes, Joop S.E. Laven, Izaäk Schipper and Radboud J.E.M. Dolhain, Erasmus Medical Centre, Rotterdam, Netherlands

1241. Glucocorticoid Use is associated with increase in HDL in Rheumatoid Arthritis Patients. Lisa L. Schroeder1, Xiaoqin Tang2, Mary Chester M. Wasko3 and andronikii Bili2, 1Geisinger Health System, Danville, PA, 2Geisinger Center for Health Research, Danville, PA, 3Temple University School of Medicine, Pittsburgh, PA, 4Geisinger Medical Center, Danville, PA

1242. Use of Anti-Tumor Necrosis Factor Therapy Is Associated with Reduced Cardiovascular Event Risk in Rheumatoid Arthritis. Mike Nurmohamed1, Yanjun Bao2, James Signorovitch1, Parvez M. Mulani2 and Daniel E. Furst3, 1VU University Medical Center & Jan van Breemen Research Institute, Amsterdam, Netherlands, 2Abbott Laboratories, Abbott Park, IL, 3Analysis Group, Inc., Boston, MA, 4UCLA

1243. Effect of Tocilizumab Treatment On Regional Left Ventricular Function, As Assessed by Cardiac Magnetic Resonance Imaging, in Rheumatoid Arthritis Patients without Cardiac Symptoms. Hitomi Kobayashi1, Isamu Yokoe1, Hiroshi Sato1 and Yasuyuki Kobayashi2, 1Itabashi Chuo Medical Center, Tokyo, Japan, 2St Marianna Univ Sch of Med, Kawasaki, Japan


1245. Age-Specific Association between Disease-Related Measures and Incident Cardiovascular Events and All-Cause Mortality in Early Rheumatoid Arthritis. Sofia Ajeganova1, Maria LE andersson2, Johan Frostégård3 and Ingjärd Hafström1, 1Karolinska Institutet, Unit of Rheumatology, Department of Medicine Huddinge, Stockholm, Sweden, 2R&D Center, Spenshult Hospital, Oskarström, Sweden, 3Karolinska Institutet, Section of Immunology and chronic disease, Institute of Environmental Medicine, Stockholm, Sweden

1246. Cardiovascular Risk Assessment in Rheumatoid Arthritis (RA) Patients Treated by Biologic Response Modifiers. Majed M. Khraishi1, Rana Aslanov2 and Katie Doyle1, 2Memorial University of Newfoundland, St.Johns, NF, 3Memorial University of Newfoundland, St.John’s, NF

1247. Delay in Diagnosis of Rheumatoid Arthritis Increases the Cardiovascular Risk. Chan-Bum Choi1, Yoon-Kyoung Sung2, Soo-Kyung Cho2, Dae-Hyun Yoo2, Shin-Seok Lee3, Jisoo Lee4, Jinseok Kim1, Hye-Soon Lee5, Tae-Hwan Kim1, Bo Young Yoon1, Wan-Hee Yoo6, Jung-Yoon Choe6, Sang-Heon Lee10, Seung-Cheol Shim11, Won-Tae Chung12, Seung-Jae Hong13, Choong Ki Lee14, Eunmi Koh15, Jae-Bum Jun16, So-Young Bang17, Seong-Kyu Kim17, Hoon-Suk Chae18, Jeeseon Shim19, Sang-Cheol Bae20 and Korean Observational Study Network for Arthritis (KORONA)21, 1Hanyang University Hospital for Rheumatic Diseases, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea, 2Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea, 3Chonnam National University Medical School, Gwangju, South Korea, 4Ewha Womans University Mokdong Hospital, Seoul, South Korea, 5Jeju National University Hospital, Jeju, South Korea, 6Hanyang University Guri Hospital, Guri, South Korea, 7Inje University Ilsan Paik Hospital, Goyang, South Korea, 8Department of Internal Medicine, Chonbuk National University Medical School and Research Institute of Clinical Medicine, Jeonju, South Korea, 9Catholic university of Daegu School of medicine, Arthritis and autoimmunity research center, Daegu, 10Konkuk University School of Medicine, Seoul, South Korea, 11Eulji University Hospital, Daejeon, South Korea, 12Dong-A University Hospital, Busan, South Korea, 13Kyung Hee University, Seoul, South Korea, 14Yeungnam University, Daegu, South Korea, 15Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea, 16Hanyang University Hospital for Rheumatic Disease, Seoul, South Korea, 17and Autoimmunity Research Center, Catholic University of Daegu School of Medicine, Daegu, South Korea, 18Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea, 19Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea, 20Hanyang University Hospital for Rheumatic Disease, Clinical Research Center for Rheumatoid Arthritis (CRCRA), Seoul, South Korea, 21Seoul


1249. The Impact of Statin Use On Lipid Levels in Statin-Naive Patients with Rheumatoid Arthritis (RA) Vs. Non-RA Subjects: Results From a Population-Based Study. Elena Myasoedova, Cynthia S. Crowson, Abigail B. Green, Eric L. Matteson and Sherine E. Gabriel, Mayo Clinic, Rochester, MN
1250. Heightened Aortic Wall Inflammation in Patients with Rheumatoid Arthritis Versus Patients with Established Coronary Artery Disease without Autoimmune Disease. Jeffrey D. Greenberg, Zah Fayad, Victoria Furer, Michael Farkouh, Michael J. Collin, Pamela B. Rosenthal, Jonathan Samuels, Svetlana Krasnokutsky Samuels, Soumya M. Reddy, Peter M. Izmirly, Cheonguen Oh, Manish Jain and Venkatesh Mani, 1New York University School of Medicine, New York, NY, 2Mount Sinai School of Medicine, New York, NY, 3NYU School of Medicine, New York, NY, 4NYU School of Medicine, New York, NY

1251. Vulnerability Features Are Common in Coronary Plaques of Asymptomatic Patients with Rheumatoid Arthritis Compared to Controls: Associations with Lipid and Oxidative Stress Biomarkers. George A. Karpouzas, Jennifer Malpeso, Tae-Young Choi, Silvia Munoz and Matthew Budoff, 1Harbor-UCLA, Torrance, CA, 2Harbor-UCLA Medical Center, Torrance, CA


1254. In Treatment-Naive Early RA the Left Ventricular Function Is Correlated to CRP, Doctors Global and Anti-CCP Status. BB Logstrup, 1LD Kristensen, A. Hedemann-Andersen and Torkell Ellingsen, 1Diagnostic Centre Region Hospital Silkeborg Denmark, Silkeborg, Denmark, 2Diagnostic Centre Regional Hospital Silkeborg, 600 Silkeborg, Denmark

1255. Vascular Calcification on Hand and Feet X-Rays, VFA Imaging of the Spine, and Cardiovascular Disease in Rheumatoid Arthritis. Ausaf Mohammad, Collette English, Vascular Calcification in Patients with Rheumatoid Arthritis. Jeffrey D. Greenberg, Zah Fayad, Victoria Furer, Michael Farkouh, Michael J. Collin, Pamela B. Rosenthal, Jonathan Samuels, Svetlana Krasnokutsky Samuels, Soumya M. Reddy, Peter M. Izmirly, Cheonguen Oh, Manish Jain and Venkatesh Mani, 1New York University School of Medicine, New York, NY, 2Mount Sinai School of Medicine, New York, NY, 3NYU School of Medicine, New York, NY, 4NYU School of Medicine, New York, NY

1256. High Inflammation May Condition the Antiatherogenic Function of Small, Dense HDL in Patients with Active Rheumatoid Arthritis. Carla Saucedo, Leonardo gomez rosso, Tomas Meroño, Fernando Brites, Anatol Kontush, Luis J. Catoggio, Enrique Soriano, Laurent Camont, Marie Lhomme, Veronica Malah, Patricia Sorroche, Sandrine Chantepeix, Paul Robillard and John Chapman, 1Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Laboratory of Lipids and Lipoproteins, School of Pharmacy and Biochemistry, Buenos Aires, Argentina, 3Université Pierre et Marie Curie-Paris, Paris, France, 4Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 5Université Pierre et Marie Curie, Paris, France, 6Rheumatology section, Hospital de Clínicas "José de San Martín", Buenos Aires, Argentina, 7Central Laboratory, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 8Université Pierre et Marie Curie, Paris, Argentina

1257. Subclinical Atherosclerosis in Hispanic Patients with Rheumatoid Arthritis. Correlation with the Presence of Anti-Oxidized LDL Antibodies and Serum Levels of CD40L. Yuriis Fuentes-Silva, Sohaim Al Snihi, Natali Serra-Bonett, Juan De Sanctis and Martin A. Rodriguez, 1Centro Nacional de Enfermedades Reumáticas, Caracas, Venezuela, 2University of Texas Medical Branch, Galveston, TX, 3Instituto de Inmunología, Caracas, Venezuela, 4Hospital Universitario de Caracas, Caracas, Venezuela

1258. Association between Low Vitamin D Levels and Indicators of Osteoporosis and Atherosclerosis. Barry J. Sheane, Ruth Dunne, Ken Scott, Mary Hall, Michelle O'Connor, Martin Healy, John Feely, J.B. Walsh and Gaye Cunname, 1St. James’s Hospital, Dublin, Ireland, 2St James’s Hospital, Dublin, Ireland, 3Trinity College Dublin, Dublin 8, Ireland

1259. Association between Subclinical Atherosclerosis and Bone Mineral Density in Rheumatoid Arthritis. Barry J. Sheane, Ruth Dunne, Ken Scott, Mary Hall, Michelle O’Connor, Martin Healy, John Feely, J.B. Walsh and Gaye Cunname, 1St. James’s Hospital, Dublin, Ireland, 2St James’s Hospital, Dublin 8, Ireland, 3Trinity College Dublin, Dublin 8, Ireland, 4Central Pathology Laboratory, Dublin 8, Ireland, 5Medicine for the Elderly, Dublin 8, Ireland, 6St James’s Hospital, Dublin, Ireland

1260. Hydroxychloroquine Reduces the Risk of Coronary Artery Disease in Patients with Rheumatoid Arthritis. Li Chun, Mu Rong, Su Yin, Li Xiaofeng, Wang Yongfu, Wang Guochun, Zhu Ping, Liu Xiangyuan, Chen Haiying, Luan Xingfeng, Han Shuling, Lin Jinying, Liu Xiaomin, Hu Shaoxian, Yang Xiyan, Huang Cibo Sr, Li Xingfu, Wang Yi and Li Zhanguo, 1Peking University People’s Hospital, Beijing, China, 2Taiyuan, China, Baotou, China, Beijing, China, Xian, China, Shijiazhuang, China, Tangshan, China, Handan, China, 3China, 4Nanning, China, 5Wuhan, China, Guangzhou, China, 6Beijing Hospital, Ministry of Health, Beijing, China, 7Jinan, China, 8Lanzhou, China

1261. Epicardial Adipose Tissue Is Associated with Cardiometabolic Risk and the Metabolic Syndrome in Patients with Rheumatoid Arthritis. Michelle J. Ormseth, Aliza Lipson, Nikolaos Alexopoulos, Gregory R. Hartlage, Annette M. Oeser, Ahuva Biani, Tebeeb Gebretsadik, Ayumi Shintani, Paolo Raggi and C. Michael Stein, 1Vanderbilt Medical Center, Nashville, TN, 2Emory University, Atlanta, GA

1262. Rheumatoid Arthritis Patients with Higher Disease Severity and Subclinical Carotid Plaque Experience More Cardiovascular Events Despite a Favorable Conventional Cardiovascular Risk Profiles. Yeon-Ah Lee, Somi Kim, Sang-
1263. Carotid Arterial Wall Inflammation Is Associated with a Specific Profile of Inflammatory Biomarkers and Anti-Citrullinated Protein Antibodies in Rheumatoid Arthritis Patients. Caroline Grönnwall1, Gregg Silverman2, Zahi Fayad2, Venkatesh Mani2, Victoria Furer1, Michael Farkouhi1, Manish Jain2, Cheongeon Oh2, John Todd3, Mukundan Attur3, Steven B. Abramson4 and Jeffrey D. Greenberg5, 1NYU School of Medicine, New York, NY, 2Mount Sinai Hospital, New York, NY, 3Singulex, Alameda, California, Alameda, CA, 4NYU School of Medicine, New York, NY, 5New York University School of Medicine, New York, NY

1264. Vascular Age in Rheumatoid Arthritis Patients. Jl Rosales-Alexander, César Magro Checa, Juan Salvatierra, Silvia Montes García, Jesús Cantero Hinojosa and Enrique Raya Álvarez, University Hospital San Cecilio, Granada, Spain

1265. Lipoprotein Subclass Particles and Small Vessel Elasticity As a Potential Marker for Early Atherosclerosis in Rheumatoid Arthritis: a Prospective, Controlled Study. Marty T. Mertens1 and Elie Gertner2, 1University of Minnesota, Minneapolis, MN, 2Regions Hospital and University of Minnesota Medical School, St. Paul, MN

1266. Evaluation of Metabolic Syndrome in 97 Patients with Rheumatoid Arthritis. Fernanda G. G Chae1, Juliana Lucena2, Rogerio Castro Reis2, Fabiola Brasil1, Murilo Melo1, Amanda Callegari1 and Branca Souza2, 1Irmandade da Santa Casa de Misericordia de Sao Paulo, Sao Paulo, Brazil, 2Irmandade da Santa Casa de Misericordia de Sao Paulo, Sao Paulo, Brazil

1267. Inflammatory Burden Predicts Progression of Carotid Plaque in Rheumatoid Arthritis: A 24-Month Longitudinal Analysis. Churl Hyun Im, Na Ri Kim, Jong Wan Kang, Young Ji Kim, Kyung Hye Kim, Eon Jeong Nam and Young Mo Kang, Kyungpook National University School of Medicine, Daegu, South Korea

1268. Lipid Alterations and Measurement of Arterial Stiffness in Rheumatoid Arthritis. Marina Scolnik1, Carla Saucedo1, David A. Navarta1, Leandro Ferreyra Garrott1, Erika Catay1, Maria L. Acosta Felquer1, Eliana Lancioni1, Cristian Quiroz1, Frederica Varela Guidetti1, Zaida Bedran1, Mirtha Sabelli1, Javier Rosa1, Maria Victoria Garcia1, Patricia M. Imamura1, Patricia Sorroche1, Jose Alfie1, Margarita Morales2, Gabriel Waisman1, Luis J. Catoggio1 and Enrique Soriano1, 1Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Central Laboratory, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 3Hypertension Unit, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 4Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

1269. Serum Cytokines Associated with Carotid Atherosclerosis in Rheumatoid Arthritis. Inmaculada del Rincon1, Roy W. Haas1, Daniel H. O’Leary2, Joseph F. Polak1, Daniel F. Battafarano1 and Agustín Escalante2, 1University of Texas Health Science Center at San Antonio, San Antonio, TX, 2Tufts University-Boston Campus, Boston, MA, 3Brooke Army Medical Ctr, San Antonio, TX

1270. Role of Inflammation, Serologic Status and Low Density Lipoprotein in Coronary Heart Disease Among Patients with Rheumatoid Arthritis: Data From the National Veterans Health Administration. Iris Navarro-Millan1, Shuo Yang1, Scott L. DuVall1, Lang Chen2, John Baddley2, Grant W. Cannon3, Elizabeth S. Delzell1, Jie Zhang1, Monika M. Safford1, Nivedita M. Patkar3, Ted R. Mikuls3, Jasvinder A. Singh4 and Jeffrey Curtis4, 1University of Alabama Birmingham, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3VA Salt Lake City Health Care System and University of Utah School of Medicine, Salt Lake City, UT, 4Salt Lake City VA and University of Utah, Salt Lake City, UT, 5Univ of Alabama-Birmingham, Birmingham, AL, 6Omaha VA and University of Nebraska Medical Center, Omaha, NE

Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy

1271. Two-Year Drug Survival and Treatment Effect of Abatacept and Tocilizumab in the Treatment of Rheumatoid Arthritis in Routine Care. Results from the Nationwide Danish Danbio Registry. HC Leffers1, Mikkel Østergaard1, Bente Glintborg2, Niels Steen Krogh3, Ulrik Tarp3, Tove Lorenzen4, Annette Hansen1, Michael Sejer Hansen1, Lene Dreyer1, Martin S. Jakobsen1 and Merete L. Hetland5, 1DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Glostrup, Denmark, 2DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Copenhagen, Denmark, 3ZiteLab ApS, Copenhagen, Denmark, 4DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Aarhus, Denmark, 5DANBIO, On behalf of Depts of Rheumatology, North, South, Central, Zealand and Capital Region, Copenhagen, Denmark

1272. Rheumatoid Arthritis (RA) Incomplete Secondary Responders to TNF-Alfa Safely Achieve Efficacy by Switching to Certolizumab Pegol in a 24-Week Study: A Phase IV, Randomized Multicenter, Double-Blind, Twelve-Week Study Followed by a 12 -Week Open-Label Phase. M. Schiff1, Ronald Goldblum1 and John RP Tesser3, 1University of Colorado, Denver, CO, 2CPC, Inc, Carlsbad, CA, 3AZ Arthritis Rheum Assoc, Paradise Valley, AZ

1273. Can Response Duration After the First Rituximab Treatment Be Used in Timing of Rituximab Retreatment? Noortje van Herwaarden1, Aatke van der Maas1, Tim L. Jansen2, Ellen Dutmer3, andre Hartkamp4, Piet L.C.M. van Riel2, Wietske Kievit2, Bart J.F. van den Bent1 and Alfons A.
den Broeder, 1 Sint Maartenskliniek, Nijmegen, Netherlands, 2 Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 3 Geldersche Vallei Hospital, Ede, Netherlands, 4 Jeroen Bosch Hospital, s-Hertogenbosch, Netherlands

1274. Relationship between Morning Stiffness Duration and Severity, Pain Intensity, and Measures of Disease Activity in a 12 Week Efficacy Study of a Modified (Delayed-Release) Prednisone Plus Disease-Modifying Antirheumatic Drugs in Rheumatoid Arthritis. Frank Buttgereit1, John R. Kirwan2, Kenneth G. Saag3, Reike Alten3, Amy Grahn4, Patricia Rice5 and Maarten Boers5, 1 Charite University Med-Berlin, Berlin, Germany, 2 Bristol Royal Infirmary, Bristol, United Kingdom, 3 Univ of Alabama-Birmingham, Birmingham, AL, 4 Charles University of Medicine, Prague, Czech Republic, 5 Leiden University Medical Center, Leiden, Netherlands

1275. Fast Remission Response to Etanercept At Week 4 Predicts Better Long-Term Outcomes in Early and Established Rheumatoid Arthritis Compared to Slower Response At Week 12. Bernd Raffeeiner, Costantino Bottsios, Francesca Ometto, Mariagrazia Canova, Livio Bernardi, Cristiana Vezzari, Silvano Todesco, Paolo Sfriso and Leonardo Punzi, Rheumatology Unit - University of Padova, Padova, Italy

1276. Changes in B Cell Populations and Serum Immunoglobulins and Their Relationship to Infections in a One Year, Uncontrolled Open Label Study of Tabalumab. Maria W. Greenwald1, Melissa Veenhuizen2, Wendy Komocsar3, Rebecca Jones-Taha3, Chin H. Lee4 and Pierre-Yves Berczas4, 1 Desert Medical Advances, Palm Desert, CA, 2 Eli Lilly & Company, Indianapolis, IN, 3 PharmaNet/i3, Blue Bell, PA

1277. Tofacitinib, an Oral Janus Kinase Inhibitor, in Combination with Methotrexate Reduced the Progression of Structural Damage in Patients with Rheumatoid Arthritis: Year 2 Efficacy and Safety Results From a 24-Month Phase 3 Study. D. van der Heijde1, Y. Tanaka2, R. M. Fleischmann3, E. Keystone4, J. M. Kremer5, C. Zerbinii6, M. H. Cardiel7, S. B. Cohen8, P. N. Tash9, Y. Song10, D. Tegzova11, B. Wyman12, D. Gruben13, B. Benda14, G. Wallenstein15, S. Krishnaswami16, S. H. Zwillich17, J. Bradley18, C. A. Connell19 and ORAL Scan Investigators20, 1 Leiden University Medical Center, Leiden, Netherlands, 2 University of Occupational and Environmental Health, Kitakyushu, Japan, 3 Metroplex Clinical Research Center, Dallas, TX, 4 Mount Sinai Hospital, Toronto, ON, 5 Albany Medical College, Albany, NY, 6 CEPC – Centro Paulista de Investigação Clínica, São Paulo-SP, Sao Paulo, Brazil, 7 Centro de Investigación Clínica de Morelia, Morelia, Mexico, 8 Metroplex Clinical Research Centre, Dallas, TX, 9 Nambour Hospital, Sunshine Coast, Australia, 10 Seoul National University Hospital, Seoul, South Korea, 11 Institute of Rheumatology, Prague, Czech Republic, 12 Pfizer Inc., Groton, CT, 13 Pfizer Inc., Collegeville, PA, 14 Pfizer Inc., Collegeville, PA

1278. Tuberculosis and Tofacitinib Therapy in Patients with Rheumatoid Arthritis. Kevin L. Winthrop1, S.-H. Park2, A. Gul3, M. Cardiel4, JJ Gomez-Reino5, D. Ponce de Leon6, R. Riese7, R. Chew8, T. Kawabata9, E. Mortensen10 and H. Valdez11, 1 Oregon Health & Science University, Portland, OR, 2 The Catholic University of Korea, Seoul, South Korea, 3 Istanbul University, Istanbul, Turkey, 4 Centro de Investigación Clínica de Morelia SC, Morelia, Mexico, 5 Hospital Clinico Universitario de Santiago, Santiago de Compostela, Spain, 6 Pfizer Inc., Collegeville, PA, 7 Pfizer Inc., Groton, CT, 8 Pfizer Inc., New York, NY

1279. First in Human Study with Recombinant Anti-IL-21 Monoclonal Antibody in Healthy Subjects and Patients with Rheumatoid Arthritis. Stanislav Ignatenko1, Birte K. Skrumsager2, Adam Steensberg2 and Ulrik Mørtizten3, 1 Charité Research Organization Gmbh, Berlin, Germany, 2 Novo Nordisk A/S, Copenhagen, Denmark

1280. Sustained Efficacy Responses and a Consistent Safety Profile with Rituximab Repeat Treatment Over 5 Years in Patients with Rheumatoid Arthritis and an Inadequate Response to Tumour Necrosis Factor Inhibitors. Edward Keystone1, Stanley B. Cohen2, Paul Emery3, Joel M. Kremer4, Maxime R. Dougdos5, James E. Loveless6, Carol Chung7, Pamela Wong8, Patricia B. Lehane9 and Helen Tyrrell10, 1 Mount Sinai Hospital, Toronto, ON, 2 Metroplex Clinical Research Center, Dallas, TX, 3 University of Leeds, Leeds, United Kingdom, 4 Albany Medical College, Albany, NY, 5 René Descartes University, Paris, France, 6 St Luke’s Rheumatology, Boise, ID, 7 Genentech, Inc., South San Francisco, CA, 8 Roche Products Limited, Welwyn Garden City, United Kingdom

1281. IL-6 Signaling Inhibition Improves Abnormal Bone Homeostasis in Active Rheumatoid Arthritis. Masayasu Kitano1, Sachie Kitano2, Chieri Sato3, Kazuyuki Fujita4, Takahiro Yoshikawa5, Yuki Katsashima6, Masahiro Sekiguchi7, Naoto Azuma8, Naoaki Hashimoto, Shinichiro Tsunoda9, Kiyoshi Matsui9 and Hajime Sano10, 1 Hyogo College of Medicine, Nishinomiya-city, Japan

1282. Tofacitinib, an Oral Janus Kinase Inhibitor, in the Treatment of Rheumatoid Arthritis: Open-Label, Long-Term Extension Safety and Efficacy up to 48 Months. Jurgen Wollenhaupt1, Joel C. Silverfield2, Eun Bong Lee3, Susan P. Wood8, Koshiba Soma4, Lisy Wang5, Hiroki Nakamura6, Yoshihiro Komuro7, Chudil Nduaka5, David Gruben8, Birgitta Benda9, Samuel H. Zwillich10, Richard Riese11 and John D. Bradley12, 1 Schoen-Klinik Hamburg-Eilbek Teaching Hospital of the University of Hamburg, Hamburg, Germany, 2 Tampa Medical Group, Tampa, FL, 3 Seoul National University, Seoul, South Korea, 4 Pfizer Inc., Groton, CT, 5 Pfizer Japan Inc., Tokyo, Japan, 6 Pfizer Inc., Collegeville, PA

1283. Effects of Tofacitinib On Patient-Reported Outcomes in Patients with Active Rheumatoid Arthritis Receiving Stable-Dose Methotrexate: Results of Two Phase 3 Studies. Gerd R. Burmester1, Désirée van de Heijde1, Viveke Strand2, Cristiano A. F. Zerbinii3, Carol A. Connell4, Charles A. Mebus5, Samuel H. Zwillich6, John D. Bradley7, David Gruben6 and Gene Wallenstein, 1 Charité – University Medicine Berlin, Berlin, Germany, 2 Leiden University Medical Center, Leiden, Netherlands, 3 University of California, San Francisco, CA, 4 Sanofi-Aventis, Shawnee Mission, KS, 5 Celgene Corporation, Parsippany, NJ, 6 University of British Columbia, Vancouver, BC, 7 Genentech, Inc., South San Francisco, CA, 8 Roche Products Limited, Welwyn Garden City, United Kingdom
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1284. Evaluation of Influenza and Pneumococcal Vaccine Responses in Patients with Rheumatoid Arthritis Receiving Tofacitinib. K. L. Winthrop1, A. Racewicz2, E. B. Lee3, B. Wilkinson4, S. H. Zwillich5, K. Soma6, S. Rottinghaus6, T. Kawabata4, R. Riese7, S. Wood8, J. Bradley9 and C. O. Bingham II10, 1Oregon Health and Science University, Portland, OR, 2Department of Internal Medicine and Orthopaedics, Bialystok Regional Hospital, Bialystok, Poland, 3Seoul National University, Seoul, South Korea, 4Pfizer Inc., Groton, CT, 5Johns Hopkins University, Baltimore, MD

1285. Short-Term Efficacy of Etanercept Plus Methotrexate Vs. Various Disease-Modifying Anti-Rheumatic Combinations with Methotrexate in Established Rheumatoid Arthritis. Roy Fleischmann1, Andrew S. Koenig2, Annette Szumski3, Henk Nab4, Lisa Marshall5 and Eustriatos Bananis6, 1University of Texas Southwestern Medical Center, Dallas, TX, 2Pfizer Inc., Collegeville, PA, 3Pfizer Europe, Rome, Italy

1286. Antibodies to Etanercept and Adalimumab in Rheumatoid Arthritis Inadequate Responders and Clinical Outcomes After an Active Switch to Infliximab. Chad Pool1, Gopi Shankar2, Allen Schantz3, George Gunn4, Rebecca Bolce5, Marjatta Leirisalo-Repo6, Jim Wang7, John A. Goldman8, Raphael J. DeHoratus9, Roy M. Fleischmann10 and Dennis Decktor11, 1Janssen Services, LLC, Horsham, PA, 2Janssen R&D, LLC, PA, 3Crescendo Bioscience Inc., South San Francisco, CA, 4Helsinki University Central Hospital, Helsinki, Finland, 5Janssen Services, LLC, Horsham, 6Medical Quarters #29, Atlanta, GA, 7University of Texas Southwestern Medical Center and Metroplex Clinical Research Center, Dallas, TX

1287. Rheumatoid Arthritis Comparison of Active Therapies in Methotrexate Suboptimal Responders: Validation of the Strategy of Conventional Disease Modifying Anti-Rheumatic Drugs Before Biologics. James R. O’Dell1, Ted R. Mikuls2, Thomas Taylor3, Vandana Ahiuwalla4, Mary Brophy5, Stuart Warren6, Robert Lew7, Ciara Phibbs8, Aslam H. Anis9, Amy C. Cannella10, Gary A. Kunkel11, Alan R. Erickson12, Edward Keystone13 and the CSPS51 RACAT Research Group14, 1Omaha VA and University of Nebraska Medical Center, Omaha, NE, 2VA Medical Center, White River Junction, VT, 3William Osler Health Center, Mississauga, ON, 4VA Boston Healthcare System, Boston, MA, 5VA CSP Clinical Research Pharmacy Coordinating Center, Albuquerque, NM, 6VA Boston HealthCare System, Boston, MA, 7Palo Alto VA Health Care System, Menlo Park, CA, 8Univ of British Columbia, Vancouver, BC, 9George Wahlen Veterans Affairs Medical Center, Salt Lake City, UT, 10UNMC Physicians - Brentwood, LaVista, NE, 11University of Toronto, Toronto, ON, 12Boston

1288. A Significant Number of Patients with Chronic Arthritis Received a Reduced Dosage of Biological Drugs: an Observational Study in Clinical Practice. Jose Inciarte-Mundo1, Maria Victoria Hernández2, Violeta Rosario3, Sonia Cabrera4, Virginia Ruiz-Esquide5, Maria Eugenia Gomez-Caballero6, Jose A. Gómez-Puerta7, Julio Ramirez8, Juan D. Cañete9 and Raimon Sanmarti10, 1Hospital Clinic of Barcelona, Barcelona, Spain, 2Hospital Clinic of Barcelona., Barcelona, Spain

1289. Abatacept Biologic-Free Remission Study in Established Rheumatoid Arthritis Patients. Orion Study. Tsutomu Takeuchi1, Tsukasa Matsubara2, Shuji Ohta3, Masaya Mukai4, Koichi Amano5, Shigeto Tohma6, Yoshiya Tanaka7, Hisashi Yamanaka8 and Nobuyuki Miyasaka9, 1Keio University School of Medicine, Tokyo, Japan, 2Matsubara Mayflower Hospital, Hyogo, Japan, 3Taga General Hospital, Ibaraki, Japan, 4Sapporo City General Hospital, Sapporo, Japan, 5Department of Rheumatology and Clinical Immunology, Saitama Medical Center, Saitama Medical University, Saitama, Japan, 6Sagamihara National Hospital, Sagamihara City, Japan, 7University of Occupational and Environmental Health, Kitakushu, Japan, 8Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 9Tokyo Medical and Dental University, Tokyo, Japan

1290. Effects of Tofacitinib On Lipid Profiles and Cholesterol and Lipoprotein Kinetics in Patients with Rheumatoid Arthritis. Christina Charles-Schoenmann1, Roy M. Fleischmann2, Jean Davignon3, Howard Schwartz4, Scott Turner5, Carine Beye6, Mark Milad7, Zheng Luo8, John Bradley9, Irina Kaplan10, Richard Riese11, Andrea Zuckerman12 and Iain B. McInnes13, 1University of California, Los Angeles, CA, 2Metroplex Clinical Research Center, Dallas, TX, 3University of Montreal, Montreal, 4Miami Research Associates, Miami, FL, 5KineMed Inc., Emeryville, CA, 6Milad Pharmaceutical Consulting LLC, Plymouth, MI, 7Pfizer Inc., Groton, CT, 8University of Glasgow, Glasgow, United Kingdom

1291. A Phase Ib Clinical Trial with F8-IL10, an Anti-Inflammatory Immunocytokine for the Treatment of Rheumatoid Arthritis (RA), Used in Combination with Methotrexate (MTX). Mauro Galeazzi1, Caterina Baldi2, Elena Prisco3, Marco Bardelli4, Dario Neri5, Leonardo Giovannoni6, Enrico Selvi7 and Roberto Caporalii, 1University of Siena, Siena, Italy, 2University of Pavia, IRCCS Policlinico San Matteo Foundation, Pavia, Italy, 3Swiss Federal Institute of Technology Zurich, Zurich, Switzerland, 4Philogen S.p.A., Siena, Italy

1292. Fatigue Is an Independent Variable Predicting Physical Function and Disease Activity Score-28 Remission for Patients with Rheumatoid Arthritis Treated with Intravenously Administered Golimumab: Results From Phase 1, Placebo Controlled Clinical Trial. Rene Westhovens1, Michael Weinblatt2, Chenglong Han3, Tim Gathany4, Lilianne Kim5, Michael Mack6, Jiandong Lu7, Daniel Baker8, Alan Mendelsohn9 and Clifton O. Bingham III10, 1University Hospital KU Leuven, Leuven, Belgium,

1294. A Phase Ib Multiple Ascending Dose Study Evaluating Safety, Pharmacokinetics, and Early Clinical Response of Brodalumab (AMG 827), a Human Anti-Interleukin 17 Receptor (IL-17R) Antibody, in Rheumatoid Arthritis. Melvin A. Churchill1, Luis F. Flores-Suarez2, Daniel J. Wallace3, Kristine Phillips4, Richard W. Martin5, Mario H. Cardiel6, Jeffrey Kaine7, Edgar Bautista8, David H. Salinger9, Erin Stevens1, Christopher B. Russell1 and David A. Martin2, 1Arthritis Center of Nebraska, Lincoln, NE, 2Instituto Nacional de Enfermedades Respiratorias, Mexico City, Mexico, 3Cedars-Sinai Medical Center, Los Angeles, CA, 4University of Michigan Medical School, Ann Arbor, MI, 5Michigan State University College of Human Medicine, Grand Rapids, MI, 6Hospital, Montería, Mexico, 7Sarasota Arthritis Research Center, Sarasota, FL, 8Amgen, Thousand Oaks, CA, 9Amgen, Seattle, WA

1295. Effectiveness and Tolerability of Subcutaneous Tocilizumab in Rheumatoid Arthritis Patients Switched From Intravenous Tocilizumab: Results From the Extension Period of the Musashi Study. Atsushi Ogata1 and the MUSASHI study group2, 1Osaka University Graduate School of Medicine, Suita, Japan, 2Japan

1296. An Interim Analysis of the Efficacy of Abatacept in Japanese Biologics-naive Rheumatoid Arthritis Patients (results from ABROAD study): Comparison of CRP and MMP-3 Level after Treatment with Abatacept Versus Anti-TNF Agents. Masahiro Sekiguchi1, Kiyoshi Matsui2, Masayasu Kitano3, Mitsuo Namiki4, Koichiro Ohmura5, Takao Fujii6, Hideko Nakahara7, Keiji Maeda8, Hideo Hashimoto9, Hideo Hashimoto10, Hideo Hashimoto11, Takanori Kuroiwa12, Kenji Miki13, Masanori Funauchi14, Kazuhiro Hatta15, Kensi Higami16, Shunzo Namuchi17, Teruyuki Nakatani18, Takashi Ikawa19, Takaji Matsutani20, Kosaku Murakami21, Satoshi Morita22, Yutaka Kawahito23, Norihiro Nishimoto24, Tsuyuki Higashi25, and Hajime Sano26, 1Hyogo City Hospital, Osaka, Japan, 2Kobe, Japan, 3Wakayama Medical University, Ibaraki, Japan, 4Osaka Red Cross Hospital, Osaka, Japan, 5Yokohama City University, Kanagawa, Japan, 6Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan

1297. Tofacitinib and Adalimumab Achieve Similar Rates of Low Disease Activity in Rheumatoid Arthritis — Lack of Improvement in Disease Activity Score by 3 Months Predicts Low Likelihood of Low Disease Activity At 1 Year. Ronald F. van Vollenhoven1, Srijam Krishnaswami2, Birgitta Benda3, David Gruben4, Bethanie Wilkinson5, Charles A. Mebus6, Samuel H. Zwiildich7 and John Bradley4, 1Karolinska Institute, Stockholm, Sweden, 2Pfizer Inc., Groton, CT, 3Pfizer Inc., Collegeville, PA

1298. Improvement of Treatment Outcome of Rheumatoid Arthritis with Salazosulfapyridine by Pharmacogenetic Approach. Shunich Kimagai1, Yoshiaki Hagiwara2, Yoshihide Ichise1, Sho Sendo3, Nobuhioko Okada4, Jun Saegusa5 and Goh Tsuji6, 1Shinko hospital, Kobe, Japan, 2Kobe University Graduate School of Medicine, Kobe, Japan, 3Shinko Hospital, Kobe, Japan

1299. Rituximab versus Abatacept in Rheumatoid Arthritis Patients with an Inadequate Response to Prior Biologic Therapy: A Retrospective, Single-Center Study. Edward Keystone, Juan Xiong, Deborah Weber and Ye Sun, Mount Sinai Hospital, Toronto, ON


1301. Predictors of Significant Disease Activity Score-28 (Using C-reactive protein) Remission Achieved with Intravenous Golimumab in Patients with Active Rheumatoid Arthritis Despite Methotrexate Therapy: Results of the Phase 3, Multicenter, Double-Blind, Placebo-Controlled Trial. Clifton O. Bingham III1, Michael Weinblatt2, Alan Mendelsohn3, Lilanne Kim1, Michael Mack4, Jiandong Lu5, Daniel Baker6 and Rene Westhovens7, 1Johns Hopkins University, Baltimore, MD, 2Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 3Janssen Research & Development, LLC, Spring House, PA, 4University Hospital NU Leuven, Leuven, Belgium

1302. Early Neutropenia Is Associated with Clinical Response in Patients Receiving Tocilizumab in Rheumatoid Arthritis. Marie Kostine1, Thomas Barnetche2, Eloi
1303. Achieving Comprehensive Disease Control in Long-Standing or Early Rheumatoid Arthritis Patients Treated with Adalimumab Plus Methotrexate Versus Methotrexate Alone. Edward C. Keystone1, Ferdinand C. Breedveld2, Désirée van der Heijde2, Ronald F. van Vollenhoven3, Stefan Florentinus4, Freddy Faccin5, Shufang Liu6, Hartmut Kupper7 and Arthur Kavanaugh8, 1Professor of Medicine, Toronto, ON, 2Leiden University Medical Center, Leiden, Netherlands, 3Karolinska Institute, Stockholm, Sweden, 4Abbott, Qunig, France, 5Abbott, Abbott Park, IL, 6Abbott GmbH and Co. KG, Ludwigshafen, Germany, 7UCSD School of Medicine, La Jolla, CA

1304. Long-Term Use of Adalimumab as Monotherapy Following Attainment of Low Disease Activity with Adalimumab Plus Methotrexate. Edward C. Keystone1, Ferdinand C. Breedveld2, Hartmut Kupper3, Shufang Liu4 and Stefan Florentinus5, 1Professor of Medicine, Toronto, ON, 2Leiden University Medical Center, Leiden, Netherlands, 3Abbott GmbH and Co. KG, Ludwigshafen, Germany, 4Abbott, Abbott Park, IL, 5Abbott, Rudgns, France

1305. Three-Year Follow-up of Rituximab in Rheumatoid Arthritis: Results From the Belgian MIRA (MabThera in Rheumatoid Arthritis) Registry. Filip De Keyser1, Patrick Durez2, Rene Westhoven3, marie-Joelle Kaiser4 and Ilse Hoffman5, 1Universitair Ziekenhuis Gent, Gent, Belgium, 2Université Catholique de Louvain, Brussels, Belgium, 3University Hospital KU Leuven, Leuven, Belgium, 4Dept Rheumatology, University Hospital Liege, Belgium, 5Dept Rheumatology, GZA St-Augustinus Hospital Antwerp, Belgium

1306. How Well Do Patients with Rheumatoid Arthritis Tolerate Methotrexate? A Retrospective Review of Discontinuation Data from a Large UK Cohort. Calum T. Goudie1, John D. Fitzpatrick2, Anshuman P. Malaviya3 and Andrew J. Ostor4, 1University of Cambridge Medical School, Cambridge, United Kingdom, 2Addenbrooke’s Hospital, Cambridge, United Kingdom

1307. Anti-IL-6 Receptor Nanobody (ALX-0061) Seamless “First-in-Human” Phase I/II POC Study in Patients with Active RA On Stable MTX Treatment. Steven De Bruyn1, Béla Gachály2, Bernadette Rojkovich3, Slavomir Bruk4, Petr Sramek5, Mariusz Korkosz5, Krzysztof Krause6, Pieter Schoen7, Laura Sargentini-Maier7, Joke D’Artois8, Katrien Verschueren9, Katelijne De Swert1, Gerhard Arold10 and Josefín-Beaté Holz11, Ablynx N.V., Zwijnaarde, Belgium, 1Péterly Sándor Utcai Körház, Budapest, Hungary, 2Budai Irgalmasrendi Kórház Kht., Budapest, Hungary, 3Nemocnice Trinec, Trinec, Czech Republic, 4Pharmaceutical Research Associates CZ, Praha, Czech Republic, 5Szpitai Uniwersytecki w Krakowie, Krakow, Poland, 6Wojewodzki Szpital, Wroclaw, Poland, 7PRA International GmbH, Berlin, Germany

1308. Opportunistic Infections in Patients with Rheumatoid Arthritis Treated with Rituximab: Data From The Autoimmunity and Rituximab Registry. Jacques-Eric Gottenberg1, Philippe Ravaud2, Thomas Bardin3, Patrice P. Cacoub Sr4, Alain G. Cantagrel5, Bernard Combe6, Maxime Dougdos7, Rene-Marc Flipo8, Bertrand Godeau9, Loic Guillevin10, Xavier X. Le Loet11, Eric Hachulla12, Thierry Schaeberbeke13, Jean Sibilia13, Isabelle Pane14, Gabriel Baron15 and Xavier Mariette16, 1Strasbourg University Hospital, Strasbourg, France, 2Hospital Hotel Dieu, Paris Descartes University, Paris, France, 3Hôpital Lariboisière, Paris, France, 4Assistance Publique-Hôpitaux de Paris, Hospital Pitié-Salpêtrière, Paris, France, 5Place du Docteur Baylac, Toulouse, France, 6Hopital Lapeyronie, Montpellier, France, 7Rheumatology B Department, Paris-Descartes University, Cochin Hospital, Paris, France, 8Hospital R Salengro CHRU, Lille CEDEX, France, 9Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 10Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, 11CHU de ROUEN, Rouen, France, 12Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 13Groupe Hospitalier Pellegrin, Bordeaux, France, 14CHU Hautepierre, Strasbourg, France, 15Hotel Dieu University Hospital Paris, France, 16Strasbourg, France, 17Université Paris-Sud, Le Kremlin Bicetre, France

1309. Predictive Risk Factors of Serious Infections in RA Patients Treated with Abatacept in Real Life: Results in the Orencia and Rheumatoid Arthritis (ORA) Registry. Jacques-Eric Gottenberg1, Philippe Ravaud2, Alain G. Cantagrel3, Bernard Combe4, René-Marc Flipo5, Thierry Schaeberbeke6, Eric Houvenagel7, Philippe Gaulin8, Damien Loeuille9, Stephanie Rist10, Maxime Dougados11, Jean Sibilia12, Xavier Le Loet13, Christian Marcelli14, Thomas Bardin15, Isabelle Pane16, Elodie Perrodeau17, Christian Marcelli14, Thomas Bardin15, Isabelle Pane16, Elodie Perrodeau17, Gabriel Baron18 and Xavier Mariette19, 1Strasbourg University Hospital, Strasbourg, France, 2Leiden University Medical Center, Leiden, Netherlands, 3Abbott, Abbott Park, IL, 4Abbott, Ludwigshafen, Germany, 5UCSD School of Medicine, La Jolla, CA
1310. Analysis of Anti-JC Polyomavirus T-Cell Immune Response with JC-Feron in Patients with Rheumatoid Arthritis Treated with Rituximab or Anti-TNF. Raphaële Seror1, Houria Chavez2, anne-Aurélie Mazet3, Jeremie Sellam4, Bruno Fautrel5, Maxime Dougdas6, Yassine Taoufik7 and Xavier Mariette8, 1Bicêtre university hospital, LE Kremlin-Bicêtre, France, 2Hopital Bicetre, Université Paris Sud, AP-HP, France, 3Hopital Saint-Antoine, Pierre et Marie Curie University Paris 6, AP-HP, 75012, France, 4APHP-Pitié Salpetrière Hospital / UPMC, Paris, France, 5Paris Descartes University, APHP, Cochin Hospital, Paris, France, 6Hopital Lariboisière, Paris, France, 7Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 8Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, 9Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 10CHU de ROUEN, Rouen, France, 11Service de Médecine Interne, Université de Lille, Lille CEDEX, France, 12Epidemologist, Paris, France, 13Epidemiology, Paris, France, 14Rheumatology Department, Caen University Hospital, 15Hôpital Lariboisière, Paris, France, 16Hotel Dieu University Hospital Paris, France, 17Epidemiology, Paris, France, 18Epidemiology, Paris, France, Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 19Hôpital Purpan, Toulouse CEDEX 9, France, 20Hospital Lapeyronie, Montpellier, France, 21Hospital Salpins, Toulouse, France, 22Hopital R Salengro CHRU, Lille CEDEX, France, 23Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 24Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 25Hopital Purpan, Toulouse CEDEX 9, France, 26Hotel Lapeyronie, Montpellier, France, 27Hotel Dieu University Hospital Paris, France, 28Hopital R Salengro CHRU, Lille CEDEX, France, 29Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 30Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, 31Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 32CHU de ROUEN, Rouen, France, 33Groupe Hospitalier Pellegrin, Bordeaux, France, 34CHU Hautepierre, Strasbourg, France, 35Hotel Dieu University Hospital Paris, France, 36Hopital Hotel Dieu, Paris Descartes University, Paris, France, 37Epidemiology, Paris, France, 38Université Paris-Sud, Le Kremlin Bicêtre, France.

1311. A Novel Individualized Treatment Approach in Open-Label Extension Study of Ozoralizumab (ATN-103) in Subjects with Rheumatoid Arthritis On a Background of Methotrexate. Roy M. Fleischmann1, Steven De Bruyn2, Christian Duby2, Katrien Verschueren2, Judith Baumeister2, Laura Sargentini-Maier2, Cedric Ververken2 and Josefin Roy M. Fleischmann1, Steven De Bruyn2, 1University of Texas, Dallas, TX, 2Ablynx N.V., Zwijnaarde, Belgium.

1312. Clinical Response At 12 Weeks Predicts Long-Term Remission and the Extent of Radiographic Progression in Japanese Patients with Rheumatoid Arthritis Treated with Certolizumab Pegol with and without Methotrexate Coadministration. Tsutomu Takeuchi1, Kazuhiro Yamamoto2, Hisashi Yamanaka1, Naoki Ishiguro3, Yoshiya Tanaka4, Katsumi Eguchi5, Akira Watanabe6, Hideki Origasa7, Toshiharu Shoji8, Nobuyuki Miyasaka9 and Takao Koike10, 1Keio University School of Medicine, Tokyo, Japan, 2Graduate School of Medicine, The University of Tokyo, Shinjuku-ku, Tokyo, Japan, 3Graduate School of Medicine, The University of Tokyo, Shinagawa-ku, Tokyo, Japan, 4Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Est Créteil, 5Hopital Lariboisière, Paris, France, 6Hopital R Salengro CHRU, Lille CEDEX, France, 7Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, 8Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, 9Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 10CHU de ROUEN, Rouen, France, 11Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 12Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 13Epidemiology, Paris, France, 14Rheumatology Department, Caen University Hospital, 15Hôpital Lariboisière, Paris, France, 16Hotel Dieu University Hospital Paris, France, 17Epidemiologist, Paris, France, 18Epidemiology, Paris, France, Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salpêtrière, Paris, France, 19Université Paris-Sud, Le Kremlin Bicêtre, France.

1313. Validation of Algorithms Using Genome-Wide SNP Analysis for Prediction of Remission or Low Disease Activity for Infliximab or Etanercept-Treated RA Patients. Tsukasa Matsubara1, Satoru Koyano2, Keiko Funahashi3, James E. Middleton4, Takako Miura5, Kosuke Okuda6, Takeshi Nakamura7, Akira Sagawa8, Takeo Sakurai9, Hiroaki Matsuno10, Tomomaro Izumihara11, Isuuke Shono12, Kou Katayama13, Toyomitsu Tsuchida14, Mitsuyoshi Iwahashi15, Tomomi Tsuru16 and Motohito Oribe17, 1Matsubara Mayflower Hospital, Kato, Japan, 2Research Institute of Joint Diseases, Kobe, Japan, 3Sagawa Akira Rheumatology Clinic, Sapporo, Japan, 4Inoue Hospital, Takasaki, Japan, 5Toyama, Japan, 6Izumihara Rheumatic and Medical Clinic, Kagoshima, Japan, 7Shono Rheumatology Clinic, Fukuoka, Japan, 8Katayama Orthopedic Rheumatology Clinic, Asahikawa, Japan, 9Tsuchida Clinic, Chiba, Japan, 10Higashi-Hiroshima Memorial Hospital, Higashi-hiroshima, Japan, 11IPS Clinic, Fukuoka, Japan, 12Oribe Rheumatism and Internal Medicine Clinic, Oita, Japan.

1314. Gene Expression Profiling and Pathway Changes Associated with Clinical Response to Tabalumab Blockade of Membrane Bound and Soluble B Cell Activating Factor in Rheumatoid Arthritis. Wendy J. Komocsar1, Mark C. Genovese2, Ernst R. Dow3, Poulabi Banerjee1, Michelle A. Penny4, Eric P. Nantz1, Sergey Stepaniants5, Anne Ho6, Pierre-Yves Berclaz1 and Robert W. Hoffman1, 1Eli Lilly and Company, Indianapolis, IN, 2Stanford University Medical Center, Palo Alto, CA, 3Covance Genomics Laboratory LLC, Seattle, WA.

1315. Long-Term Safety and Efficacy of 4-Weekly Certolizumab Pegol Combination and Monotherapy in Rheumatoid Arthritis: 5 Year Results from an Open Label Extension Study. Roy M. Fleischmann1, Ronald F. van Vollenhoven2, Jiri Vencovsky3, Rieke Alten4, Owen Davies5, Christian Stach6, Marc de Longueville7, Brenda Van Lunen8 and Ernest Choy9, 1University of Texas Southwestern Medical Center at.
1317. One-Year Results From the Canadian Methotrexate and Etanercept Outcome Study: A Randomized Trial of Etanercept and Methotrexate Versus Etanercept Alone in Rheumatoid Arthritis. Janet E. Pope, Boulos Haraoui, J. Carter Thorne, Melanie Poulin-Costello, Andrew Vieira and Edward Keystone, St. Joseph Health Care London, University of Western Ontario, London, ON, 2Institut de Rhumatologie de Montréal, Montreal, QC, 3Southlake Regional Health Centre, Newmarket, ON, 4Asgen Canada Inc., Mississauga, ON, 5University of Toronto, Toronto, ON

1318. Long-Term Benefits of 4-Weekly Certolizumab Pegol Combination and Monotherapy On Household Productivity and Social Participation in Rheumatoid Arthritis: 5 Year Results from an Open Label Extension Study. Vibeke Strand, Oana Purcaru, Ronald F. van Vollenhoven, Ernest Choy and Roy Fleischmann, 1Stanford University, Portola Valley, CA, 2UCB Pharma, Brussels, Belgium, 3Karolinska Institute, Stockholm, Sweden, 4Cardiff University School of Medicine, Cardiff, United Kingdom, 5University of Texas Southwestern Medical Center, Dallas, TX

1319. Certolizumab Pegol Plus Methotrexate Is Similarly Effective in Active Rheumatoid Arthritis Secondary Non-Responders to Anti-TNF Inhibitors: Post-Hoc Analysis of a Phase IIb Trial. Daniel Furst, Saeed A. Shaikh, Maria W. Greenwald, Michael H. Schiff, Barbara Bennett, Owen Davies, Fabienne Staelens, Will Koets and Philippe Bertin, 1University of California at Los Angeles, Los Angeles, CA, 2McMaster University, St Catharines, ON, 3Desert Medical Advances, Palm Desert, CA, 4University of Colorado, Denver, CO, 5BABennett Consulting, LLC, Marietta, GA, 6UCB Pharma, Brussels, Belgium, 7UCB Pharma, Rtp, NC, 8Dupuytren Hospital, Limoges, France

1320. Sarilumab, a Subcutaneously-Administered, Fully-Human Monoclonal Antibody Inhibitor of the IL-6 Receptor: Effects On Hemoglobin Levels in a Clinical Trial for the Treatment of Moderate-to-Severe Rheumatoid Arthritis. Mark C. Genovese, Roy M. Fleischmann, Martine Jasson, Allen R. Radin, Jennifer Hamilton and Tom W.J. Huizinga, 1Stanford University Medical Center, Palo Alto, CA, 2University of Texas, Dallas, TX, 3Sanofi, Paris, France, 4Regeneron Pharmaceuticals Inc, Tarrytown, NY, 5Regeneron Pharmaceuticals, Inc., Tarrytown, NY, 6Leiden University Medical Center, Leiden, Netherlands

1322. Coadministration of ASP015K, a Novel Janus Kinase Inhibitor with Methotrexate Demonstrates Tolerability and Lack of Pharmacokinetic Interactions in Patients with Rheumatoid Arthritis. Tong Zhu, Kazuo Oda, Udaya Valluri, Bogie Moore, Ying Cao, Vishala Chindalore and Bola Akinlade, 1Astellas Pharma Global Development, Inc., Northbrook, IL, 2Astellas Pharma Inc., Osaka, Japan, 3Pinnacle Research Group/Anniston Medical Clinic, Anniston, AL

1323. Effects of Dose Escalation of Tocilizumab in Combination with Nonbiologic Disease-Modifying Antirheumatic Drugs: Sub-Analysis of a 24-Week Study in a United States Population. M. E. Weinblatt, Herbert S. B. Baraf, Ara H. Dikranian, Andrew M. Anisfeld, Jenny Devenport and Sheldon Cooper, 1Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 2Arthritis & Rheumatism Associates, Wheaton, MD, 3San Diego Arthritis Medical Clinic, San Diego, CA, 4Genentech, South San Francisco, CA, 5Univ Vermont College of Med, Burlington, VT

1324. Golimumab, A Human Anti-TNF Monoclonal Antibody, Administered Subcutaneously Every Four Weeks As Monotherapy in Patients with Active Rheumatoid Arthritis Despite Disease Modifying Anti-Rheumatic Drug Therapy: Week 104 Results of Clinical, Radiographic and Safety Assessments. Tsutomu Takeuchi, Masayoshi Harigai, Yoshiya Tanaka, Hisashi Yamanaka, Naoki Ishiguro, Kazuhiko Yamamoto, Minoru Kanazawa, Yoshinori Murakami, Toru Yoshinari, Daniel Baker, Nobuyuki Miyasaka and Takao Kokei, 1Keio University School of Medicine, Tokyo, Japan, 2Tokyo Medical and Dental University, Tokyo, Japan, 3University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 4Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 5Nagoya University, Graduate School & Faculty of Medicine, Nagoya, Aichi, Japan, 6Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan, 7Director of Respiratory Center Professor of Respiratory Medicine Saitama Medical University, Moroyama, Iruma-Gun, Saitama, Japan, 8Janssen Pharmaceutical KK, Tokyo, Japan, 9Mitsubishi Tanabe Pharma Corporation, Osaka, Japan, 10Janssen Research and Development, LLC, Spring House, PA, 11Sapporo medical center NTT EC, Sapporo, Japan

1325. Prevention of Joint Destruction in Patients with High Disease Activity or High C - reactive protein. Yoshiya Tanaka, Masayoshi Harigai, Tsutomu Takeuchi, Hisashi Yamanaka, Naoki Ishiguro, Kazuhiko Yamamoto, Yutaka Ishii, Daniel Baker, Nobuyuki Miyasaka and Takao Kokei, 1University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 2Tokyo Medical and Dental University, Tokyo, Japan, 3Keio University School of Medicine, Tokyo, Japan, 4Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 5Nagoya...
1326. Efficacy of Different Biologic Agents for Improving Physical Function As Measured by the Health Assessment Questionnaire: A Meta-Analysis with Indirect Comparisons. Lillian J. Barra1, Andrew Ha1, Louise Sun1, Catarina Fonseca1 and Janet Pope1, 2Schulich School of Medicine and Dentistry, Western University, London, ON, 3The University of Toronto, Toronto, ON, 4University of Ottawa, Ottawa, ON, 5Universidade de Lisboa, Lisbon, Portugal

1327. Comparison of Four Different Intensive Treatment Strategies in Patients with Early Rheumatoid Arthritis in Korea. Mi-Il Kang, Yoon Kang, Hee-Jin Park, Hyang-Sun Lee, Sang-Won Lee, Yong-Beom Park and Soo-Kon Lee, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, South Korea

1328. The Higher and Faster Increasing Schedule of Methotrexate May Not Be the Best: The Accumulation of Intracellular and Extracellular Polyglutamates Was Facilitated by the Extra-Low-Dose Methotrexate Treatment. Yoshinobu Koyama1, Kazunori Hase2, Daisuke Hidaka2, Shuji Nagano2, Toshiyuki Ota2 and Ayumi Uchino2, 2Okayama Red Cross General Hospital, Okayama, Japan, 3Iizuka Hospital, Iizuka, Japan

1329. Differential Effect of 4 and 8 Mg/Kg Tocilizumab in Combination with Methotrexate On Serum Biomarkers of Cartilage, Connective Tissue and Bone Turnover. Anne C. Bay-Jensen1, Inger Byrjalsen1, Andrew Kenwright1, Thierry Sornasse1, Claus Christianisen2 and Morten Asser Kardsal1, 1Nordic Bioscience A/S, Herlev, Denmark, 2Nordic Bioscience, Herlev, Danish, 3Roche, Welwyn Garden City, United Kingdom, 4Genentech, South San Francisco, 5CCBR, Ballerup, Denmark

1330. High Body Mass Index Is Associated with Decreased Response to Initial Combination Therapy in Recent Onset RA Patients. Marianne van den Broek1, L. Heimans1, S. le Cessie1, B. Siegerink1, H.K Ronday1, K.H. Han1, P.J.S.M. Kerstens1, T.W.J. Huizinga1, W.F. Lems1 and C.F. Allaart1, 1Leiden University Medical Center, Leiden, Netherlands, 2Haga Hospital, The Hague, Netherlands, 3MCRZ hospital, Rotterdam, Netherlands, 4Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 5VU University medical center, Amsterdam, Netherlands

1331. Once Daily High Dose Regimens of GLPG0634 in Healthy Volunteers Are Safe and Provide Continuous Inhibition of JAK1 but Not JAK2. Florence Namour1, René Gallien1, Lien Gheyte1, Frédéric Vanhouwt1, Béatrice Vayssière1, Annegret Van der Aa1, Bart Smets3 and Gerben van 't Klooster1, 1Galapagos SASU, Romainville, France, 2SGS Clinical Pharmacology Unit, Antwerp, Belgium, 3Galapagos NV, Mechelen, Belgium

1332. The Incidence of Exacerbation of Pre-Existing Interstitial Lung Disease (ILD) Is Higher in TNF Blockers Than in Non-TNF Blockers in RA. Tamao Nakashita1, Shinji Motojima2, Natsuki Fujio3 and Akira Jibatake1, 1Kameda Medical Center, Kamogawa City, Japan, 2Kameda Medical Center, Kamogawa city, Japan

1333. The Predictive Value of CD64 Counts for Infectious Disease in Patients Treated with Tocilizumab On the Infectious Disease Risk Management Cohort (ACT4U-study). Atsushi Ihatasa1, Hiroyuki Hagiyama2, Shouhei Nagaoka3, Junichi Obata3, Kiyomitsu Miyachi3, Hidehiro Yamada4, Shunsei Hirohata2, Norihiko Koido5, Masaomi Yamasaki6, Kenichi Miyagi6, Shigeru Ohno6, Daiga Kishimoto1, Reikou Watanabe1, Takeaki Uehara1, Kaoru Takase1, Maasa Hamada1, Ryusuke Yoshimi1, Atsuhisa Ueda1, Mitsuhiro Takeno1 and Yoshiaki Ishigatsubo1, 1Yokohama City University Graduate School of Medicine, Yokohama, Japan, 2Yokohama-city Bay Red Cross Hospital, Yokohama, Japan, 3Yokohama Minami Kiyosai Hospital, Yokohama, Japan, 4Hikarichuo Clinic, Kawasaki, Japan, 5Keig Clinic, Kawasaki, Japan, 6St. Marianna University, Kawasaki, Japan, 7Kitasato University School of Medicine, Sagamihara, Japan, 8Kawasaki Rheumatism & Internal Medecine Clinic, Kawasaki, Japan, 9St Marianna University, Yokohama City Seibu Hospital, Yokohama, Japan, 10Miyagi Naika Clinic, Yokohama, 11Yokohama City University Medical Center, Yokohama, Japan

1334. Intra-Articular Etanercept Treatment in Inflammatory Arthritis: A Randomized Double-Blind Placebo-Controlled Trial. Caroline J. Aalbers1, Danielle M. Gerlag1, Koen Vos1, Gertjan Wolbink2, R. Landewe1 and Paul P. Tak1, 1Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 2Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 3Academic Medical Center, University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

1335. Remission Induction in Early Active Rheumatoid Arthritis: Comparison of Tocilizumab Versus Methotrexate Monotherapy. Patrick Durez, Geneviève Depresseux, Marie Avaux, Adrien Nzeusseu Toukap, Bernard Lauwerys, Laurent Meric de Bellefon, Maria S. Stoenoiu and Frédéric A. Houssiau, Université catholique de Louvain, Brussels, Belgium

1336. Changes in the Levels of Anti-Cyclic Citrullinated Protein Antibody and Immunoglobulins in Rheumatoid Arthritis Patients After Administration of Tocilizumab. Masao Sato, Masao Takemura, Ryuki Shinohe, Tsuneo Watanabe and Katsuji Shimizu, Gifu University, Gifu, Japan

1337. Sarilumab, a Subcutaneously-Administered, Fully-Human Monoclonal Antibody Inhibitor of the IL-6 Receptor: Pharmacokinetic Profile and Its Relationship to Changes in Pharmacodynamic Markers in Patients with Rheumatoid Arthritis. PavelBelostemnov1, Jennifer Hamilton1, A. Thomas DiCioccio1, Martine Jasson2 and Allen R. Radin1, 1Regeneron Pharmaceuticals, Inc., Tarrytown, NY
NY, 2Sanofi, Paris, France, 3Regeneron Pharmaceuticals Inc, Tarrytown, NY

1338. Anti-Tumor Necrosis Factor Therapy Reduces Serum Levels of Chemerin in Rheumatoid Arthritis: A New Mechanism by which Anti-Tumor Necrosis Factor Might Reduce Inflammation. M.M. Herenius1, A.S.F. Oliveira2, C.A. Wijbrandts3, D. Gerlag4, Paul P. Tak5 and Maria C. Lebre6, 1Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 2Academic Medical Center, University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

1339. A Pilot Study Investigating the Tolerability and Pharmacodynamic Effect of Single Intravenous/ Subcutaneous Doses of Olokizumab, an Anti-Interleukin-6 Monoclonal Antibody, in Patients with Rheumatoid Arthritis. Roy Fleischmann7, Alan J. Kivitz2, Frank Wagner3, Jeffrey A. Feinstein4, Uwe Fuhr5, Jürgen Rech6, Jagdev Sidhu5, Philip L. Hill8, Ruth Oliver9 and Kosmas Kretos6, 1University of Texas Southwestern Medical Center, Dallas, TX, 2Altoona Center for Clinical Research, Duncansville, PA, 3Charité Research Org GmbH, Berlin, Germany, 4San Antonio, TX, 5Hospital of the University of Cologne (AöR), Köln, Germany, 6University of Erlangen-Nuremberg, Erlangen, Germany, 7CSL Limited, Parkville, Australia, 8UCB Celltech, Slough, United Kingdom, 9UCB, Slough, United Kingdom

1340. Effects of Subcutaneous Abatacept or Adalimumab On Remission and Associated Changes in Physical Function and Radiographic Outcomes: One Year Results From the Ample (Abatacept Versus Adalimumab Comparison in Biologic-Naive RA Subjects with Background Methotrexate) Trial. Roy Fleischmann1, Michael H. Schiff2, Michael E. Weinblatt3, Michael E. Maldonado4, Elena M. Massarotti5 and Yusuf Yazici6, 1University of Texas Southwestern Medical Center, Dallas, TX, 2University of Colorado, Denver, CO, 3Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 4Bristol-Myers Squibb, Princeton, NJ, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 6New York University, New York, NY

1341. Beneficial Effect of Anti-TNF Therapy in the Lipoprotein Atherogenic Risk Profile in Comparison with DMARD Standard Therapy in RA Patients. Jaime Calvo-Alen1, Ignacio Villa2, Victor M. Martinez-Taboada3, Jose Luis Peña-Sagredo4, Mario Agudo5, Ana Carmen Garcia6 and Juan Gomez-Gerique7, 1Hospital Universitario de Canarias, Tenerife, Spain, 2Hospital Universitario de Canarias, Tenerife, Spain, 3Hospital Universitario de Canarias, Tenerife, Spain, 4Fundación 12 de Octubre, Madrid, Spain, 5Hospital Universitario de Canarias, Tenerife, Spain

1342. Changes in Patient Reported Outcomes in Response to Subcutaneous Abatacept or Adalimumab in Rheumatoid Arthritis: Results From the Ample (Abatacept Versus Adalimumab Comparison in Biologic Naive RA Subjects with Background Methotrexate) Trial. Roy Fleischmann1, Michael E. Weinblatt2, Michael H. Schiff3, Dinesh Khanna4, Daniel Furst5 and Michael A. Maldonado6, 1University of Texas Southwestern Medical Center, Dallas, TX, 2Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 3University of Colorado, Denver, CO, 4University of Michigan, Ann Arbor, MI, 5University of California at Los Angeles, Los Angeles, CA, 6Bristol-Myers Squibb, Princeton, NJ

Spondyloarthropathies and Psoriatic Arthritis: Clinical Aspects and Treatment

1343. EARLY Improvements in the Lower Limbs Enthesis by Ultrasound Predicting Later Favorable Responses in TNF Inhibitors-Treated Patients with Spondyloarthritis. Kensuke Kume1, Kanzo Amano2, Kuniki Amano3, Hiroyuki Ohta4 and Noriko Kuwaba5, 1Hiroshima Clinic, Hiroshima, Japan, 2Sky Clinic, Hiroshima, Japan, 3Hiroshima Clinic, Hiroshima, Japan, 4Sanki Clinical Link, Hiroshima, Japan

1344. Diagnostic Value of High Sensitivity C Reactive Protein for Early Axial Spondyloarthritis: Results From the Devenir Des Spondyloarthopathies Indifferenciees Recentes Cohort. Victoria Navarro-Compañ1, Désirée van der Heijde2, Bernard Combe3, Claudine Cosson1 and Floris van Gaalen1, 1Leiden University Medical Center, Leiden, Netherlands, 2Hôpital Lapeyronie, Montpellier, France, 3Hôpital Bicêtre, Assistance Publique Hôpitaux de Paris, Paris, France

1345. Validation of the Health Assessment Questionnaire for Spondyloarthritis in Patients with Non-Radiographic Axial Spondyloarthritis. Dennis Revicki1, Wen-Hung Chen2, Ying Jin3, Sumati Rao4, Philip Mease5 and Mary Cifaldi6, 1United Biosource Corporation, Bethesda, MD, 2Abbott Laboratories, Abbott Park, IL, 3Swedish Rheumatology Research Group, Seattle, WA

1346. Comparison of Three Screening Tools in Psoriatic Arthritis: The Contest Study. Laura C. Coates1, Tarig Aslami1, A. D. Burden2, Esther Burden-Teh3, Anna R. Caperon4, Rino Cerio5, Chandra Chattopadhyay6, Hector Chino7, Mark J. D. Goodfield8, Lesley Kay9, Bruce W. Kirkham10, Christopher R. Lovell11, Helena Marzo-Ortega12, Neil McHugh13, Ruth Murphy1, Costantino Pitzalis14, NJ Reynolds9, Catherine H. Smith15, Elizabeth Stewart16, Richard B. Warren17, Hilary E. Wilson18 and Philip S. Helliwell19, 1Division of Rheumatic and Musculoskeletal Disease, LIMM, University of Leeds, Leeds, United Kingdom, 2Western Infirmary, Dumbarton Road, United Kingdom, 3Nottingham Independent Treatment Centre, Nottingham, United Kingdom, 4University of Leeds and NIHR Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 5Bart’s and The London NHS Trust, United Kingdom, 6Wrightington, Wigan and Leigh NHS Foundation Trust, Wigan, United Kingdom, 7The University of Manchester, Manchester, United Kingdom, 8Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, 9Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom, 104th Fl Thomas Guy
1347. Anti-TNFá Discontinuation in Psoriatic Arthritis: Is It Possible After Achieving Minimal Disease Activity? Amir Haddad, Arane Thavaneswaran, Vinod Chandran and Dafna D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON.

1348. Diffuse Idiopathic Skeletal Hyperostosis (DISH) in Psoriatic Arthritis. Amir Haddad1, Arane Thavaneswaran1, Sergio M.A. Toloza2, Vinod Chandran2 and Dafna D. Gladman3, 1Toronto Western Hospital and University of Toronto, Toronto, ON, 2Hospital San Juan Bautista, Catamarca, Argentina.


1350. Inflammatory Biomarkers in Psoriatic Arthritis. Ibrahim AlHomood, Arane Thavaneswaran, D. D. Gladman and Vinod Chandran, Toronto Western Hospital and University of Toronto, Toronto, ON.

1351. Ultrasonographic Enthesal Abnormalities among Patients with Psoriatic Arthritis, Psoriasis Alone and Healthy Individuals and Their Correlation with Disease-Related Variables. Lihi Eder1, Jai Jayakar2, Arane Thavaneswaran3, Amir Haddad2, Daniel Pereira2, Sutharshini Shanmugarajah4, David Salonen4, Cheryl Rosen1, Vinod Chandran1 and Dafna D. Gladman3, 1Carmel Medical Center, Haifa, Israel, 2University of Western Ontario, London, ON, 3Toronto Western Hospital and University of Toronto, Toronto, ON, 4University Health Network, Toronto, ON.

1352. Adalimumab Significantly Reduces Recurrence Rate of Anterior Uveitis in Patients with Ankylosing Spondylitis. J. Christiaan van Denderen1, Ingrid M. Visman1, M. T. Nurmohamed2, Maria S.A. Suttorp-Schulten1 and Irene E. van der Horst-Bruinsma3, 1Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 2VU University Medical Center/Jan van Breemen Research Institute, Amsterdam, Netherlands, 3Amsterdam UMC, Amsterdam, Netherlands, 4Onze Lieve Vrouwe Gasthuis, Amsterdam, Netherlands.

1353. Improvement in Physical Function, Health-Related Quality of Life, and Work Productivity with Adalimumab Treatment in Nonradiographic Axial SpA: Wk-52 Results From Ability-1. Désirée van der Heijde1, Philip Mease2, Aileen L. Pangan3, Sumati Rao4, Naifun Chen4 and Mary A. Cifaldi4, 1Leiden University Medical Center, Leiden, Netherlands, 2Swedish Rheumatology Research Group, Seattle, WA, 3Abbott, Abbott Park, IL, 4Abbott Laboratories, Abbott Park, IL.

1354. The Prevalence of Psoriatic Arthritis Based On Rheumatologists’ Clinical Assessment Before and After Laboratory and Radiographic Tests in Psoriasis Patients in European/North American Dermatology Clinics. Dafna D. Gladman1, Philip J. Mease2, Rafat Y. Faraawi3, Eustratios Bananis3, Andrew S. Koenig4, Robert Northington5, Joanne Fuiman6 and Daniel Alvarez2, 1Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON, 2Swedish Medical Center, Seattle, WA, 3McMaster University, Kitchener, ON, 4Pfizer Inc., Collegeville, PA.

1355. Hand Bone Loss Is Arrested in Early Psoriatic Arthritis but Not in Rheumatoid Arthritis Following Anti-Rheumatic Treatment Assessed by Digital X-Ray Radiography. Agnes Szpetetry2, Muhammad Haroon1, Phil Gallagher3, Martina Cooney4, Eric J. Heffernan4 and Oliver M. FitzGerald4, 1Department of Rheumatology, St. Vincent’s University Hospital, Dublin, Ireland, 2Dublin Academic Medical Center, St. Vincent’s University Hospital, Dublin, Ireland, 3Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, 4Department of Radiology, St. Vincent’s University Hospital, Dublin, Ireland, 5Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland.

1356. Gender Differences Among Spondylitis Associated with Psoriasis, Inflammatory Bowel Disease and Primary Ankylosing Spondylitis. Margarita Landi1, Hernán Maldonado-Ficco2, Jose A. Maldonado-Cocco3, Gustavo Citera7, Pablo Arturi2, Percival Sampaio-Barros4, Diana Flores5, Ruben Burgos-Vargas6, Helena Santos1, Jose Chavez-Corrales7, Daniel Palleiro8, Miguel A. Gutierrez9, Elsa Vieira-Sousa10, Fernando Pimentel-Santos11, Sergio O. Paiva12, Alberto Berman Sr.13, Janitza Vazquez-Mellado14, Eduardo Collantes-Estevez25 and On behalf of RESPONDIA Group16, 1Instituto de Rehabilitacion Psicofisica and Fundacion Reumatologia Argentina, Buenos Aires, Argentina, 2Instituto de Rehabilitación Psicosocial, Buenos Aires, Argentina, 3University of Sao Paulo School of Medicine, Sao Paulo, Brazil, 4Hospital Universitario “Dr. José Eleuterio González” Monterrey, Mexico, 5Hospital General de Mexico, Mexico DF, Mexico, 6Instituto Portugués de Reumatología, Lisboa, Portugal, 7Hospital Nacional E. Rebaglietti-ESSALUD, Lima, Peru, 8Instituto Nacional de Reumatología, Montevideo, Uruguay, 9Pontificia Universidad Católica de Chile, Santiago, Chile, 10Instituto de Medicina Molecular, Faculdade de Medicina da Universidade de Lisboa, Lisbon, Portugal, 11Centro Hospitalar de Lisboa Ocidental, Hospital Egas Moniz, Lisboa, Portugal, 12Hospital Jose Maria Cullen, Santa Fe SFE S3000BFP, Argentina, 13Hospital Padilla, Tucuman, Argentina, 14Hospital General de Mexico, Mexico city, Mexico, 15IMIBIC-Reina Sofia Hospital, Cordoba 14012, Spain, 16Buenos Aires.
1357. Psoriatic Arthritis and Biologic Therapy: Treatment Response, Drug Survival and Outcome After Switching. Dinny Wallis1, Deepak Jador2, William Tillett1, Nicola Waldron2, Charlotte Cavill3, Neil McHugh3 and Eleanor Korendowycz3, 1Royal National Hospital for Rheumatic Diseases NHS Foundation Trust, Bath, United Kingdom, 2Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, 3Bath Institute for Rheumatic Disease, Bath, United Kingdom

1358. Performance of Remission Criteria and Activity Indicators in Psoriatic Arthritis. Maria L. Acosta Felquer1, Leandro Ferreya Garrott1, Erika Catay1, Josefina Marin2, Marina Scolnik2, Maria Victoria Garcia2, Santiago Ruta2, Mirtha Sabelli2, Zaida Bedran3, Javier Rosa1, Luis J. Catoggio3 and Enrique R. Soriano4, 1Rheumatology Section, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 2Rheumatology Unit, Internal Medical Services, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 3Hospital Italiano de Buenos Aires, Buenos Aires, Argentina, 4Hospital Italiano de Buenos Aires, Buenos Aires, Argentina

1359. Comparison of Sacroiliac MRI Evaluation Versus Sacroiliac X-Rays in Peripheral Psoriatic Arthritis: Evidence of Silent Disease and Lack of Association to HLA-B27. Jose Luis Fernandez-Sueiro1, JA Pinto1, S. Pertega-Diaz2, E. Gonzalez3 and Francisco J. Blanco4, 1Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, 2Instituto De Investigacion Sanitaria e Industria Farmaceutica (INIBIC), Hospital Universitario A Coruña, A Coruña, Spain

1360. Spinal Involvement in Axial Psoriatic Arthritis is Not Determined by the Presence of HLA-B27. Jose Luis Fernandez-Sueiro1, JA Pinto1, S. Pertega-Diaz2, E. Gonzalez3 and Francisco J. Blanco4, 1Complejo Hospitalario Universitario La Coruña, La Coruña, Spain, 2Instituto De Investigacion Sanitaria e Industria Farmaceutica (INIBIC), Hospital Universitario A Coruña, A Coruña, Spain

1361. Disease Burden Is Comparable in Patients with Non-Radiographic Axial Spondylarthritides and Ankylosing Spondylitis. Joachim Sieper1, Désirée van der Heijde2, Dirk Elewaut1, Aileen L. Pangan2 and Jackie K. Anderson1, 1Charité, University Medicine Berlin, Berlin, Germany, 2Reuma-instituut, Hasselt, Belgium, 3Schön-Klinik Hamburg, Germany, 4St. Petersburg Medical Academy, St. Petersburg, Russia, 5Kazan State Medical University, Kazan, Russia, 6Catholic University of Korea, Seoul, South Korea, 7Seoul National University, Seoul, South Korea, 8Merck Sharp and Dohme, Kenilworth, NJ, 9Merck Sharp and Dohme, Brussels, Belgium

1362. Evaluation of Spondyloarthritis activity by the Patients and the Physicians: ASASDAS, Basdai, PASS and Flare. Marie Godfrin-Valnet1, Clément Prati2, Marc Puyraveau3, Eric Toussirot4, Helene Letho-Gyselinc4 and Daniel Wendling2, 1CHU, Besançon, France, 2CHU J Minjoz, Besancon, France, 3CIC Biotherpy 50 and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 4Minjoz University Hospital, Besancon, France

1363. Validation of the Self-Administered Comorbidity Questionnaire in Patients with Ankylosing Spondylitis. Carmen Stolwijk1, A.M. Van Tubergen1, Sofia Ramiro2, Ivette Essers2, 1Rheuma-instituut, Hasselt, Belgium, 2Reuma-instituut, Hasselt, Belgium

1364. Development, Sensibility and Reliability of a New Case-Finding Questionnaire, the Toronto Axial Spondyloarthritis Questionnaire in Inflammatory Bowel Disease. Khalid A. Alnaqb1, Zahi Touma1, Laura A. Passalent2, Sindhu R. Johnson3, George A. Tomlinson3, Adele Carty1 and R. D. Inman1, 1Toronto Western Hospital, Toronto, ON, 2Toronto General Hospital, Toronto, ON

1365. Double-Blind, Placebo-Controlled, 28-Week Trial of Efficacy and Safety of Infliximab Plus Naproxen Vs Naproxen Alone: Results From the Infliximab As First Line Therapy in Patients with Early, Active Axial Spondyloarthritis Trial, Part I. Joachim Sieper1, Jan Lenaerts2, Jürgen Wollenhaupt3, Vadim Mazurov4, L. Myasoutova5, Sung-Hwan Park6, Yeong W. Song7, Ruji Yao8, Denesh Chitkara9 and Nathan Vastesaeger10, 1Charité, University Medicine Berlin, Berlin, Germany, 2Reuma-instituut, Hasselt, Belgium, 3Schön-Klinik Hamburg, Germany, 4St. Petersburg Medical Academy, St. Petersburg, Russia, 5Kazan State Medical University, Kazan, Russia, 6Catholic University of Korea, Seoul, South Korea, 7Seoul National University, Seoul, South Korea, 8Merck Sharp and Dohme, Kenilworth, NJ, 9Merck Sharp and Dohme, Brussels, Belgium

1366. Golimumab Administered Subcutaneously Every 4 Weeks in Chinese Patients with Active Ankylosing Spondylitis: Week 24 Safety and Efficacy Results From a Randomized, Placebo - Controlled Study. Chunde Bao1, Feng Huang2, Muhammad Asim Khan3, Kaiyin Fei4, Zhong Wu4 and Elizabeth C. Hsia5, 1Chinese PLA General Hospital, Beijing, China, 2Case Western Reserve University Hospital, Cleveland, OH, 3Janssen Research & Development, LLC, Spring House, PA, 4Janssen Research & Development, LLC/U of Penn, Spring House/ Phila, PA

1367. Clinical Features and Treatment Results of Japanese Patients with SAPHO (Synovitis-Acne-Pustulosis-Hyperostosis-Osteitis) Syndrome. Hiroki Yabe1, Takashi
1368. Psoriatic Arthritis in South Asians - Comparison with Caucasians of European Descent. Vinod Chandran, Arane Thavaneswaran and Dafna D. Gladman Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

1369. Severe Joint Damage in Psoriatic Arthritis: Mutilans and Ankylosis. Amir Haddad, Arane Thavaneswaran, Dafna D. Gladman Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

1370. Clinical and Ultrasonographic Features of Nail Disease in Psoriasis and Psoriatic Arthritis. Amir Haddad, Arane Thavaneswaran, Vinod Chandran and Dafna D. Gladman Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

1371. Predictors of Erosion-Free Psoriatic Arthritis. Zahi Touma, Arane Thavaneswaran, Vinod Chandran and D. D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

1372. Increased Participation in Daily Activities After 24 Weeks of Certolizumab Pegol Treatment of Axial Spondyloarthritis Patients, Including Patients with Ankylosing Spondylitis: Results of a Phase 3 Double-Blind Randomized Placebo-Controlled Study. Désirée van der Heijde1, Jurgen Braun2, Martin Rudwaleit3, Oana Purcaru4 and Arthur Kavanaugh5, 1Leiden University Medical Center, Leiden, Netherlands, 2Rheumazentrum Ruhrgebiet, Herne, Germany, 3Munich, Germany, 4University of Lucerne, Lucerne, Switzerland, 5CASE at MetroHealth Medical Center, Cleveland, OH, 6University of Alberta, Edmonton, AB, 7University of Leeds, Leeds, United Kingdom, 8Univ of Texas Health Science Center at Houston, Houston, TX, 9University of Otago, Wellington, New Zealand, 10Paraplegic Research Unit, Nottwil, Switzerland

1373. Influence of Early Onset on the Clinical Characteristics and Prognosis of Ankylosing Spondylitis. Maria Aparicio1, Jesús Rodríguez-Moreno1, Paula Estrada1, Irene Martín-Esteve1, Laura López-Vives1, Vicenc Torrente2, Jordi Anton3, Joan Miquel Nolla1 and Xavier Juanola1, 1Hospital Universitari de Bellvitge, Barcelona, Spain, 2Hospital Sant Joan de Déu, Barcelona, Spain, 3Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Gianna Gaslini, Genova, Italy

1374. Value of C - reactive protein Level at Diagnosis of Psoriatic Arthritis in Predicting the Future Need for Treatment with Tumor Necrosis Factor-á Inhibitors. Yair Molad1 and Shachaf Ofer-Shiber2, 1Beilinson Hospital, Rabin Medical Center and Sackler Faculty of Medicine, Tel Aviv University, Petah-Tikva, Israel, 2Beilinson Hospital, Rabin Medical Center and Sackler Faculty of Medicine, Tel Aviv University, Petah Tikva, Israel

1375. Depression and Anxiety in Psoriatic Disease: Prevalence and Associated Factors. Emily McDonough1, Arane Thavaneswaran1, Adele Carty1, Sutharshini Shanmugarajah2, Renise Ayearst2, Lihi Eder3, Vinod Chandran1, Cheryl Rosen1 and Dafna Gladman2, 1University of Toronto, Ontario, ON, 2Toronto Western Hospital and University of Toronto, Toronto, ON, 3Carmel Medical Center, Haifa, Israel, 4Toronto Western Hospital, University of Toronto, Toronto, ON

1376. Development of A Health Index for Patients with Ankylosing Spondylitis - First Steps of A Global Initiative Based On the ICF Guided by ASAS. Uta Kiltz1, Désirée van der Heijde2, Annelies Boonen3, Alarcos Cieza4, Gerold Stucki5, Muhammad Asim Khan6, Walter P. Maksymowych7, Helena Marzo-Ortega8, John D. Reveille9, William Taylor10, Cristina Bostan11 and Jürgen Braun1, 1Rheumazentrum Ruhrgebiet, Herne, Germany, 2Leiden University Medical Center, Leiden, Netherlands, 3University Hospital Maastricht, Maastricht, Netherlands, 4Munich, Germany, 5University of Lucerne, Lucerne, Switzerland, 6CASE at MetroHealth Medical Center, Cleveland, OH, 7University of Alberta, Edmonton, AB, 8University of Leeds, Leeds, United Kingdom, 9Univ of Texas Health Science Center at Houston, Houston, TX, 10University of Otago, Wellington, New Zealand, 11Paraplegic Research Unit, Nottwil, Switzerland

1377. Prevalence of Spondyloarthritis-Related Comorbidities, Osteoporosis and Fractures in Ankylosing Spondylitis: a Systematic Literature Review. Carmen Stolwijk1, A.M. Van Tubergen2, Jose Dionisio Castillo-Ortiz3 and Annelies Boonen1, 1Maastricht University Medical Center, Maastricht, Netherlands, 2Unidad de Investigacion en Enfermedades Cronico-Degenerativas, Guadalajara, Mexico

1378. Validity of Ankylosing Spondylitis Disease Activity Score (ASDAS) in Patients with Early Spondyloarthritis. Cruz Fernández-Espartero1, Eugenio De Miguel1, Milena Gobbo2, Carmen Martinez3, Miguel A. Descalzo1, Estibaliz Loza Sr.3 and Esperanza Group4, 1Hospital Universitario de Móstoles, Madrid, Spain, 2Hospital Universitario La Paz, Madrid, Spain, 3Spanish Society of Rheumatology, Madrid, Spain, 4Sociedad Española de Reumatología, Madrid, Spain, 5Research Unit. Sociedad Española de Reumatología, Madrid, Spain, 6Madrid

1379. Ultrasonographic Is More Sensitive Than Traditional Clinical Evaluation in the Detection of Hands and Wrists Synovitis and Digital Soft Tissue Involvement in Early Psoriatic Arthritis. Francesca Bandinelli1, Valentina Denaro2, Francesca Prignano3, Diletta Bonciani2, Ledio Collaku3 and Marco Matucci-Cerinich4, 1University of Florence, Florence, Italy, 2Florence, Italy, 3University of Tirana, Tirana, Albania

1380. A Spondyloarthritis Research Consortium of Canada Score Cut-off ≥3 As Best Match for the Assessment of Spondyloarthritis International Society Definition of a Positive MRI of the Sacroiliac Joints. Rosaline van den Berg, Manouk de Hooge, Victorina Navarro-Compán, Monique Reijnierse, Floris van Gaalen, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands

1381. Non-Radiographic Spondyloarthritis Has Greater Work Instability Than Other Spondyloarthritis Subtypes in a
National Database. Sherry Rohekar1, Robert D. Inman1, Renise Ayestar2, Proton Rahman3, Walter P. Maksymowych3 and Dafna D. Gladman4, 1St. Joseph’s Hospital, London, ON, 2Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, 3Toronto Western Hospital and University of Toronto, Toronto, ON, 4Memorial University, St. Johns, NF, 1University of Alberta, Edmonton, AB, 2Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON

1382. A Comparison of Three Methods of Measuring Intermalleolar Distance in Patients with Ankylosing Spondylitis. Buse Ozata1, Burak Uyar2, Dilek Solmaz3, Ismail Sari4, Servet Akar1 and Nurullah Akkoc4, 1Dokuz Eylul University School of Medicine, Izmir, Turkey, 3Dokuz Eylul University School of Medicine, Izmir, Turkey, 4Dokuz Eylul University School of Medicine Department of Internal Medicine Division of Rheumatology, Izmir, Turkey, 4Dokuz Eylul University School Of Medicine, Department Of Internal Medicine, Division Of Rheumatology, Izmir, Turkey

1383. The Burden of Ankylosing Spondylitis and the Cost-Effectiveness of Anti-Tumor Necrosis Factor α Agents in Romania. Ioan Ancuta1, Catalin Codreanu2, Ruxandra Ionescu3, Magda Parvu4 and Mihaíl Bojincă5, 1Dr. I. Cantacuzino” Hospital, Bucharest, Romania, 2Dr. I. Stoia” Center for Rheumatic Diseases, Bucharest, Romania, 3Clinic Hospital Sf. Maria, Bucharest, Romania, 4N.Gh. Lupu” Clinical Hospital, Bucharest, Romania

1384. The Frequency of Non-Radiographic Axial Spondyloarthritis in Relation to Symptom Duration in Patients Referred Because of Chronic Back Pain: Results From the Berlin Early Spondyloarthritis Clinic. Denis Podduhbny1, Henning Brandt1, Janis Vahldiek1, Inge Spiller1, In-Ho Song1, Martin Rudwaleit1 and Joachim Sieper1, 1Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 2Endokrinologikum Berlin, Berlin, Germany, 3Charité Universitätssmedizin Berlin, Berlin, Germany

1385. Increased Body Mass Index in Ankylosing Spondylitis Is Associated with a Greater Burden of Symptoms and Poor Perceptions of the Benefits of Exercise. Laura J. Durcan1, Fiona Wilson2, Richard Conway3, Gaye Cunnane1 and Finbar (Barry) D. O’Shea4, 1St James’s Hospital, Dublin, Ireland, 2Trinity College, Dublin, Ireland

Systemic Lupus Erythematosus: Clinical Aspects

1386. Genetic Variation and Coronary Atherosclerosis in Patients with Systemic Lupus Erythematosus. Cecilia P. Chung5, Joseph F. Solus1, Annette Oeser1, Chun Li6, Paolo Raggii7, Jeffrey R. Smith1 and C. Michael Stein1, 1Vanderbilt University, Nashville, TN, 2Emory University, Atlanta, GA

1387. Hospitalizations and Reasons for Admission in a Clinical SLE Cohort. Alaa Deksi1, Kenjey Chan2, Christian A. Pineau1, Evelyne Vinet2, Emil P. Nashi2, Sasha Bernatsky3 and Ann E. Clarke2, 1McGill University, Montreal, QC, 2McGill University Health Centre, Montreal, QC

1388. Diagnostic Accuracy of Anti-dsDNA Antibodies in Unselected Patients with Recent Onset of Rheumatic Symptoms. Michele Compagni1, Søren Jacobsen2, Ole Petter Rekvig3, Lennart Truedsson3, Niels H. H. Heegaard4, Johannes C. Nosser3, Andreas Jönsen5, Rasmus Sleimann Jacobsen5, Gro Østli Eilertsen6, Gunnar K. Sturlfelt7 and anders Bengtsson8, 1Lund University, Lund, Sweden, 2Copenhagen University Hospital, Copenhagen, Denmark, 3University Hospital, Tromsø, Norway, 4Department of Laboratory Medicine, Section of Microbiology, Immunology and Glycobiology, Lund, Sweden, 5Statens Serum Institut, Copenhagen S, Denmark, 6University of Tromsø, Tromso, Norway

1389. Erythrocyte Sedimentation Rate Is a Predictor of Renal and Overall Systemic Lupus Erythematosus Disease Activity. George Stojan1, Hong Fang1, Laurence S. Magder2 and Michelle Petri1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

1390. Vitamin D Deficiency Is Not Associated with Nor Does It Predict Progression of Coronary Artery Calcium or Carotid Intima-Media Thickness in Systemic Lupus Erythematosus. Adnan Kiani1, Hong Fang1, Ehtisham Akhter1, Laurence S. Magder2 and Michelle Petri1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Maryland, Baltimore, MD

1391. Anti-Ku Autoantibodies in Systemic Lupus Erythematosus versus Autoimmune Myositis As Measured by a Novel Chemiluminescence Assay. Michael Mahler1, Jason Wu2, Magdalena Szmyrka-Kaczmarek3, Andreas Swart1, Marvin J. Fritzler1, Jean-Luc Senécal2 and John G. Hanly3, 1INOVA Diagnostics, Inc., San Diego, CA, 2INOVA Diagnostics, San Diego, CA, 3Charité University Medicine, Section of Microbiology, Immunology and Glycobiology, Berlin, Germany, 4University Hospital, Tromsø, Norway, 5Clinic Hospital Sf. Maria, Bucharest, Romania, 6Memorial University, St. Johns, NF, 7University of Alberta, Edmonton, AB, 8Toronto Western Research Institute, University Health Network, Toronto, ON

1392. Clinical Correlation with Anti Double Stranded Deoxyribonucleic Acid via Enzyme Linked Immunoassay Versus Multiplex Immunoassay. Megan L. Krause, Melissa R. Snyder, Cynthia S. Crowson, Abigail B. Green and Kevin G. Moder, Mayo Clinic, Rochester, MN

1393. Predictors of Panniculitis in Systemic Lupus Erythematosus. Ashika Odhav1, Michelle Petri2 and Hong Fang1, 1University of Missouri Kansas City School of Medicine, Kansas, MO, 2Johns Hopkins University School of Medicine, Baltimore, MD

1394. Health Status Burden and Impact of Fatigue on Patient Functioning in SLE Patients from a Phase 1b Study. Michelle Petri1, Ariane K. Kawata2, Ancilla W. Fernandes3, Kavita Gajria3, Warren Greth1 and Asha Hareendran5, 1Johns Hopkins University School of Medicine, Baltimore, MD
1401. The Validation of a New Simple Disease Activity Tool in Systemic Lupus Erythematosus (SLE): The Lupus Activity Scoring Tool (LAST) As Compared to the Sledai Selena Modification. Majed M. Khrasha1, Rana Aslanov2 and Krista Fudge1, 1Memorial University of Newfoundland, St Johns, NF, 2Memorial University of Newfoundland, St John’s, NF, 2Corner Brook, NF

1395. Risk Factors Associated with Early Central Nervous System Damage Detected Through Perfusion MRI in Patients with Systemic Lupus Erythematosus. Paola Tomietto1, Federica Casagranded1, Maja Ulkmared1, Luca Weis2, Pia Morassial, Rita Morettial, Gianni Biolo3, Carlo Giansante3 and Maria Assunta Covat, 1AOU Ospedali Riuniti di Trieste, Trieste, Italy, 2Radiology Department, University of Trieste, Trieste, Italy, 3Internal Medicine Department, University of Trieste, Trieste, Italy

1396. Risk Factors Associated with Early Central Nervous System Damage Detected Through Perfusion MRI in Patients with Systemic Lupus Erythematosus. Paola Tomietto1, Federica Casagranded1, Maja Ulkmared1, Luca Weis2, Pia Morassial, Rita Morettial, Gianni Biolo3, Carlo Giansante3 and Maria Assunta Covat, 1AOU Ospedali Riuniti di Trieste, Trieste, Italy, 2Radiology Department, University of Trieste, Trieste, Italy, 3Internal Medicine Department, University of Trieste, Trieste, Italy


1398. Inflammatory Back Pain Is Increased in SLE and Associated with Anti-Sm Antibodies. Nesilhan Yılmaz1, Ayten Yazıcı2, Sibel Z. Aydin3 and Sule Yavuz4, 1Marmara University, Faculty of Medicine, Istanbul, Turkey, 2Sakarya Research and Training Hospital, Sakarya, Turkey, 3Medeniyet University, Goztepe Training and Research Hospital, Istanbul, Turkey, 4Marmara University, Istanbul, Turkey


1400. Predictors of Obesity in Systemic Lupus Erythematosus. Michelle Petri, Sesha Adusumilli and Hong Fang, Johns Hopkins University School of Medicine, Baltimore, MD


1402. Anti-ApoA1 Antibodies Associate with Disease Activity in Lupus and Are Lower in Patients Taking Hydroxychloroquine: A Longitudinal Analysis of 398 Samples. Sara Croca, Ian Giles, David A. Isenberg, Yiannis Ioannou and Anisur Rahman, University College London, London, United Kingdom

1403. Anti-Nucleosome Antibodies Are Associated with Disease Activity and Hydroxychloroquine Use in Patients with Lupus: A Longitudinal, Multivariate Analysis of 398 Samples. Sara Croca, Ian Giles, David A. Isenberg, Yiannis Ioannou and Anisur Rahman, University College London, London, United Kingdom

1404. There Is an Association Between Disease Activity and Risk of Thromboembolism in SLE. Reem Jan, Emily L. Lewis, Ting Ting Lu, Emily Siegwald and W. Joseph McCune, University of Michigan, Ann Arbor, MI

1405. Real World Experience Comparing Multiplex Immunobead Assay versus Immunofluorescence Assay for Anti-Nuclear Antibody Detection At a University Hospital. Neha Dang, Brock E. Harper, Emilio B. Gonzalez, Silvia S. Pierangelii, Trisha M. Parekh, Michael J. Loeffelholz and Kimberly K. Bufton, University of Texas Medical Branch, Galveston, TX

1406. The Cost of Management of Adult Active Systemic Lupus Erythematosus in the UK. Munther A. Khamsa1, Christina Donattii, Ian N. Bruce3, Caroline Gordon4, David A. Isenberg2 and Ateka-Barrutia Oier1, 1Lupus Research Unit, The Rayne Institute, Kings College London School of Medicine, London, United Kingdom, 2IMS Health, United Kingdom, 3Arthritis Research UK Epidemiology Unit and NIHR Manchester Musculoskeletal Biomedical Research Unit, Manchester, United Kingdom, 4University of Birmingham, Birmingham, United Kingdom, 5University College London, London, United Kingdom

1407. The Effect of the Antiphospholipid Syndrome (APS) On Survival in Chinese Patients with SLE: A Prospective Study of 679 Patients. Chi Chiu Mok, Ling Yin Ho, Ka Lung Yu and Chi Hung To, Tuen Mun Hospital, Hong Kong, Hong Kong

1408. Monitoring Patients with Systemic Lupus Erythematosus in Clinical Practice: Have You Already Checked the Vaccination Status in Your Patients? Olga Malyshova, Jean-Philippe Ivanov, Sybille Arnold and Christoph G. Baerwald, University Hospital, Leipzig, Germany

1409. A Multicentre Clinical Study of Umbilical Cord Mesenchymal Stem Cells Transplantation in Active Systemic Lupus Erythematosus. Lingyun Sun1, Dandan Wang1, Jing Li2, Miao Zhang3, Yu Zhang4 and Xia Li5, 1Department of Rheumatology and Immunology, the Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China, 2Department of Rheumatology, Affiliated Hospital of Jiangsu University, Zhenjiang, China, 3Department of Rheumatology, Jiangsu Provincial People’s Hospital, Nanjing, China, 4Department of Rheumatology, Subei People’s Hospital of Jiangsu Province, Yangzhou, China
1410. **Relationship between Individual Organ Damage and Mortality of Systemic Lupus Erythematosus (SLE): A Prospective Cohort Study of 679 Patients.** Chi Chiu Mok, Ling Yin Ho and Ka Lung Yu, Tuen Mun Hospital, Hong Kong, Hong Kong

1411. **Equivalence of Various Language Versions of Lupus Specific Patient Reported Outcomes Measure (LupusPRO).** Meenakshi Jolly1, Mark Kosinski2, Sergio M.A. Toloza3, Joel A. Block4, Rachel A. Mikołaitis5, Sergio Durán-Barragán6, Ana M. Bertoli7, Ivana Blazević8, Luis M. Vila9, Dilrukshi Cooray9, Emmanuel P. Katsaros10, Karina Marianne D. Torralba10, Ioana Moldovan11, Arif Kaya12, Berna Goker12, Seminur Haznedaroglu12, Mehmet E. Tezcan12, Josiane Bourré-Tessier13, Sasha Bernatsky14, Ann E. Clarke15, Michael H. Weisman15, Sandra V. Navarra17, Daniel J. Wallace16 and Graciela S. Alarcon18, 1Rush University Medical Center, Chicago, IL, 2QualityMetric Inc, Lincoln, RI, 3Hospital San Juan Bautista, Catamara, Argentina, 4Unidad de Investigacion en Enfermedades Cronicoca-Degenerativas, Guadalajara, Mexico, 5Instituto Reumatologico Strusberg, Cordoba, Cordoba, Argentina, 6University of Buenos Aires, Buenos Aires, Argentina, 7University of Puerto Rico Medical Sciences Campus, San Juan, PR, 8Loma Linda Univ, Loma Linda, CA, 9Loma Linda Univ Medical Center, Loma Linda, CA, 10USC Keck Sch of Medicine, Los Angeles, CA, 11Loma Linda Univ Medical Center, Loma Linda, CA, 12Gazi University Medical School, Ankara, Turkey, 13McGill University, Montréal, QC, 14Research Institute of the McGill University Health Ctre, Montreal, QC, 15MUHC, Montreal, QC, 16Cedars-Sinai Medical Center, Los Angeles, CA, 17University of Santo Tomas Hospital, Manila, Philippines, 18University of Alabama at Birmingham, Birmingham, AL

1412. **Vascular Cell Adhesion Molecule (VCAM-1) and Angiostatin in Systemic Lupus Erythematosus.** Adnan Kiani1, Hong Fang2, Tianfu Wu3, Chandra Mohan3 and Michelle Petri4, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2University of Texas, Southwestern Medical Center at Dallas, Dallas, TX, 3University of Texas Southwestern Medical Center, Dallas, TX

1413. **Clinical Presentation, Treatment and Outcome of Membranous Nephropathy in SLE: A Comparison with Proliferative Lupus Glomerulonephritis in 141 Patients.** Chi Chiu Mok, Ling Yin Ho and Ka Lung Yu, Tuen Mun Hospital, Hong Kong, Hong Kong

1414. **Combination of Mycophenolate Mofetil and Tacrolimus for Refractory Lupus Nephritis: A 12-Month Open-Labeled Trial.** Chi Chiu Mok, Pak To Chan, Ling Yin Ho and Ka Lung Yu, Tuen Mun Hospital, Hong Kong, Hong Kong

1415. **Effect of Renal Disease On Survival of Patients with Systemic Lupus Erythematosus: A Prospective Cohort Study of 694 Patients.** Chi Chiu Mok1, Raymond Kwok2 and Paul Yip3, 1Tuen Mun Hospital, Hong Kong, Hong Kong, 2University of Hong Kong, Hong Kong, Hong Kong

1416. **Tumor Necrosis Factor Alpha Is Associated with Mood Disorders in Patients with Systemic Lupus Erythematosus.** Mariana Postal1, Aline T. Lapa1, Naiul A. Sincato1, Karina Peliçari1, Lilian Costallat2 and Simone Appenzeller3, 1State University of Campinas, Campinas, Brazil, 2Faculdade de Ciencias Medicas, Universidade Estadual de Campinas, Campinas, Brazil, 3State University of Campinas, São Paulo, Brazil

1417. **Favorable Response to Belimumab At Three Months.** Katriona M. Shum1, Jill P. Buyon1, H. Michael Belmont1, Andrew G. Franks2, Richard Furie3, Diane L. Kamen4, Susan Manzi5, Michelle Petro6, Rosalind Ramsey-Goldman7, Chung-E Tseng8, Ronald F. van Vollenhoven9, Daniel Wallacea9 and Anca Askanase10, 1NYU School of Medicine, New York, NY, 2New York University, New York, NY, 3North Shore-LIJ Health System, Lake Success, NY, 4Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Oklahoma City, OK

1418. **Directed Intuitive Assessment of Lupus (the DIAL system for real world clinics) Correlates Well with BILAG and SLEDAI.** Anca D. Askanase1, Katrina M. Shum2, Stan Kamp3, Fredonna C. Carthen1, Teresa J. Aberle1 and J.T. Merrill4, 1NYU School of Medicine, New York, NY, 2Oklahoma Medical Research Foundation, Oklahoma City, OK

1419. **Infections Increase Risk of Arterial and Venous Thromboses in Systemic Lupus Erythematosus Patients: 4925 Patient Years of Follow-up.** Renata Baronae Hansen1 and Søren Jacobsen1, 1Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark, 2Copenhagen University Hospital, Copenhagen, Denmark

1420. **Ethnicity and B Cell Depletion Therapy in Systemic Lupus Erythematosus.** A. Lois-Iglesias1, J. Ishorai2 and D.A. Isenberg3, 1University Hospital Ramón y Cajal, Madrid, Spain. University College London, London, United Kingdom, 2University College London, London, United Kingdom

1421. **Antimalarials Protect Systemic Lupus Erythematosus Patients From Damage Accrual During the First Five Years of the Disease.** Ioana Ruiz-Arruza, D. D. Gladman, Dominique Ibanez and Murray B. Urowitz, Toronto Western Hospital and University of Toronto, Toronto, ON

1422. **Clinical Associations of Anti-Smith Antibodies in Profile: A Multiethnic Lupus Cohort.** Yesenia C. Santiago-Casas1, Luis M. Viá1, Gerald McGwin Jr.2, Ryan S. Cantor2, Michelle Petri3, Rosalind Ramsey-Goldman4, John D. Reveille5, Robert P. Kimberly6, Graciela S. Alarcon7 and Elizabeth E. Brown8, 1University of Puerto Rico Medical Sciences Campus, San Juan, PR, 2University of Alabama at Birmingham, Birmingham, AL, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4Northwestern University
1423. Vascular Thrombosis and Pregnancy Morbidity in Patients with Systemic Lupus Erythematosus with Positive Antiphospholipid Profile and Thrombocytopenia. Amir Haddad, Murray B. Urowitz, Dominique Ibanez and D. D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

1424. Prevalence and Clinical Significance of Severe Infection in Patients with Systemic Lupus Erythematosus: Preliminary Data From Relesser (Registry of lupus of the Spanish Society of Rheumatology). José M. Pego-Reigosa1, Íñigo Rúa-Figueroa2, Francisco J. López-Longo3, María Galindo3, Jaime Calvo-Alén4, Alejandro Olivé5, Loreto Horcada6, Esther Uriarte6, Eva Tomero6, Ana Sánchez-Atrio10, Carlos Montilla12, José Rosas10, Antonio Fernández-Nebro12, Paloma Vela12, Mercedes Freire12, Lucía Silva12, Elvira Díez-Alvarez12, Carlos Marras12, Antonio Zea12, Javier Narváez12, Jose Luis Marco31, Monica Fernández de Castro32, Olala Fernández-Berribeitia32, Marian Gantes4 and Celia Erausquin2, 1Hospital do Meixoeiro, Vigo, Spain, 2Hospital Universitario Dr Negrín, Las Palmas de Gran Canaria, Spain, 3Hospital Gregorio Marañón, Madrid, Spain, 4Instituto de Investigación Hospital 12 de Octubre, Madrid, Spain, 5Hospital Sierrallana, Torrelavega, Spain, 6Hospital Universitario Germans Trias i Pujol, Badalona, Spain, 7Hospital de Navarra, Spain, 8Hospital donostiarri, Donostia, Spain, 9Hospital Universitario La Princesa, Madrid, Spain, 10Hospital Príncipe de Asturias, Madrid, Spain, 11Hospital Universitario de Salamanca, Salamanca, Spain, 12Hospital de Marina Baixa, Alicante, Spain, 13Hospital Carlos Haya, Malaga, Spain, 14Hospital General de Alicante, Alicante, Spain, 15Hospital Universitario Juan Canalejo, La Coruña, Spain, 16Hospital de Guadalajara, Guadalajara, Spain, 17Hospital de León, León, Spain, 18Hospital Universitario Virgen de la Arrixaca, Murcia, Spain, 19Hospital Universitario Ramon y Cajal, Madrid, Spain, 20Hospital de Bellvitge, Barcelona, Spain, 21Hospital de Valme, Seville, Spain, 22Hospital Puerta del Hierro-Majadahonda, Madrid, Spain, 23Hospital de Basurto, Basurto, Spain, 24Hospital Clínico San Carlos, Madrid, Spain, 25Hospital de Gran Canaria Dr Negrín, Las Palmas GC, Spain

1425. Circulating Free Protein S Levels May Be Linked to Cardiovascular Events and Venous Thrombosis in SLE. Gregg J. Silverman1, John Jung2, Ehtisham Akhter3, Michelle Petri4 and Caroline Grönwall4, 1NYU School of Medicine, New York, NY, 2Johns Hopkins University School of Medicine, Baltimore, MD

1426. The Clinical Relevance of a “False Negative” Enzyme Linked Immunoassay: Which Antinuclear Antibody Screening Test Is Preferred by Rheumatologists in an Integrated Health System? Rachita Bansal, David Bulbin, Alfred E. Denio, Sandi Kelsey and Harold Harrison, Geisinger Medical Center, Danville, PA

1427. Late Onset Systemic Lupus Erythematosus: Is It Actually A Milder Variant? Juan G. Ovalles-Bonilla1, Julia Martinez-Barrio1, Javier Lopez-Longo1, Inmaculada de la Torre2, Carlos Gonzalez Fernandez3, Maria Montoro Alvarez3, Francisco Aramburu4, Carolina Marin5, Lina Martinez-Estudifián5, Juan C. Nieto6, Michelle Hinojoa6, Natalia Bello6, Indalecio Monteagudo1 and Luis Carreño1, 1Gregorio Marañón Hospital, Madrid, Spain, 2Instituto Giannina Gaslini, Genova, Italy

1428. Long-Term Outcomes of Children Born to Women with Systemic Lupus Erythematosus. Evelyne Vinet1, Mohammed Kaouache2, Christian A. Pineau2, Ann E. Clarke3, Caroline P. Gordon4, Robert W. Platt1 and Sasha Bernatsky2, 1McGill University Health Centre, Montreal, QC, 2Research Institute of the McGill University Health Ctre, Montreal, QC, 3MUHC, Montreal, QC, 4Medical School, Birmingham, United Kingdom, 5McGill University, Montreal, QC

1429. Women with Systemic Lupus Erythematosus (SLE) May Have Different Predictors of Risk for Progression of Aortic Calcium (AS) Than Women without SLE. Apinya Lertratanakul1, Peggy W. Wu1, Alan Dyer1, William Pearce1, George Kondos1, Daniel Edmundowicz1, James Carr2 and Rosalind Ramsey-Goldman3, 1Northwestern University, Chicago, IL, 2University of Illinois at Chicago, Chicago, IL, 3Temple University School of Medicine, Philadelphia, PA, 4Northwestern University Feinberg School of Medicine, Chicago, IL

1430. Women with Systemic Lupus Erythematosus (SLE) May Have Different Predictors of Risk for Progression of Coronary Artery Calcium (CAC) Than Women without SLE. Apinya Lertratanakul1, Peggy W. Wu1, Alan Dyer1, William Pearce1, George Kondos1, Daniel Edmundowicz1, James Carr2 and Rosalind Ramsey-Goldman3, 1Northwestern University, Chicago, IL, 2University of Illinois at Chicago, Chicago, IL, 3Temple University School of Medicine, Philadelphia, PA, 4Northwestern University Feinberg School of Medicine, Chicago, IL

1431. Single Photon Emission Computed Tomography Contributes to Clinical Assessments in Neuropsychiatric Systemic Lupus Erythematosus Patients. Maasa Hama, Mitsutaka Takeno, Atsushi Itaha, Daiga Kishimoto, Reikou Watanabe, Takeaki Uehara, Rysuke Yoshimi, Yukiko Asami, Atsuhisa Ueda and Yoshiaki Ishigatsubo, Chonnam National University Park and Shin-Seok Lee, Chonnam National University Medical School, Gwangju, South Korea

1432. Safety and Efficacy of Etanercept in Systemic LUPUS Erythematosus. Josefina Cortes-Hernandez1, Natalia Egri2, Miquel Vilardell-Tarres1 and Josep Ordí-Ros3, 1Hospital Universitari Vall d’Hebron, Institut de Recerca (VHIR), Barcelona, Spain, 2Vall De Hebron General Hospit, Barcelona, Spain

1433. Persistent Dyslipidemia Is A Risk Factor of Progression to Chronic Kidney Disease in Patients with Lupus Nephritis. Dong-Jin Park, Kyung-Eun Lee, Tae-Jong Kim, Yong-Wook Park and Shin-Seok Lee, Chonnam National University Medical School, Gwangju, South Korea
1434. Cardiovascular Morbidity in a Long-Term Follow-up Cohort of Systemic Lupus Erythematosus Patients in Southern Sweden. Ragnar Ingvarsson1, Ola Nived2, Gunnar Sturfelt1, anders Bengtsson1 and Andreas Jönsen1, 1Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden, 2University Hospital - Lund, Lund, Sweden, 3University Hospital Lund, Lund, Sweden, 4Section of Rheumatology, Lund, Sweden

1435. Identifying Systemic Lupus Erythematosus Patients At Higher Risk of Coronary Artery Disease. Dominique Ibanez, D. D. Gladman and Murray B. Urowitz, Toronto Western Hospital and University of Toronto, Toronto, ON

1436. Application of European League Against Rheumatism Recommendations for the Management of Systemic Lupus Erythematosus Patients with Neuropsychiatric Involvement May Limit Unnecessary Diagnostic Testing and Curve Intensification of Immunosuppressive Therapy of Unclear Benefit. Cristina Pamfil1, Antonios Fanourakis2, Argyro Repa3, Maria Melissourgaki2, Prodromos Sidiropolous1, Ileana Filipescu1, Mirela Rinzis2, Simona Rednic2, George Bertias2 and Dimitrios Boumpas3, 1University of Crete, Iraklion, Greece, 2University of Medicine and Pharmacy, Cluj, Romania, 3University of Crete, Iraklion, Greece, 4Emergency County Clinical Hospital Cluj Napoca, Cluj-Napoca, Romania, 5Panepistimio Kritis, Rethymnon, Greece

1437. Majority of Lupusqol Domains Are Negatively Correlated with Systemic Lupus Activity Questionnaire (SLAQ) Score. Wendy Marder1, Martha Ganser1, Margaret Hyzy2 and Emily C. Somers1, 1University of Michigan, Ann Arbor, MI, 2University of Michigan, Ann Arbor, MI

Systemic Lupus Erythematosus - Animal Models

1438. Development of Systemic Lupus Erythematosus (SLE) in NZM 2328 Mice in the Absence of Any Single BAFF Receptor. Chaim O. Jacob1, Ning Yu2, Shunhua Guo2, Noam Jacob1, William J. Quinn III1, Michael P. Cancro3, Beatrice Goliav1, Chaim Putterman5, Thi-Sau Migone6 and William Stohl1, 1Department of Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, 2University of Southern California Keck School of Medicine, Los Angeles, CA, 3University of Pennsylvania School of Medicine, Philadelphia, PA, 4Children’s Hospital at Montefiore, Bronx, NY, 5Albert Einstein College of Medicine, Bronx, NY, 6Virginia Tech, Blacksburg, VA

1439. CTL-Promoting Effects of IL-21 Results in B Cell Elimination and Disease Improvement in a Murine Model of Lupus. Vinh Nguyen1, Daniel Veizaga-Udaeta2, Horea Rus3 and Violeta Rus1, 1University of Maryland School of Medicine, Baltimore, MD, 2University of Maryland at Baltimore County, MD, 3University of Maryland School of Medicine and Veteran Affairs Medical Center, Baltimore, MD

1440. Lupus-Prone Mice Demonstrate Enhanced Neutrophil Extracellular Trap Formation: Implications for Autoantibody Formation and Organ Damage. Jason S. Knight1, Alexander A. O’Dell1, Wenpu Zhao1, Ritika Khandpur1, Srilakshmi Yalavarthi2 and Mariana J. Kaplan2, 1University of Michigan Rheumatology, Ann Arbor, MI, 2University of Michigan, Ann Arbor, MI

1441. Epstein Barr Virus CD40 Functional Mimic Latent Membrane Protein-1 Drives Cellular Molecular Mimicry in the Presence of Epstein Barr Virus Nuclear Antigen-1 in a Novel Murine Model of Lupus-Like Disease. Melissa E. Munroe1, Jourdan R. Anderson2, Timothy F. Gross3, Laura L. Stunz4, Gail A. Bishop2 and Judith A. James2, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2The University of Iowa, Iowa City, IA, 3Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK

1442. IRF-1 Deficient Lupus-Prone MRL/Lpr Mice Show Reduced Glomerulonephritis but Develop Severe Intestinal Nephritis, Renal Vasculitids and Pulmonary Granulomas with Propensity for Th2 Polarity. Hidemaru Sekine1, Takeshi Machida1, Natsumi Sakamoto1, Eiji Suzuki1, Xin Zhang2, Christopher Reilly3 and Gary S. Gilkeson3, 1Fukushima Medical University, Fukushima, Japan, 2Medical University of South Carolina, Charleston, SC, 3Medical University of South Carolina and Ralph H. Johnson VA Medical Center, Charleston, SC, 4Virginia Tech, Blacksburg, VA

1443. Caspase-1 Modulates Endothelial Dysfunction and Vascular Repair in Murine Lupus. J. Michelle Kahlenberg, Wenpu Zhao, Srilakshmi Yalavarthi and Mariana J. Kaplan, University of Michigan, Ann Arbor, MI

1444. HLA-DR3 Controls Autoantibody Response to Sm in NZM2328.DR3+.AEO Transgenic Mice. Vaidehi R. Chowdhary1, Chao Dai1, Shu Man Fu2 and Chella S. David3, 1Mayo Clinic, Rochester, MN, 2University of Virginia Health System, Charlottesville, VA

1445. Shared and Unique Molecular Features of Nephritis in 3 Models of Murine SLE. Ramalingam Bethuaanickan1, Celine C. Berthier2, Matthias Kretzler3 and Anne Davidson4, 1Feinstein Institute for Medical research, Manhasett, NY, 2University of Michigan, Ann Arbor, MI, 3University of Michigan, Ann Arbor, MI, 4Feinstein Institute for Medical Research, Manhasset, NY

1446. The Granulocyte Signature and Organ Inflammation in TLR7 Responsive Mice Is RNA and Type 1 Interferon Dependent. Xizhang Sun1, Alice Wiedeman2, Thomas H. Tea1, Nanli Agrawal1, Jeffrey Duggan3, Matt B. Buechler4, Jeffrey A. Ledbetter5, Denny Liggitt6, Jessica A. Hamerman4 and Keith B. Elkon1, 1Division of Rheumatology, Department of Medicine, University of Washington, Seattle, WA, 2University of Washington, Seattle, WA, 3Benaroya Research Institute at Virginia Mason, Seattle, WA, 4Benaroya Research Institute at Virginia Mason, Seattle, WA

1447. A Synthetic Triterpenoid CDDO-Me Prevents and Reverses Murine Lupus Nephritis. Tianfu Wu1, Jyunin Ye1, Mei Yan2, Xin J. Zhou4, Michael andref3 and Chandra Mohan1, 1University of Texas, Southwestern Medical Center at Dallas, Dallas, TX,
1448. Inhibition of Calcium/Calmodulin-Dependent Protein Kinase IV Suppresses the Autoimmunity in Lupus-Prone Mice. Kunihiro Ichinose1, Atsushi Kawakami2 and George C. Tsokos3, 1Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, 2Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

1449. Numbers of Splenic Long-Lived Plasma Cells in Autoimmune and Pre-Autoimmune Lupus Mice Are Linked to a Hyper-Responsive Variant of the Thrombopoietin Receptor and Enhanced Megakaryopoiesis. Oliver Winter4, Katrin Moser4, Rudolf A. Manz4 and Falk Hiepe4, 1Charité - University Medicine Berlin, Berlin, Germany, 2German Arthritis Research Center (DZBF), Berlin, Germany, 3University of Lübeck, Lübeck, Germany, 4Charité University Hospital Berlin, Berlin, Germany

1450. MEDI-551 Depletes a Majority of Murine B Cells and Reduces Serum Titers of Autoantibodies in the SLE1-Tsokos and Pre-Autoimmune Lupus Mice. Sandra Gallagher, Yue Wang, Isharat Yusuf, Thomas McCaughrty, Ronald Herbst and Laura Carter, 1MUSC, Charleston, SC, 2Rheumatology and Renal Medicine, University of South Carolina, Charleston, SC

1451. Estrogen Receptor Alpha Deficiency Protects Against Cognitive Defects in Murine Lupus. Melissa A. Cunningham1, Osama S. Naga2, Heather A. Boger2, Ann-Charlotte E. Granholm-Bentley2 and Gary S. Gilkeson2, 1MUSC, Charleston, SC, 2Medical University of SC, Charleston, SC

1452. Inherent Strain-Based Differences in Qualitative CD4 T Cell Responses Determine Lupus Severity. Kateryna Soloviova, Maksym Putilaiev and Charles S. Via, Uniformed Services University of Health Sciences, Bethesda, MD

1453. Estrogen Receptor Alpha Impacts Th17 Expansion in Murine Lupus. Melissa A. Cunningham1, Osama S. Naga2, Jackie G. Eudaly2 and Gary S. Gilkeson2, 1MUSC, Charleston, SC, 2Medical University of SC, Charleston, SC

1454. Characterization of Renal Mononuclear Phagocyte Populations in Murine SLE Nephritis. Ranjit Sahu3, Ramalingam Benthunaiakan2 and Anne Davidson1, 1Feinstein Institute for Medical Research, Manhasset, NY, 2Feinstein Institute for Medical Research, Manhasset, NY

1455. Mitochondrial Dysfunction in the Liver of Lupus-Prone MRL/Lpr Mice Prior to Disease Onset. Zachary A. Oaks1, Tiffany Telarico2 and andras Perl1, 1SUNY, Syracuse, NY, 2SUNY Upstate Medical University, Syracuse, NY

1456. A Tolerogenic Peptide Down-Regulates the Expression of Interferon-a in Murine and Human Systemic Lupus Erythematosus. Zev M. Stoeger1, Heidy Zinger1, Amir Sharabi1, Ilan Asher2 and Edna Mozes1, 1Kaplan Hospital, Rehovot, Israel, 2The Weizmann institute of Science, Rehovot, Israel

1457. A Novel Small Molecular Anti-Rheumatic Drug, T-614, Ameliorates Lupus-Like Disease in MRL/Lpr Mice by Suppressing B Cell Functions. Qingyan Yan, Fang Du and Chunde Bao, Renji Hospital, Shanghai, China

Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics

1458. Left Ventricular Diastolic Dysfunction May Play a Role in Pathophysiology and Poor Prognosis of Pulmonary Arterial Hypertension Associated with Systemic Sclerosis. Sumiaki Tanaka1, Eisuke Ogawa1, Tatsuhiko Wada1, Tatsuo Nagai2, Jun Okada2 and Shunsei Hirohata3, 1Kitsato University School of Medicine, Sagamihara, Japan, 2Kitsato University, Sagamihara, Japan

1459. Limited Utility of Pulmonary Function Tests and B-Type Natriuretic Peptide As Screening Tools for Pre-Capillary Pulmonary Hypertension in Patients with Systemic Sclerosis. Yuichi Shirai1, Yuichi Tamura1, Hidekata Yasuoka1, Tsutomu Takeuchi1, Toru Satoh1 and Masatake Kuwana2, 1Keio University School of Medicine, Tokyo, Japan, 2Kyorin University School of Medicine, Tokyo, Japan

1460. Unmasking Latent Pulmonary Arterial Hypertension by Fluid Challenge in Patients with Systemic Sclerosis. Amee Sonigra1, Melanie Hurford2, Patricia Lewis1, David Kilpatrick1, Nathan Dwyer1 and Jane Zochling1, 1Royal Hobart Hospital, Hobart, Australia, 2Menzies Research Institute, Hobart, Australia, 3Menzies Research Institute Tasmania, Hobart, Australia


1462. Expert Consensus for Performing Right Heart Catheterization in Suspicion of Pulmonary Arterial Hypertension Associated with Systemic Sclerosis: A Delphi Consensus Study with Cluster Analysis From the Epos Group. Jerome Avouac1, Dörte Huscher2, Daniel E. Furst3, Oliver Distler4 and Yannick Allanore3, 1Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 2German Rheumatism Research Centre and Charité University Medicine Berlin, Berlin, Germany, 3UCLA Medical School, Los Angeles, CA, 4University Hospital Zurich, Zurich, Switzerland

1463. Pulmonary Hypertension and Interstitial Lung Disease within Phacos: Impact of Extent of Fibrosis and Pulmonary Physiology On Cardiac Hemodynamic Parameters. Aryeh Fischer1, Stephen C. Mathai2, Marcy B. Bolster1, Lorinda Chung4, Mary Ellen Csuka4, Robyn T. Domsic, Tracy M.
ACR POSTER SESSION B

1464. Comparison of Baseline Characteristics of the Combined Response Index for Systemic Sclerosis (CRiSS) Cohort to Patients Enrolled in Clinical Trials of Diffuse Systemic Sclerosis. Heather Gladue, De Forest, Veronica Berrocal, James R. Seibold, Robert W. Simms, Robert W. Simms, Shervin Assassi, Philip J. Clements, Paul Maranian and Dinesh Khanna, University of Michigan, Ann Arbor, MI, University of California at Los Angeles, CA, Scleroderma Research Consultants LLC, Avon, CT, University of Pennsylvania, Philadelphia, PA, University of Texas Health Science Center at Houston, Houston, TX, University of Michigan Medical School, Ann Arbor, MI, Boston University School of Medicine, Boston, MA, Univ of Texas Health Science Houston, Houston, TX, UCLA School of Medicine, Los Angeles, CA, UCLA Medical School, Los Angeles, CA.


1466. Patients with Systemic Sclerosis Are Dying of Non-Systemic Sclerosis Related Causes, However Interstitial Lung Disease Remains the Predominant Systemic Sclerosis Related Cause of Death. Rebecca L. Batten and Bridget Griffiths, Freeman Hospital, Newcastle Upon Tyne, United Kingdom.

1467. Association of Gastroesophageal Factors and Progression of Interstitial Lung Disease in the Canadian Scleroderma Research Group, a Large, Multicenter Database. Xuli Jerry Zhang, Ashley Bonner, Murray Baron, Marie Hudson, Janet E. Pope and Canadian Scleroderma Research Group, Western University, London, ON, McMaster University, Hamilton, ON, Jewish General Hospital, Montreal, QC, McGill University, Montreal, QC, St. Joseph Health Care London, University of Western Ontario, London, ON, Montreal.

1468. Patient Perspective Inform Core Sets, Constructs of Metrics and Communication Tools for Patients with Connective Tissue Disease Related Interstitial Lung Disease. Shikha Mittoo, Sid Frankel, Daphne LeSage, Flavia V. Castelino, Lisa Christopher-Stine, Sonye Danoff, Aryeh Fischer, Laura K. Hummers, Amy A. Shah, Jeffrey J. Swigris, Spohia Cena, Sancia Ferguson, Ignacio Garcia-Valladares, Maithy Tran, Harmanjot K. Grewal and Lesley Ann Saketkoo, University of Toronto, Toronto, ON, University of Manitoba, Winnipeg, Center for CCH at State of Louisiana, New Orleans, LA, Massachusetts General Hospital, Boston, MA, Johns Hopkins University, Baltimore, MD, Johns Hopkins School of Medicine, Baltimore, MD, National Jewish Health, Denver, CO, Louisiana State University Health Science Center, New Orleans, LA, Tulane University School of Medicine, Louisiana State University Health Sciences Center, New Orleans, LA.

1469. WITHDRAWN.


1472. Enhanced Liver Fibrosis Test: A Further Step Toward Depiction of Fibrotic Process in Very Early Diagnosis of Systemic Sclerosis. Francesca Ingegnoli, Roberta Gualtierotti, Tommaso Schioppi, Annalisa Orenti, Patrizia Boracchi, Chiara Lubatti, Sara Lodi Rizzini, Antonella Murgo, Silvana Zeni, Claudio Mastaglio, Valentina Galibiati, Claudia Grossi, Maria Borghi, William M. Rosenberg and Pier Luigi Meroni, Division of Rheumatology, Istituto G. Pini, University of Milan, Milano, Italy, Medical Statistics and Biometry, University of Milan, Milano, Italy, Rheumatology Unit, Ospedale Moriggia-Pelascini, Italia Hospital, Gravedona, Italy, Lab of immunology, IRCCS Istituto Auxologico Italiano, Milano, Italy, Centre for Hepatology - UCL, London, United Kingdom, Istituto G. Pini, University of Milan, Milano, Italy.

1473. Sub-Analysis of ELF Score Biomarkers Components Indicates a Specific Correlation with Different Organ Involvement in Systemic Sclerosis. Giuseppina Abignano, Giovanna Cuomo, Maya H. Buch, William M. Rosenberg, Gabriele Valentini, Paul Emery and Francesco Del Gaida, University of Leeds, Leeds Institute of Molecular Medicine.
and LMBRU, Leeds, United Kingdom, 2Second University of Naples, Rheumatology Unit, Naples, Italy, 3Centre for Hepatology - UCL, London, United Kingdom

1474. Interferon-Inducible Chemokines Correlate with Disease Severity in Systemic Sclerosis. Xiaochun Liu1, Maureen D. Mayes2, Filemon K. Tan2, Minghua Wu1, John D. Reveille2, Brock E. Harper2, Hilda T. Draeger3, Emilio B. Gonzalez2 and Shervin Assassi1, 1University of Texas Health Science Center at Houston, Houston, TX, 2Univ of Texas Health Science Center at Houston, Houston, TX, 3University of Texas Medical Branch, Galveston, TX, 4Univ of TX Health Sci Ctr, San Antonio, TX, 5Univ of Texas Health Science Houston, TX

1475. Does Skin Gene Expression Profile Predict Response to Imatinib? Shervin Assassi1, Jeffrey T. Chang2, Dinesh Khanna1, Xiaochun Liu1, Daniel Furst3 and Maureen D. Mayes1, 1Univ of Texas Health Science Center at Houston, Houston, TX, 2University of Michigan, Ann Arbor, MI, 3University of California at Los Angeles, Los Angeles, CA

1476. Caveolin-1 Deficiency May Play a Role in the Predisposition of African Americans to SSc ILD. Elena Tourkina1, Charles Reese2, Beth Perry2, Shanice Dyer2, Michael Bonner2, Richard P. Visconti1, Jing Zhang2, Richard M. Silver2 and Stanley Hoffman1, 1Medical University of South Carolina, Charleston, SC, 2Medical University of SC, Charleston, SC, 3Medical University of SC, Charleston, SC

1477. Skin Autofluorescence As a Measure of Oxidative Stress in Systemic Sclerosis Is Not Affected by Skin Thickness, Erythema or Melanin. Andrea Murray1, T. Moore1, J. Manning2, Christopher E.M Griffiths3 and Ariane Herrick4, 1School of Translational Medicine, University of Manchester, Manchester Academic Health Science Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 2Department of Clinical Rheumatology, Salford Royal NHS Foundation Trust, Salford, United Kingdom, 3Dermatology Centre, University of Manchester, Manchester Academic Health Science Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 4University of Manchester, Salford, United Kingdom

1478. Gender-Associated Differences in Disease Characteristics and Outcome in Systemic Sclerosis. Svetlana I. Niytyanova1, Voon H. Ong2 and Christopher P. Denton3, 1Royal Free Hospital, Medical School, London, England, 2UCL Medical School, London, England, 3UCL, London, United Kingdom

1479. Early Versus Late Onset Systemic Sclerosis: Analysis of 1037 Patients From Rescue Registry. Marco A. Alba1, Juan Carlos Mejia2, Gerard Espinosa3, María-Victoria Eguribe4, Carles Tolosa5, Luis Trapiella6, Carmen Pilar Simeon6, Vicent Fonollosa7 and and RESCLE investigators8, 1Vasculitis Research Unit. Hospital Clinic. University of Barcelona. IDIBAPS, Barcelona, Spain, 2Hospital Clinic University Barcelona, Barcelona, Spain, 3Hospital Clinic of Barcelona, Barcelona, Spain, 4Hospital de Cruces, UPV/EHU, Barakaldo, Spain, Barakaldo, Spain, 5Corporación Sanitaria Universitaria Parc Taulí, Barcelona, Spain, 6Hospital Universitario Central de Asturias, Asturias, Spain, 7Hospital Valle de Hebron, Barcelona, Spain, 8Hospital Vall de Hebron, Barcelona, Spain, 9RESCLE, Barcelona, Spain

1480. The 15% Rule in Scleroderma: A Systematic Review of the Frequency of Organ Complications in Systemic Sclerosis. Chayawee Muangchan1, Murray Baron2, Janet E. Pope3 and Canadian Scleroderma Research Group4, 1Mahidol University, Siriraj Hospital, Bangkok, Thailand, 2Jewish General Hospital, Montreal, QC, 3St. Joseph Health Care London, University of Western Ontario, London, ON, 4Montreal, QC

1481. A Double-Blind Placebo-Controlled Crossover Trial of the Alpha-2C Adrenoceptor Antagonist Orm-12741 for Prevention of Cold-Induced Vasospasm in Patients with Systemic Sclerosis. Ariane Herrick1, Andrea Murray2, Angela Ruck2, Juha Rourou3, Tonia Moore4, John Whiteside5, Pasi Hakulinen6, Fredrick M. Wigley2 and Amir Snapir4, 1University of Manchester, Salford, United Kingdom, 2School of Translational Medicine, University of Manchester, Manchester Academic Health Science Centre, Salford Royal NHS Foundation Trust, Manchester, United Kingdom, 3Orion Pharma UK, Research & Development, Nottingham, United Kingdom, 4Orion Corporation Orion Pharma, Turku, Finland, 5Johns Hopkins University, Baltimore, MD

1482. Laser Speckle Contrast Imaging May Help in the Differential Diagnosis of Raynaud’s Phenomenon. Alessandra Della Rossa1, Massimiliano Cazzato2, Walter Bencivelli2, Anna d’Ascanio2, Marta Mosca1 and Stefano Bombardieri1, 1Rheumatology Unit, Pisa, Italy, 2Rheumatology Unit, University of Pisa, Pisa, Italy

1483. Predictors of Digital Ulcers in Systemic Sclerosis: Correlation between Clinical and Hemodynamic Features, Capillaryoscopy, Endothelium Dysfunction and Angiogenesis Biomarkers. Ivone Silva1, Isabel Almeida2, António Marinho2 and Carlos Vasconcelos3, 1Raynaud Clinics, Porto, Portugal, 2Unidade de Imunologia Clínica, Porto, Portugal, 3Hospital Geral Santo Antonio, Porto, Portugal

1484. Investigating Determinants of Subjective and Objective Assessments of Peripheral Vascular Function in Primary Raynaud’s Phenomenon and Systemic Sclerosis. John D. Pauling, Jacqueline A. Shipley, Nigel Harris and Neil McHugh, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom

1485. Patients with Very Early Diagnosis of Systemic Sclerosis (VEDOSS) Present Esophageal and Anorectal Involvement: Data from a Single Centre. Gemma Lepri1, Silvia Bellando-Randone2, Serena Guiduccic3, Iacopo Gianicomo3, Cosimo Brunii4, Giulia Carnesecchi5, Jelena Blagojevic6, Alessandra Radicati7, Filippo Pucciani8 and Marco Matucci Cerinic9, 1Department of Biomedicine, Division of Rheumatology AOUC, Excellence Centre for Research, Florence, Italy, 2University of Florence, Florence, Italy, 3General Surgery, ASL 6, Arezzo, Italy, 4Arezzo, Italy, 5Department of Internal Medicine, Rheumatology
Section, University of Florence, Florence, Italy, 4General and Urgency Surgery, University of Florence, Florence, Italy, Florence, Italy

1486. Poor Outcome in Patients with Systemic Sclerosis and Myocardial Involvement: A Combined Approach Based On Clinical and Laboratory Findings, EKG-Holter and Cardiac Magnetic Resonance. Silvia Laura Bosello, Giacomo De Luca, Antonella Laria, Giorgia Berardi and Gianfranco Ferraccioli, Division of Rheumatology, Institute of Rheumatology and Affective Sciences, Catholic University of the Sacred Heart, Rome, Italy

1487. Incidence of Fibromyalgia Syndrome in Systemic Sclerosis and Rheumatoid Arthritis. Comparative Results According to Clinical Diagnosis, Screening Test with Fibromyalgia Rapid Screening Tool, Diagnosis with ACR1990 and ACR 2010 Criteria. Serge Perrot1, Mariana Peixoto2, Philippe Dieude2, Eric Hachulla3, Sébastien Ottaviani3 and Yannick Allianore4, 1Hôpital Hotel Dieu, Paris, France, 2Cochin Hospital, Paris, France, 3APHP, Hospital Bichat, Paris, France, 4Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 5APHP, Paris, France, 6Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France

1488. Prevalence and Risk Factors of Low Bone Mineral Density in Chinese Patients with Systemic Sclerosis: A Case-Control Study. Chi Chiu Mok, Pak To Chan, Kar Li Chan, Ling Yin Ho and Chi Hung To, Tuen Mun Hospital, Hong Kong, Hong Kong

1489. Peripheral Neuropathy: A Complication of Systemic Sclerosis. Melissa Reily1, Tracy M. Frech2, Maureen Murtaugh3, Jason Penrod4 and Barry M. Stults4, 1University of Utah, Salt Lake City, UT, 2University of Utah School of Medicine, SLC, UT, 3University of Utah, Salt Lake City, 4Salt Lake City Veterans Affairs Medical Center and University of Utah, Salt Lake City, UT

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics

1490. Dysregulation of Angiogenic Homeostasis in Systemic Sclerosis. Naglaa Y. Assaf1, Hanan M. Farouk2 and Iman M. Aly3, 1Faculty of Medicine, Ain-Shams University, Cairo, Egypt, 2Ain-Shams University, Cairo, Egypt

1491. Systemic Sclerosis – Effects of Agonistic Autoantibodies Directed Against the Angiotensin Receptor Type 1 and the Endothelin Receptor Type A On Effector Cells. Jeannine Guenther1, Angela Kili2, Mike O. Becker2 and Gabriela Riemekasten2, 1Charite University Hospital, Berlin, Germany, 2Charité University Hospital and German Rheumatism Research Centre, a Leibniz Institute, Berlin, Germany, 3Charité University Hospital, Berlin, Germany, 4Charité University Hospital, German Rheumatology Research Center, a Leibniz Institute, Berlin, Germany

1492. IL-13 Receptors and Signaling in the Dermal Fibroblasts From Patients with Systemic Sclerosis. Yuko Ota1, Yasushi Kawaguchi2, Atsushi Kitani2, Kae Takagi2, Hisae Ichida1, Yasuhiro Katsumata2, Takahisa Gono3, Masanori Hanaoka1, Yuko Okamoto1 and Hisashi Yamanaka1, 1Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 2Mucosal Immunity Section, NIAID/NIH, Bethesda, MD

1493. Transforming Growth Factor-β and Endothelin-1 Induce Endothelial-to-Mesenchymal Transition in Cultured Human Endothelial Cells. Stefano Soldano1, Paola Montagna2, Renata Brizzolara3, Barbara Villaggio2, Alberto Sulli1 and Maurizio Cutolo1, 1Research Laboratory and Academic Unit of Clinical Rheumatology, Department of Internal Medicine, University of Genova, Genova, Italy, Genova, Italy, 2Research Laboratory of Nephrology, Department of Internal Medicine, University of Genova, Genova, Italy, 3Research Laboratory and Academic Unit of Clinical Rheumatology, Department of Internal Medicine, University of Genova, Genova, Italy

1494. CD40 Signaling Results in Microvascular Endothelial Dysfunction: A Possible Cue to the Pathogenesis of Scleroderma Vasculopathy. Bashar Kahaleh and Yongqing Wang, University of Toledo, Toledo, OH

1495. Platelet Aggregability, Eicosanoid Biosynthesis and Oxidative Stress in Primary Raynaud’s Phenomenon and Systemic Sclerosis. John D. Pauling and Neil McHugh, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom

1496. Downregulated Expression of Metallothionein Genes in Response to the Gadolinium Contrast Agent Omniscan in Normal Human Differentiated Macrophages and Dermal Fibroblasts. Peter J. Wermuth1, Francesco Del Gaudio2, Sankar Addya2, Paolo Fortina2 and Sergio A. Jimenez2, 1Jefferson Institute of Molecular Medicine, Division of Connective Tissue Diseases and Scleroderma Center,Thomas Jefferson University, Philadelphia, PA, 2University of Leeds, Leeds Institute of Molecular Medicine and LMBRU, Leeds, United Kingdom, 3Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA

1497. Activation of Sirt1 Attenuates Bleomycin Induced Scleroderma Through Inhibiting Mammalian Target of Rapamycin Activation. Xiaoxia Zhu1, Jianhua Qiu2, Qiong Liu3, Minrui Liang4 and Hejian Zou5, 1Huashan Hospital, Fudan University, Shanghai, China, 2Neuroscience Center, Massachusetts General Hospital, Harvard Medical School, Massachusetts, USA, 3Institute of Rheumatology, Immunology and Allergy,Shanghai Medical College, Fudan University, Shanghai, China, 4Huashan Hospital,Fudan University,Shanghai, Shanghai, China, 5Huashan Hospital, Shanghai, China

1498. Wisp-1 Neutralization Reduces Gvhd-Induced Skin Fibrosis by Altering TSLP-OX40L Axis-Dependent Th2 Responses. Raphael Lemaire, Tim Burwell, Rachel Griffin, Julie Bakken, Joseph Madary, Lynne Murray, Ronald Herbst and Jane Connor, MedImmune LLC, Gaithersburg, MD
1499. The Soluble Guanylate Cyclase Mediates Its Anti-Fibrotic Effects by Inhibiting TGF-β Signaling. Christian Beyer¹, Sonia C. Schindler², Alfiya Distler³, Clara Dees¹, Helena Reichert², Hümeysa Akan¹, Peter Sandner³, Oliver Distler⁴, Georg Schett⁵ and Joerg HW Distler⁶, ¹Department of Internal Medicine ¹ and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ²University of Erlangen-Nuremberg, Erlangen, Germany, ³Bayer Health Care, Global Drug Discovery – Common Mechanism Research, Wuppertal, Germany, ⁴University Hospital Zurich, Zurich, Switzerland, ⁵Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ⁶Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1500. Activation of Pregnane X Receptor Induces Regression of Experimental Dermal Fibrosis. Christian Beyer¹, Alla Skapenko⁷, Alfiya Distler³, Clara Dees¹, Helena Reichert², Louis E. Munoz¹, Jan Leipe⁴, Hendrik Schulze-Koops², Oliver Distler⁵, Georg Schett⁵ and Joerg HW Distler⁶, ¹Department of Internal Medicine ¹ and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ²University of Munich, Munich, Germany, ³University of Erlangen-Nuremberg, Erlangen, Germany, ⁴Division of Rheumatology and Clinical Immunology, Munich, Germany, ⁵University Hospital Zurich, Zurich, Switzerland, ⁶Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ⁷Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1501. Increased Periostin Levels in Patients with Systemic Sclerosis. Yukie Yamaguchi¹, Junya Ono², Miho Masuoka³, Shoichiro Ohta², Kenji Izuhashara¹, Zenro Ikekawa³, Michiko Aihara¹ and Kazuo Takahashi¹, ¹Yokohama City University Graduate School of Medicine, Yokohama, Japan, ²Shino-Test Corporation, Sagamihara, Japan, ³Saga Medical School, Saga, Japan, ⁴Saga medical School, Saga, Japan, ⁵International University of Health and Welfare Atami Hospital, Atami, Japan

1502. Hedgehog Signaling in Murine Chronic Sclerodermatous Graft-Versus-Host Disease. Pawel Zerr¹, Katrin Palumbo-Zerr¹, Alfiya Distler¹, Michal Tomcik², Stefan Vollath¹, Louis E. Munoz¹, Christian Beyer¹, Clara Dees³, Friederike Egberts³, Ilaria Tinazzi¹, Francesco Del Galdo³, Oliver Distler⁴, Georg Schett⁵, Bernd M. Spriewald⁶ and Joerg HW Distler⁶, ¹Department of Internal Medicine ¹ and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ²Institute of Rheumatology, Department of Rheumatology, ³1st Faculty of Medicine, Charles University, Prague ², Czech Republic, ⁴Department of Dermatology, Schleswig-Holstein University Hospital, Campus Kiel, Kiel, Germany, ⁵Scleroderma Research Program, Leeds Institute of Molecular Medicine, Division of Musculoskeletal Diseases, University of Leeds, Leeds, United Kingdom, ⁶Center of Experimental Rheumatology and Zurich Center of Integrative Human Medicine, University Hospital Zurich, Zurich, Switzerland, ⁷Department of Internal Medicine V, University of Erlangen-Nuremberg, Erlangen, Germany, ⁸Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1503. Effect of Thiol Antioxidants On the Profibrotic Phenotype of Scleroderma Dermal Fibroblasts. Pei-Suen Tsou¹, Beatrix Balogh¹, Adam J. Pinney², Elena Schiopu³, Dinesh Khanna² and Alisa E. Koch¹, ¹University of Michigan Medical School, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI

1504. A Possible Contribution of Visfatin to the Resolution of Skin Sclerosis in Patients with Diffuse Cutaneous Systemic Sclerosis Via a Direct Anti-Fibrotic Effect On Dermal Fibroblasts and Th1 Polarization of the Immune Response. Tettsuo Toyama, Yoshihide Asano, Yuri Masui, Sayaka Shibata, Kaname Akamata, Shini Noda, Naohiko Aozasa, Takashi Taniguchi, Takehiro Takahashi, Yohei Ichimura, Hayakazu Sumida, Koichi Yanaba, Takafumi Kadono and Shinichi Sato, University of Tokyo Graduate School of Medicine, Tokyo, Japan

1505. Inactivation of Tankyrase Ameliorates Canonical Wnt Signaling and Prevents Experimental Fibrosis. Alfiya Distler¹, Lisa Deloch¹, Jingang Huang², Clara Dees³, Neng Yu Lin², Christian Beyer¹, Oliver Distler³, Georg A. Schett⁴ and Joerg HW Distler⁶, ¹Department of Internal Medicine ¹ and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ²University of Erlangen-Nuremberg, Erlangen, Germany, ³University Hospital Zurich, Zurich, Switzerland, ⁴Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, ⁵University Hospital Zurich, Zurich, Switzerland, ⁶Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1506. Primary Human Scleroderma Dermal Endothelial Cells Exhibit Defective Angiogenesis. Pei-Suen Tsou¹, Bradley J. Rabquer¹, Beatrix Balogh¹, Ann Kendzicky², Bashar Kahaleh³, Elena Schiopu³, Dinesh Khanna² and Alisa E. Koch¹, ¹University of Michigan Medical School, Ann Arbor, MI, ²University of Toledo, Toledo, OH, ³University of Michigan, Ann Arbor, MI

1507. Propylthiouracil Reduces Fibrosis in Chronic Oxidant Stress Mouse Model of Scleroderma. Gianluca Bagnato¹, Alessandra Bitto¹, Natasha Irrera¹, Gabriele Pizzino¹, Neal Roberts¹, Maurizio Cinquegrani¹, Donatella Sangari¹, Francesco Squadrito¹, Gianfilippo Bagnato¹ and Antonino Saitta¹, ¹University of Messina, Messina, Italy, ²Medical College of Virginia, Richmond, VA

1508. Simvastatin Attenuates Pulmonary Fibrosis in a Murine Model of Systemic Sclerosis. Gianluca Bagnato¹, Alessandra Bitto¹, Natasha Irrera¹, Gabriele Pizzino¹, Donatella Sangari¹, Maurizio Cinquegrani¹, Neal Roberts¹, Gianfilippo Bagnato¹, Francesco Squadrito¹ and Antonino Saitta¹, ¹University of Messina, Messina, Italy, ²Medical College of Virginia, Richmond, VA
1509. Correlates of Skin Gene Expression Profile in Systemic Sclerosis. Shervin Assassi1, Jeffrey T. Chang1, Filemon K. Tan1, Minghua Wu1, Gloria A. Salazar Cintora1, Irum Zaheer2, Dinesh Khanna1, Daniel E. Furst3 and Maureen D. Mayes2, 1Univ of Texas Health Science at Houston, Houston, TX, 2Methodist Hospital, Houston, TX, 3University of Michigan, Ann Arbor, MI, 4UCLA Medical School, Los Angeles, CA

1510. Critical Role of the Adhesion Receptor Dnax Accessory Molecule-1 (DNAM-1) in the Development of Inflammation-Driven Dermal Fibrosis in Mouse Model of Systemic Sclerosis. Jerome Avouac1, Muriel Elhai2, Michal Tomcik1, Manuel Friese1, Marco Colonna1, Günter Bernhardt3, andre Khan1, Gilles Chiocchia2, Joerg HW Distler4 and Yannick Allanore1, 1Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 2Paris Descartes University, INSERM U1015, Institut Cochin, Sorbonne Paris Cité, Paris, France, 3Institute of Rheumatology, Department of Rheumatology, 3st Faculty of Medicine, Charles University, Prague 1, Czech Republic, 4Institute for Moleculare Neurobiologie, Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany, 5Institute of Immunology, Hannover Medical School, Hannover, Germany, 6Institut Cochin - INSERM U1016 - CNRS (UMR 8104), Paris, France, 7Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

1511. Low Circulating Endothelial Progenitor Cell Levels and High VEGF Serum Levels Are Associated with the Late Nailfold Capillaroscopic Pattern in Systemic Sclerosis. Jerome Avouac1, Maeva Vallucci1, Vanessa Smith1, Barbara Ruiz2, Alberto Sulli3, Carmen Pizzorni4, Gilles Chiocchia2, Maurizio Cutolo5 and Yannick Allanore1, 1Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 2Paris Descartes University, INSERM U1016, Institut Cochin, Sorbonne Paris Cité, Paris, France, 3Department of Rheumatology, Ghent University Hospital, Ghent, Belgium, 4Research Laboratory and Academic Unit of Clinical Rheumatology, Department of Internal Medicine, University of Genova, Genova, Italy, 5Institut Cochin - INSERM U1016 - CNRS (UMR 8104), Paris, France

1512. Bleomycin Delivery by Osmotic Pump: A Superior Model for Human ILD. Rebecca Lee, Michael Bonner, Charles Reese, Elena Tourkina, Zoltan Hajdu, Jing Zhang, Richard Visconti and Stanley Hoffman, Medical University of South Carolina, Charleston, SC

1513. TSLP Receptor Deficiency Reduces IL-13 Expression and Prevents Fibrosis in Experimental Scleroderma. Alicia Usategui1, Vanessa Miranda1, Gabriel Criado1, Manuel J. Del Rey1, Elena Izquierdo1, Warren J. Leonard1 and Jose L. Pablos1, 1Instituto de Investigación Hospital 12 de Octubre (I+12), Madrid, Spain, 2National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD

1514. Differences in the Activation Levels and Expression Patterns of the Molecular Targets of Tyrosine Kinase Inhibitors May Account for the Heterogeneous Treatment Responses. Britta Maurer1, Alfiya Akhmetshina1, Renate E. Gay1, Beate A. Michel1, Steffen Gay1, Joerg H. W. Distler1 and Oliver Distler2, 1Department of Rheumatology and Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 2Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 3Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Switzerland, Zurich, Switzerland

1515. Pharmacological Blockade of Adenosine A2A Receptors (A2AR) Prevents Radiation-Induced Dermal Injury. Miguel Perez Aso1, Yee C. Low2, Obinna Ezeamuzie2, Jamie Levine2 and Bruce N. Cronstein1, 1NYU School of Medicine, New York, NY, 2New York Univ Medical Center, New York, NY, 3NYU School of Medicine, Division of Rheumatology, New York, NY

1516. TSLP Upregulation in Human SSc Skin and Induction of Overlapping Profibrotic Genes and Intracellular Signaling with IL-13 and TGFβ. RomyChristmann, Allison Mathes, Giuseppina Stifano, Alysa J. Affandi, andreea Bujor, Cristina Padilla and Robert Layfatis, Boston University, Boston, MA

1517. TLR9 Signaling in Fibroblasts Promotes Pro-Fibrotic Responses Via TGF-Beta. Yang Yang1, Feng Fang2, Lei Liu2, Junjie Shangguan2, Boping Ye2 and John Varga2, 1China Pharmaceutical University, Nanjing, China, 2Northwestern University, Chicago, IL

1518. Damage-Associated Endogenous TLR4 Ligand Fibronecetin-EDA Is Overexpressed in Scleroderma and Drives Persistent Fibrosis Via TLR4 and Inhibition of TLR4 Prevents and Reverses Experimental Dermal Fibrosis: Novel Target for Scleroderma Therapy. Swati Bhattacharyya1, Zenshiro Tamaki2, Wenxia Wang3, Paul Hoover4, Adam Booth4, Alyssa Dreff5, Monique E. Hinchcliffe5, Feng Fang1, SpiroGetsios1, Hang Yin1, Eric S. White1 and Jinho Varga1, 1Northwestern University, Feinberg School of Medicine, Chicago, IL, 2Northwestern Univ Med School, Chicago, IL, 3Chicago, IL, 4Northwestern University, Chicago, IL, 5Ann Arbor, MI, 6University of Michigan Medical School, Ann Arbor, MI, 7University of Michigan Medical School, Chicago, IL, 8Northwestern University Medical School, Chicago, IL

1519. Heterogeneous Nuclear RNP-K Is a Novel Cold-Related Autoantigen in Patients with Raynaud’s Phenomenon. Satoshi Serada, Minoru Fujimoto and Tetsuji Naka, National Institute of Biomedical Innovation, Ibaraki, Japan

1520. Role of 12/15-Lipoxygenase (LOX) in Patients with Systemic Sclerosis. Hirahto Endo, Makoto Kabraki, Koutarou Shikano, Sei Muraoka, Nahoko Tanaka, Tatsukiko Yamamoto, Kanako Kitahara, Kaichi Kaneko, Yoshie Kusunoki, Natsuko Kusunoki, Kenji Takagi, Tomoko Hasunuma and Shinichi Kawai, School of Medicine, Faculty of Medicine, Toho University, Tokyo, Japan
1521. A Possible Contribution of Decreased Cathepsin V Expression to the Development of Dermal Fibrosis, Proliferative Vasculopathy, and Altered Keratinocyte Phenotype in Systemic Sclerosis. Yoshihiko Asano, Shinji Noda, Takehiro Takahashi, Sayaka Shibata, Kaname Akamata, Naohiko Aozasa, Takashi Taniguchi, Yohei Ichimura, Tetsuo Toyama, Hayakazu Sumida, Yoshihiro Kuwano, Koichi Yanaba and Shinichi Sato, University of Tokyo Graduate School of Medicine, Tokyo, Japan

1522. Differential Response to Endoplasmic Reticulum Stress between Alveolar Epithelial Cells and Lung Fibroblasts in Systemic Sclerosis. Jun Liang1, Tanjina Akter1, Ilia Atanelishvili1, Richard M. Silver2 and Galina S. Bogatkevich1, 1Medical University of SC, Charleston, SC, 2Medical University of SC, Charleston

1526. Patient Reported Outcomes in ANCA-Associated Vasculitis: A Prospective Comparison Between Birmingham Vasculitis Activity Score and Routine Assessment of Patient Index Data. 3. Osama ElSallabi, Joel A. Block and Antoine Sreih, Rush University Medical Center, Chicago, IL

1527. Patient Global Assessments for Disease Activity Are Predictive of Future Flare in Granulomatosis with Polyangiitis (Wegener’s). Gunnar Tomasson1, John C. Davis Jr.2, Gary S. Hoffman3, W. Joseph McCune4, Ulrich Specks5, Robert F. Spiera6, E. William St. Clair7, John H. Stone8 and Peter A. Merkel9, 1University of Iceland, Reykjavik, Iceland, 2University of South Florida, Tampa, FL, 3University Hospital Maastricht, Maastricht, Netherlands, 4University of Michigan, Ann Arbor, MI, 5Mayo Clinic, Rochester, MN, 6Hospital for Special Surgery, New York, NY, 7Duke University Medical Center, Durham, NC, 8Massachusetts General Hospital, Boston, MA, 9University of Pennsylvania, Philadelphia, PA

1528. Assessing Fatigue in Systemic Vasculitis from the Patient’s Perspective. Peter C. Grayson1, Naomi Amudala1, Carol McAllear2, Renée Leduc3, Denise Shereff4, Rachel Richesson5, Liana Fraenkel6 and Peter A. Merkel7, 1Boston University Medical Center, Boston, MA, 2Boston University Medical Center, Boston, MA, 3Vasculitis Clinical Research Consortium, University of Pennsylvania, Philadelphia, PA, 4University of South Florida, Tampa, FL, 5Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 6University of Pennsylvania, Philadelphia, PA

1529. Upper Airway Gene Expression Profiling in Granulomatosis with Polyangiitis with Polyangiitis. Peter C. Grayson1, Katrina Steiling2, Paul A. Monach3, Ji Xiao4, Xiaohui Zhang5, Yuriy Alekseyev6, Stephano Monti7, Avrum Spira8, Paul A. Merkel9, 1Boston University Medical Center, Boston, MA, 2Boston University Medical Center, Boston, MA, 3Vasculitis Clinical Research Consortium, University of Pennsylvania, Philadelphia, PA, 4University of South Florida, Tampa, FL, 5Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 6University of Pennsylvania, Philadelphia, PA

1530. Plasma Cell Analysis As a Biomarker for Disease Activity in Patients with Granulomatosis with Polyangiitis. Bimba F. Hoyert1, Adriano Teddeo2, Maika Rothkegel3, Gerd R. Burmester4, Andreas H. Radbruch5 and Falk Hiepe6, 1Charite University Hospital, Berlin, Germany, 2Deutsches Rheuma Forschungszentrum, Berlin, Germany, 3Charité – University Medicine Berlin, Berlin, Germany, 4Charité University Hospital Berlin, Berlin, Germany

1531. Comparative Proteomic Analysis of Neutrophils between Microscopic Polyangiitis and Granulomatosis with Polyangiitis. Teisuke Uchida1, Kouhei Nagai2, Toshiyuki Sato3, Birmingham, United Kingdom, 4University of Oxford, Oxford, United Kingdom, 5Royal Berkshire Hospital, Reading, United Kingdom, 6Addenbrookes Hospital University of Cambridge, Cambridge, United Kingdom, 7Trinity College Dublin, Dublin, Ireland, 8Western General Hospital, Edinburgh, United Kingdom, 9Edinburgh Royal Infirmary, Edinburgh, United Kingdom, 10Ninewells Hospital, Dundee, United Kingdom
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1532. Serum Angiopoietin-2 Level Reflects the Disease Activity and Renal Function in Antineutrophil Cytoplasmic Antibody-Associated Vasculitis. Yoko Wada1, Hiroe Sato2, Takeshi Nakatsue1, Shuichir Murakami1, Takeshi Kuroda3, Masaaki Nakano4 and Ichiei Narita5, 1Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan, 2Niigata University, Niigata, Japan, 3School of Health Sciences, Faculty of Medicine, Niigata University, Niigata, Japan, 4Tokyo Medical and Dental University, Tokyo, Japan, 5UCSD School of Medicine, La Jolla, CA, 6Juntendo Tokyo Koto Geriatric Center, Tokyo, Japan, 7National Institute of Infectious Diseases, Tokyo, Japan

1537. Pathogenesis of Atherosclerosis in Granulomatosis Polyangiitis. Rula Haji-Ali1, Roy L. Silverstein2, Gary S. Hoffman1 and Carol A. Langford3, 1Cleveland Clinic Foundation, Cleveland, OH, 2Medical College of Wisconsin, Milwaukee, WI, 3Cleveland Clinic Found A50, Cleveland, OH, 4Cleveland Clinic, Cleveland, OH

1538. ANCA-Associated Vasculitis in Hispanic Americans: An Unrecognized Severity. Ranadeep Mandhadi1, Fadi Aldaghlawi1, Asad Khan2, Vajira Irshad3, Joel A. Block4 and Antoine Sreih1, 1Mount Sinai Hospital, Chicago, IL, 2Rush University Medical Center, Chicago, IL, 3Stroger Hospital of Cook County, Chicago, IL

1539. Microscopic Polyangiitis: A Large Single Center Series. Leslie D. Wilke1, Guy P. Fiocco2 and Marilyn Prince-Fiocco3, 1Scott & White Memorial Center, Temple, TX, 2Scott & White Clinic, Temple, TX, 3Hospital, Temple, TX

1540. Practice Patterns in the Treatment of ANCA-Associated Vasculitis: Exploring Differences among Subspecialties at a Single Academic Medical Center. Lindsay J. Forrest1, Kenneth W. Griffin2 and Robert F. Spiera3, 1Cedars-Sinai Medical Center, Los Angeles, CA, 2Weill Cornell Medical College, New York, NY, 3Hospital for Special Surgery, New York, NY

1541. Does Leflunomide Have a Place As Remission Maintenance Therapy in ANCA-Associated Vasculitis? A Bayesian Network Meta-Analysis with Hypothesis Driven Sensitivity Analyses to Adjust for Potential Biases. Glen S. Hazlewood1, Claudia Metzler2, George A. Tomlinson1, Wolfgang L. Gross3, Brian M. Feldman4, Loic Guillemin5 and Christian Pagnoux6, 1University of Toronto, Toronto, ON, 2University of Lubeck, Bad B undesky, Germany, 3Medical University at Lubeck, Lubeck, Germany, 4The Hospital for Sick Children, Toronto, ON, 5Cochin University Hospital, Paris, France, 6Mount Sinai Hospital, Toronto, ON

1542. The Efficacy of Rituximab Vs Cyclophosphamide for Treatment of Renal Disease in ANCA-Associated Vasculitis: The RAVE Trial Geetha D. Duvuru1 and Fernando Fervenza2, 1Johns Hopkins University, Baltimore, MD, 2Mayo Clinic, Rochester, MN

1543. Rituximab for ANCA-Associated Vasculitis: A Meta-Analysis of Randomized Trials. Carolina Mejia1 and Carlos J. Lozada2, 1Mount Sinai Medical Center, Miami, FL, 2University of Miami Miller School of Medicine, Miami, FL

1544. Long-Term Outcome of Patients with Granulomatosis with Polyangiitis (Wegener’s) Treated with Rituximab. Lama Azari1, Jason Springer1, Meng Xu2, Tiffany M. Clark2, Carol A. Langford3 and Gary S. Hoffman1, 1Cleveland Clinic Foundation, Cleveland, OH, 2Cleveland Clinic, Cleveland, OH

1545. Long-Term Follow-up of 118 Polyarteritis Nodosa and Microscopic Polyangiitis without Poor-Prognosis Factors.
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1546. Rhinosinusitis and Nasal Polyps in the Diagnosis and Follow up of Patients with Eosinophilic Granulomatosis with Polyangiitis (ex-Churg Strauss Syndrome). Chiara Baldini1, Veronica Secchia1, Manuela Latorre1, Paolo Iannicelli1, Daniela Martini1, Francesco Ferro1, Nicoleta Luciano1, Antonio Tavoni1, Stefano Sellari Franceschini1 and Stefano Bombardieri1, 1Rheumatology Unit, University of Pisa, Pisa, Italy, 2Unit of Otorhinolaryngology, Department of Neuroscience, University of Pisa, Pisa, Italy, 3Pneumology Unit, University of Pisa, Pisa, Italy, 4Division of Otorhinolaryngology, University of Pisa, Pisa, Italy, 5Department of Respiratory Medicine, University of Pisa, Pisa, Italy

1547. A 4 Plus 2 Infusion Protocol of Rituximab Provides Long-Term Beneficial Effects in Patients with HCV-Associated Mixed Cryoglobulinemia with Membranoproliferative Nephritis and Severe Polyneuropathy. Dario Roccatalle1, Savino Sciascia1, Simone Baldovino1 and Daniela Rossi1, 1Centro di Ricerche di Immunologia Clinica ed Immunopatologia e Documentazione su Malattie Rare (CMID), Università di Torino, Torino, Italy, 2Lupus Research Unit, The Rayne Institute, Kings College London School of Medicine, London, United Kingdom

1548. Cutaneous Vasculitis as a Paraneoplastic Syndrome. Javier Loricer, Vanesa Calvo-Rio, Francisco Ortiz Sanjuan, Marcos Antonio Gonzalez-Lopez, Hector Fernandez-Llaca, Javier Rueda-Gotor, Carmen Gonzalez-Vela, Cristina Mata-Arnaiz, Miguel A. Gonzalez-Gay and Ricardo Blanco, Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain

1549. Sibling Relative Risk and Heritability of Kawasaki Disease: A Nationwide Population Study in Taiwan. I-Jun Chou1, Chang-Fu Kuo1, Jing-Long Huang1, Chang-Teng Wu1, Shao-Hsuan Hsia1 and Hsiao-Chun Chang1, 1Chang Gung Memorial Hospital, Taoyuan, Taiwan, 2University of Nottingham, Nottingham, United Kingdom

1550. Long-Term Outcomes of Patients with Reversible Cerebral Vasocostriction Syndromes (RCVS). Seby John, Leonard H. Calabrese, Stuart Tepper, Mark Stillman, Ken Uchino and Rula Hajj-Ali, Cleveland Clinic Foundation, Cleveland, OH

1551. Primary Angiitis of the Central Nervous System: Description of the First 52 Adult Patients Enrolled in the French COVAC’ Cohort. Hubert de Boyssy1, Mathieu Zuber1, Olivier Naggara1, Jean-Philippe Neau1, Françoise Gray1, Marie-Germaine Bousser2, Isabelle Cossard3, Emmanuel Touze1, Pierre-Olivier Couraud1, Philippe Kerschen1, Catherine Oppenheim1, Olivier Detante1, Anthony Faire3, Nicolas Gaillard3, Caroline Arquizan3, Boris Bienvenu4,4 Antoine Neel15, Loic Guillemin1, Christian Pagnoux16 and French Vasculitis Study Group FVS1, 1Division of Internal Medicine, Hôpital Cochin, University Paris Descartes, Paris, France, 2Department of Neurology, Groupe Hospitalier Saint-Joseph, Université Paris Descartes, Paris, France, 3Department of Neuroradiology, Hôpital Sainte-Anne, Paris, France, 4Department of Neurology, Centre Hospitalier Universitaire La Milétrie, Poitiers, France, 5Department of Pathology, APHP Hôpital Lariboisière, Université Paris Diderot, Paris, France, 6Department of Neurology, APHP Hôpital Lariboisière, Université Paris Diderot, Paris, France, 7Department of Neurology, Hôpital Sainte-Anne, Université Paris Descartes, Paris, France, 8Department of Cellular Biology, Institut Cochin, Paris, France, 9Department of Neurology, Centre Hospitalier Universitaire Henri Mondor, Créteil, France, 10Department of Neurology, Centre Hospitalier Universitaire de Grenoble, Grenoble, France, 11Department of Neurology, Hôpital d’Instruction des Armées Saint-Anne, Toulon, France, 12Department of Neurology, Centre Hospitalier de Perpignan, Perpignan, France, 13Department of Neurology, Hôpital Gui de Chauliac, Université Montpellier, Montpellier, France, 14Division of Internal Medicine, Centre Hospitalier Régional Universitaire de Caen, Côte de Nacre, Caen, France, 15Department of Internal Medicine, Centre Hospitalier Universitaire de Nantes, Nantes, France, 16Mount Sinai Hospital, Toronto, ON, 17Paris, France


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1553. The Effect of Knee Replacement on Participation Outcomes: The Multicenter Osteoarthritis Study and Osteoarthritis Initiative. Jessica L. Maxwell1, Jingbo Niu2, Julie J. Keysor1, Tuhina Neogi2, Tianzhong Yang2, Michael C. Nevitt3, Jasvinder A. Singh4, Laura Frey-Law5 and David T. Felson1, 1Boston Univ Sargent College, Boston, MA, 2Boston Univ School of Medicine, Boston, MA, 3University of California-San Francisco, San Francisco, CA, 4University of Alabama at Birmingham, Birmingham, AL, 5University of Iowa, Iowa City, IA

1554. Clusters of Fatigue - a Comparison between Persons with Systemic Lupus Erythematosus and Age and Gender Matched Controls. Susanne Pettersson1, Karin Eriksson1, Carina Boström2, Elisabet Svennungsson1, Iva Gunnarsson3 and Elisabet MB Welin Henriksson4, 1Karolinska University
Rehabilitation Sciences

1579. Why Do We Need to Pilot Interventions? Essential Refinements Identified During Pilots of a Fatigue Intervention. Emma Dure1, Nicholas Ambler2, Debbie Fletcher3, Denise Pope4, Frances Robinson1, Royston Rooke5 and Sarah Hewlett1, 1University of the West of England, Bristol, United Kingdom, 2Frenchay Hospital, Bristol, United Kingdom, 3University Hospitals Bristol, United Kingdom, 4University of Bristol, Bristol, United Kingdom

1580. The Relationship between Perceived Cognitive Dysfunction and Objective Neuropsychological Performance in Persons with Rheumatoid Arthritis. So Young Shin, Patricia P. Katz and Laura J. Julian, University of California San Francisco, San Francisco, CA

1581. The Association between Symptoms, Pain Coping Strategies, and Physical Activity among People with Symptomatic Knee and Hip Osteoarthritis. Susan L. Murphy1, Anna Kratz2, David A. Williams1 and Michael E. Geisser1, 1University of Michigan, Ann Arbor, MI, 2Univ of MI Hlth System-Lobby M, Ann Arbor, MI

1582. Long Term Costs and Cost-Effectiveness of an Integrated Rehabilitation Programme for Chronic Knee Pain. Mike Hurley1 and Dr Nicola E. Walsh2, 1St George’s University of London, London, United Kingdom, 2University of the West of England Bristol, Bristol, United Kingdom

1583. Therapist and Patient Perspectives On Exercise Adherence: Are We On the Same Page? Jill R. Blitz1, Talitha Cox2 and Amber Richards3, 1Children’s Hospital Los Angeles, Los Angeles, CA, 2Children’s Hospital of Los Angeles, Los Angeles, CA, 3Children’s Hospital, Los Angeles California, Los Angeles, CA

1584. Validity of the Nurses Health Study II Physical Activity Questionnaire (NHSPAQ) in Estimating Physical Activity in Adults with Rheumatoid Arthritis (RA). Maura D. Iversen1, Thomas Quinn2 and Michelle A. Frits3, 1Northeastern University, Department of Physical Therapy, and Brigham & Women’s Hospital, Harvard Medical School, Boston, MA, 2Northeastern University, Boston, MA, 3Brigham and Women’s Hospital, Boston, MA

1585. Physical Activity and Timing of Discharge from Physical Therapy Following Total Knee Replacement. Carol A. Oatis1, Wenjun Li2, Milagros Rosal2, David Ayers1 and Patricia D. Franklin3, 1Arcadia University, Glenside, PA, 2University of Massachusetts Medical School, Worcester, MA

1586. Resistance Exercise Training for Fibromyalgia: A Systematic Review. Angela J. Busch1, Sandra Webber2, Rachel Richards3, Julia Bidonde1, Candice Schachter1, Laurel Schafer1, Adrienne Danylik2, Anuradha Sawant3, Vanina Dal Bello Haas4 and Tamara Rader1, 1University of Saskatchewan, Saskatoon, SK, 2North Vancouver, BC, 3Central Avenue University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT
1587. **Despite Low Disease Activity Patients with Poly- and Dermatomyositis Perceive Activity Limitation, Reduced Grip Force and Quality of Life Longitudinally.** Malin Regardt¹, Marie-Louise Schult², Ingrid E. Lundberg³ and Elisabet MB Welin Henriksson⁴, ¹Karolinska University Hospital, Karolinska Institutet, Stockholm, Sweden, ²Department of Clinical Sciences, Danderyd Hospital, Karolinska Institutet., Stockholm, Sweden, ³Karolinska Institutet, Stockholm, Sweden, ⁴Karolinska Institutet Rheum, Stockholm, Sweden

1588. **Relationship Over Time between Beliefs, Motivation, and Worries about Physical Activity and Physical Activity Participation in Persons with Knee Osteoarthritis.** Linda S. Ehrlich-Jones¹, Jungwha Lee¹, Dorothy D. Dunlop¹, Pamela A. Semanik¹, Min-Woong Sohn¹, Jing Song¹ and Rowland W. Chang¹, ¹Rehabilitation Institute Chicago, Chicago, IL, ²Northwestern University, Chicago, IL

1589. **Obesity and Rehabilitation Outcomes after Lower Extremity Arthroplasty.** Soham Al Snih, Amol Karmarkar, Timothy A. Reistetter, Jinhyoung Lee, Amit Kumar, James E. Graham and Kenneth J. Ottenbacher, University of Texas Medical Branch, Galveston, TX

1590. **Post-Operative Rehabilitation Provides Unmet Need for Better Patient Support and Advice Following Lumbar Spinal Fusion.** Michael V. Hurley¹, James Greenwood² and Dr Nicola E. Walsh³, ¹St George’s University of London, London, United Kingdom, ²University College Hospital London, London, United Kingdom, ³University of the West of England Bristol, Bristol, United Kingdom

1591. **Efficacy of Neoprene Wrist Supports for Patients with Rheumatoid Arthritis.** Kinue Matsuo¹, Koji Tateishi¹, Natsuko Nakagawa² and Yasushi Miura¹, ¹Kobe University Graduate School of Health Sciences, Kobe, Japan, ²Konan Kakogawa Hospital, Kakogawa, Japan

1592. **A Novel Approach to the Early Detection of Axial Spondyloarthritis in Patients with Inflammatory Bowel Disease: The Implementation of an Advanced Practice Physiotherapist Led Screening Program.** Laura A. Passalent¹, Rebecca Morton¹, Khalid A. Alnaqbi², Nigil Haroon¹, Stephen Wolman³, Mark Silverberg³, A. Hillary Steinhart¹ and Robert D. Inman³, ¹Allied Health, Toronto Western Hospital, Toronto, ON, ²Toronto Western Hospital, Toronto, ON, ³Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON, ⁴Toronto General Hospital, Toronto, ON, ⁵Zane Cohen Centre for Digestive Diseases, Mount Sinai Hospital, Toronto, ON
### TUESDAY, NOVEMBER 13, 2012

**Poster Hall (Hall B)**

**Antiphospholipid Syndrome**

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<td>Cecilia B. Chighizola, Guilherme Ramires de Jesus, Laura Il, Sapporo, Japan, Hokkaido University, Laboratory of Biomolecular Science, Sapporo, Japan, Kyusyu University, Division of proteomics, Multi-scale Research Center for Prevention of Medical Science, Fukuoka, Japan, Hokkaido University, Biochemistry, Sapporo, Japan</td>
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ACR POSTER SESSION C

andreoli2, Alessandra Banzato3, Guillermo J. Pons-Estel3, Michael D. Lockshin4, Doruk Erkan5 and On Behalf of APS Action1, 1Istituto Auxologico Italiano, University of Milan, Milan, Italy, 2Department of Obstetrics, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil, 3Rheumatology Unit, University of Brescia, Brescia, Italy, 2, 4Department of Cardiac Thoracic and Vascular Sciences, University of Padua, Padua Italy, Padua, Italy, 4(4) Department of Autoimmune Diseases, Institut Clin de Medicina i Dermatologia, Hospital Clinic, Barcelona, Spain, 5Hospital for Special Surgery, New York, NY, 7.

1737. Diffuse Alveolar Hemorrhage Caused by Primary Antiphospholipid Syndrome. Rodrigo Cartín-Ceba, Tobias Peikert, Karina Keogh, Steven R. Ytterberg, Aneel Ashrani and Ulrich Specks, Mayo Clinic, Rochester, MN

1738. Myocardial Dysfunction and Valvulopathy Worsens with Time in Patients with Antiphospholipid Syndrome: A 10-Year Follow-up Study. MG Tektonidou1, CF Kampolis1, I. Moysakakis1, GE Tzelepi1, Haralampos M. Moutsopoulos1 and P. Vlachoyiannopoulos1, 1University of Athens Medical School, Laiko Hospital, Athens, Greece, 1Laiko Hospital, Athens, Greece

1739. Primary and Secondary Antiphospholipid Syndrome in Childhood. Senq-i Lee, Leonardo Brandao, Earl D. Silverman, Mahendra Moharir, Julie Barsalou and Deborah M. Levy, The Hospital for Sick Children, Toronto, ON

1740. Impairment of Quality of Life in Patients with Antiphospholipid Syndrome. Stéphane Zuliy1, Francis Guillemin1, Veronique Regnault2, Pierre Kaminsky1, Patrick Mismetti1, Jacques Ninet1, Nicolas Baillet2, Nadine Magy-Bertrand2, Bernard Lorcerie3, Jean-Louis Pasquali10, Thomas Lecompte11, Anne-Christine Rat12 and Denis Wahl13, 1Vascular Medicine Unit and Regional Competence Center For Rare Vascular and Systemic Autoimmune Diseases, Vandoeuvre-Les-Nancy, France, 2INSERM, Centre d’Investigation Clinique - Épidémiologie Clinique (CIC-EC) CIE5, Nancy, France, 3INSERM U961, Université de Lorraine, Nancy, France, 4Orphan disease Unit, Nancy, France, 5CHU Saint-Etienne, Unité de Pharmacologie Clinique, Groupe de Recherche sur la Thrombose (EA 3065), Saint Etienne, France, 6Department of Nephrology and Internal Medicine, Hôpital Edouard Herriot, Lyon, France, Lyon, France, 7Hôpitaux civils de Colmar, Service de Médecine interne, Colmar, France, 8CHU Jean-Minjoz, Service de médecine interne et immunologie clinique, Besançon, France, 9Hôpital Du Bocage, Service de Médecine Interne et Immunologie Clinique, Dijon, France, 10Hôpitaux Universitaires de Strasbourg, Hôpital civil, Service de médecine interne et immunologie clinique, Strasbourg, France, 11Hôpitaux Universitaires de Genève, Département d’hématologie, Genève, France, 12Université de Lorraine, INSERM, CIC-EC CIE5, Rheumatology, Epidemiology, Nancy, France, 13Nancy University Hospital and INSERM U961, Vascular medicine division and Regional Competence Center For Rare Vascular and Systemic Autoimmune Diseases, Nancy, France

B-cell Biology and Targets in Autoimmune Disease

1741. Suppression of Glomerulonephritis in NZB/W F1 Mice by a Selective Inhibitor of Bruton’s Tyrosine Kinase (RN486). Paola Minas-Orsio, Jacob LaStant, Natalie Keirstead, Toni Whittard, Stella Stefanova, Alka Patel, Jennifer Postelnek, John Woods, Soo Min, Yong Kim, Julie Demartino, Satwant Narula and Daigen Xu, Hoffmann-La Roche, Nutley, NJ

1742. A Novel Murine Model of B Cell-Mediated Proteinuria Suggests Cytokines Mediate Podocyte Injury. Alfred H. Kim1 and andrey S. Shaw2, 1Washington Univ School of Med, St. Louis, MO, 2Washington University School of Medicine, Saint Louis, MO

1743. IL-5-Induced Fasl+ Regulatory B Cells Are Inhibited by IL-4 and Cyclosporine. Matthew W. Klinker1, Brian R. Alzu1, Tamra J. Reed1, David A. Fox2 and Steven K. Lundy1, 1University of Michigan, Ann Arbor, MI, 2Univ of Michigan Med Ctr, Ann Arbor, MI

1744. Regulatory B Cells Supress the Progression of Fatal Autoimmunity in Lupus-Prone Mice. Yuri Baglaenko1, Nan-Hua Chang1, Evelyn Pau2 and Joan E. Wither1, 1Toronto Western Research Institute, University Health Network, Toronto, ON, 2Toronto Western Hospital, University Health Network, Toronto, ON

1745. Amelioration of Experimental Autoimmune Arthritis by Adoptive Transfer of Foxp3-Expressing Regulatory B Cells Is Associated with the Regulatory T Cell/T helper 17 cell Balance. Young Ok Jung1, Yu Jung Heo1, Mi Kyung Park1, Mi-La Cho1, Seung Ki Kwok1, Ji Hyeon Ju1, Kyung Su PARK1, Sung Hwan PARK1, Ho Youn Kim2 and Jun-Ki Min3, 1Seoul, South Korea, 2Catholic University, Seoul, South Korea, 3The Catholic University of Korea, Seoul, South Korea, 4Catholic University of Korea, Seoul, South Korea, 5The Catholic University, Seoul, South Korea, 6Division of Rheumatology, Department of Internal Medicine, School of Medicine, The Catholic University of Korea, Seoul, South Korea

1746. Semaphorin 3A Increases the Regulatory Characteristics of B-Regulatory Cells. Zahava Vadasz1, Aharon Kessel1 and Elias Toubi1, 1Bnai-Zion Medical Center, Haifa, Israel, 2Bnai-Zion Medical Center, Israel


1748. Antibody Secretion Cells Arising After Vaccination of Lupus Patients May Produce High Affinity Autoantibodies. Kenneth Smith1, Jennifer Muther1, Angie Duke1, Emily Mckee1, Alina Lorant2, Patrick C. Wilson2 and Judith A. James1, 1Oklahoma Medical Research Foundation, Oklahoma City, OK, 2University of Chicago, Chicago, IL, 3Oklahoma Medical Research Foundation and Oklahoma University Health Sciences Center, Oklahoma City, OK
1749. Targeting of CD22 by Epratuzumab Potentially Raises the Threshold of B Cell Receptor Activation. N. Sieger1, S.J. Fleischer1, K. Reiter1, H.E. Mei1, A. Shock2, G. Burmester1, C. Daridon1 and T. Dorner1, 1Charité University Medicine Berlin, Berlin, Germany, 2UCB Pharma, Slough, United Kingdom
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1750. Phosphoprotein Changes Induced with Epratuzumab, an Antibody Targeting CD22 On B Cells. S. Lumb1, N. Torbett2, I. Vandrell3, H. Turner2, M. Page1, P. Hales1, A. Maloney1, B. Vanhaesebroeck4, P. Cutillas5 and A. Shock1, 1UCB Pharma, Slough, United Kingdom, 2Actiomics Ltd., London, United Kingdom

1751. Effect of Repeated Infusions of Rituximab in Patients with Primary Sjögren’s Syndrome. Cristina Perez-Ferro, Sheila Recueru, Fredeswinda I. Romero, Cristina Serrano, Maria J. Rodriguez-Nieto, Julio Gomez-Seco, Teresa Presa, Javier R. Godo, Gabriel Herrera-Beaumont and Olga Sanchez-Pernaute, Jimenez Diaz Foundation University Hospital, Madrid, Spain

1752. Depletion of CD4-Effecter Memory T Cells and Clonally Expanded IgG4 Memory B Cells May Explain the Therapeutic Efficacy of Rituximab in IgG4-Related Disease: Studies Using Flow Cytometry and Single-Cell Sequencing. Hamid Mattoo1, Arezou Khosrosahi1, Vinay Mahajan1, Mollie Carruthers2, John Stone1 and Shiv Pillai3, 1Massachusetts General Hospital, Harvard Medical School, Boston, MA, 2Massachusetts General Hospital, Boston, MA

1753. A Rheumatoid Factor Paradox: Inhibition of Rituximab-Induced Complement Dependent Cytotoxicity of B Cells. Jonathan D. Jones1, Irene Shyu1, Marianna M. Newkirk2 and William F. C. Rigby2, 1Dartmouth-Hitchcock Med Ctr, Lebanon, NH, 2McGill University Health Centre, Montreal, QC

1754. Disruption of Dominant B-Cell and Plasma Cell Clones in Rheumatoid Arthritis Synovium by Rituximab Correlates with Treatment Response. Marieke E. Doorenspleet1, Paul L. Klarenbeek1, Maartje J. Boumans1, Rogier M. Thurlings1, Rebecca E. Esvedt2, Barbera D. van Schaik1, Antoine H. van Kampen1, Danielle M. Gerlag1, Frank Baas1, Paul-Peter Tak1, Robert M. Plegen1 and Niek de Vries1, 1Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 2Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 3Brigham and Women’s Hospital, Boston, MA

1755. The Alternative ΔCD20 Transcript Variant Is Not Expressed in B Cells and Synovial Tissue from Patients with Rheumatoid Arthritis. Clémentine Gamonet1, Marina Deschamps1, Béatrice Gaugler1, Philippe Saas1, Isabelle Auger1, Christophe Ferrand1, Eric Toussirot1 and CIC BT5061, 1INSERM UMR1098/ Etablissement Français du Sang / Université de Franche Comté, Besançon, 2INSERM UMR1098 / Etablissement Français du Sang / Université de Franche Comté, Besançon, France, 3INSERM UMR1098 / Plateforme de Biomonitoring, Besançon, France, 4INSERM UMR1098, Marseille, France, 5INSERM UMR1098 Etablissement Français du Sang / Université de Franche Comté, Besançon, France, 6CIC Biotheraphy 50° and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 7Clinical Investigation Center Biotherapy 50°, Besançon, France

1756. Peripheral Blood B Cell Subsets and BAFF/APRIL Receptor Expression, Together with Circulating BAFF and APRIL Levels, Are Disturbed in Rheumatoid Arthritis but Not in Ankylosing Spondylitis. Béatrice Gaugler1, Caroline Laheurte2, Ewa Bertolini3, Daniel Wendling4, Philippe Saas5, Eric Toussirot6 and CIC BT5067, 1INSERM UMR1098 / Etablissement Français du Sang / Université de Franche Comté, Besançon, France, 2INSERM UMR1098 / Plateforme Biomonitoring, Besançon, France, 3Rheumatology, Besançon, France, 4Minjoz University Hospital, Besancon, France, 5INSERM UMR1098 / Plateforme de Biomonitoring, Besançon, France, 6CIC Biotheraphy 50° and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 7Clinical Investigation Center Biotherapy, Besançon, France

1757. B Cell Activating Factor Receptor Expression After Rituximab: Comparison of Patients with Rheumatoid Arthritis and Thrombotic Thrombocytopenic Purpura. Elena Becerra1, Maria J. Leandro1, Edward O. Heelas1, John P. Westwood1, Inmaculada de la Torre1, Marie A. Scully1 and Geraldine Cambridge1, 1Rheumatology, University College London, London, United Kingdom, 2Hematology, University College London, London, United Kingdom, 3Rheumatology, Gregorio Marañon Hospital, Madrid, Spain

1758. Serum BAFF Levels and Relationship with BAFF Binding Receptors in Patients with Rheumatoid Arthritis Relapsing after B Cell Depletion Therapy. Elena Becerra2, Inmaculada de la Torre2, Maria J. Leandro1 and Geraldine Cambridge2, 1University College London, London, United Kingdom, 2Gregorio Marañon Hospital, Madrid, Spain

1759. Expression of Surface APRIL and Its Receptor, TACI, Is Upregulated On B Cells From Systemic Lupus Erythematosus and Rheumatoid Arthritis Patients. Abby Jones Weldon1, Sheri Hsu2, Seyed K. Nazeri3, Saru Sachdeva2, Jennifer Gonzalez1, Andrea D. Parra1, Abigail Benitez1, Keith K. Colburn4, Ioana Moldovan4 and Kimberly J. Payne1, 1Loma Linda University, Loma Linda, CA, 2Loma Linda University Medical Center, Loma Linda, CA, 3Loma Linda University Medical Center, Loma Linda, CA, 4INSERM UMR1098 Etablissement Français du Sang / Université de Franche Comté, Besançon, France, 5INSERM UMR1098 Etablissement Français du Sang / Université de Franche Comté, Besançon, France, 6CIC Biotheraphy 50° and Rheumatology and EA 4266 Pathogens and Inflammation, Besançon, France, 7Clinical Investigation Center Biotherapy 50°, Besançon, France

1760. A Gene Expression Signature to Monitor Depletion of Plasma Cells Following MEDI-551 (anti-CD19) Administration. Katie Streicher, Chris Morehouse, Christopher Groves, Bhargavi Rajan, Fernanda Pilataxi, Kim Lehmann, Philip Brohawn, Kathleen Mckeever, Volker Knappertz, Ronald Herbst, Yihong Yao and Koustubbh Ranade, MedImmune, LLC, Gaithersburg, MD
1761. Suppression of Rheumatoid Arthritis B Cells by XmAb5871, an Anti-CD19 Monoclonal Antibody That Co-Engages the B Cell Antigen Receptor and the FcyRiB Inhibitory Receptor. Seung Y. Chu1, Karen Yeter2, Roshan Kotha3, Erik Pong3, Yvonne Miranda4, Hsing Chen1, Sung-Hyung Lee5, Irene Leung1, John R. Desjarlais1, William Stohl1 and David E. Szymbkowski1, 1Xencor, Inc., Monrovia, CA, 2University of Southern California Keck School of Medicine, Los Angeles, CA

1762. IL-6 Receptor Inhibition by Tocilizumab Modulates Double Negative (CD19+IgD-CD27-) B Cells in RA. Zafar Mahmood1, Khalid Muhammad1, Petra Roll1, Stefan Kleinert1, Thomas Dörner2 and Hans Peter Tony3, 1University of Würzburg, Würzburg, Germany, 2Charite Universitätsmedizin Berlin and DRFZ, Berlin, Germany

1763. The Role of SYK in Human B CELL Activation and Its Relevance to Autoimmune Diseases. Shigeru Iwata1, Kunihiro Yamaoka3, Hiroaki Niiro5, Kazuhasi Nakano2, Sheau-Pey Wang1, Koichi Akashi1 and Yoshiya Tanaka1, 1University of Occupational and Environmental Health, Kitakyushu, Japan, 2Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan, 3Fukuoka, Japan

1764. B Cells in Early Rheumatoid Arthritis: ZAP-70 More Than SYK Characterize Seropositive Disease. Anna Laura Fedele, Barbara Tolusso, Elisa Gremese, Silvia Laura Bosello, Angela Carbonella, Silvia Canestri and Gianfranco Ferraccioli, Division of Rheumatology, Institute of Rheumatology and Affine Sciences, Catholic University of the Sacred Heart, Rome, Italy

1765. Rheumatoid Arthritis Is Associated with Signaling Alterations in Naturally Occurring Autoreactive B-Lymphocytes. Taras Lyubchenko, Ganna Lyubchenko, Holly C. Appleberry, Christopher C. Striebich, Karen E. Franklin, Leslie A. Derber and V. Michael Holers, University of Colorado Denver, Aurora, CO

1766. Synovial Gene Expression and Response to Rituximab: Preliminary Data. Yasser El-Sherbiny1, Sarah Churchman1, Frederique Ponchel1, Paul Emery2 and Edward M. Vital1, 1NIHR Leeds Biomedical Research Unit, University of Leeds and Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, 2University of Leeds, Leeds, United Kingdom

1767. Circulating Plasmablasts as a Source of Anti-Citrullinated Protein Antibodies in Patients with Rheumatoid Arthritis. Priscilla Kerkman, Ellen I.H. van der Voort, Leendert A. Trouw1, Tom W.J. Huizinga, René E.M. Toes and Leendert A. Trouw, Leiden University Medical Center, Leiden, Netherlands

1768. The Absolute Concentration of Anti Citrullinated Protein Antibodies in Serum and Synovial Fluid in Relation to Total Immunoglobulin-Concentrations. Annemie Willemez, Jing Shi, Marlies Mulder, Gerrie Stoeken-Rijsbergen, Tom W. J. Huizinga, René E. M. Toes and Leendert A. Trouw, Leiden University Medical Center, Leiden, Netherlands

1769. Affinity Purification and Characterisation of Anti-CCP Antibodies from Plasma and Synovial Fluids of Patients with Rheumatoid Arthritis. Elena Ossipova1, Catia Cerqueira2, Evan Reed1, Nastya Khramkova1, Lena Israelsson1, Rikard Holmdahl2, Anca Irinel Catrina1, Vivianne Malmström1, Yngve Sommarin1, Lars Klarekog1, Per Johan Jakobsson1 and Karin Lundberg1, 1Rheumatology Unit, Department of Medicine, Karolinska Institutet, Stockholm, Sweden, 2Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden, 3Rheumatology unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 4Euro-Diagnostica AB, Malmö, Sweden

1770. Recognition of Citrullinated and Carbamylated Proteins by Human Antibodies: Specificity, Cross-Reactivity and the “AMC-Senshu” Method. Jing Shi1, George Janssen1, Peter van Veelen1, Janwouter Drijfhout1, Antony Cerami1, Tom Huizinga2, Leendert A. Trouw3 and René E.M. Toes1, 1LUMC, Leiden, Netherlands, 2Leiden University Medical Center, Leiden, Netherlands, 3Leiden University Medical Centre, Leiden, Netherlands, 4Euro-Diagnostica AB, Malmö, Sweden

1771. Anti Carbamylated Protein Antibodies (Anti-CarP) Are Present in Arthralgia Patients and Predict the Development of Rheumatoid Arthritis. Jing Shi1, Lotte van de Stadt1, Nivine Levarht1, T.W.J. Huizinga2, R. E. M. Toes3, Leendert A. Trouw4 and Dirkjan van Schaardenburg2, 1LUMC, Leiden, Netherlands, 2Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands, 3Leiden University Medical Center, Leiden, Netherlands, 4Leiden University Medical Centre, Leiden, Netherlands

1772. Expansion of Autoreactive Unresponsive CD21-/Low B Cells in Sjögren’s Syndrome Associated Lymphoproliferation. David Saadoun1, Benjamin Terrier Sr.2, J. Bannock Sr.2, T. Vazquez Sr.2, C. Massad Sr.3, Florence Joly Sr.3, Michelle Rosenzwajg Sr.3, Damien Sene Sr.3, Philippe Benech Sr.3, David Klatzmann Sr.8, 1Department of Internal Medicine and Laboratory I3 “Immunology, Immunopathology, Immunotherapy”, UMR CNRS 7213, INSERM U959, Groupe Hospitalier Pitié-Salpêtrière, Université Pierre et Marie Curie, Paris 7, Paris, France, Paris, France, 3Cochin Hospital, Paris, France, 4Yale University School of Medicine, New Haven, CT, 5CNRS UMR 7213 and INSERM U959, Paris, France, 6Groupe Hospitalier Pitié-Salpêtrière, Université Pierre et Marie Curie, Paris 7, Paris, France, 7Groupe Hospitalier Pitié-Salpêtrière, Université Pierre et Marie Curie, Paris 7, Paris, France, 8CHU Pitié-Salpêtrière, Université Pierre et Marie Curie, Paris, France

1773. Hyper gammaglobulinemia in Primary Sjögren’s Syndrome Is Induced by Triggering of TLR7 and 9. Susanna Brauner1, Marika Kvarnstrom1, Gunnar Nordmark2 and Marie Wahren-Herlenius1, 1Karolinska Institutet, Stockholm, Sweden, 2Rheumatology, Uppsala, Sweden
1774. Identification of Target Antigens of Anti-Endothelial Cell Antibodies in Patients with ANCA-Associated Systemic Vasculitis: A Proteomic Approach. Alexis Régent1, Hanadi Dib2, Guillaume Bussone3, Mathieu C. Tamby4, Nicolas Tamas5, Christian Federici6, Cédric Broussard7, Loïc Guillevin8 and Luc Mouthon Sr.9, 1Hôpital Cochin, Paris, France, 2Université Paris Descartes, Paris, France, 3INSERM U1016, Institut Cochin, CNRS UMR 8104, Paris, France, 4Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP—HP, Université Paris Descartes, Paris, France, Paris, France

Cell-cell Adhesion, Cell Trafficking and Angiogenesis

1775. The Phosphoinositide 3-Kinase Pathway Regulates Fibroblast-Like Synoviocyte Invasion. Beatrix Bartok1, Deepa Hammaker2 and Gary S. Firestein3, 1UCSD, La Jolla, CA, 2Univ of California San Diego, La Jolla, CA, 3UCSD School of Medicine, La Jolla CA

1776. Anti-SSA/Ro Mediated Injury to the Endothelium via Urokinase Plasminogen Activator Receptor/Tgfbeta Activation: Implications in the Pathogenesis of Congenital Heart Block. Paraskevi Briasoulí1, Mark Halushka2, Jill P. Buyon3 and Robert M. Clancy4, 1NYU School of Medicine, New York, NY, 2John Hopkins Pathology, Baltimore, MD, 3NYU School of Medicine, New York, NY, 4New York University School of Medicine, New York, NY

1777. The Bioenergetic Role of HIF-1 and HIF-2 during Angiogenesis of Human Microvascular Endothelial Cells. Martin Hahne1, Cindy Sterhl1, Manuela Jakstadt1, Paula Hoff1, Timo Gaber1, Gerd R. Burmester1 and Frank Buttgereit2, 1Charité University Medicine, Berlin, Germany, 2Charité University Med-Berlin, Berlin, Germany

1778. Adenosine A2A Receptor (A2AR) Activation Stimulates Increased Expression of Collagen-1 and Collagen-3 by Different Signaling Pathways in Normal Human Dermal Fibroblasts. Miguel Perez Aso1 and Bruce N. Cronstein2, 1NYU Univ Medical Center, New York, NY, 2Institut Cochin, CNRS UMR5535, Montpellier, Montpellier, France, 3Hopital Lapeyronie, Montpellier, France

1779. The Loss of Syndecan-4 Aggravates Inflammatory Colitis in Mice. Athanasios Stratis1, Dominik Bettenworth2, Mareike Fröhling3, Peter Paruzel1, Adelheid Korb-Pap1, Corinna Wehmeyer1, Bernd Dankbar1, Frank Echtermeyer2, Andreas Lügering3 and Thomas Pap4, 1University Hospital Muenster, Muenster, Germany, 2University Hospital Hannover, Hanover, Germany

1780. Association between Chondrocyte Hypertrophy and Angiogenesis of Cartilage in Osteoarthritis. Laurence Pesesse1, Christelle Sanchez2, Jean-Pierre Delcour3, Caroline Baudouin4, Philippe Miska5 and Yves Henrotin6, 1University of Liège, Liège, Belgium, 2Bone and Cartilage Research Unit, Liege, Belgium, 3Centre hospitalier du Bois de l’Abbaye, Seraing, Belgium, 4Laboratoires Expanscience, Epernon, France, 5Univ of Liege/Pathology Inst, Liege, Belgium

1781. Functional Analysis of the Primary Cilium in Rheumatoid Arthritis Synovial Fibroblasts. Kerstin Klein1, Beat A. Michel2, Alexander Vogtsteder2, Renate Gay3, Steffen Gay4 and Caroline Ospelet5, 1Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Zurich, Switzerland, 2Department of Pathology, University Hospital Zurich, Zurich, Switzerland

Cytokines, Mediators, and Gene Regulation

1782. Dual Effects of Soluble Fasl and Membrane Bound FasL On Fibroblast-Like Synoviocytes Cells (FLS) From Rheumatoid Arthritis (RA) Patients. Rachel Audo1, Flavia Calmon-Hamay1, Bernard Combe2, Michael Haehne3 and Jacques Morel4, 1IGMM, CNRS UMR5535, Montpellier, Montpellier, France, 2Hopital Lapeyronie, Montpellier, France

1783. TNFα Influences RasGRP1 and RasGRP3 Expression Levels in PBMC, B and T Cells. Marie-Laure Potier1, Martine Hiron1, Clément Guillou1, Céline Derambure1, Olivier Boyer1, Xavier Le Loët1, Olivier Vittecoq2 and Thierry Lequerre3, 1Inserm 905 & Institute for Biomedical Research, University of Rouen, Rouen, France, 2Inserm 905, Institute for Biomedical research, University of Rouen, Rouen, France, 3Department of Rheumatology, Rouen University Hospital & Inserm 905, Institute for Biomedical Research, University of Rouen, Rouen Cedex, France

1784. Dual Function of Interleukin-33 in Fibroblast-Like Synoviocytes in Patients with Rheumatoid Arthritis. Min W. So1, Bon S. Koo1, You J. Kim1, You-G Kim1, Wook J. Seo2, Chang-K Lee1 and Bin Yoo1, 1University of Ulsan College of Medicine, Asan Medical Center, Seoul, South Korea, 2Seoul Veterans Hospital, Seoul, South Korea

1785. MIR-30a Family Negatively Regulates B-Cell Activating Factor (BAFF) Synthesis in Rheumatoid Synoviocytes. Ghada Alsaleh1, Antoine Francois2, Luca Pope1, Jean Sibilia1, Jacques-Eric Gottenberg1, Philippe George3 and Dominique Wachsmann3, 1EA4438 Laboratoire Physiopathologie des Arthrites, Illkirch-Strasbourg, France, 2Laboratoire d’Immunogénétique Moléculaire Humaine, Strasbourg, France

1786. Targeting CD1c-Expressing mDCs to Inhibit Increased Thymus and Activation Regulated Chemokine Levels in RA. M.R. Hillen1, F.M. Moret2, P.J.G. Lafeber3, C.E. Hack4, T.R.D.J. Radstake1 and J.A.G. van Roon1, University Medical Center Utrecht, Utrecht, Netherlands

1787. Evolution of the Cytokine and Chemokine Profile in Patients Receiving Oral Daily Vitamin D: Results from a Randomized Controlled Trial. Benjamin Terrier Sr.1, Marlène Garrido2 and Patrice Cacoub Sr.3, 1Iochin Hospital, Paris, France, 2Pitié-Salpêtrière, Paris, France, 3CHU Pitié-Salpêtrière, Paris, France

1788. TSLP Induces TNFα Production by CD1c Myeloid Dendritic Cells and Myeloid DC-Activated T Cells From Rheumatoid Arthritis Patients. F.M. Moret1, T.R.D.J. Radstake, J.W.J.
1796. Anti-IL-20 Targets Local Tissue Inflammation As Opposed to Systemic Inflammation. Amanda L. Blasius1, Joshua N. Beilke1, Hal Blumberg1, John Bui1, Jennifer H. Cox1, Tom Cox1, Heidi J. Jessup1, Phillip L. Kong1, Steven D. Levin1, Valerie H. Odegard1, Jason A. Stucky1, Evan P. Thomas1, Joseph A. Wahle1 and John Rømer2, 1Novo Nordisk Inflammation Research Center, Seattle, WA, 2Novo Nordisk, Malmö, Denmark

1797. Wnt Signaling Pathway Status, Determined by Serum Dkk-1 and R-Spondin 1 Levels, in Rheumatoid Arthritis and Ankylosing Spondylitis. Byoong Yong Choi1, Hyon Joung Cho1, Eun Ha Kang1, Yeong Wook Song2 and Yun Jong Lee3, 1Seoul National University Bundang Hospital, Seongnam-si, South Korea, 2Seoul National University Hospital, Seoul, South Korea

1798. Macrophage Migration Inhibitory Factor Regulates Dual-Specificity Phosphatases Via Glucocorticoid Induced Leucine Zipper. Huapeng Fan, Devi Ngo, Ran Gu and Eric Morand, Monash University, Melbourne, Australia

1799. ONO-4059 - A Novel Small Molecule Bruton's Tyrosine Kinase (Btk) Inhibitor, Suppresses Osteoclast Differentiation and Activation. Yuko Ariza, Toshio Yoshizawa, Yoshiko Ueda, Masami Narita and Kazuhiyo Kawabata, Ono Pharmaceutical Co., Ltd., Osaka, Japan

1800. Macrophages in Hypoxic Rheumatoid Joints Preferentially Express Hypoxia Inducible Transcription Factor-2. Sarah Aynsley1, Ursula Fearon2, Anthony G. Wilson3 and Munitta Muthana1, 1University of Sheffield, Sheffield, United Kingdom, 2Translation Research Group, Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, 3Section of Musculoskeletal Sciences, University of Sheffield, Sheffield, United Kingdom, 4University of Sheffield, Sheffield, United Kingdom

1801. Biological Roles of C5orf30 in Rheumatoid Arthritis. Munitta Muthana1, Sachin Khetan2, Gbadebo Adeleke Adeleke1, Simon Tazzyman1, Sarah Aynsley1, Fiona Morrow1, Sarah Hawthree1, Barbara Ciani2 and Anthony G. Wilson1, 1University of Sheffield, Sheffield, United Kingdom, 2Dr. Sheffield, United Kingdom, 3Section of Musculoskeletal Sciences, University of Sheffield, Sheffield, United Kingdom

1802. Interleukin-29 Modulates Proinflammatory Cytokine Production in Synovial Inflammation of Rheumatoid Arthritis. Miaojia Zhang, Fang Wang, Lingxiao Xu and Wenfeng Tan, the First Affiliated Hospital of Nanjing Medical University, Nanjing, CHINA., Nanjing, China

1803. Chemokine-Like Receptor 1 (CMKLR1), a G Protein Coupled Receptor Expressed On Proinflammatory Monocytes in...
Arthritis, Is Negatively Regulated by GRK3. D. Stephen Serafin, Roman Timoshchenko, Marcus W. McGinnis and Teresa K. Tarrant, Thurston Arthritis Research Center, Chapel Hill, NC, University of North Carolina at Chapel Hill, Chapel Hill, NC, University of North Carolina Sch of Med, Chapel Hill, NC, UNCSchool of Medicine, Chapel Hill, NC

1804. TNF-Like Protein 1A/Death Receptor 3 Pathway Regulates Osteoclastogenesis and Is Associated with Erosive Disease in Rheumatoid Arthritis. Fraser L. Collins, Michael D. Stone, Rhiann Goodfellow, Ernest Choy, Edward C. Wang and Anwen S. Williams, Cardiff University, Institute of Infection and Immunity, Cardiff, United Kingdom, University of North Carolina Sch of Med, Chapel Hill, NC, UNCSchool of Medicine, Chapel Hill, NC

1805. The Pro-Fibrotic Cytokines IL-33 and IL-13 Modulates Dermal Fibrosis Via the A2A Adenosine Receptor. Ross C. Radusky, Jessica L. Feig, Bruce N. Cronstein, Andrew G. Franks and Edwin SL Chan, New York University School of Medicine, New York, NY, New York Univ Sch of Medicine, New York, NY, NYU School of Medicine, Division of Rheumatology, New York, NY, New York University, New York, NY

1806. A Novel Angiopoetin2/TEK Tyrosine Kinase Receptor Mediated Effect on Leukocyte Cell Influx and Oxidative Damage in Inflammatory Arthritis. Emese Balogh, Chin T. Ng, Douglas J. Veale, Ursula Fearon and Monika Biniecka, Translation Research Group, Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

1807. WITHDRAWN.

1808. Immune Activating Effects of Co-Stimulation of TLR Agonists and Cytokines on Primary and Immortalized Keratinocytes From a Patient with a CARD14 Mediated Pustular Psoriasis (CAMPS) and Healthy Controls. Yongqing Chen, Yin Liu, Yan Huang, Carole Yee, Alison MacBridge, Anne Bowcock, Michelle Lowes and Raphaela T. Goldbach-Mansky, Translational Autoinflammatory Disease Section, Office of the Clinical Director NIAMS, Bethesda, MD, NIAMS, Bethesda, MD, NCi, NIH, Bethesda, MD, NIAID, NIH, Bethesda, MD, Washington University, St. Louis, MO, Laboratory for Investigative Dermatology, The Rockefeller University, New York, NY, Translational Autoinflammatory Diseases Section NIAMS NIH, Bethesda, MD


1811. On the Origin of the Type I Interferon Signature in Rheumatoid Arthritis. T.D. de Jong, Saskia Vosslamber, Maija-Leena Eloranta, Lars Rönntblom, Kyra Gelderman, Mary von Blomberg, Irene Bultink, Alexandre Voskuyl and Cornelis L. Verweij, VU University Medical Center, Amsterdam, Netherlands, Section of Rheumatology, Uppsala University, Uppsala, Sweden

Epidemiology and Health Services Research: Rheumatic Disease Pharmacoepidemiology

1812. A Retrospective Evaluation of the Clinical and Economic Implications of Gout in Nursing Home Residents in Hawaii Treated with Allopurinol. Joy Higa, Gregory Reardon and Gregory Tong, Long Term Care Research Center, Kaneohe, HI, Informagensics, LLC, Worthington, OH, Deerfield, IL

1813. Accuracy of Veterans Affairs Database for Gout-Related Health Care Utilization. Jasvinder A. Singh, University of Alabama at Birmingham, Birmingham, AL

1814. Comparing Clinical Characteristics and Comorbidities of Gout Patients Treated with Allopurinol or Febuxostat. Michael A. Becker, Xiangyang Ye, Kasem S. Akhras, Rima H. Tawk, Sudhir Unni, Jason Young and Carl V. Asche, University of Chicago, Chicago, IL, University of Utah College of Pharmacy, Salt Lake City, UT, Takeda Pharmaceuticals International, Inc., Deerfield, IL, University of Illinois at Chicago, Chicago, IL, University of Illinois College of Medicine at Peoria, Peoria, IL

1815. Factors Associated with a Prolonged Hospital Length of Stay for Patients with Acute Gout. Rebecca Sharim, Meghan Musselman and Marissa Blumi, Temple University Hospital, Philadelphia, PA, Temple University School of Medicine, Philadelphia, PA

1816. Relationship Between Race, Uric Acid Levels, Urate-Lowering Therapy and Resource Use in Patients with Gout. Kim Coley, Melissa Saul and Karen Pater, University of Pittsburgh, Pittsburgh, PA

1817. The Role of Repeating Tuberculin Skin Tests During Biologic Therapy. Joseph R. Lutt and Kevin L. Winthrop, Colorado Center for Arthritis & Osteoporosis, Boulder, CO, Oregon Health & Science University, Portland, OR

1818. Latent Tuberculosis Detection and Tuberculosis Reactivation in Patients Receiving Anti-TNFα Drugs: A Nationwide Italian Survey. Fabrizio Cantini, Ennio Lubrano, Alessandro Mathieu, Antonio Marchesoni, Carlo Salvarani, Raffaele Scarpa and Antonio Spadaro, Ospedale Misericordia e Dolce di Prato, Prato, Italy, Università del
1819. Predictors of Pneumococcal Vaccination in Patients with Rheumatoid Arthritis and Systemic Lupus Erythematosus. Anna Gramling1, Kaleb Michaud2, Harlan Sayles1, Frederick Wolfe3 and Micheline Heath-Holmes4, 1University of Nebraska Medical Center, Omaha, NE, 2National Data Bank for Rheumatic Diseases & University of Nebraska Medical Center, Omaha, NE, 3University of Nebraska Medical School, Omaha, NE, 4National Data Bank for Rheumatic Diseases, Wichita, KS, 5Univ. of Nebraska Medical Center, Omaha, NE

1820. Human Papillomavirus Vaccine [Types 6, 11, 16, 18] (Gardasil®) and Autoimmune Disorders: Safety Assessment Using the Pharmacoepidemiologic General Research Extension System. Lamia Grimaldi-Bensouda1, Michel Rossignol2, Elodie Aubrun1, Pamela Leighton1, Didier Guilmot1, Alfred Mahr2, Jacques Benichou3, Paul-Henri Lambert4, Bertrand Godeau5 and Lucien Abenhaim6, 1LA-SER, Paris, France, 2LA-SER, Centre for Risk Research, Montreal, 3LA-SER Europe Ltd., London, United Kingdom, 4Institut Pasteur (PhEMI)/ INSERM U657 & Université Paris-Ile de France Ouest, Paris, France, 3Hospital Saint-Louis, Paris, France, 5INSERM U657 Pharmacopédiologie and evaluation of the impact of health products on human health, France, and Department of Biostatistics, University Hospital of Rouen, Rouen, France, Rouen, France, 6Centre de Vaccinologie & neonatal immunology, University of Geneva, Geneva, Switzerland, 7Service de médecine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, Creteil, France, 8LA-SER Europe Ltd, London, United Kingdom

1821. Clinical Predictors of Methotrexate-Induced Liver Enzyme Elevation in Patients with Rheumatoid Arthritis in an Electronic Medical Record. Monica Ramirez1, Bing Lu1, Michelle A. Frits1, Anne H. Fossel2, Katherine P. Liao1, Robert M. Plenge1, Jonathan S. Coblyn1, Nancy A. Shadick1 and Elizabeth W. Karlson2, 1Brigham and Women’s Hospital, Boston, MA, 2Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 3Brigham & Womens Hosp, Boston, MA, 4Department of Medicine, Division of Rheumatology, Immunology and Allergy, Brigham and Women’s Hospital, Boston, MA, 5Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

1822. Liver Toxicity Monitoring and Its Impact On Methotrexate Discontinuation in a National Cohort of Veterans. Gabriela Schmajuk1, Yinghui Miao2, Jinoos Yazdany3, Mary Margaretten4 and Michael Steinman5, 1UCSF, San Francisco, CA, 2San Francisco Veterans Affairs Medical Center, San Francisco, CA, 3University of California San Francisco, San Francisco, CA

1823. Short Periods of Glucocorticoid Use Increase the Risk of Gastrointestinal Bleeding. Steven C. Vld1, David T. Felson2, Donald R. Miller1 and Yuqing Zhang1, 1Boston University, Boston, MA, 2Edith Nourse Rogers Memorial VA Hospital, Bedford, MA

1824. Do Statins Reduce the Incidence of Connective Tissue Disease? A Retrospective Cohort Study. Thomas W. Schmidt1, Daniel F. Battafarano2, Christopher R. Frei3, Eric M. Mortensen4 and Ishak Mansi5, 1San Antonio Military Medical Center, San Antonio, TX, 2University of Texas Health Science Center at San Antonio, San Antonio, TX, 3University of Texas Southwestern Medical Center, Dallas, TX, 4San Antonio Military Medical Center, San Antonio

1825. Work Disability and Work Limitations in Rheumatoid Arthritis, Psoriatic Arthritis and Ankylosing Spondylitis Are Equal and Increase with Comorbidities. Chanseok Rhe1, Janet E. Pope2, Andrew E. Thompson2, Nicole G. H. Le Riche3, Gina Rohekar4 and Sherry Rohekar5, 1Schulich School of Medicine and Dentistry, Western University, London, ON, 2St. Joseph Health Care London, University of Western Ontario, London, ON, 3St. Joseph’s Health Ctr, London, ON, 4St. Joseph’s Hospital, London, ON

1826. Intravenously Administered Golimumab Significantly Improves Health Related Quality of Life and Work Productivity in Patients with Rheumatoid Arthritis: Results of a Phase III, Placebo Controlled Trial. Rene Westhovens1, Michael Weinblatt2, Chenglong Han3, Tim Gathany3, Lilianne Kim4, Michael Mack5, Jiandong Lu5, Daniel Baker5, Alan Mendelsohn5 and Clifton O. Bingham III6, 1University Hospital KU Leuven, Leuven, Belgium, 2Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 3Johnson & Johnson Pharmaceutical Services, LLC, Malvern, PA, 4Janssen Research & Development, LLC, Spring House, PA, 5Johns Hopkins University, Baltimore, MD

1827. Factors That Impact Work Productivity in the Preserve Trial: A Randomized Controlled Trial of Combination Etanercept-Methotrexate Therapy in Patients with Moderately Active Rheumatoid Arthritis. Vibeke Strand1, Thomas V. Jones2, Wenzhi Li2, Andrew S. Koenig3 and Sameer Kotak3, 1Stanford University, Portola Valley, CA, 2Pfizer, Inc, Collegeville, PA, 3Pfizer Inc., Collegeville, PA, 4Pfizer Inc., New York, NY

1828. Smoking Is Associated with Worse and More Widespread Pain, Worse Fatigue, General Health and Quality of Life in a Swedish Population Based Cohort of Patients with Psoriatic Arthritis. Ann B. I. Bremander1, Lennart TH Jacobsson1, Stefan Bergman2, Emma Haglund3 and Ingemar F. Petersson4, 1Halmstad University School of Business and Engineering, Halmstad, Sweden, 2Department of Rheumatology and Inflammation Research, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden, 3R&D Center Spenshult, Oskarström, Sweden, 4Spenshult Hospital for Rheumatic Diseases, Halmstad, Sweden, 5Department of Orthopedics, Clinical Sciences Lund, Lund University, Lund, Sweden

1830. Drugs Are the Major Cost Driver of Rheumatoid Arthritis As Soon As the First Year of the Disease: An Economic Analysis Based On the Espoir Cohort Data. Bruno Fautrel1, Sandy Lucier2, Georges Haour3, Hassani Maouilda4, Stephanie Harvard1, Alain Saraux1, Xavier Mariette5, Francis Guillemin6, Isabelle Durand-Zaleski2 and Karine Chevreul1, 1APHP-Pitié Salpêtrière Hospital / UPMC, Paris, France, 2APHP - URC Eco, Paris, France, 3Université Brest Occidentale, Brest, France, 4Université Paris-Sud, Le Kremlin Bicêtre, France, 5Faculte de Medecin/BP 18-Nancy, France

1831. Evaluation of the Cost-Effectiveness of Rheumatoid Arthritis Treatment with Biological Agents Using the IORRA Cohort Database. Eichi Tanaka, Eisuke Inoue, Daisuke Hoshi, Akiko Kobayashi, Naoki Sugimoto, Kumi Shidara, Eri Sato, Yasushi Inoue, Yohei Seto, Ayako Nakajima, Shigeki Momohara, Atsuo Taniguchi and Hisashi Yamanaka, Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan

1832. Evaluating the Cost-Effectiveness of Personalized Treatment with Adalimumab Using Serum Drug Levels in Rheumatoid Arthritis Patients. Charlotte L. M. Krieckaert1, Sandhya C. Nair2, M. T. Nurmohamed3, Carlo J.J. van Dongen3, Willem F. Lems4, Floris P.J.G. Lafeber2, J.W.J. Bijlsma5, Gertjan Wolbink6 and Paco M.J. Welsing2, 1Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 2University Medical Center Utrecht, Utrecht, Netherlands, 3VU University Medical Center/Jan van Bremen Research Institute, Amsterdam, Netherlands, 4VU University Medical Center, Amsterdam, Netherlands

1833. Healthcare Costs in Psoriatic Arthritis Patients Newly Initiated On a Biological Disease-Modifying Anti-Rheumatic Drug or Methotrexate. Frank Zhang1, Robert Hiscock2 and Jeffrey Curtis3, 1Celgene Corporation, Warren, NJ, 2Analysis Group, Inc., Montreal, QC, 3University of Alabama at Birmingham, Birmingham, AL

1834. Utilization and Expected Cost of Rheumatoid Arthritis Patients Treated with Golimumab: A Specialty Pharmacy Perspective. Lorie Ellis1, Susan Bolge1, Heidi Hanna2, Christina White2 and Patricia Rice3, 1Janssen Scientific Affairs, LLC, Horsham, PA, 2Diplomat Specialty Pharmacy, Flint, MI, 3CliniRx Research, Naperville, IL

1835. Prescription of Biologics in Rheumatoid Arthritis (RA), Psoriatic Arthritis (PsA) and Ankylosing Spondylitis (AS) in 4 Norwegian Regions 2002-2011: A Study of Prescription Rates and Baseline Disease Activity. Elisabeth Lie1, Karen M. Fagerli2, Knut Mikkelsen2, Åse S. Lexberg3, Erik Rødevand4, Till Uhlig1 and Tore K. Kvien1, 1Diakonhjemmet Hospital, Oslo, Norway, 2Lillehammer Hospital for Rheumatic Diseases, Lillehammer, Norway, 3Drammen Hospital, Drammen, Norway, 4St. Olavs Hospital, Trondheim, Norway

1836. Early Versus Delayed Initiation of Disease-Modifying Antirheumatic Drugs in Rheumatoid Arthritis. Sharon Van Doornum1, Lynden Roberts2, Mark D. Reed1 and Danny Liew1, 1The University of Melbourne, Melbourne, Australia, 2James Cook University, Townsville, Australia, 3Sir Charles Gairdner Hospital, Nedlands, Australia

1837. Which Rheumatoid Arthritis, Ankylosing Spondylitis and Juvenile Idiopathic Arthritis Patients Initiate Anti-TNFα Therapy? Alain Saraux1, Jacques Benichou2, Chantal Deslandres1, Loïc Guillevin3, Latifa Idbrik4, Jean Sibilia5, Marc Soudan1, Daniel Wendling6 and Francis Guillemin1, 1CHU de la Cavale Blanche and Université Bretagne occidentale, Brest Cedex, France, 2EA4438 Laboratoire Physiopathologie des Arthrites, Rouen, France, 3Cochin Hospital, Paris, France, 4Division of Internal Medicine, Hôpital Cochin, University Paris Descartes, Paris, France, 5Faculte de Medecin/BP 18, Vandoeuvre-les-Nancy, France, 6EA4438 Laboratoire Physiopathologie des Arthrites, Illkirch-Strasbourg, France, 7Minjoz University Hospital, Besancon, France

1838. 10-Year Trends in the Use of Disease Modifying Anti-Rheumatic Drugs (DMARDs) and Biological Agents in Rheumatoid Arthritis: A National Veteran Affairs Study. Bernard Ng1, Nancy Petersen2, Hong-Jen Yu3, Myrna Khan4 and Maria E. Suarez-Almazor5, 1Michael E. DeBakey VA Medical Center Health Services Research and Development Center of Excellence, Houston, TX, 2University of Texas MD Anderson Cancer Center, Houston, TX

1839. The Progression of the Rate of Biological Initiation in Early Rheumatoid Arthritis Is Constant Over the First 5 Years in the Espoir Cohort. Stéphanie Emilie1, Cécile Gaujoux-Viala2, Benjamin Granger3, Anne-Christine Rat4, Bernard Combe5 and Bruno Fautrel1, 1Paris 6, Pierre and Marie Curie University, AP-HP, Pitité-Salpétrière Hospital, Department of Rheumatology, Paris, France, 2Paris 6 – Pierre et Marie Curie University; Rheumatology, Pitité-Salpétrière Hospital, Paris, France, 3Université Pierre et Marie Curie - Paris 6 ; AP-HP, Paris, France, 4Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, Nancy, France, 5Hôpital Lapeyronie, Montpellier, France, 6APHP-Pitié Salpêtrière Hospital / UPMC, Paris, France

1840. Treatment Patterns in Psoriatic Arthritis Patients Newly Initiated On Non-Biologic Disease-Modifying Anti-Rheumatic Drugs. Jeffrey Curtis1, Genevieve Gauthier2, Robert Hiscock3 and Frank Zhang3, 1University of Alabama at Birmingham, Birmingham, AL, 2Analysis Group, Inc., Montreal, QC, 3Celgene Corporation, Warren, NJ

1841. Lower Than Expected Levels of DMARD Acquisition Immediately Pre and Post Biologic Initiation in Rheumatoid Arthritis Patients. Denis Choquette1, Oliver Thomas2 and Mark Arundine1, 1University of Montreal, Notre-dame Hospital, Montreal, QC, 2Roche, Toronto, ON

1843. Predictors of Starting and Stopping Disease Modifying Anti-Rheumatic Drugs for Rheumatoid Arthritis: A 23 Year Longitudinal Cohort. Daniel H. Solomon1, Edward Yelin2, Jeffrey N. Katz3, Chris Tonner4, M. Alan Brookhart5, Seoyoung C. Kim6, Bing Lu7 and John Z. Ayanian1,8Brigham and Women’s Hospital, Boston, MA, 7University of California San Francisco, San Francisco, CA, 6Brigham & Women’s Hospital, Boston, MA, 5UCSF, San Francisco, CA, 4University of North Carolina, 3Brigham and Women’s Hospital

1844. Inequities in Access to Biologic Disease-Modifying Anti-Rheumatic Drugs for Patients with Rheumatoid Arthritis Across 46 European Countries. Polina Putrik1, Sofia Ramiro2, Milena Pavlova3, Tore K. Kvien4, Tuulikki Sokka5, Till Uhlig6, Annelies Boonen7 and Equity In Access To Treatment of RA Across Europe8, 7Maastricht University, Maastricht, Netherlands, 6Academic Medical Center, University of Amsterdam, The Netherlands and Hospital Garcia de Orta, Almada, Portugal, 5Diakonhjemmet Hospital, Oslo, Norway, 4Jyväskyla Central Hospital, Jyväskyla, Finland, 3University Hospital Maastricht, Maastricht, Netherlands, 2European Region

1845. Inequalities Across 46 European Countries in Clinical Eligibility Criteria for the Start of A First (Reimbursed) Biologic in Patients with Rheumatoid Arthritis. Polina Putrik1, Sofia Ramiro2, Tore K. Kvien3, Tuulikki Sokka4, Till Uhlig5, Annelies Boonen6 and Equity in Clinical Eligibility Criteria for RA treatment7, 6Maastricht University, Maastricht, Netherlands, 5Academic Medical Center, University of Amsterdam, The Netherlands and Hospital Garcia de Orta, Almada, Portugal, 4Diakonhjemmet Hospital, Oslo, Norway, 3Jyväskyla Central Hospital, Jyväskyla, Finland, 2European Region

1846. Observation of Persistence Rates and Potential Costs Savings Associated with Certolizumab Pegol Treatment for Rheumatoid Arthritis in England, Wales and Northern Ireland Clinical Practice. Mike Russell1, Jen Timoshankoc, Graeme Duncan7, Angela Spandles7 and Samantha Roskell7, 6UCB Pharma, Slough, United Kingdom, 5Healthcare at Home Ltd, Burton on Trent, United Kingdom, 4Rheumatology, Cannock Chase Hospital, Cannock, United Kingdom

1847. Status of the Rheumatology Clinical Trials Portfolio: Data from Clinicaltrials.Gov. Ankooor Shah1,2, Samuel Broderick2, Karen Chiswell3, Asba Tasneem4 and John S. Sundy5, 3Duke University Medical Center, Durham, NC, 2Duke University Medical Center, Durham

1848. Impact of Biologics On Total Knee Replacement and Total Hips Replacement Rates in Rheumatoid Arthritis Patients: Results From US Marketscan Database. Andrew S. Koenig1, Jack Mardekian1 and Sameer Kotak1, 8Pfizer Inc., Collegeville, PA, 7Pfizer Inc, New York, NY, 6Pfizer Inc., New York, NY

1849. Value of Matrices Developed to Identify Early Rheumatoid Arthritis Patients with Rapid Radiographic Progression Despite Methotrexate Therapy: A Comparison of Their Performance in the Early Rheumatoid Arthritis Espoir Cohort. Bruno Fautrel1, Benjamin Granger2, Bernard Combe3, Francis Guillemin4, Alain Sarau5 and Xavier Le Loët6, 1APHP-Pitie Salpetriere Hospital / UPMC, Paris, France, 2Université Pierre et Marie Curie - Paris 6 ; AP-HP, Paris, France, 3Lapeyronie Hospital, Montpellier, France, 4Faculte de MeDecin/BP 184, Vandoeuvre-les-Nancy, France, 5Université Brest Occidentale, Brest, France, 6Rouen University Hospital and Inserm U 905, Rouen, France

1850. Association of Clinical Trial Characteristics with Positive Study Outcome Reporting in Randomized Controlled Trials of Rheumatoid Arthritis Therapy. Fatima M. Khan1, Juan I. Lombeyda2, Horace Spencer3, Karina D. Torralba4, Winnie K. Pang5 and Nasim A. Khan6, 1University of Arkansas for Medical Sciences, Little Rock, AR, 2Mercy Medical Center, Rogers, AR, 3University of Southern California Keck School of Medicine, Los Angeles, CA, 4University of Arkansas for Medical Sciences and Central Arkansas Veterans Healthcare System, Little Rock, AR

1851. Exploring the Relationship of Anti-Tumor Necrosis Factor Drugs and Methicillin Resistant Staphylococcus Aureus Nasal Colonization in Patients with Rheumatologic Conditions and Psoriasis. Daniel E. Kreutz1, Santosh P. Reddy2, Guy P. Fiocco3, Colleen Colbert2 and Juhee Song1, 1Scott & White Healthcare/Texas A&M University, Temple, TX, 2Scott & White Clinic, Temple, TX

1852. Tumour Necrosis Factor-Alpha Antagonists and Alopecia: A Case/Non-Case Study in a Nationwide Pharmacovigilance Database. Johana Béné1, Guillaume Mouli2, Marine Auffret1, Claire Fessier1, Guillaume Lefevre3 and Sophie Gautier4, 1Lille University Hospital, Lille Pharmacovigilance Regional Centre, Lille, France, 2Toulouse University Hospital, Clinical Pharmacology Department, University of Toulouse, UMR INSERM-UPS 102, Toulouse, France, 3University Hospital, Internal Medicine Department, Lille, France

1853. Rheumatoid Arthritis Patients’ Experiences of Medication Side Effects and Subsequent Decision Making about Medications. Yomei Shaw1, Ilincia D. Metes2, Susan L. Zickmund3, Dawn McBride4, Kelly A. Reckley5, Stephen R. Wisniewski5, Larry W. Moreland6, Mark S. Roberts2 and Marc C. Levesque7, 1University of Pittsburgh, Graduate School of Public Health, Pittsburgh, PA, 2University of Pittsburgh School of Medicine, Pittsburgh, PA
1854. The Safety of Anti-TNF Biologic Agents in Rheumatoid Arthritis - A Meta-Analysis of 35 RCTs. Tzu-Yu Lin, Tatyana Shamliyan, Hyon Choi, Young Hee Rho and Karen Kurtz, Division of Health Policy and Management, School of Public Health, University of Minnesota, Minneapolis, MN, Boston University School of Medicine, Boston, MA


Fibromyalgia and Soft Tissue Disorders

1857. Identifying Core Symptom Domains in the Fibromyalgia Impact Questionnaire: Principal Component Analysis of Data from Milnacipran Clinical Studies. Philip Mease, Robert M. Bennett, Robert H. Palmer and Yong Wang, Swedish Medical Center and University of Washington, Seattle, WA, Oregon Health & Science Univ, Portland, OR, Forest Research Institute, Jersey City, NJ

1858. Hypervigilance in Fibromyalgia. Robert S. Katz, Ben J. Small, Susan Shott and Sharon M. Ferbert, Rush University Medical Center, Chicago, IL, Rush University Medical School, Chicago, IL, Advocates for Funding Fibromyalgia Treatment, Education and Research(AFFTER), Libertyville, IL

1859. The Polysymptomatic Distress Scale and the Effect of Age On Polysymptomatic Distress and Fibromyalgia: A Survey in a Representative Population Sample. Winfried Häuser, Frederick Wolfe, Johannes Rasker, Elmar Brähler and Heide Glaesmer, Technische Universität München, Munich, Germany, National Data Bank for Rheumatic Diseases, Wichita, KS, University Twente, Enschede, Netherlands, University of Leipzig, Leipzig, Germany

1860. Fibromyalgia and the Disease and Statistical Manual Classification As a Somatic Symptom Disorder. Frederick Wolfe, Brian T. Walitt and Winfried Häuser, National Data Bank for Rheumatic Diseases, Wichita, KS, Washington Hospital Center, Washington, DC, Technische Universität München, Munich, Germany

1861. Efficacy and Safety of Pregabalin in Japanese Patients with Fibromyalgia: A Randomized, Double-Blind, Multicenter, Placebo-Controlled Phase III Trial and Open-Label Extension Study. Hiroyoshi Ohta, Masayuki Ohkura, Makoto Suzuki, Hiroshi Oka, Chie Usui and Kusuki Nishioka, Pfizer Japan Inc, Tokyo, Japan, Tokyo Medical University Hachioji Medical Center, Tokyo, Japan, Juntendo University Nerima Hospital, Tokyo, Japan, Tokyo Medical University, Tokyo, Japan

1862. The 2012 Canadian Fibromyalgia Guidelines: Clinically Applicable Recommendations for the Management of Fibromyalgia. Mary-Ann Fitzcharles, Peter A. Ste-Marie, Don L. Goldenberg, John X. Pereira, Susan Abbey, Manon Choinière, Gordon Ko, Dwight Moulin, Pantelis Panopalis, Johanne Proulx and Yoram Shir, McGill University, Montreal, QC, University of Montreal, Montreal, QC, Newton-Wellesley Hosp, Newton, MA, University of Calgary, Calgary, AB, University of Toronto, Toronto, ON, University of Western Ontario, London, ON, McGill University Health Center, Montreal, QC, Patient Representative, Montreal, QC

1863. Resetting the Naming Speed Clock with Methylphenidate (Ritalin). Robert S. Katz and Frank Leavitt, Rush University Medical Center, Chicago, IL

1864. Swimming Is As Effective As Walking for Treating Fibromyalgia: A Randomized Controlled Trial. Giovana Fernandes, Fabio Jennings, Michele V. Nery, Ana Leticia P. de Buosi and Jamil Natour, Universidade Federal de Sao Paulo, Sao Paulo, Brazil

1865. Emotional Pain and Catastrophizing Influence Quality of Life in Fibromyalgia. Neda Faregh, Peter A. Ste-Marie and Mary-Ann Fitzcharles, McGill University, Montreal, QC, University of Montreal, Montreal, QC

1866. Association of Opioid Use with Symptom Severity and Quality of Life in Patients with Fibromyalgia. Terry H. Oh, Chul H. Kim, Connie A. Luedtke, Jeffrey Thompson, Michael Hooten and Ann Vincent, Mayo Clinic, Rochester, MN, Kyungpook National University, Daegu, South Korea

1867. Assessment of ART Therapy Program for Women with Fibromyalgia: Randomized, Controlled, Blinded Study. Andrea S. Baptista, Anamaria Jones, Fernanda P. Cardoso, Betina C. Schaffir, Elisa R. W. Coelho, Aline Orlandi and Marie Ko, University Hachioji Medical Center, Tokyo, Japan, Universidade Federal de Sao Paulo, Sao Paulo, Brazil

1868. Clinical Outcome in Fibromyalgia Patients Treated with Milnacipran Is Largely Independent of Symptom Duration. Philip Mease, Robert M. Bennett, Robert H. Palmer and Yong Wang, Swedish Medical Center and University of Washington, Seattle, WA, Oregon Health & Science University, Portland, OR, Forest Research Institute, Jersey City, NJ
1869. Predictors of Fatigue in Fibromyalgia. Ann Vincent1, Mary O. Whipple1, Debra L. Barton2, Daniel J. Clauw3, David A. Williams3, Terry H. Oh1 and Loren L. Toussaint1, 1Mayo Clinic, Rochester, MN, 2University of Michigan, Ann Arbor, MI, 3Univ of MI Hlth System-Lobby M, Ann Arbor, MI, 2Luther College, Decorah, IA

1870. Financial Conflicts of Interest and Industry Sponsorship Are Associated with Positive Outcomes in Fibromyalgia Randomized Controlled Trials. Winnie K. Pang1, Karen Yeter1, Nasim A. Khan2 and Karina D. Torralba1, 1University of Southern California Keck School of Medicine, Los Angeles, CA, 2University of Arkansas for Medical Sciences and Central Arkansas Veterans Healthcare System, Little Rock, AR

1871. Tender Point Count and Pressure Pain Threshold As Predictors of Chronic Widespread Pain and Health Status in a Seven Year Prospective Study. Emma Jacobsen1 and Stefan Bergman2, R&D center Spenshult, Oskarström, Sweden, 2R&D Center Spenshult, Oskarström, Sweden

1872. Quality of Reporting in Pharmacological Randomized Controlled Trials for Fibromyalgia. Karen Yeter1, Winnie Pang1, Nasim A. Khan2 and Karina D. Torralba1, 1University of Southern California Keck School of Medicine, Los Angeles, CA, 2University of Arkansas for Medical Sciences and Central Arkansas Veterans Healthcare System, Little Rock, AR

1873. Clinical Characteristics and Health Care Utilization Patterns Among Patients with Fibromyalgia Newly Prescribed Amitriptyline, Duloxetine, Gabapentin or Pregabalin: A Large Cohort Study. Seoyoung C. Kim, Joan E. Landon and Daniel H. Solomon, Brigham and Women's Hospital, Boston, MA

1874. Genomic Categories of Fatigue in Women with Fibromyalgia. Nada Lukkahatai1, Brian T. Walitt2, Majors Benjamin1, Gelo Alves3 and Leorey Saligan1, 1National Institute of Nursing Research, National Institutes of Health, Bethesda, MD, 2Washington Hospital Center, Washington, DC, 3National Center for Biotechnology Information, National Library of Medicine, Bethesda, MD

1875. A Patient and Physician Survey of Impact and Management of Fibromyalgia Across Latin America and Europe. Patricia Clark, Hospital Infantil de México Federico Gómez, Mexico City, Mexico

1876. The Assessment and Treatment of Nonsurgical Periarticular Post-Traumatic Soft Tissue Injuries of the Knee. Dan Nemes1, Elena Amarica1, Liliana Catan1, Daniel Popa1, Simona Cerbu1 and Paula Bicov1, 1“Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania, 2Telescan Imaging Centre, Timisoara, Romania

1877. Is the Amount of T and B Lymphocytes, Natural Killer Cells and Macrophages in Biopsies From Non-Ruptured Chronic Tendinopathic Achilles Tendons Predictive for Long Term Outcome? A >3 Years Prospective Study of 37 Patients. Maja S. Kragsnæs1, Ulrich Fredberg2, Katrine Stribold3, Søren G. Kjaer1, Knud Bendix1 and Torkell Ellingsen1, 1Region Hospital Silkeborg, Silkeborg, Denmark, 2Diagnostic Centre Region Hospital Silkeborg Denmark, 8600 Silkeborg, Denmark, 3Aarhus University Hospital, Aarhus, Denmark

1878. Cognitive Manifestations of Fibromyalgia and Lupus. Robert S. Katz and Frank Leavitt, Rush University Medical Center, Chicago, IL

1879. Work Related Injuries Causing or Aggravating Fibromyalgia in the Medicolegal Arena: A Jurisprudential Analysis. Mary-Ann Fitzcharles1, Peter A. Ste-Marie2 and Yoram Shir3, 1McGill University, Montreal, QC, 2University of Montreal, Montreal, QC

1880. A Brazilian Portuguese Validation of the Revised Fibromyalgia Impact Questionnaire (FIQR). Eduardo S. Paiva1, Roberto E. Heymannn1, Marcelo C. Rezende1, Milton Helfenstein Jr.4, José E. Martínez2, José R. Provenza2, Aline Ranzolin1, Marcos Renato Assis3, Vivian D. Pasqualin4 and Robert M. Bennett5, 1Universidade Federal do Paraná, Curitiba, Brazil, 2Universidade Federal de São Paulo, São Paulo, Brazil, 3Santa Casa de Campo Grande, Campo Grande, Brazil, 4Universidade Federal de de São Paulo, São Paulo, Brazil, 5Pontificia Universidade Católica de São Paulo, Sorocaba, Brazil, 6Pontificia Universidade Católica de Campinas, Campinas, Brazil, 7Universidade Federal de Pernambuco, Recife, Brazil, 8Facultad de Medicina de Marilia, Marilia, Brazil, 9Pontificia Universidade Católica do Paraná, Curitiba, Brazil, 10Oregon Health & Science Univ, Portland, OR

1881. Increased Psychosocial Stress Is a Major Component of Fibromyalgia Triggers. Emma K. Guymer1, Kathleen Elford2 and Geoffrey O. Littlejohn1, 1Monash Medical Centre and Monash University, Clayton, Victoria, Australia, 2Monash Medical Centre, Clayton, Victoria, Australia

1882. Predictors of a Favorable Outcome in Patients with Fibromyalgia: Results from the 1-Year Follow-up. Dong-Jin Park1, Shin-Seok Lee1, Seong-Ho Kim2, Seong-Su Nah2, Ji Hyun Lee1, Seong-Kyu Kim1, Yeon-Ah Lee1, Seung-Jae Hong2, Hyun-Sook Kim1, Hyewoon Lee2, Hyoun Ah Kim3, Chung-Il Joung10 and Sang-Hyon Kim11, 1Chonnam National University Medical School, Gwangju, South Korea, 1Inje University Haeundae Paik Hospital, Busan, South Korea, 2Sookchunhyang University, South Korea, 3Maryknoll Medical Center, Busan, South Korea, 4and Autoimmunity Research Center, Catholic University of Daegu School of Medicine, Daegu, South Korea, 5Kyung Hee University, Seoul, South Korea, 6Internal Medicine, Chosun University Hospital, Gwangju, South Korea, 7Hanyang University Guri Hospital, Guri, South Korea, 8Ajou University School of Med, Suwon, South Korea, 9Konyang University Medical School, Daejeon, South Korea, 10Dongsan Medical Center, Keimyung University, Daegu, South Korea

1883. Efficacy and Safety of Joint and Soft Tissue Injections; A Retrospective Study. Jenny Cabas-Vargas1, Leah Alon2, Nina Ramessar2, Dimitre Stefanov2, Jose B. Toro and Deana M. Lazaro3, 1SUNY Downstate, Brooklyn, NY, 2SUNY Downstate Medical Center, Brooklyn, NY, 3Brooklyn VA, Brooklyn, NY
1884. Fibromyalgia Patients Who Meet the ACR 1990 Criteria Have More Severe Disease. Carmen E. Gota1, Benjamin Nutter1 and William Wilke1, 1The Cleveland Clinic Desk A50, Cleveland, OH, 2Cleveland Clinic, Cleveland, OH, 3Cleveland Clinic Foundation, Cleveland, OH

Medical Education

1885. Rheumatologists’ Ultrasound Confidence and Interpretation of Normal Anatomy Are Improved by a Cadaver Based Sonoanatomy Course. Iain Goff1, David Wright1 and Debra Patten1, 1Newcastle University, Newcastle upon Tyne, United Kingdom, 2Sunderland Royal Hospital, Sunderland, United Kingdom, 3School of Medical Sciences Education and Development, Newcastle upon Tyne, United Kingdom


1887. Facebook Support Groups in Systemic Lupus Erythematosus: Content Analysis. Evelyne Vinet1, William Shihao Lao2, Christian A. Pineau1, Ann E. Clarke1 and Sasha Bernatsky3, 1McGill University Health Centre, Montreal, QC, 2McGill University, Montreal, QC, 3MUHC, Montreal, QC, 4Research Institute of the McGill University Health Ctre, Montreal, QC

1888. Immunology for Rheumatology Residents: Working towards a National Curriculum Consensus. Shirley L. Chow1, Dharini Mahendira2, Sari Herman-Kideckel3 and Heather McDonald-Blumer4, 1University of Toronto, Toronto, ON, 2St Michael’s Hospital, Toronto, ON, 3University of Toronto, North York, ON, 4Mt. Sinai Hospital, Toronto, ON

1889. The Effects of Physical & Mental Health Rehabilitation Program (PMHRP) for Hemophilic Arthritis Patients. Won Sook BAK1, Myung Chul Yoo1, Nam Su Cho1, Sang Hack Lee1, Won Program (PMHRP) for Hemophilic Arthritis Patients. The Effects of Ph

1890. Teaching Medical Students Principles of Chronic Disease: Medicine of the 4th and 5th Dimension at Weill-Cornell. Michael D. Lockshin1, Greg McDermott2, Lester Zambrana2 and Alana B. Levine1, 1Hospital for Special Surgery, New York, NY, 2Weill-Cornell Medical College, New York

1891. Impact of a Lupus Patient Education Event on Knowledge about Systemic Lupus Erythematosus. Mithu Maheswaranathan1, Melissa A. Cunningham2, Sharon Wolf1 and Diane L. Kamen1, 1Medical University of South Carolina, Charleston, SC, 2MUSC, Charleston, SC, 3Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC

1892. Eliciting Prescribing Choices of Anti-Tumour Necrosis Factor Therapy from Rheumatology Trainees. Rodney A. Hughes1 and Alison J. Carr2, 1St. Peters Hospital, Chertsey Surrey, United Kingdom, 2Hamell Communications, London, United Kingdom

1893. Safety Competences Knowledge and Behavioural Skills of Patients Treated by Biologics in Rheumatology. Anne-Christine Rat1, Bruno Fautrel2, Elisabeth Filpon1, Laure Gossec1, Benoît-Damien Carité3, Laurent Marguerie3, Henri Nataf4, Beatrice Pallot Prades5, Rose Marie Poilvert6, Valerie Royant6, Fathia Sadji7, Christelle Sorret7, Corinne Thevenot7 and Catherine Beauvais7, 1Université de Lorraine, Paris Descartes University, APEMAC, EA 4360, F- 54 000, Nancy, France, 2APHP-Pitie Salpetriere Hospital / UPMC, Paris, France, 3Cochin hospital, Paris, France, 4Paris-Descartes University, Cochin Hospital, Paris, France, 5Université de lorraine, Nancy, France, 6Institut Calot, Berck, France, 7Mantes-la-Jolie, Mantes-la-Jolie, France, 8Saint Étienne university hospital, Saint Etienne, France, 9Saint Antoine Hospital, Paris, France, 10Chartres, Chartres, 11Victor Jousselin Hospital, Dreux, France, 12Strasbourg University Hospital, Strasbourg, France, 13Laon hospital, Laon, France, 14Saint Antoine, Paris, France

1894. Factors Associated with Confidence Level of Rheumatology Fellows in Joint Procedural Skills. Tara J. Rizvi, Min Xu and Nancy Searle, Baylor College of Medicine, Houston, TX

1895. Factors Associated with Confidence Level of Rheumatology Fellows in Joint Procedural Skills. Tara J. Rizvi, Min Xu and Nancy Searle, Baylor College of Medicine, Houston, TX

1896. The Current State of Mentoring Among Pediatric Rheumatology Fellows and Junior Faculty in the United States and Canada. Meredith P. Riebschleger1, Eyal Muscal2, Matthew M. Davis1, Hermine Brunner1, B. Anne Eberhard3, C.J. Inman4, Marisa S. Klein-Gitelman5, Lakshmi N. Moorthy6, Marc D. Natter7, Sampath Prahalad8, Rayfél Schneider9 and Peter A. Nigrovic10, 1University of Michigan Health System, Ann Arbor, MI, 2Baylor College of Medicine, Houston, TX, 3University of Michigan, Ann Arbor, MI, 4Cincinnati Children’s Hospital Medical Center and PRSCG, Cincinnati, OH, 5Cohen Children’s Hospital Medical Center, New Hyde Park, NY, 6University of Utah, Salt Lake City, UT, 7Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, 8Robert Wood Johnson-UMDNJ, New Brunswick, NJ, 9Children’s Hospital Boston, Boston, MA, 10Emory Children’s Center, Atlanta, GA, 11The Hospital for Sick Children, Toronto, ON, 12Brigham and Women’s Hospital, Boston, MA

1897. Pregnancy and Contraception in Adolescents and Teens with SLE: Are pediatric rheumatologists adequately screening and Educating Their Patients? Deirdre I. De Ranieri1, Karen Onel1, Linda Wagner-Weiner2 and Melissa S. Tesher1, 1University of Chicago, Chicago, IL, 2University of Chicago Hospital, Chicago, IL

1898. A Competence-Based Model for Teaching Rheumatology in Undergraduate Medical Students in Pontificia Universidad Católica De Chile: A Five Years Experience. Pamela Díaz,
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ACR POSTER SESSION C

Carolina Cuellar, Miguel Gutiérrez and Marcela Cisternas, Pontificia Universidad Católica de Chile, Santiago, Chile

1899. Factors Contributing to Non-Publication of Abstracts Presented at the American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting. Jennifer M.P. Woo1, De Furst2, Deborah K. McCurdy2, Olivia I. Lund3, Rotem Eyal4, Cijn Piao4 and Gil Amariylo1, 1Mattel Children’s Hospital, University of California, Los Angeles, Los Angeles, CA, 2University of California at Los Angeles, Los Angeles, CA, 3David Geffen School of Medicine at UCLA, Los Angeles, CA

1900. Mormed Project: A New 21st Century Web Platform for Multilingual Communication in Systemic Lupus Erythematosus and Antiphospholipid Syndrome. Oier Ateka-Barrutia1, Adriane Rinsche2, Maria Laura Bertolaccini1, Munther A. Khamashta1 and MorMED consortium3, 1Rheumatology Associates, Melville, NY, 2AZ Technology Center Ltd., Kingston, United Kingdom, 3EU Institute for Human Sciences, Prague, Czech Republic

Metabolic and Crystal Arthropathies

1901. Chronic Gout. Improvement According to Outcome Measures in Rheumatology Domains in Daily Clinical Practice. Janitzia Vazquez-Mellado1, Betsabé Serrano1, Jaime Mendoza2, Sergio Garcia-Mendez3, V.Chantal Hernández4, Virginia Pascual Ramos5, Ruben Burgos-Vargas6 and Marina Rull-Gabayet7, 1Hospital General de Mexico, Mexico City, Mexico, 2Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, Mexico

1902. What Factors Are Associated with Target Serum Urate Concentrations in Patients with Gout? Nicola Dalbeth1, Meaghan House1, Anne Horne1, Keith J. Petrie1, Fiona M. McQueen1 and William Taylor2, 1University of Auckland, Auckland, New Zealand, 2University of Otago, Wellington, New Zealand

1903. Oxidation of Urate to Allantoin by Myeloperoxidase in Gout. Lisa K. Stamp, Irda Khalilova, Mei Zhang, Rufus Turner and Anthony Kettle, University of Otago, Christchurch, Christchurch, New Zealand


1905. Increase of Thyroid Stimulating Hormone in Patients On Febuxostat Treatment. Fernando Perez-Ruiz1 and Ana M. Herrero-Beites2, 1Hospital Universitario Cruces, Baracaldo, Spain, 2Hospital de Gorliz, Gorliz, Spain

1906. Changes in Gout patient’s Clinical Profile in the Last Two Decades. Fernando Perez-Ruiz1 and Ana M. Herrero-Beites2, 1Hospital Universitario Cruces, Baracaldo, Spain, 2Hospital de Gorliz, Gorliz, Spain

1907. Pharmacological Management of Gout in Italy in the Years 2005-2009: A Nationwide, Population-Based Study. Lorenzo Cavagna1, Gianluca Trifirò2, Roberto Caporali3, P. Morabito4, C. Ferrajolo5, S. Pecchioli6, M. Simonetti7, G. Medea8, C. Cricelli9, A. Caputi10, G. Mazzaglia11 and Carlomaurizio Montecucco12, 1University and IRCCS Foundation Policlinico S. Matteo, Pavia, Italy, 2University of Messina, Italy, 3Division of Rheumatology, IRCCSPoliclinico S. Matteo Foundation, Pavia, Italy, 4Second University of Naples, Naples, Italy, 5Italian College of General Practitioners, Italy, 6Italian college of General Practitioner, Italy, 7Italian college of General Practitioner, Pavia (Italy), 8University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy

1908. Multinational Evidence-Based Recommendations for Diagnosis and Management of Gout: Integrating Systematic Literature Research and Expert Opinion of a Broad Panel of Rheumatologists in the 3E Initiative. Mariano andres1, Francisca Sivera2, Alison Kydd3, John Moi4, Rakhi Seth5, Melonie K. Sriranganathan6, Caroline van Dürme7, Irene AAM van Echteld8, Ophir Vinik9, Mihir D. Wechalekar10, Daniel Aletaha11, Claire Bombardier12, Rachelle Buchbinder13, Loreto Carmona14, Christopher J. Edwards15, R. Landewe16 and Désirée van der Heijde17, 1Hospital General Universitario de Alicante, Alicante, Spain, 2Hospital General de Elda, Alicante, Spain, 3University of British Columbia, Vancouver, BC, 4Royal Melbourne Hospital, Melbourne, Australia, 5University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom, 6St. Mary’s Hospital, Isle of Wight, United Kingdom, 7Maastricht University Medical Centre, Maastricht, Netherlands, 8Atrium Medical Center, Heerlen, Netherlands, 9University of Toronto, Toronto, ON, 10Flinders University School of Medicine, Adelaide, Australia, 11Medical University of Vienna, Vienna, Austria, 12Monash Department of Clinical Epidemiology at Cabrini Hospital, Department of Epidemiology and Preventive Medicine, Monash University, Malvern, Australia, Malvern, Victoria, Australia, 13Universidad Camilo José Cela, Villanueva de la Cañada, Spain, 14University Hospital Southampton, Southampton, United Kingdom, 15Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 16Leiden University Medical Center, Leiden, Netherlands

1909. Use of Uric Lowering Therapies within a Large Health Care System. Robert A. Overman1, Brian F. Mandell2 and Chad L. Deal3, 1Cleveland Clinic Foundation, Cleveland, OH, 2The Cleveland Clinic, Cleveland, OH, 3Cleveland Clinic, Cleveland, OH

1910. Regulation of MicroRNA 223 Expression in a Gouty Arthritis. Gianina Statache1, Ashleigh-Ann Rainey1, Seth Masters2, andra Balanescu3, Iain B. McInnes4 and Mariola Kurowska-
Efficacy and Safety of Canakinumab vs Triamcinolone Acetonide in Patients with Gouty Arthritis Unable to Use Nonsteroidal Anti-Inflammatory Drugs and Colchicine, and on Stable Urate Lowering Therapy (ULT) or Unable to Use ULT. T. Bardin, A. So, R. Alten, M. Bloch, M. R. John, G. Krammer, J. M. Nebesky, A. Tao and N. Schlesinger, 1Service de Rhumatologie, Hôpital Lariboisière, Paris, France, 2Centre Hospitalier Universitaire Vaudois, University of Lausanne, Lausanne, Switzerland, 3Charité Univ Medicine, Berlin, Germany, 4Holdsworth House Medical Practice, Sydney, Australia, 5Novartis Pharma AG, Basel, Switzerland, 6Novartis Pharmaceuticals Corporation, East Hanover, NJ, 7UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ

Efficacy and Safety of Canakinumab vs Triamcinolone Acetonide in Patients with Gouty Arthritis Unable to Use Nonsteroidal Anti-Inflammatory Drugs and Colchicine, and on Stable Urate Lowering Therapy (ULT) or Unable to Use ULT. T. Bardin, A. So, R. Alten, M. Bloch, M. R. John, G. Krammer, J. M. Nebesky, A. Tao and N. Schlesinger, 1Service de Rhumatologie, Hôpital Lariboisière, Paris, France, 2Centre Hospitalier Universitaire Vaudois, University of Lausanne, Lausanne, Switzerland, 3Charité Univ Medicine, Berlin, Germany, 4Holdsworth House Medical Practice, Sydney, Australia, 5Novartis Pharma AG, Basel, Switzerland, 6Novartis Pharmaceuticals Corporation, East Hanover, NJ, 7UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ

Colchicine, As Assessed by Target Joint Pain Scores, Is Effective At 16 Hours in Patients with Acute Gout Flares. Suman Wason, Thomas Lauterio, Steve Crockett and Matthew W. Davis, URL Pharma, Philadelphia, PA


The Diagnosis and Management of Gout in 2012: Survey of US and Canadian Rheumatologists. John J. Cush and Robert T. Keenan, 1Baylor Research Institute, Dallas, TX, 2Duke University, Durham, NC

Elevated Serum Homocysteine Levels Were Related Not with Serum Uric Acid Levels but with Decreased Renal Function in Chronic Gouty Patients. Sang Tae Choi, Jung-Soo Song, Jin Su Kim, Eun-Jin Kang, Kwang-Hoon Lee and You-Jung Ha, 1Chung-Ang University School of Medicine, Seoul, South Korea, 2Chung-Ang University College of Medicine, Seoul, South Korea, 3Busan Medical Center, Busan, South Korea, 4Dongguk University Ilsan Hospital, Goyang, South Korea, 5Kwandong University College of Medicine, Goyang, South Korea

Serum Uric Acid As a Biomarker for Mitigation of Infusion Reactions in Patients Treated with Pegloticase for Refractory Chronic Gout. Herbert S. B. Baraf, Robert A. Yoo, John S. Sundy, Faith D. Ottery and Michael A. Becker, 1Arthritis & Rheumatism Associates, Wheaton, MD, 2Reliant Medical Group, Worcester, MA, 3Duke University Medical Center, Durham, NC, 4Savient Pharmaceuticals, Inc., East Brunswick, NJ, 5University of Chicago, Chicago, IL

Miscellaneous Rheumatic and Inflammatory Diseases

Long-Term Follow-up of IgG4-Related Diseases Presenting with Lacrimal and Salivary Gland Involvement. Hiroki Takahashi, Motohisa Yamamoto, Tetsuya Tabeya, Chisako Suzuki, Yasuyoshi Naishiro, Yasuhisa Shinomura and Kohzoh Imai, 1Sapporo Medical University School of Medicine, Sapporo, Japan, 2The University of Tokyo, Tokyo, Japan

Cluster Analysis of Organ Involvements Patients with Serum IgG4 Elevation; IgG4–related Disease Is a Distinct Subtype of Patients with Hyper-IgG4. Masamitsu Tatetaki, Kazuhiro Kurasawa, Ayae Tanaka, Junya Nagasawa, Satoko Arai, Reika Maezawa, Takayoshi Owada and Takeshi Fukuda, Dokkyo Medical University, Mibu, Tochigi, Japan

Regulatory T Cells in IgG4-Related Disease Patients Presenting with Sclerosing Sialadenitis and Dacryoadenitis. Winnie K. Pang, Yu Liu, Julie Wang, Song Guo Zheng, Kiran Qidwai, Russell K. Brynes and Francisco P. Quismorio Jr., University of Southern California Keck School of Medicine, Los Angeles, CA

Spectrum of IgG4-Related Disease and Diagnostic Value of Serum IgG4 Determinations. Emma Kotsalmi, Tom Pettersson, Aaro Miettinen, Johanna Arola and Martti Färkkilä, 1University of Helsinki, Helsinki, Finland, 2Helsinki University Central Hospital, Helsinki, Finland, 3Huslab, Helsinki, Finland, 4University of Helsinki and Huslab, Helsinki, Finland

Diagnostic Utility of Serum IgG4 in IgG4-Related Disease. Mollie Carruthers, Tamara Augustin, John H. Stone and Arezou Khosroshahi, 1Massachusetts General Hospital, Boston, MA, 2Internal Medicine, Northshore Medical Center, Salem, MA

Articular Involvement in Relapsing Polychondritis: A Case Series. Laura O. Damian, Linda Ghib, Ioana Felea, Alma Maniu, Nadia Radics, Simona Falaus, Ileana Filipescu, Siao-pin Simon and Simona Rednic, 1Emergency County Clinical Hospital Cluj Napoca, Cluj Napoca, Romania, 2Emergency County Clinical Hospital Cluj Napoca, Cluj-Napoca, Romania, 3University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj Napoca, Cluj Napoca, Romania, 4University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj Napoca, Cluj-Napoca, Romania

Biologics in Relapsing Polychondritis: A Single Center Case-Series. Guillaume Moulin, Laurent Sailler, Grégory Pugnet, Leonardo Astudillo and Philippe Arlet, 1Toulouse University Hospital, University of Toulouse, Toulouse, France, 2Toulouse University Hospital, University of Toulouse, University of Toulouse, University of Toulouse, INSERM UR 1027, Toulouse, France, 3Toulouse University Hospital, University of Toulouse, INSERM UMR 1027, Toulouse, France

What Do Patients with Polymyalgia Rheumatica Mean When They Describe Stiffness? A Qualitative Study. Rodney A. Hughes, Sarah Mackie, John R. Kirwan, Colin T. Pease, Margaret Walsh and Marianne Morris, 1St. Peters
2026. Evaluation of Strategies to Taper Anti-TNF Drugs in Patients with Inflammatory Rheumatic Disease (Rheumatoid Arthritis, Ankylosing Spondylitis, Psoriatic Arthritis, Adult- age Juvenile Idiopathic Arthritis) in Long-Term Remission. Jakub Zavada, Katarina Hvicsova, Katerina Jarosova, Sarka Forejtova, Jiri Stolfa, Liliana Sedova, Dana Tegzova, Jiri Vencovsky and Karel Pavelka, Institute of Rheumatology, Prague, Czech Republic

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2027. Inflammatory Meningeal Involvement in Patients with Rheumatic Diseases Responsive to Rituximab. Jane Park1, Eyal Kedar1, Ingeborg Sacksen1, John Henson2 and Gregory C. Gardner1, 1University of Washington, Seattle, WA, 2Swedish Neuroscience Institute, Seattle, WA

2028. Evaluating the Therapeutic Effects of B Cell Depletion Therapy with Rituximab in a Longitudinal Cohort of Mixed Connective Tissue Disease Patients. Ragnar Gunnarsson, Inge-Margrethe Gilboe, Torhild Garen and Øyvind Molberg, Oslo University Hospital Rikshospitalet, Oslo, Norway

2029. Pernicious Anemia and Vitamin B-12 Deficiency in Autoimmune Disease: Neglecting the Feet Will Lead You Astray. Michael R. Lovy, Desert Oasis Healthcare, Palm Springs, CA

2030. Progranulin Plays a Protective Role in the Pathogenesis of Inflammatory Bowel Disease. Fanhua Wei1, Jinlong Jian1, Yuying Zhang1, Jiqiang Lin1, Juan Lafaille1, Michael Dustin1, Lloyd Mayer1 and Chuanju Liu1, 1NYU Hospital for Joint Diseases, New York, NY, 2New York, NY, 3NYU School of Medicine, New York, NY, 4Mount Sinai Medical Center, New York, NY, 5New York University, New York, NY

2031. Influence of Trough Serum Drug Level and Immunogenicity on the Lack of Response to Adalimumab Therapy in Inflammatory Bowel Disease Patients. Shui Long Wang1, Scott Hauenstein1, Linda Ohmund1, Reshma Shringarpure1, Douglas C. Wolf2, Isam A. Diab3, Jared Salbato4, Rukmini Reddy5, Kevin McCown6, Shawn Shah7, Steven Lockton8, Emil Chuang9 and Shahar Singh10, 1Prometheus Laboratories, San Diego, CA, 2Mayo Clinic, Rochester, MN, 3Mount Sinai Medical Center, New York, NY, 4New York University, New York, NY, 5New York University, New York, NY

1932. Clinical Features of an Aromatase Inhibitor Associated Syndrome Presenting as Rheumatoid Arthritis Ronald J. Anderson, MD, Brigham & Women's Hospital. Ronald J. Anderson, Brigham & Women's Hospital, Boston, MA

1933. Incidence and Early Detection of Retinal Toxicity in Patients Treated with Chloroquine and Hydroxychloroquine in Rheumatology Practice. Sandra Soro Marin1, Ana del Carmen Haro Martinez1, Deseada Palma Sanchez1, Maria del Rocio Gonzalez Molina1, Marta Mayor Gonzalez2 and Elena Rubio Velazquez1, 1Rafael Mendez Hospital, Spain., Lorca (Murcia), Spain, 2Rafael Mendez Hospital, Lorca (Murcia), Spain

1934. Improvement in Cryoglobulin Detection Employing a Temperature Controlled Sample Transporter. W. Winn Chatham, Moon Nahm and William H. Benjamin Jr., University of Alabama at Birmingham, Birmingham, AL

Muscle Biology, Myositis and Myopathies: Genetics, Autoantibodies and other Molecular Aspects of Idiopathic Inflammatory Myopathies and Models

1935. Longitudinal Peripheral Blood Lymphocyte Subsets Correlate with Decreased Disease Activity in Juvenile Dermatomyositis. Floranne C. Ernst1, Cynthia S. Crowson2, Consuelo Lopez de Padilla3, Molly Heim4, Abigail B. Green5 and Ann M. Reed1, 1Mayo Clinic Rochester, Rochester, MN, 2Mayo Clinic, Rochester, MN

1936. The human leukocyte antigen DRB1*13:02-DQB1*06:04 - DPB1*04:01 haplotype is closely associated with dermatomyositis patients with Anti-CADM-140 (melanoma differentiation-associated protein 5: MDAS) Antibody. Yuji Hosono1, Chikashi Terao2, Nanakawashima3, Yoshihito Ikumura4, Naoichiro Yukawa1, Hajime Yoshifuji5, Motomu Hashimoto1, Koichiro Ohmura1, Taka Fujii1 and Tsuneo Mimori1, 1Graduate School of Medicine, Kyoto University, Kyoto, Japan, 2Kyoto University, Kyoto, Japan

1937. HLA-DRB1*0101*/0405 is Associated with Susceptibility to Anti-MDAS Antibody-Positive Dermatomyositis in the Japanese Population. Takahisa Gono1, Yasushi Kawaguchi1, Masataka Kuwana2, Tomoko Sugiu3, Takefumi Furuya1, Kae Takagi1, Hisae Ichida1, Yasuhiro Katsumata1, Masanori Hanaoka1, Yuko Okamoto1, Yuko Ota1, Sayuri Kataoka1 and Hisashi Yamana1, 1Institute of Rheumatology, Tokyo Women's Medical University, Tokyo, Japan, 2Keio University School of Medicine, Tokyo, Japan

1938. A New Enzyme-Linked Immunosorbent Assay System for Detecting Autoantibodies to Aminoacyl-tRNA Synthetases: Clinical Usefulness in Myositis and Interstitial Pneumonia. Ran Nakashima1, Yoshitaka Imura2, Minae Seto3, Akifumi Murakami1, Yuji Hosono1, Kizuku Watanabe1, Tomohiro Handa1, Michiaki Mishima1, Michito Hirakata4, Tsutomu Takeuchi5, Keishi Fujio4, Kazuhiko Yamamoto6, Hitoshi Kohsaka2, Yoshinari Takasaki1, Noriuki Enomoto1, Kingo Chida1, Toshiohiuki Nukiwa1 and Tetsuo Mimori1, 1Graduate School of Medicine, Kyoto University, Kyoto, Japan, 2Kyoto University Graduate School of Medicine, Kyoto, Japan
1945.

1944.

1943.

1942.

1941.

1940.

Maria Vistnes2, Geir Christensen2 and Ivar Sjaastad1, 1Oslo
Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan,
2Graduate School of Medicine, The University of Tokyo, Tokyo, Japan,
2Graduate School of Medicine, Kyoto University, Kyoto, Japan,
2Keio University, Tokyo, Japan, 2Keio University School of
Medicine, Tokyo, Japan, 2Graduate school of Medicine,
The University of Tokyo, Tokyo, Japan, 2Graduate School of
Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan,
3Graduate School of Medical and Dental Sciences, Tokyo
Medical and Dental University, Tokyo, Japan, 12Division of
Rheumatology, Department of Internal Medicine, Juntendo
University, Tokyo, Japan, 12Hamamatsu University School of
Medicine, Hamamatsu, Japan, 12Department of Respiratory
Medicine, Tohoku University Graduate School of Medicine,
Sendai, Japan

1939. 

Overexpression of Ankyrin Repeat Domain Containing
Protein 1 Gene (ANKRD1) in Dermatomyositis Muscle
Biopsies Is Correlated to Hypoxia and Perifascicular
Atrophy. Samuel K. Shinjo, Sueli M. Oba-Shinjo, Miyuki
Uno and Suely K. N. Marie, Faculdade de Medicina da
Universidade de São Paulo, São Paulo, Brazil

1940. 

A Comprehensive Study of Novel Serum Markers of ILD
Associated with Inflammatory Myopathies. Fang Chen,
Xiaoming Shu, Xin Lu and Guochun Wang, China-Japan
Friendship Hospital, Beijing, China

1941. 

Clinical Evaluation of Anti-Aminoacyl tRNA Synthetase
Antibodies in Japanese Patients with Connective Tissue
Diseases. Masakazu Matsushita, Toshio Kawamoto, Ken
Yamaji, Naoto Tamura and Yoshinari Takasaki, Juntendo
University School of Medicine, Tokyo, Japan

1942. 

Increased Levels of Eotaxin and MCP-1 in Juvenile
Dermatomyositis Median 17 Years after Diagnosis;
Associations with Disease Activity, Duration and Organ
Damage. Helga Sanner1, Thomas Schwartz2, Berit Flata3,
Maria Vistnes2, Geir Christensen2 and Ivar Sjaastad1, 1Oslo
University Hospital, Oslo, Norway, 2University of Oslo, Oslo,
Norway

1943. 

Autophagy Expressions Were Decreased in Circulating T
Cells in Inflammatory Myopathies Patients. Fang Chen,
Xiaoming Shu, Xin Lu and Guochun Wang, China-Japan
Friendship Hospital, Beijing, China

1944. 

Expression of Human Leukocyte Antigen-G in Polymyositis
or Dermatomyositis. Xiaolan Tian, Xiaoming Shu, Xin Lu,
Qinglin Peng and Guochun Wang, China-Japan Friendship
Hospital, Beijing, China

1945. 

Anti-Transcription Intermediary Factor 1-Gamma (TIF1-Y)
Autoantibody Detection by ELISA and Immunoprecipitation
in a Prospective Myositis Cohort: Predictive Value for
Cancer Associated Myositis. Rohit Aggarwal, Noreen Fertig,
Danielle Goudeau, Chad Stephens, Qi Zengbiao, Diane
Koontz, Mary Lucas, Marc C. Levesque and Chester V. Oddis,
University of Pittsburgh, Pittsburgh, PA

1946. 

Effect of Immunosuppressive Treatment On Gene
Expression in Patients with Polymyositis and
Dermatomyositis. Ingela M. Loell1, Yi-Wen Chen2, Marina
Korotkova1, Kanbeboyna Nagaraju1 and Ingrid E. Lundberg1,
1Karolinska Institutet, Stockholm, Sweden, 2Children’s
National Medical Center, Washington, DC

1947. 

Muscle Wasting in HTNftg Mice, an Animal Model for
Rheumatoid Arthritis, Due to Increased Cathepsin L and
LC3B Expression. Martin Willburger1, Birgit Niederreiter1,
Ewald Unger1, Josef S. Smolen2, Kurt Redlich and Silvia
Bayer1, 1Medical University of Vienna, Vienna, Austria,
2Medical University of Vienna and Hietzing Hospital, Vienna,
Austria

1948. 

Decreased C4A Gene Copy Numbers in Children with
Juvenile Dermatomyositis: Association with Decreased
C4 Protein and Lower Absolute Number of CD3 Negative
CD16/56+ Natural Killer Cells. Lauren M. Pachman1,
Katherine E. Lintner1, Yee Ling Wu2, Lori J. Ferguson1,
Gabrielle A. Morgan3, Chang-Ching Huang4 and C. Yung
Yu1, 1Division of Pediatric Rheumatology, Northwestern
University Feinberg School of Medicine, Chicago, IL, 2The
Research Institute at Nationwide Children’s Hospital and The
Ohio State University, Columbus, OH, 3Children’s Hospital of
Chicago Research Center, Cure JM Myositis Center, Chicago,
IL, 4Department of Preventive Medicine, Northwestern
University Feinberg School of Medicine, Chicago, IL

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Aggarwal, Chester V. Oddis, Noreen Fertig, Danielle
Goudeau, Diane Koontz, Chad Stephens, Zengbiao Qi and
Marc C. Levesque, University of Pittsburgh, Pittsburgh, PA

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Danielle Goudeau, Chad Stephens, Noreen Fertig, Qi
Zengbiao, Diane Koontz and Marc C. Levesque, University of
Pittsburgh, Pittsburgh, PA

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Beijing, China

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Chul Shin4, Sung-Hye Park1, Hye Won Kim5, Hye Jin Oh6,
Myeong Jae Yoon3, Bong Seung Ku3, Eun Young Lee1, Eun
Bong Lee1, Hiroshi Kawachi2, Hitoshi Kohsaka7 and Yeong
Wook Song3, 1Chungnam National University School of
Medicine, Daejeon, South Korea, 2Seoul National University
College of Medicine, Seoul, South Korea, 3Seoul National
University Hospital, Seoul, South Korea, 4Department of
Internal Medicine, School of Medicine, Seoul National
University, Seoul, South Korea, 5Department of Internal

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1955. Is the Pattern of Capillary Deposition of Complement Membrane Attack COPMPLX Useful in the Differential Diagnosis of Inflammatory? Patrick Gordon1, Nuria Villagra2, Iván Bodi3, Andrew King3, Stefan Buk2, Tibor Hortobagyi2 and Safa Al-Sarraj2, 1Department of Rheumatology, King’s College London, London, United Kingdom, 2Department of Clinical Neuropathology, King’s College Hospital, London, United Kingdom

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1975. Mortality After Fragility Hip Fracture in Middle Aged and Elderly Men and Women in Southern Norway. Andreas P. Diamantopoulos, Mari Hoff, Marc C. Hochberg and Glenn Haugeberg; 1Hospital of Southern Norway HF, Kristiansand, Norway, 1and St Olavs Hospital, Trondheim, Norway, 2University of Maryland, Baltimore, MD

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Relationship between Changes in Bone Mineral Density and Incidence of Fracture with 6 Years of Denosumab Treatment. Michael A. Bolognese1, Paul D. Miller2, Jean-Yves Reginster1, Nathalie Franchimont4, Gerolamo Bianchi5, Roland Chapurlat6, Federico G. Hawkins7, David L. Kendler8, Beatriz Oliveri9, Jose R. Zanchetta10, Nadia Daizadeh4, Andrea LaCroix5, E. Michael Lewiecki5, John T. Schousboe5, Daniel H. Solomon5, Robert B. Wallace5 and Kenneth G. Saag1, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Wisconsin, Madison, WI, 3San Francisco Coordinating Center, CPMC Research Institute, San Francisco, CA, 4University of Maryland, Baltimore, MD, 5Fred Hutchinson Cancer Research Center, Seattle, WA, 6New Mexico Clinical Research & Osteoporosis Center, Albuquerque, NM, 7Park Nicollet Health Services, Minneapolis, MN, 8Brigham and Women’s Hospital, Boston, MA, 9University of Iowa, Iowa City, IA

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2001. Methotrexate and Injectable Tumor Necrosis Factor Alpha Inhibitor Adherence and Persistence in Children with Rheumatic Diseases. Sarah Ringold¹, Shannon Grant², Charmaine Girdish³, Carol A. Wallace² and Sean Sullivan⁴, ¹Seattle Children’s Hospital, Seattle, WA, ²Axio Research LLC, Seattle, WA, ³CVS Caremark, Scottsdale, AZ, ⁴Seattle Childrens Hospital, Seattle, WA, ⁵University of Washington, Seattle, WA

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2005. Clinical Course and Outcomes of Children with Juvenile Idiopathic Arthritis-Associated Uveitis and Idiopathic Uveitis. Sheila T. Angle-Han¹, Steven Yeh¹, Courtney McCracken², Larry B. Vogler¹, Kelly Royster-Stevens², Christine W. Kennedy³, Matthew Kent³, Kirsten Jenkins⁴, Scott Lambert¹, Carolyn Drews-Botsch¹ and Sampath Pralahad², ¹Emory Univ School of Medicine, Atlanta, GA, ²Emory Children’s Center, Atlanta, GA, ³Children’s Healthcare of Atlanta, Atlanta, GA, ⁴Emory University School of Public Health, Atlanta, GA

2006. Sexual Health and Substance Abuse in Adolescents with Rheumatic Conditions. Sara M. Stern, Rhina Castillo, Katherine AB Marzan, Jennifer Jackson, Mona Desai, Ellen Iverson, Leslie F. Clark and Diane Tanaka, Children’s Hospital Los Angeles, Los Angeles, CA

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2008. Initial Evaluation of a Localized Scleroderma (LS) Clinical Activity Measure. Suzanne C. Li¹, Kathryn S. Torok¹, Christina Kelsey¹, Lara L. Becker¹, Fatma Dedeoglu¹, Robert C. Fuhlbrieg¹, Gloria C. Higgins⁴, Sandy D. Hong¹, Maria F. Ibarra¹, Ronald M. Laxer⁸, Thomas G. Mason II¹, Marilynn G. Punaro⁹, Elena Pope¹¹, Eglà C. Rabinovich¹ and Katie G. Stewart⁹, ¹Joseph M Sanzari Children’s Hospital, Hackensack University Medical Center, Hackensack, NJ, ²Univ of Pittsburgh Med Ctr, Pittsburgh, PA, ³Children’s Mercy Hospital, Kansas City, MO, ⁴Boston Childrens Hosp, Boston, MA, ⁵Childrens Hospital, Boston, MA, ⁶Nationwide Childrens Hosp, Columbus, OH, ⁷U of Iowa Children’s Hosp, Iowa City, IA, ⁸The Hospital for Sick Children, Toronto, ON, ⁹Mayo Clinic Rochester, Rochester, MN, ¹⁰Texas Scottish Rite Hospital, Dallas, TX, ¹¹Hospital for Sick Children, Toronto, ON, ¹²Duke University Medical Center, Durham, NC

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2014. Serum 25(OH)D Levels in Adolescents and Young Adults with Juvenile Idiopathic Arthritis and Juvenile Onset Systemic Lupus Erythematosus: Prevalence and Association with Disease Activity. Fernanda Falcini1, Stefano Stagi2, Loredana Cavalli2, Giulia Carnesecchi3, Federico Bertini1, Laura Masi1, Marco Matucci-Cerinic4 and Maria Luisa Brandi1, 1Department of Internal Medicine, Rheumatology Section, University of Florence, Florence, Italy, 2Department of Pediatrics, University of Padua, Padua, Italy, 3DIMIMP-University, Rheumatologic Section, Bari, Italy, 4University of Florence, Florence, Italy

2015. Recognizing Two Distinct Clinical Phenotypes in Muckle-Wells Syndrome. J B. Kuenmerle-Deschner1, Samuel Dembi Samba1, Isabelle Kone-Paut2, Isabelle Marie1, Pascal N. Tyrrell1 and Susanne M. Benseler1, 1University Hospital Tuebingen, Tuebingen, Germany, 2CHU Bicêtre, Paris, France, 3The Hospital for Sick Children, Toronto, ON

2016. Primary Raynaud’s Phenomenon in a Multicenter Cohort of Italian Children and Adolescents: Which Prognostic Relevance for Serological Tests? Fernanda Falcini1, Valentina Denaro1, Federica Cuoco2, Giorgia Martin1, Susanna Cappelli1, Antonella Petaccia1, Fabrizia Corona2, Giulia Carnesecchi1, Francesco La Torre1, Marco Matucci-Cerinic1 and Donato Rigante1, 1Department of Internal Medicine, Rheumatology Section, University of Florence, Firenze, Italy, 2Department of Pediatrics, University of Milan, Milan, Italy, 3University of Padua, Padua, Italy, 4DIMIMP-University, Rheumatologic Section, Bari, Italy, 5University of Florence, Florence, Italy, 6Università Cattolica Sacro Cuore, Rome, Italy

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2018. Juvenile Idiopathic Arthritis in Adulthood: Evaluation of Disease Activity, Damage and Quality of Life. Alessandra Salmaso1, Lorenzo Ceri2, Serena Capannini2, Francesco La Torre1, Maurizio Gatti1, Irene Pontikaki1, Pier Luigi Meroni1, Fernanda Falcini1 and Valeria Gerloni1, 1Pediatric Rheumatology, G. Pini Institute, Department and Chair of Rheumatology, Milan, Italy, 2Department of Internal Medicine, Rheumatology Section, Transition Clinic, University of Florence, Firenze, Italy, 3DIMIMP-University, Rheumatologic Section, Bari, Italy, 4Division of Rheumatology, Istituto G. Pini, University of Milan, Milano, Italy

2019. A Novel MRI Scoring System for the Evaluation of Early-Stage Disease Activity of the Wrist in Juvenile Idiopathic Arthritis. Charlotte M. Nusman1, Robert Kemke1, Taco W. Kuijpers2, Eline E. Deurlo1, Dieneke Schonenberg2, J. Merlijn Van den Berg1, Koert M. Dolman1, Marion A.J. Van Rossum1 and Mario Maas1, 1Academic Medical Center, Amsterdam, Netherlands, 2Emma Children’s Hospital / Academic Medical Center (AMC), Amsterdam, Netherlands, 3Emma Children’s Hospital / Academic Medical Center and Reade Institute, Amsterdam, Netherlands, 4St. Lucas Andreas Hospital and Reade Institute, Amsterdam, Netherlands

2020. Assessment of Procedure Safety and Cannula Position in Temporomandibular Joint Puncture Evaluated by Cone Beam Computerized Tomography. Thomas K. Pedersen1, Kasper D. Kristensen1, Per Alstergren1, Peter Stoustrup1, Annelise Küseler1 and Troels Herlin1, 1University of Aarhus, Aarhus C, Denmark, 2Karolinska Institutet, Huddinge, Sweden, 3Aarhus University Hospital Skejby, Aarhus N, Denmark
2021. The Schedule of Administration of Canakinumab in Cryopyrin Associated Periodic Syndrome Is Driven by the Phenotype Severity Rather Than the Age. Roberta Caorsi1, Loredana Lepore2, Francesco Zulian3, Maria Alessio4, Achille Stabile5, Antonella Insalaco6, Martina Finetti7, Antonella Battagliese8, Giorgia Martini1, Chiara Bibalo2, Alberto Martini9 and Marco Gattorno1, I. G. Gaslini Institute, Genova, Italy, 1Ospedale-Infante Trieste, Trieste, Italy, 2University of Padua, Padova, Italy, 3Federico II Hospital, Napoli, Italy, 4Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy, 5Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy, 6Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy, 7Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy, 8Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy, 9Istituto di Ricerche Farmacologiche Raffaele Pirotta, Rome, Italy.

2022. Individual Disease Burden in Children and Adolescents with Chronic Musculoskeletal Pain – Multilevel-Analysis of a Nationwide Prospective Longitudinal Observation Study. Kerstin Gerhold1, Rebecca Muckelbauer2, Jacqueline Müller-Nordhorn3, Angelika Thon3, Thomas Müller4, Gerd Ganser5, Martina Niewerth6 and Kirsten Minden7, German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany, 8Charité - Universitätsmedizin Berlin, Berlin, Germany, 9Kinderklinik der Medizinischen Hochschule Hannover, Hannover, Germany, 10Universitätsklinikum Halle (Saale), Halle (Saale), Germany, 11Sankt Josef Stift, Sendenhorst, Germany, 12German Rheumatism Research Center, a Leibniz Institute, Berlin, Germany.

2023. Should Joint Ultrasound Contribute to Therapeutic Decisions in Juvenile Idiopathic Arthritis? Marie Halbwachs, Geraldine Durand, Caroline Robin, Catherine Gambert Pagnier14, Veronique Hentgen15 and Valerie Devauchelle-Pensec16, Centre, a Leibniz Institute, Berlin, Germany, 17Brest, France, 18Necker-Enfants Malades Hospital, Paris, France, 19Hospital Kremlin Bicêtre, Kremlin-Bicêtre, France, 20Hôpital de Saint Brieuc, France, 21Paediatrie, CHU, Bordeaux, France, 22Rouen, France, 23Paediatrie, CHU, Nancy, France, 24Hôpital Dieu, Hôpital Universitaire de Nantes, Nantes, France, 25Hôpital Tenon, Paris, France, 26Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 27Nantes University Hospital, Nantes, France, 28Inserm U769, Paris, France, 29Hôpital Pellegrin and Université Victor Segalen Bordeaux, Bordeaux, France, 30Service de pédiatrie, Grenoble, France, 31Paediatric Unit, Le Chesnay, France, 32Brest Occidentale university, Brest, France.

2024. Articular Symptoms in Cryopyrin-Associated Periodic Syndrome: Retrospective French Study. Laetitia Houx1, Pierre Quartier2, Isabelle Kone-Paut3, Xavier Guennoc4, Pascal Pillet5, Thierry Lequerre6, Irene Lemelle7, Mohamed Hamidou8, Gilles Gruau9, Eric Hachulla10, Jean-Marie Berthelot11, Benedicte Neven12, Christophe Richez13, Anne Pagnier14, Veronique Hentgen15 and Valerie Devauchelle-Pensec16, 1Brest, France, 2Necker-Enfants Malades Hospital, Paris, France, 3Hospital Kremlin Bicêtre, Kremlin-Bicêtre, France, 4Hôpital de Saint Brieuc, France, 5Paediatrie, CHU, Bordeaux, France, 6Rouen, France, 7Paediatrie, CHU, Nancy, France, 8Hôpital Dieu, Hôpital Universitaire de Nantes, Nantes, France, 9Hôpital Tenon, Paris, France, 10Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 11Nantes University Hospital, Nantes, France, 12Inserm U769, Paris, France, 13Hôpital Pellegrin and Université Victor Segalen Bordeaux, Bordeaux, France, 14Service de pédiatrie, Grenoble, France, 15Paediatric Unit, Le Chesnay, France, 16Brest Occidentale university, Brest, France.

2025. Clinical Characteristics and Therapy Response in a Large Single-Centre Cohort of Patients with Periodic Fever with Aphthous Stomatitis, Pharyngitis and Cervical Adenitis Syndrome. Francesca Ricci1, Antonella Meini2, Lucia Verdoni3, Laura Dotta4, Marta Bolis5, Marco Berlucchi6, Gianfranco Savoldi7 and Marco Cattalini8, 1Pediatric Immunology and Rheumatology Unit, Brescia, Italy, 2Department of Pediatric Otorhinolaryngology, Brescia, Italy, 3Angelo Nocivelli Institute of Molecular Medicine, Brescia, Italy.

2026. High Prevalence of Cervical Spine and Temporomandibular Joint Involvement in Patients with Juvenile Idiopathic Arthritis. Nikolay Tzaribachev1, Catrin Tzaribachev1 and Bernd Koos2, 1Center for Rheumatic Diseases, Bad Bramstedt, Germany, 2University Medical Center Schleswig-Holstein, Campus Kiel, Kiel, Germany.

2027. Chronic Nonbacterial Osteomyelitis of the Mandible in Children: A Tertiary Center Experience. Daniela S. Ardelean1 and Ronald M. Laxer2, 1Hospital for Sick Children, Toronto, ON, 2The Hospital for Sick Children, Toronto, ON.

2028. Medication Adherence and Quality of Life in Children with Rheumatic Disease. Stacey E. Tarvin1, Lisa M. Macharoni2, Christine M. Raches3 and Nicole M. Taylor4, 1Riley Hospital for Children, Indianapolis, IN, 2University of Indianapolis, Indianapolis, IN.

2029. Reliability of Scoring a Disease Damage Measure for Juvenile Localized Scleroderma. Kathryn S. Torok1, Suzanne C. Li2, Christina Kelsey3, Mara L. Becker4, Fatma Dedeoglu5, Robert C. Fuhlbriegg6, Gloria Higgins5, Sandy D. Hong7, Maria F. Ibarra3, Ronald M. Laxer8, Thomas G. Mason II9, Marilynn G. Pope10, Eigla C. Rabinovich12 and Katie G. Stewart10, 1Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 2Joseph M Sanzari Children's Hospital, Hackensack University Medical Center, Hackensack, NJ, 3Children’s Mercy Hospital, Kansas City, MO, 4Boston Childrens Hosp, Boston, MA, 5Childrens Hospital, Boston, MA, 6PRCSG-Cincinnati Children’s Hospital Medical Center, Columbus, OH, 7U of Iowa Children’s Hosp, Iowa City, IA, 8The Hospital for Sick Children, Toronto, ON, 9Mayo Clinic Rochester, Rochester, MN, 10Texas Scottish Rite Hospital, Dallas, TX, 11Hospital for Sick Children, Toronto, ON, 12Duke University Medical Center, Durham, NC.


2031. Safety and Efficacy of Anakinra in Patients with Deficiency of Interleukin-1 Receptor Antagonist. Gina A. Monteagle3, Adriana Almeida de Jesus4, Dawn C. Chapelle4, Paul Dancey5, Joost Frenkel4, Annet van Royen-Kerkhoff4, Ronit Herzog5, Giovanna Ciocca6, Rafael F. Rivas-Chacon7, Ann M. Reed1, Nicole Plass8, Ivona Aksentijevich9, Polly J.
2032. Results from a Multicentre International Registry of Familial Mediterranean Fever: Impact of Genetic and Environment Factors On the Expression of a Monogenic Disease in Children. Seza Ozen1, Erkan Demirkaya2, Gayane Amaryan2, Isabelle Koné-Pault1, Adem Polat1, Turker Turker2, Patricia Woo2, Yosef Uziel1, Consuelo Modesto1, Martina Finetti1, Pierre Quartier2, Efima Papadopoulou-Atlaki1, Sulaiman Al-Mayouf1, Giovanna Fabio1, Romina Gallizzi2, Luca Cantarini2, Joost Frenkel2, Michael Hofer1, Antonella Insalaco1, Huri Ozdogan1, Nicolina Ruperto1 and Marco Gattorno2, 1Hacettepe University, Ankara, Turkey, 2Paediatric Rheumatology International Trials Organization (PRINTO), Istituto Giannina Gaslini, Genova, Italy

2033. Infliximab Is an Effective Therapy in Pediatric Renal Sarcoidosis. Elisa Wershba, Laura Lewandowski, Heather Van Mater and Eglia C. Rabinovich, Duke University Medical Center, Durham, NC

2034. Magnetic Resonance Imaging Is a Reliable Tool to Monitor Chronic Non-Bacterial Osteomyelitis in Children. Grazia Minardo1, Giulia Zanon1, Simone Corradin1, Pietro Zucchetta1, Giorgia Martini1, Fabio Vittadello1 and Francesco Zulian1, 1University of Padua, Padua, Italy, 2University of Padua, Padova, Italy


2036. Children’s Hospital of Pittsburgh Pediatric Onset En Coup De Sabre and Parry-Romberg Syndrome Cohort. Kristin M. Brown1, Darren Smith2, Christina Kelsey3, Katherine Kurzinski1 and Kathryn S. Torok2, 1University of Pittsburgh, Pittsburgh, PA, 2University of Pittsburgh Division of Plastic and Reconstrucive Surgery, Children’s Hospital of Pittsburgh, Pittsburgh, 3Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 4Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA

Quality Measures and Innovations in Practice Management and Care Delivery

2037. Poor Quality of Gout Care Is Strongly Associated with Higher Gout-Related Health Care Utilization. Jasvinder A. Singh1 and Joshua Richman2, 1University of Alabama at Birmingham, Birmingham, AL, 2UB School of Medicine, Birmingham, AL

2038. Expanding Access in Rheumatology Specialty Care in New Mexico Via an Innovative Community Outreach Program. Arthur Bankhurst1, Sanjeev Arora3, Summers Kalishman1, Jeanne F. Boyle1, Cynthia Olivas1, Rebecca Monette1, Darasom2 and Yolanda Hubbard1, 1University of New Mexico School of Medicine, Albuquerque, NM, 2University of New Mexico School of Medicine, Albuquerque

2039. Uveitis Surveillance through Lean-Sigma for Quality Assurance in Juvenile Idiopathic Arthritis. Anjali Patwardhan1, Kelly Kelleher2, Jeffery Hoffman2, Karla B. Jones3, Stacy P. Ardo1 and Charles H. Spencer1, 1Nationwide Childrens Hospital, Columbus, OH, 2Nationwide Childrens Hospital, Columbus, OH, 3Ohio State University, Columbus, OH

2040. Provisions of Quality Driven Care in Childhood-Onset Systemic Lupus Erythematosus. Matthew C. Hollandier1, Jessica M. Sage1, Alexandra J. Greenler2, Tadej Avcinn3, Michael W. Beresford4, Graciela Espada5, Marisa S. Klein-Gitelman6, Michael Henrickson7, Tsz-Leung Lee8, Joshua D. Perdill9, Marilyn G. Punaro1, Jennifer L. Hugghins1, Anne M. Stevens1 and Hermine I. Brunner1, 1Seattle Children’s Hospital, Seattle, WA, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 3International Investigator Consortium for MAS Diagnostic Criteria, Ljubljana, Slovenia, 4Alder Hey Childrens NHS Foundation Trust, Liverpool, United Kingdom, 5Childrens Hosp Ricardo Gutierrez, Buenos Aires, Argentina, 6Ann & Robert H. Lurie Childrens Hospital of Chicago, Chicago, IL, 7Queen Mary Hospital, Hong Kong, Hong Kong, 8Texas Scottish Rite Hospital, Dallas, TX, 9University of Washington, Seattle, WA

2041. Improving Access and Patient Education in Rheumatology: the Gout Shared Medical Appointment; a Quality Improvement Initiative. Alicia J. Zbeihlik1 and Nicole M. Orzechowski2, 1Dartmouth-Hitchcock Medical Center, Lebanon, NH, 2Dartmouth-Hitchcock Med Ctr, Lebanon, NH


2043. Documentation of Improvement Over 2 Months in Osteoarthritis, Systemic Lupus Erythematosus, Spondylarthropathy and Gout Similarly to Rheumatoid Arthritis According to Function, Pain, Patient Global Estimate and RAPID3 On a Multidimensional Health Assessment Questionnaire (MDHAQ). Isabel Castrejón1, Martin J. Bergman1 and Theodore Pincus1, 1NYU Hospital for Joint Diseases, New York, NY, 2Taylor Hospital, Ridley Park, PA
2044. Trying to Improve Care: A Review of the Morbidity and Mortality Conference in the Division of Rheumatology. Michelle Batthish, Shirley Tse, Brian M. Feldman, G. Ross Baker and Ronald M. Laxer, The Hospital for Sick Children, Toronto, ON, University of Toronto, Toronto, ON


2046. Matching of Patients’ Actual and Desired Roles in Treatment Decision Making and Trust in Physicians. Akiko Aoki, Akiko Suda, Shouhei Nagaoka, Mitsuhiro Takeno, Yoshiaki Ishigatsubo, Tatsuto Ashizawa, Osamu Takahashi, Sachiko Ohde and Sadayoshi Ohbu, Tokyo Medical University Hachioji Medical Center, Tokyo, Japan

2047. Impact of a Rheumatology Consultation Service in Hospitalized Patients. Shirley L. Chow, Dafna D. Gladman Gladman and Heather McDonald-Blumer, University of Toronto, Toronto, ON, Western University, London, ON

2048. Four Physician Global Assessments for Overall Status, Inflammation, Damage, and Unexplained Symptoms Are Useful in Usual Care of Patients with Osteoarthritis, Fibromyalgia, Systemic Lupus Erythematosus, and Spondyloarthritis, As Well As Rheumatoid Arthritis. Isabel Castrejon, Martin J. Bergman and Theodore Pincus, NYU Hospital for Joint Diseases, New York, NY, Mt. Sinai Hospital, New York, NY

2049. Improving Pneumococcal Vaccination and Documentation for Immunosuppressed Patients At a University-Based Rheumatology Clinic. Christine Peoples, Rohit Aggarwal, Heena Sheh, Aarat Patel, Daniel Lupash, Christine McBurney, Ashima Maliki, Swati Modi, Ximena D. Ruiz and Douglas W. Lienesch, University of Pittsburgh, Pittsburgh, PA

2050. Are Patients Meeting the Updated Physical Activity Guidelines? Physical Activity Participation, Recommendation, and Preferences among Adults with Rheumatic Diseases. Victoria L. Manning, Michael V. Hurley, David L. Scott and Lindsay M. Bearne, King’s College London, London, United Kingdom, St George’s University of London, London, United Kingdom


2053. Tele-Rheumatology: The Future Is Now. Daniel Albert, Krista Merrihew and Sarah Pletcher, Dartmouth-Hitchcock Medical Center, Geisel School of Medicine, Lebanon, NH

2054. Safety of Joint and Soft Tissue Injections in Patients on Warfarin Anti-Coagulation. Richard Conway, Finbar (Barry) D. O’Shea, Gaye Cunnane and Michele Doran, St James’s Hospital, Dublin, Ireland

2055. TEAM-Managed Care of Biological Patients at A Canadian Centre. Melissa Deamude, Dawn Heap, Melanie Kanellos, Debbie Kislinsky, Kathy Kislinsky, Cynthia Mech, Helena Ross, Peggy Saldanha, Lauri Vanstone, Kathleen Brown and William G. Benson, Dr. William G. Benson Medicine Professional Corporation, Hamilton, ON, Dr. Benson’s Rheumatology Clinic, Hamilton, ON, Dr. William Benson Rheumatology Clinic, Hamilton, ON, Rheumatology Health Team, Dr. Benson’s Rheumatology Clinic, Hamilton, ON, St. Joseph’s Hospital and McMaster University, Hamilton, ON

2056. Effectiveness of a Focused Educational Intervention in Improving the Supplementation of Vitamin D Deficiency and Insufficiency. Candice Low, Richard Conway, Gaye Cunnane, Michele Doran and Finbar (Barry) D. O’Shea, St James’s Hospital, Dublin, Ireland

2057. Analysis of the Adherence to the Monitoring of Glucocorticoid Eye Toxicity and of the Prevalence of Cataracts and Glaucoma Among Patients with Systemic Lupus Erythematosus. Linda Carli, Chiari Tani, Francesca Querci, Alessandra Della Rossa, Sabrina Vagnani, Anna d’Ascanio, Rossella Neri, Antonio Tavoni, Stefano Bombardieri and Marta Mosca, Rheumatology Unit, Department of Internal Medicine, University of Pisa, PISA, Italy, Immunooallergology Unit, Department of Internal Medicine, University of Pisa, PISA, Italy

2058. Differences in Psychological Characteristics between Patients with Rheumatoid and Psoriatic Arthritis. Panagiota Tsitsi, Athina Theodoridou, Fotini Lada, Konstantinos Papanikolaou, Despina Dimopoulou, Georgios Garyfallos, Alexios Benos and Alexandros Garyfallos,
2059. The Efficacy of Clinical Guidelines in Promoting Co-Administration of Bone Protection with Glucocorticoids Among Hospital Doctors Treating Inpatients. Leonard C. Harty1, James Clare1, Dylan Finnerty1, Susan Van Der Kamp1, Fionnuala Kennedy1, Malachi McKenna1 and Oliver M. FitzGerald1, 2Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, 1Department of Rheumatology, St. Vincent’s University Hospital, Dublin, Ireland, 3Pharmacy Department, St. Vincent’s University Hospital, Dublin, Ireland, 4Department of Endocrinology & Metabolic Bone Disease, St. Vincent’s University Hospital, Dublin, Ireland

2060. Using the Electronic Medical Record to Increase Rates of Physician Assessment of Lipids in Patients with Systemic Lupus Erythematosus and Rheumatoid Arthritis: A Quality Improvement Initiative. Astrud Lorraine Leyva, Laura L. Tarter, Elizabeth Blair Solow and David R. Karp, UT Southwestern Medical Center, Dallas, TX

2061. Physician Variation in Documentation of Rheumatoid Arthritis Quality Measures and Evaluation of Relationship with Radiographic Progression. Sonali Desai1, Jinoos Yazdany2, Nancy A. Shadick3, Siri Lillegren4, Chih-Chin Liu5, Michelle A. Frits6, Tabatha Norton7, Jonathan S. Coblyn8, Michael Weinblatt9 and Daniel H. Solomon10, 1Boston, MA, 2University of California San Francisco, San Francisco, CA, 3Department of Medicine, Division of Rheumatology, Immunology and Allergy, Brigham and Women’s Hospital, Boston, MA, 4Diakonhjemmet Hospital, Oslo, Norway, 5Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 6Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 7Brigham & Womens Hosp, Boston, MA

2062. Increasing Pneumococcal Vaccination for Immunosuppressed Patients: A Cluster Quality Improvement Trial. Sonali Desai1, Lara Szent-gyorgyi1, Alexander Turchin1, Bing Lu1, Anna A. Bogdanova1, Michael Weinblatt2, Jonathan S. Coblyn3, Jeffrey O. Greenberg2, Allen Kachalla1 and Daniel H. Solomon1, 1Boston, MA, 2Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 3Rheumatology & Immunology, Brigham & Women’s Hospital, Boston, MA, 4Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 5Brigham and Women’s Hospital, Boston, MA

2063. Detection of Inflammatory Arthritis and Musculoskeletal Conditions in a First Nations Community: Results of an Onsite Screening Program. Cheryl Barnabe1, Carrissa Low Horn2, Margaret Kargard2, Stephen Mintsioiulis2, Sharon Leclercq1, Dianne P. Mosher2, Hani S. El-Gabalawy3, Tyler White2 and Marvin J. Fritzler3, 1University of Calgary, Calgary, AB, 2Siksika Health Services, Siksika, AB, 3University of Manitoba, Winnipeg, MB

2064. Regular Measure of Disease Activity during the Routine Care of Rheumatoid Arthritis Patients Involves Some Extra Work but Positive Results. Lissiane K. N. Guedes, Ana Cristina Medeiros Ribeiro, Karina Rossi Bonfiglioli, Diogo Domiciano, Carolina Reither Vizioli, Gilmarra Franco da Cunha, andressa Silva Abreu, Filipi M. Mello, Ana Luiza de Aguiar Foelkel, Celio R. Goncalves and Ieda Laurindo, Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo, Brazil

2065. Uptake of the American College of Rheumatology’s (ACR) Rheumatology Clinical Registry (RCR): Quality Measure Summary Data. Salahuddin Kazi1, Itara Barnes2, Jinoos Yazdany3 and Rachel Myśliński2, 1UT Southwestern Medical Center, Dallas, TX, 2American College of Rheumatology, Atlanta, GA, 3University of California San Francisco, San Francisco, CA

2066. Improving Outpatient Follow-up for Osteoporosis Management After a Hip Fracture. Anika Alarakhia1 and Robert Quinet2, 1Ochsner Medical Center, New Orleans, LA, 2Ochsner Medical Center - New Orleans, New Orleans, LA

2067. Access to Technology and Interest in Mobile “app” for Disease Management Among Patients with Systemic Lupus Erythematosus Seeking Care At a Large Referral Center. Wendy Marder1, Holly Wittteman2, Margaret Hyzy2, Martha Ganser1, Emily C. Somers1 and Lawrence An1, 1University of Michigan, Ann Arbor, MI, 2University of Michigan Medical School, Ann Arbor, MI, 3University of Michigan, Ann Arbor, MI

2068. Is There a Difference in Rheumatology Patient Reported Outcomes When Measured At Home Versus the Clinic Setting? C.J. Inman1, Frederick Wolfe2 and Kaleb Michaud3, 1University of Utah, Salt Lake City, UT, 2National Data Bank for Rheumatic Diseases, Wichita, KS, 3National Data Bank for Rheumatic Diseases & University of Nebraska Medical Center, Omaha, NE

Rheumatoid Arthritis: Animal Models

2069. Proteinase Activated Receptor-4 Stimulation Promotes Leukocyte Adhesion in the Rat Knee Joint. Jason J. McDougall, Dalhousie University, Halifax, NS

2070. Myeloid-Derived Suppressor Cells Accumulated in Spleens of Mice with Collagen-Induced Arthritis and Inhibited Immune Response of CD4+ T Cells. Wataru Fujii1, Eishi Ashihara2, Hideyo Hira2, Hideyuk Nagahara2, Kazuki Fujikata1, Ken Murakami1, Kaoru Nakamura1, Takahiro Seno3, Aihiro Yamaomo1, Hidetaka Ishino1, Masata Kohno1, Taira Maekawa1 and Yutaka Kawahito1, 1Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan, 2Kyoto Pharmaceutical University, Kyoto, Japan, 3Kyoto University Hospital, Kyoto, Japan
2071. The Potent, Highly Selective and Orally Bioavailable Spleen Tyrosine Kinase Inhibitor GSK143 Demonstrates Efficacy in B Cell Receptor and Fc Receptor Signalling in Models of Inflammatory and Autoimmune Disease. Marion C. Dickson, Nicholas Smithers, Huw Lewis, Cesar Ramirez-Molina, Scott McCleary, Mike Barker and John Liddle, GSK, Stevenage, United Kingdom

2072. Bone Formation and Resorption Are Both Increased in Autoimmune Arthritis. Kresten K. Keller1, Jesper Skovhus Thomsen2, Kristian Stengaard-Pedersen3, Frederik Dagnæs-Hansen1, Jens R. Nyengaard4 and Ellen-Margrethe Hauge1, 1Department of Rheumatology, Aarhus University Hospital, Aarhus, Denmark, 2Department of Anatomy, Aarhus University, 3Institute of Medical Microbiology and Immunology, Aarhus University, Aarhus, Denmark, 4Stereology and Electron Microscopy Laboratory, Centre for Stochastic Geometry and Advanced Bioimaging, Aarhus University hospital, Aarhus, Denmark

2073. Green Tea Epigallocatechin-3-Gallate Ameliorates Murine Arthritis by Inducing IDO Producing Dendritic Cells Via Nrf2 Antioxidant Pathway. Soyoun Min, Mei Yan, Kamala Vanarsa, Anna Bashmakov and Chandra Mohan, University of Texas Southwestern Medical Center, Dallas, TX

2074. Combined Effects of a c-Fos/AP-1 Inhibitor T-5224 and Methotrexate On Collagen-Induced Arthritis in Mice. Tomomi Date1, Yukihiko Aikawa1, Tetsuya Yamamoto2, Hirokazu Narita1, Shuichi Hirono1 and Shunichi Shiozawa3, 1Research Laboratories, Toyama Chemical Co., Ltd, Toyama, Japan, 2Department of Pharmaceutical Sciences, School of Pharmacy, Kitasato University, Tokyo, Japan, 3Institute of Medical Microbiology and Immunology, Aarhus University, Aarhus, Denmark

2075. CCR6+ Foxp3+ Regulatory T Cells Regulate the Development of Collagen Induced Arthritis in T Cell Specific ROpt1 Transgenic Mice. Yuya Kondo, Masahiro Tahara, Mana Iizuka, Hiroto Tsuboi, Satoru Takahashi, Isao Matsumoto and Takayuki Sumida, University of Tsukuba, Tsukuba, Japan

2076. Efficacy of the Potent PI3K-δ,γ Inhibitor IPI-145 in Rat Adjuvant Arthritis. David L. Boyle, Katharyn Topolewski and Gary S. Firestein, UCSD School of Medicine, La Jolla, CA

2077. IL-6 Blockade Augments the Anti-Inflammatory Effect without Increasing the Side Effects of Steroids in Collagen-Induced Arthritis. Miho Suzuki1, Hiroto Yoshida1, Misato Hashizume1, Keisuke Tanaka1, Masashi Shinya1, Isao Matsumoto1, Takayuki Sumida1 and Yoshihiro Matsumoto1, 1Chugai Pharmaceutical Co., Ltd., Gotemba, Shizuoka, Japan, 2Chugai Pharmaceutical Co., Ltd., Gotemba, Japan

2078. Low-Density Lipoprotein Receptor Deficiency Ameliorates the Development of Inflammatory Arthritis. Shawn Rose and Harris R. Perlman, Northwestern University, Chicago, IL

2079. Anti-Interleukin-6 Receptor Antibody Improves Systemic Osteoporosis in a Mice Model of Glucose-6-Phosphate Isomerase-Induced Arthritis. Hiroto Yoshida1, Miho Suzuki2, Misato Hashizume1, Keisuke Tanaka1, Masashi Shinya1, Isao Matsumoto1, Takayuki Sumida2 and Yoshihiro Matsumoto1, 1Chugai Pharmaceutical Co., Ltd., Gotemba, Shizuoka, Japan, 2University of Tsukuba, Tsukuba City, Japan

2080. IL-20 Is Not Involved in Mouse Collagen Induced Arthritis. Christina andersson1, Kyle Serikawa2, Hermann Pelzer1, Peter Thygesen1, Patricia Smith1, Kim Kruse2, Shameek Biswas3, Brian Fox1, anders Milner1, Peter Kvist1, Josephine Høgsbø1, Jesper Pass1 and John Rømer1, 1Biopharmaceutical Research Unit, Novo Nordisk A/S, Måløv, Denmark, 2Biopharmaceutical Research Unit, Novo Nordisk A/S, Seattle, WA

2081. Avß3 Integrin Inhibition with Cilenlitide Both Prevents and Treats Collagen Induced Arthritis. Despoina Sykoutri1, Nisha Geetha1, Silvia Haye1, Peter Mandl1, Josef S. Smolen1, Gerald Prager1 and Kurt Redlich1, 1Medical University of Vienna, Vienna, Austria, 2Medical University of Vienna and Hietzing Hospital, Vienna, Austria

2082. Peripheral and Local Effects of Anti-ω3Treatment in the Collagen Induced Arthritis Model. Christina andersson, Carola Wenander, Pernille Usher, Josephine Høgsbø and Lars Hornum, Biopharmaceutical Research Unit, Novo Nordisk A/S, Måløv, Denmark

2083. New Treatment Approach of Rheumatoid Arthritis Based On Inhibition of Cyclin Dependent Kinase-9. Annelie Hellward1, Lutz Zeitlmann2, Ulrich Heiser1, André Niestroy1, Hans-Ulrich Demuth3, Jan Potempa4 and Piotr Mydel5, 1Broegelmann Research Laboratory, The Gade Institute, University of Bergen, Bergen, Norway, 2Ingenium Pharmaceuticals GmbH, Martinsried, Germany, 3Probiodrug AG, Halle/Saale, Germany, 4Jagiellonian University, Krakow, Poland

2084. ASP015K: A Novel JAK Inhibitor Demonstrated Potential Efficacy in Adjuvant-Induced Arthritis Model in Rats. Shunj I Yamazaki, Masamichi Inami, Misato Ito, Yasutomo Fujii, Kaori Hanaoka, Kaoru Yamagami, Kenji Okuma, Yoshiaki Morita, Shohei Shirakami, Takayuki Inoue, Susumu Miyata and Yasuyuki Higashi, Astellas Pharma Inc., Tsukuba, Japan

2085. T Cell-Mediated Murine Antigen-Induced Arthritis Is Resistant to Transgenic Disruption of Glucocorticoid Signaling in Osteoblasts and Osteocytes in Vivo. Cornelia M. Spies1, Edgar Wiebe1, Jinwen W. Tu2, Aiqing Li2, Timo Gaber1, Dörte Huscher1, Markus J. Seibel2, Hong Zhou1 and Frank Buttgereit1, 1Charité University Medicine, Berlin, Germany, 2ANZAC Research Institute, The University of Sydney, Concord, Australia, 3Charite University Med-Berlin, Berlin, Germany

2086. PI3-Kinase Controls Inflammatory Bone Destruction by Regulating the Osteoclastogenic Potential of Myeloid Cells. Stephan Blueml1, Gernot Schabbauer1, Antonia Puchner1, Emine Sahin2, Victoria Saferding1, Birgit Niederreiter1, Josef S. Smolen1 and Kurt Redlich1, 1Medical University of Vienna, Vienna, Austria, 2Medical University Vienna, Vienna, Austria,
2087. Regulatory Effect of the Combination of Methotrexate and 1,25-Dihydroxyvitamin D3 On the Balance of Treg and Th17 in Collagen-Induced Arthritis. Jing Luo, the Second Hospital of Shanxi Medical University, Taiyuan, China

2088. Annexin A1 Receptor Agonist Suppresses Development of Inflammatory Arthritis. Yuan Hang Yang1, Yuan Jia2, Wenping Kao1, Wuji Song2, Zhan-guo Li3 and Eric F. Morand4, 1Monash University, Melbourne, Australia, 2Peking University People’s Hospital, Beijing, China, 3Harbin Medical University, Harbin, China

2089. High Local Cathepsin Activity in a Murine Rheumatoid Arthritis Model, but Not in an Osteoarthritis Model, Explains the Difference in Cartilage Vdipen Neoeptitope Formation. Eline A. Vermeij, Marije I. Koenders, Onno J. Arntz, Miranda B. Bennink, Arjen B. Blom, Peter L.E.M. van Lent, Wim B. van den Berg and Fons A.J. van de Loo, Rheumatology Research and Advanced Therapeutics, Department of Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

2090. Orchestrating the Orchestrators: Blockade of Fli3L Signaling-Dependent Dendritic Cells Protects Against Collagen Induced Arthritis. Maria I. Martins Ramos1, Karpus O.N. Karpus2, Pleun Broekstra1, Saïda Aarrass1, Paul P. Tak2 and Maria C. Lebre3, 1Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 2Academic Medical Center, University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

2091. The Effect of Pretreatment with Capsaicin On Measurement of Arthritis Pain by Dynamic Weight Bearing and Evoked Pain Responses in an Acute Murine Arthritis Model. Hollis E. Krug1, Christopher W. Dormann2, Sandra Frizelle3 and Maren L. Mahowald4, 1VA Health Care System, Minneapolis, MN, 2Minneapolis VA Health Care System, Minneapolis, MN, 3University of Minnesota Medical School and Minneapolis VA Health Care System, Minneapolis, MN

2092. No Significant Effect of Hepatitis B Virus Infection On Disease Activity, Synovitis or Joint Destruction in Rheumatoid Arthritis. Chan Juan Zou, Yan Hua Li, Ying Qian Mo, Lang Jing Zhu, Dong Hui Zheng, Jian Da Ma, Xia Ouyang and Lie Dai, Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, Guangzhou, China

2093. Rates of Opportunistic Infections among Rheumatoid Arthritis Patients Switching Biological Therapy. John Baddley1, Shuo Yang1, Kylene Brizendine2, Scott DuVall1, Kevin L. Winthrop1, Mary J. Burton1, Nivedita M. Patkar1, Elizabeth S. Delzell1, Monika M. Safford1, Jasvinder A. Singh1, Iris E. Navarro1, Grant W. Cannon1, Ted R. Mikuls4, Lang Chen1, Kenneth G. Saag5, Kimberly Alexander9, Pavel Napalkov2, Aaron Kamauu10 and Jeffrey R. Curtis5, 1University of Alabama at Birmingham, Birmingham, AL, 2Birmingham, AL, 3VA Salt Lake City Health Care System and University of Utah School of Medicine, Salt Lake City, UT, 4Oregon Health & Science University, Portland, OR, 5VA Hospital, Jackson, 6Univ of Alabama-Birmingham, Birmingham, AL, 7George E. Wahlen VA Medical Center, Salt Lake City, UT, 8Omaha VA and University of Nebraska Medical Center, Omaha, NE, 9Genentech, Inc., South San Francisco, CA, 10Anolinx, Bountiful, UT

2094. Reactivation of Hepatitis B Virus in Autoimmune Disease Patients Receiving Immunosuppressive Agents. Daisuke Kobayashi1, Satoshi Ito1, Megumi Unno1, Ichiei Narita2 and Akira Murasawa1, 1Niigata Rheumatic Center, Niigata, Japan, 2Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan

2095. Identifying Arthralgia Patients At Risk for Rheumatoid Arthritis in the Rotterdam Early Arthritis Cohort. M. van der Veer1, D. van Zeven1, A.E.A.M. Well1, P.J. Barendregt1, A.H. Gerards4, Johanna M.W. Hazes1 and Jolanda J. Luime6, 1ErasmusMC, Rotterdam, Netherlands, 2Sint Franciscus Gasthuis, Rotterdam, Netherlands, 3Maastricht Hospital, Rotterdam, Netherlands, 4Vlietland Hospital, Schiedam, Netherlands, 5Erasmus Medical Center, Rotterdam, Netherlands, 6Erasmus MC - University Medical Center, Rotterdam, Netherlands

2096. A Prediction Rule for the Progression to Rheumatoid Arthritis Applied in a Mexican Mestizo Cohort with Undifferentiated Arthritis. Ana Arana Guajardo, Lorena Pérez Barbosa, David Vega Morales, Janett Riega Torres, Roberto Negrete López, Jacqueline Rodríguez Amado, Jorge Esquivel Valerio, Cassandra Skinner Taylor, Diana Flores Alvarado, Dionicio Galarza Delgado, Miguel Villarreal Alarcon and Mario Garza Elizondo, Hospital Universitario, UANL, Monterrey, Mexico

2097. Adiponectin Is Associated with Pro-Inflammatory Cytokines in Autoantibody Positive First-Degree Relatives (FDRs) of Patients with Rheumatoid Arthritis. Jan M. Hughes-Austin1, Kevin D. Deane2, Lelizie A. Derber3, Gary O. Zerbe1, Dana M. Dabelea1, Jeremy Sokolove4, William H. Robinson5, V. Michael Holers2 and Jill M. Norris6, 1Colorado School of Public Health / University of Colorado Anschutz Medical Campus, Aurora, CO, 2University of Colorado School of Medicine, Aurora, CO, 3University of Colorado Anschutz Medical Campus, Aurora, CO, 4Vlietland Hospital, Schiedam, Netherlands, 5VA Palo Alto Health Care System and University of California, Palo Alto, CA, 6University of California, Palo Alto, CA, 7Stanford University, Palo Alto, CA, 8Colorado School of Public Health, Aurora, CO

2098. Patient Report Outcomes Variance Between Centers Is Much Lower Than Physician and Laboratory Assessed Measures of Rheumatoid Arthritis Activity: Results From a Multinational Study. Nasim A. Khan1, Horace Spencer2, Tuulikki Sokka1 and QUEST-RA4, 1University of Arkansas for Medical Sciences, Niigata, Japan, 2Colorado School of Public Health / University of Colorado Anschutz Medical Campus, Aurora, CO, 3VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 4Vlietland Hospital, Schiedam, Netherlands, 5VA Palo Alto Health Care System and University of California, Palo Alto, CA, 6Colorado School of Public Health, Aurora, CO

Rheumatoid Arthritis - Clinical Aspects III: Infections/Risk Factors for Incident Rheumatoid Arthritis/Metrology/Classification/Biomarkers/Predictors of Rheumatoid Arthritis Activity & Severity

2092. No Significant Effect of Hepatitis B Virus Infection On Disease Activity, Synovitis or Joint Destruction in Rheumatoid Arthritis. Chan Juan Zou, Yan Hua Li, Ying Qian Mo, Lang Jing Zhu, Dong Hui Zheng, Jian Da Ma, Xia Ouyang and Lie Dai, Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, Guangzhou, China

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ACR POSTER SESSION C

2099. **Patient Self-Assessments and Selected Patient Reported Outcomes May Reliably Identify Rheumatoid Disease Flare in Early Rheumatoid Arthritis Patients.** Vivian P. Bykerk1, CO Bingham III2, Ernest Choy3, Juan Xiong4, Gilles Boire5, Carol A. Hitchon1, Janet E. Pope1, J. Carter Thorne6, Boulos Harauoui7, Edward Keystone8 and Susan J. Bartlett11, 1Hospital for Special Surgery, New York, NY, 2Johns Hopkins University, Baltimore, MD, 3Cardiff University School of Medicine, Cardiff, United Kingdom, 4Mount Sinai Hospital, Toronto, ON, 5CHUS - Sherbrooke University, Sherbrooke, QC, 6University of Manitoba, Winnipeg, MB, 7St. Joseph Health Care London, University of Western Ontario, London, ON, 8Southlake Regional Health Centre, Newmarket, ON, 9Osteoarthritis Research Unit, University of Toronto, Toronto, ON, 10University of Toronto, Toronto, ON, 11McGill University, Montreal, QC.

2100. **Relative, Reliability-Adjusted Diagnostic Test Accuracy of Erosion Detection between Magnetic Resonance Imaging and Radiography in Rheumatoid Arthritis.** Ruben Tavares1, Naveen Parasu2, Karen Finlay2, Erik Jurriaans3, Hao Wu4, Karen A. Beattie1, Maggie Larche1, Lawrence E. Hart4, William G. Bensen1, Raja S. Bobba1, Alfred A. Cividino1, Colin E. Webber5, Jean-Eric Tarride6 and Jonathan D. Adachi7, 1McMaster University, Hamilton, ON, 2Hamilton Health Sciences, Hamilton, 3University of Western Ontario, London, ON, 4Western University, London, ON, 5University of Toronto, Toronto, ON, 6Programs for Assessment of Technology in Health Care, Hamilton, ON, 7McGill University, Montreal, QC.

2101. **How Much Patient Can Reported Outcomes Improve Among Rheumatoid Arthritis Patients Who Have a Clinical Response to Biologic Therapy but Have Not Attained Low Disease Activity?** Jeffrey Curtis1, Ying Shan, Jie Zhang1, Jeffrey D. Greenberg1 and George W. Reed1, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Alabama University School of Medicine, New York, NY, 3University of Massachusetts Medical School, Worcester, MA.

2102. **Patient versus Physician Global Assessments in Ethnic Patients With Rheumatoid Arthritis.** Gail S. Kerr1, Yusuf Yazici2, Christopher J. Swearingen3, Luis R. Espinosa4, Edward L. Treadwell5, Yvonne R. S. Sherrerr5, Angela D. Mosley-Williams5, Akgun Ince6, Raj G. Nair7, Theresa Lawrence Ford10, Jeffrey Huang11 and Carl A. Nuniati11, 1Washington DC VAMC, Georgetown and Howard University, Washington, DC, 2New York University, New York, NY, 3University of Arkansas, Little Rock, AR, 4Louisiana State University, New Orleans, LA, 5East Carolina University, Greenville, NC, 6Centre Rheum Immunol Arthritis, Fort Lauderdale, FL, 7John Dingell VAMC, Detroit, MI, 8Saint Louis University, St. Louis, MO, 9Washington Hospital Center, Washington DC, DC, 10North Georgia Rheumatology, Lawrenceville, GA, 11Howard University Hospital, Washington, DC.

2103. **Reliability of DAS28 in Rheumatoid Arthritis When Based On Patient Self-Assessment of Tender and Swollen Joints.** Ole Rintek Madsen and Ceciie Heggard, Copenhagen University Hospital Gentofte, Hellerup, Denmark.

2104. **Quantitation in Patients with Rheumatoid Arthritis of Inflammation, Joint Damage and “Unexplained Symptoms” (e.g., Fibromyalgia) in Addition to Overall Status, According to 4 Physician Global Estimates Scored 0-10.** Isabel Castrejon1, Martin J. Bergman2 and Theodore Pincus1, 1NYU Hospital for Joint Diseases, New York, NY, 2Taylor Hospital, Ridle Park, PA.

2105. **Significant Correlation between ACR/EULAR Remission Criteria and a Simplified Measure Using RAPID7 and Careful Joint Examination without a Formal Joint Count.** Martin J. Bergman1, Isabel Castrejon2 and Theodore Pincus1, 1Taylor Hospital, Ridle Park, PA, 2NYU Hospital for Joint Diseases, New York, NY.

2106. **Patient Characteristics Associated with Discrepancies in Evaluator-Reported and Patient-Reported Outcomes in U.S. Veterans with Rheumatoid Arthritis.** Archana Jain1, Rebecca Belsom1, Jeffrey Curtisii, Shuo Yang3, Ted R. Mikuls4, Lang Chen5 and Angelo L. Gaffo6, 1University of Alabama, Birmingham, AL, 2University of Alabama at Birmingham, Birmingham, AL, 3Omaha VA and University of Nebraska Medical Center, Omaha, NE, 4Birmingham VA Medical Center and University of Alabama at Birmingham, Birmingham, AL.

2107. **Assessing Subclinical Synovitis in Rheumatoid Arthritis: Arthrosonographic Findings in Patients with Good Response to Therapy.** Matthias Witt, Felix Mueller, Axel Nigg, Christiane Reinid, Hendrik Schulze-Koops and Mathias Grunke, Division of Rheumatology and Clinical Immunology, Medizinische Klinik und Poliklinik IV, University of Munich, Munich, Germany.

2108. **Identification of Four Parameters That Drive the Discordance between the Patient and Physician Global Assessment in Rheumatoid Arthritis.** William Bensen1, Denis Choquette2, Milton F. Baker3, Susan M. Otawa4 and Haysam Khalifi1, 1St. Joseph’s Hospital and McMaster University, Hamilton, ON, 2University of Montreal, Notre-dame Hospital, Montreal, QC, 3University of Victoria, Victoria, BC, 4Janssen Canada Inc, Toronto, ON.

2109. **Discrepancy Between Patient and Physician Global Assessments Over Time in Early Rheumatoid Arthritis.** Pooneh Akhavan1, Vivian P. Bykerk1, Juan Xiong1, Janet Pope1, Boulos Harauoui2, J. Carter Thorne3, Gilles Boire4, Carol A. Hitchen5, Diane Tin6, E. Keystone7 and CATCH8, 1University of Toronto, Toronto, ON, 2Mount Sinai Hospital, Toronto, ON, 3Schulich School of Medicine and Dentistry, Western University, London, ON, 4Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal.
Laetitia Sparsa1, Sami Talabi1, Rachel Mackey2, Larry W. Moreland2, Jan Dorman3, Mehret Birru with Rheumatoid Factor and Serum Cytokines among Postmenopausal Women

The Associations of HLA-DR Shared Epitope Alleles and Serum Cytokines among Postmenopausal Women with Rheumatoid Factor and Anti-Citrullinated Protein Antibody-Positive Rheumatoid Arthritis. Mehret Birru Talabi1, Rachel Mackey1, Larry W. Moreland2, Jan Dorman3, Kevin D. Deane4, Jeremy Sokolove5, V. Michael Holers4, William H. Robinson4, Brian Wallitt7 and Lewis Kuller2, 1University of Pittsburgh Medical Center, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3University of Pittsburgh School of Nursing, Pittsburgh, PA, 4University of Colorado School of Medicine, Aurora, CO, 5VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 6Southlake Regional Health Centre, Newmarket, ON, 7CHUS - Sherbrooke University, Sherbrooke, QC, 8University of Manitoba, Winnipeg, MB, 9Toronto

Diagnostic Performance of the 2010 American College of Rheumatology/European League against Rheumatism Classification Criteria for Rheumatoid Arthritis: Systematic Literature Review and Meta-Analysis. Garofalia Sakellariou1, Carlo Alberto Scirè2, Roberto Caporal1 and Carlmaurizio Montecucco3, 1Division of Rheumatology, University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy, 2Epidemiology Unit, Italian Society for Rheumatology (SIR), Milano, Italy, 3University of Pavia School of Medicine, IRCCS Policlinico San Matteo Foundation, Pavia, Italy

Combination of Magnetic Resonance Imaging (MRI)-Proven Osteitis with 2010 RA Classification Criteria Improves the Diagnostic Probability of Rheumatoid Arthritis (RA). Mami Tamai1, Yoshikazu Nakashima1, Takahisa Suzuki1, Yoshiro Hori2, Akitomo Okada2, Junko Kata3, Shin-ya Kawashiri2, Naoki Iwamoto4, Kunihiro Ichinose1, Kazuhiko Arima1, Hideki Nakamura1, Tomoki Origuchi1, Masatake Uetani1, Kiyoshi Aoyagi1, Katsumi Eguchi1 and Atsushi Kawakami1, 1Nagasaki University, Nagasaki, Japan, 2Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, 3Sasebo City General Hospital, Sasebo, Nagasaki, Japan

Performance of the New ACR/EULAR Classification Criteria for Rheumatoid arthritis—A Systematic Literature Review. Helga Radner1, Josef Smolen1 and Daniel Aletaha1, 1Medical University Vienna, Vienna, Austria, 2Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 3Medical University of Vienna, Vienna, Austria

Joint Damage Progression in Rheumatoid Arthritis: Role of the HLA-DRB1 Shared Epitope and Anti-CCP. Jose Felix Restrepo1, Inmaculada del Rincon1, Roy W. Haas1, Daniel F. Battafarano2 and Agustin Battafarano1, 1University of Texas Health Science Center at San Antonio, San Antonio, TX, 2Brooke Army Medical Ctr, San Antonio, TX

Altered Serum Levels of Bone Metabolism Markers in Rheumatoid Arthritis. Lang Jing Zhu, Xia Ouyang, Lie Dai, Dong Hui Zheng, Ying Qian Mo, Xiu Ning Wei, Chan Juan Zou and Bai Yu Zhang, Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, Guangzhou, China

The Associations of HLA-DR Shared Epitope Alleles and Serum Cytokines among Postmenopausal Women with Rheumatoid Factor and Anti-Citrullinated Protein Antibody-Positive Rheumatoid Arthritis. Mehret Birru Talabi1, Rachel Mackey1, Larry W. Moreland2, Jan Dorman3, Kevin D. Deane4, Jeremy Sokolove5, V. Michael Holers4, William H. Robinson4, Brian Wallitt7 and Lewis Kuller2, 1University of Pittsburgh Medical Center, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3University of Pittsburgh School of Nursing, Pittsburgh, PA, 4University of Colorado School of Medicine, Aurora, CO, 5VA Palo Alto Health Care System and Stanford University, Palo Alto, CA, 6Southlake Regional Health Centre, Newmarket, ON, 7CHUS - Sherbrooke University, Sherbrooke, QC, 8University of Manitoba, Winnipeg, MB, 9Toronto

Algorithm Using Genome-Wide SNP Analysis for Prediction of Radiographic Progression per Year in RA Patients From Multiple Medical Cohorts. Tsukasa Matsubara1, Satoru Koyano2, Yoshitada Sakai3, Keiko Funahashi4, James E. Middleton5, Takako Miura1, Kosuke Okuda1, Takeshi Nakamura1, Akira Sagawa2, Takeo Sakurai2, Hiroaki Matsuno5, Tomomaro Izumihara1 and Ei issueshono6, 1Matsubara Mayflower Hospital, Kobe, Japan, 2Kobe University Hospital, Kobe, Japan, 3Sagawa Akira Rheumatology Clinic, Sapporo, Japan, 4Inoue Hospital, Takasaki, Japan, 5Matsuno Clinic for Rheumatic Diseases, Toyama, Japan, 6Izumihara Rheumatic and Medical Clinic, Kagoshima, Japan, 7Shono Rheumatology Clinic, Fukuoka, Japan

Validation of Prognostic Biomarkers for RA: Testing of 14-3-3 Eta According to the Omeract Soluble Biomarker Criteria. Walter P. Maksymowycz1, Désirée van der Heijde2, R. Landewe3, George A. Wells4, Joan M. Bathan5, CO Bingham III6, Vivian P. Bykerk5, Mikkel Ostergaard7, Hilde B. Hammer1, Maarten Boers8, Paul Peter Tak9, Oliver M. FitzGerald12, Christopher T. Ritchlin11, Dafna Gladman14, Philip Meese13, Dirkjan van Schaardenburg15, Marina Backhaus17, Bernard Combe18, Gianfranco Ferraccioli19 and Anthony Marotta20, 1University of Alberta, Edmonton, AB, 2Leiden University Medical Center, Leiden, Netherlands, 3Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 4Univ of Ottawa Faculty of Med, Ottawa, ON, 5Columbia University Medical Center, New York, NY, 6Johns Hopkins University, Baltimore, MD, 7Hospital for Special Surgery, New York, NY, 8Copenhagen University Hospital at Glostrup, Glostrup, Denmark, 9Diakonhjemmet Hospital, Oslo, Norway, 10VU University Medical Center, Amsterdam, Netherlands, 11Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, 12Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, 13University of Rochester Medical Center, Rochester, NY, 14Toronto Western Hospital and University of Toronto, Toronto, ON, 15Swedish Rheumatology Research Group, Seattle, WA, 16Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 17Charite University Hospital, Berlin, Germany, 18Hospital Lapeyronie, Montpellier, France, 19Division of Rheumatology, Catholic University of the Sacred Heart, Rome, Italy, 20Augurex Life Sciences Corp, North Vancouver, BC
119. Interleukin-6 as a Biomarker for the Clinical and Radiological Effectiveness of Methotrexate in Rheumatoid Arthritis. Naoshi Nishina, Hitdo Kameda, Yuko Kaneko, Masataka Kuwana and Tsutomo Takeuchi, Keio University School of Medicine, Tokyo, Japan

2120. Predictive Value of Anti-CCP Positivity on Disease Course and Response to Therapy in Early Rheumatoid Arthritis. Results from the Swedish EIRA Study. Saedis Saevarsdottir1, Marie Holmquist1, Johan Askling2, Lars Alfredsson1 and Lars Klareskog1, 1Rheumatology Unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 2Karolinska Institute, Stockholm, Sweden, 3Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

2121. A Multi-Biomarker Disease Activity (VECTRA™ DA Algorithm) Score Reflects Clinical Disease Activity and Structural Changes in Rheumatoid Arthritis Patients Treated with Tocilizumab. Yoshiya Tanaka1, Kentaro Hanami1, Hisashi Tasaka2, Shunsuke Fukuyo3, Douglas J. Haney2, Nadine Defranoux3, Rebecca Bolce2, Guy Cavel1, David Chernoff2, Kunihiro Yamaoka1, Kazuyoshi Saito1 and Shintaro Hirata1, 1University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 2University of California, San Francisco, CA

2122. Plasma chemerin as a Useful Marker for Disease Activity in Patients with Rheumatoid Arthritis. Sang Tae Choi, You-Jung Ha, Eun-Jin Kang, Kwang-Hoon Lee and Jung-Soo Song, 1Chung-Ang University College of Medicine, Seoul, South Korea, 2Kwandong University College of Medicine, Myongji Hospital, Goyang, South Korea, 3Busan Medical Center, Busan, South Korea, 4Dongguk University Ilsan Hospital, Goyang, South Korea

2123. Circulating Mir-223 Is Associated with Disease Activity and May Predict the Response to Therapy in Treatment naive Patients with Early Rheumatoid Arthritis. Maria Flikova1, Caroline Ospelt1, Serena Vettori1, Ladislav ŠEnolt2, Herman F. Mann3, Beat A. Michel1, Jiri Vencovsky3, Karel Pavelka1, Renate E. Gay2, Steffen Gay3 and Astrid Jüngel1, 1Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Switzerland, Zurich, Switzerland, 2Institute of Rheumatology, Department of Clinical and Experimental Rheumatology of the 1st Faculty of Medicine, Charles University in Prague, Prague, Czech Republic, 3Department of Rheumatology, University Hospital Zurich, Zurich, Switzerland

2124. Serum Concentrations of Soluble Interferon Receptor in Patients with Rheumatoid Arthritis. Masao Sato, Masao Takemura, Ryuki Shinohoe, Tsuneo Watanabe and Katsuji Shimizu, Gifu University, Gifu, Japan

2125. Response to Methotrexate Plus Prednisone in Camera II Using a Multi-Biomarker Disease Activity (VectraTM DA Test and DAS28-ESR. J.W.J. Bijlsma1, M. Verhoef-Jurgens1, M.F. Bakker1, J.W.G. Jacobs1, F.P.J.G. Lafeber1, P.M.J. Welsing3, G. Cavet1, D. Chernoff2 and D.J. Haney3, 1University of California, San Francisco, CA

2126. Changes of Serological Markers in the Course of Traditional and Biological Disease Modifying Therapy of Rheumatoid Arthritis. Christoph Böhler1, Helga Radner1, Josef F. Smolen2 and Daniel Aletaha3, 1Medical University of Vienna, Vienna, Austria, 2Medical University of Vienna and Hietzing Hospital, Vienna, Austria

2127. Rheumatoid Arthritis (RA) Patients Discordant for Rheumatoid Factor and Anti-CCP Positivity Have Different Clinical and Laboratory Features Than RA Patients Seropositive or Seronegative for Both Markers. Swati Modi1, Yona Cleonan1, Danielle Goudeau1, Donald M. Jones1, Christine L. Amity1, Lynne M. Frydrych1, Kelly A. Reckley1, Heather Eng1, Stephen R. Wisniewski2, Larry W. Moreland1 and Marc C. Levesque1, 1University of Pittsburgh, Pittsburgh, PA, 2Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 3Univ of Pittsburgh, Pittsburgh, PA, 4University of Pittsburgh School of Medicine, Pittsburgh, PA, 5University of Pittsburgh, Graduate School of Public Health, Pittsburgh, PA

2128. Matrix Metalloproteinase 3: A Biomarker of Disease Activity in Rheumatoid Arthritis. Sandra Reuter1, Torsten Matthias2 and Bruno Larida3, 1AIRA e.V., Aeskulap Diagnostics GmbH & Co. KG, Wendelsheim, Germany, 2Aeskulap Diagnostics INC, Oakland, CA

2129. Dickkopf-1 Is Increased in Rheumatoid Arthritis of Recent Onset and Might Be a New Biomarker of Structural Progression. Data from the Espoir Cohort. Raphaelle Seror1, Stephan Pavy1, Thierry Schaeverbeke1, Alain Sarau1, Xavier Mariette2 and Corinne Miceli-Richard3, 1Université Paris Sud, Le Kremlin Bicêtre, France, 2Hôpital Bicêtre, Paris, France, 3Groupe Hospitalier Pellegrin, Bordeaux, France, 4CHU de la Cavale Blanche, Brest Cedex, France, 5Université Paris-Sud, Le Kremlin Bicêtre, France

2130. Studies of Disease and Therapy-Response Biomarkers in Early Rheumatoid Arthritis Treated with Methotrexate. Aase Haj Hensvold1, Saedis Saevarsdottir*1, Wanyiang Li1, Vivianne Malmström1, Guy Cavet3, Lars Klareskog4 and Anca Irinel Catrina1, 1Rheumatology Unit, Karolinska University Hospital, Karolinska Institute, Stockholm, Sweden, 2Crescendo Bioscience Inc. 341 Oyster Point Blvd South San Francisco, CA 94080, San Francisco, CA, 3Crescendo Bioscience Inc., South San Francisco, CA, 4Karolinska Institute, Stockholm, Sweden

2131. An Evaluation of Prognostic Factors for Orthopaedic Joint Surgery in Rheumatoid Arthritis. Results From Two Multicentre UK Inception Cohorts (1986-2011). Elena Nikiphorou1, Lewis Carpenter2, Sam Norton1, David James4, Patrick D. Kiely5, David Walsh6, Richard Williams7 and Adam Young8, 1ERAS, St Albans City Hospital & University College London (UCL), London, United Kingdom, 2University of Hertfordshire, Hatfield, United Kingdom, 3ERAS, St Albans City Hospital, St Albans, United Kingdom, 4University
Princess of Wales Hospital, Grimsby, United Kingdom, 1St. Georges Hospital, London, United Kingdom, 1City Hospital, Nottingham, United Kingdom, 1County Hospital, Hereford, United Kingdom, 2St Albans City Hospital, St Albans, United Kingdom

2132. Disease Activity and Anti-CCP Status, but Not Sociodemographic Factors or Patient Comorbidities, Affect Time to Diagnosis in Early Rheumatoid Arthritis. Cheryl Barnabe1, Juan Xiong2, Gilles Boire1, Carol A. Hitchon3, Boulou Haraoui1, Janet E. Pope4, J. Carter Thorne5, Edward Keystone6, Diane Tin7, Vivian P. Bykerk8 and Canadian ArThritis CoHort9, 1University of Calgary, Calgary, AB, 2University of Toronto, Toronto, 1CHUS - Sherbrooke University, Sherbrooke, QC, 3University of Manitoba, Winnipeg, MB, 4Osteoarthritis Research Unit, University of Montreal Hospital Research Centre (CRCHUM), Montreal, QC, 5St. Joseph Health Care London, University of Western Ontario, London, ON, 6Southlake Regional Health Centre, Newmarket, ON, 7University of Toronto, Toronto, ON, 8Hospital for Special Surgery, New York, NY, 9Toronto

2133. Relationship between Clinical Response and Radiographic Outcomes in Patients with Moderate Rheumatoid Arthritis. Josef S. Smolen1, Ronald F. van Vollenhoven2, Andrew S. Koenig3, Ronald Pedersen4, Annette Szumski5 and Eustratios Bananis6, 1Medical University of Vienna and Hietzing Hospital, Vienna, Austria, 2The Karolinska Institute, Stockholm, Sweden, 3Pfizer Inc., Collegeville, PA

2134. The Changed Prognosis of Patients with Early Rheumatoid Arthritis. Karin Britzemmer1 and D. van Schaardenburg2, 1Jan van Breemen Research Institute / Reade, Amsterdam, Netherlands, 2Jan van Breemen Research Institute | Reade, Amsterdam, Netherlands

2135. Trabecular Bone Texture parameters are Correlated with Magnetic Resonance Imaging (MRI) bone Edema At Hand and Wrist in Active Rheumatoid Arthritis (RA). Thao Pham1, Sophie Trijau2, Roland Chapurlat2, Damien Loeuille3, Thierry Schaeverbeke3, Christian Roux3, Claude-Laurent Benhamou4, Olivier Vittecoq5, Jean Sibilia6, Frederic Mistretta7 and Cécile Hacquard-Bouder8, 1Sainte Marguerite Hospital, Marseille, France, 2Vandoeuvre les Nancy, France, 3Groupe Hospitalier Pellegrin, Bordeaux, France, 4Paris Descartes University, Paris, France, 5EA 4708 University Orleans, Orleans, France, 6Rouen University Hospital & Inserm905, University of Rouen, Rouen Cedex, France, 7CHU Hautepierre, Strasbourg, France, 8Lyon, France, 9Abbott France, Rungis, France

2136. Alcohol Use and Radiographic Disease Progression in African Americans with Recent Onset Rheumatoid Arthritis. Marshall Davis1, Kaleb Michaud2, Harlan Sayles3, Doyt L. Conn4, Larry W. Moreland5, S. Louis Bridges Jr. and Ted R. Mikuls6, 1University of Nebraska Medical Center, Omaha, NE, 2Emory Univ School of Medicine, Atlanta, GA, 3University of Pittsburgh, Pittsburgh, PA, 4Marguerite Jones Harbert-Gene V. Ball, MD Professor of Medicine, and Director, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham, Birmingham, AL

2137. Contribution of Disease Activity, Joint Damage and Comorbidity to Impairment (SOFI) and Disability (HAQ) in Rheumatoid Arthritis Patients Over 20 Years. Meliha C. Kapetanovic1, Elisabet Lindqvist2, Jan-Åke Nilsson3, Pierre Geborek4, Tore Saxne5 and Kerstin Eberhardt6, 1Dept of Clinical Sciences Lund, Section of Rheumatology, Lund University, Lund, Sweden, 2Department of Clinical Sciences Lund, Section of Rheumatology, Skåne University Hospital, Lund University, Lund, Sweden, 3Lund University, Malmö, Sweden, 4Sweden, 5Dept of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden

2138. Racial and Ethnic Disparities in Rheumatoid Arthritis Outcomes in Community-Based U.S. Rheumatology Practices: Results From the Consortium of Rheumatology Researchers of North America Registry. Jeffrey D. Greenberg1, Tanya Spruill1, Gbenga Ogedebe2, Joel M. Kremer3, Ying Shan4, Katherine C. Saunders5, Yusuf Yazici6 and Leslie R. Harrold7, 1NYU Hospital for Joint Diseases, New York, NY, 2NYU School of Medicine, New York, NY, 3New York University School of Medicine, New York, NY, 4Albany Medical College and The Center for Rheumatology, Albany, NY, 5UMass Medical School, Worcester, MA, 6CCorONA, Inc., Southborough, MA, 7New York University, New York, NY


2140. A Longitudinal Study of Prognostic Factors in Patients with Early RA Providing Direction for Future Clinical Treatment-Predict Study. Paul Bird1, David Nicholls2, Julien P . de Jager3, Hedley Griffiths4, Lynden Roberts5, Kathleen Tymms6, Jane Zochling7, Mark H. Arnold8, Geoffrey O. Littlejohn and OPAL Consortium9, 1Combined Rheumatology Practice, Sydney, Australia, 2Coast Joint Care, Maroochydore, Australia, 3Suite 7, Osler House, Southport, Australia, 4Barwon Rheumatology Service, Geelong, Australia, 5James Cook University, Townsville, Australia, 6Canberra Rheumatology, Canberra, Australia, 7Menzies Research Institute Tasmania, Hobart, Australia, 8Level 2 The Gallery, Chatswood, Australia, 9Monash Medical Center, Melbourne, Australia, 10Melbourne, Australia

2141. Effects of Cigarette Smoking On EARLY Arthritis (CONAART). Maria Haye Salinas1, Ana C. Alvarez2, Rafael Chaparro del Moral3, Mariana Benegas4, Christian A. Waimann4, Rodolfo Perez Alamino4, Rodrigo Garcia Salinas5, Ana Lucia Barbaglia6, Veronica Bellomio7, Josefina Marcos8, Adrian Salas9, Cristian Quiroz10, Federico Cuccato10, Sergio Pairea10, Dora Lia Vazquez10, Gabriela Salvatieri10, M. Crespo10,
2142. Magnetic Resonance Imaging-Proven Osteitis At Baseline Predicts the Early Rheumatoid Arthritis Patients Who Will Develop Rapid Radiographic Progression: MRI Is Beneficial to Find the Window of Opportunity in Early RA. Mami Tamai1, Yoshikazu Nakashima2, Takahisa Suzuki2, Yoshio Horai2, Akitomo Okada2, Junko Kita2, Shin-ya Kawashiri2, Naoki Iwamoto2, Kunihiro Ichinose2, Kazukiko Arima1, Hideki Nakamura1, Tomoki Orighuchi2, Masataka Uetani2, Kiyoshi Aoyagi2, Katsumi Eguchi2, and Atsushi Kawakami2, 1Nagasaki University, Nagasaki, Japan, 1Sasebo City General Hospital, Sasebo, Nagasaki, Japan

2143. Analysis of Factors Associated with the Health Assessment Questionnaire Score Change in Five Years. Shinji Yoshida1, Katsunori Ikarishi2, Kensuke Ochi3, Yoshiaki Toyama1, Atsuo Taniguchi4, Hitoshi Yamanaka5 and Shigeaki Momohara6, 1Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan, 2Institute of Rheumatology, Tokyo Women’s Medical University, Shinjuku-ku, Japan, 3Keio University, Shinjuku, Japan

2144. Early RA Patients Fulfilling the New 2010 ACR/EULAR Criteria, Display Better Clinical Responses to DMARD Therapy but Have Higher Radiographic Damage Progression Than Patients with Early RA Not Fulfilling the 2010 ACR/EULAR Criteria. Ruediger Mueller1, Toni Kaegi2, Axel Finckh2 and Johannes von Kempis3, 1MD. St. Gallen, Switzerland, 2Geneva University Hospitals, Geneva 16, Switzerland

2145. Age at Onset Determines Severity and choice of Treatment in Early Rheumatoid Arthritis. Lena Innal1, Bozena Möller2, Lotta Ljung1, Torgny Smedby2, Anna Södergren3, Staffan Magnusson4, Ewa H. Berglin1, Solbritt M. Rantapää-Dahlqvist5 and Solveig Wällberg-Jonsson1, 1Institution of Public health and clinical medicine/Rheumatology, University of Umeå, Umeå, Sweden, 2Department of Rheumatology, Sunderby Hospital, Luleå, Sweden, 3Department of Rheumatology, Östersund Hospital, Östersund, Sweden, 4Department of Internal Medicine, Sundsvall Hospital, Sundsvall, Sweden

2146. Impact of Severity Index for Rheumatoid Arthritis on Healthcare Costs and Utilizations in Patients with Rheumatoid Arthritis. Onur Baser1, Li Wang2, Juan Du3, Hai Wang4 and Lin Xie5, 1STATinMED Research/The University of Michigan, Ann Arbor, MI, 2STATinMED Research, Dallas, TX, 3STATinMED Research, Ann Arbor, MI

2147. Risks to Visit Emergency Room in Patients with Rheumatoid Arthritis: A Two-Year Retrospective Study. Yoshiki Nagai, Naoto Yokogawa, Kota Shimada and Shoji Sugii, Tokyo Metropolitan Tama Medical Center, Tokyo, Japan

2148. Peer to Peer Mentoring for Individuals with Early Inflammatory Arthritis: Feasibility Pilot. Mary J. Bell1, Paula Veinot1, Gayatrii Embuldeniya1, Joyce Nyhoff-Young2, Joanna Sale1, Joan Sargeant3, Peter Tugwell4, Sydney Brooks1, Susan Ross1, Ruth Tonon1, Sharron Sandhu5, Dawn Richards6, Jennifer Boyle7, Kerry Knickle8, Nicky Britten9, Emma Bell1, Fiona Webster10 and Mary Cox-Dublanski11, 1Sunnybrook Health Sciences Centre and University of Toronto, Toronto, ON, 2Sunnybrook Health Sciences Centre, Toronto, ON, 3University Health Network, University of Toronto, Toronto, ON, 4University of Toronto, St. Michael’s Hospital, Toronto, ON, 5Dalhousie University, Halifax, NS, 6University of Ottawa, Ottawa General Hospital, Ottawa, ON, 7The Arthritis Society, Ontario Division, Toronto, ON, 8Canadian Arthritis Network Consumer Advisory Council, Toronto, ON, 9University of Toronto, Toronto, ON, 10University of Exeter, Exeter, United Kingdom, 11St. Mary’s General Hospital, Kitchener, ON

Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy

2149. Atsitrin-α, an Engineered Protein Derived From Progranulin Growth Factor, Binds to TNF Receptors and Exhibits Potent Anti-Inflammatory Activity in Mice. Yunpeng Zhao1, Qingsun Tian2, Haicheng Song3, Fanhua Wei4 and Chuanju Liu5, 1NYU Hospital for Joint Diseases, New York, NY, 2New York University, New York, NY

2150. Action of Tofacitinib via Human Dendritic Cells. Satoshi Kubo, Kunihiro Yamaoka, Shigeru Iwata and Yoshiya Tanaka, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan

2151. WITHDRAWN.

2152. Inhibition of Fucose Incorporation Abrogates the Development of Arthritis by Suppressing the Inflammatory Macrophage Development and TNF-α Production. Jun Li1, Hui-Chen Hsu2, PingAr Yang3, Qi Wu1, David M. Spalding1, W. Winn Chatham1, Robert P. Kimberly1, S. Louis Bridges Jr.1 and John D. Mountz1, 1University of Alabama at Birmingham, Birmingham, AL, 2University of Alabama at Birmingham and Birmingham VA Medical Center, Birmingham, AL

2153. Target-Directed Development of a Proposed Biosimilar Rituximab (GP2013): Comparability of Antibody-
Dependent Cellular Cytotoxicity Activity and Pre-Clinical Pharmacokinetics and Pharmacodynamics with Originator Rituximab. Antonio da Silva, Ulrich Kronthalter, Ines Meyer, Anastasia Papandrikopoulou, Thomas Stangler and Jan Marinus Visser, Sandoz Biopharmaceuticals / HEXAL AG, Holzkirchen, Germany

2154. Regulation of Folate Pathway Related Genes in Methotrexate naïve and Methotrexate Treated Patients with Rheumatoid Arthritis. Marjolein Blits, Gerrit Jansen, Saskia Vossiambre, Yehuda G. Assaf and Cornelis L. Verweij. VU University Medical Center, Amsterdam, Netherlands, Haifa, Israel

2155. The Annualized Progression of Radiologic Damage in Placebo Arms of Rheumatoid Arthritis Trials Is Much Lower Than the Mean Annual Progression Since Disease Onset. Jean-Marie Berthelot and Celine Cozic, Nantes University Hospital, Nantes, France

2156. Anti-Cyclic Citrullinated Protein Antibodies as a Predictor of Response to Tocilizumab in Patients with Rheumatoid arthritis. A Prospective Study. Kensuke Kume, Kanzo Amano, Susumu Yamada, Kuniki Amano, Kazuhiko Hatta, Hiroyuki Ohta and Noriko Kure. Hiroshima Clinic, Hiroshima, Japan, Sky Clinic, Hiroshima, Japan, Hatta Clinic, Kure, Japan, Hiroshima, Japan, Sanki Clinic, Hiroshima, Japan


2158. Baseline Folate Related Biomarkers in Serum and erythrocytes Are Not Associated with Methotrexate Response and Adverse Events in Rheumatoid Arthritis. Maurits C.F.J. De Rotte, Saskia M.F. Pluijm, Maja Bulatovic, Johanna M.W. Hazes and Robert De Jonge. Erasmus Medical Center, Rotterdam, Netherlands, Erasmus Medical Center, Rotterdam, Netherlands, University Medical Centre Utrecht, Netherlands

2159. Correlation of a Multi-Biomarker Disease Activity Response Assessment to Disease Activity Score 28 (C - reactive protein) Response Assessment and Omeract Ramris Scores in a Placebo-Controlled Rheumatoid Arthritis Clinical Trial with Abatacept (ASSET). DJ Haney, G. Cavet, P. Durez, R. Alten, G. R. Burmester, P. P. Tak, Anka, I. Catrina, C. Gailliez, M. Le Bars, S. Connolly and R. Townsend. Crescendo Bioscience Inc., South San Francisco, CA, Crescendo Bioscience, Inc., South San Francisco, CA, Université Catholique de Louvain, Brussels, Belgium, Schlosspark-Klinik, University Medicine, Berlin, Germany, Charité-Universitätsmedizin, Berlin, Germany, Academic Medical Center/University of Amsterdam, Amsterdam, the Netherlands; GlaxoSmithKline, Stevenage, United Kingdom, Karolinska Institute, Stockholm, Sweden, Bristol-Myers Squibb, Ruei Malaismon, France, Bristol-Myers Squibb, Princeton, NJ

2160. Fcy Receptor IIb Polymorphism Is Associated with Injection Reaction to Adalimumab in Patients with Rheumatoid Arthritis. Masako Tsukamoto, Yosuke Hashimoto, Tatsushi Ohshige, Keiko Yoshimoto, Yuko Kaneko, Hideto Kameda and Tsutomu Takeuchi. Keio University School of Medicine, Tokyo, Japan, Keio Univ School of Medicine, Shinjuku-ku, Japan

2161. Methotrexate Polyglutamate Concentrations in Erythrocytes Are a Potential Tool for Therapeutic Drug Monitoring of Methotrexate Response in Rheumatoid Arthritis. Rutkayes M. F. De Rotte, Ethan den Boer, Maja Bulatovic, Saskia M. F. Pluijm, Johanna M. M. Hazes and Robert De Jonge. Erasmus Medical Center, Rotterdam, Netherlands, Erasmus University Hospital, Rotterdam, Netherlands, University Medical Centre Utrecht, Netherlands, Erasmus Medical Center, Rotterdam, Netherlands

2162. Correlation of A Multi-Biomarker Disease Activity (VECTRA™ DA) Score with Clinical Disease Activity and Its Components with Radiographic Progression in Rheumatoid Arthritis Patients Treated with Tofacitinib. Kunihiro Yamaoka, Satoshi Kubo, Koshiro Sonomoto, Shintaro Hirta, Guy Cavet, Rebecca Bolce, Michael W. Rowe, David Chernoff, Nadine Defranoux, Kazuoshi Saito and Yoshiya Tanaka. University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, Crescendo Bioscience Inc., South San Francisco, CA

2163. Abatacept Monotherapy Effectively Reduces the Frequency of Osteoclast Precursor Cells in the Peripheral Blood of Patients with Rheumatoid Arthritis and Inhibits Their Differentiation into Osteoclasts. Sandra Mueller-Schmucker, Roland Axmann, Sonja Herman, Mario Zaisa, Manuela Le Bars, Thomas Harrer and Georg A. Schett. University of Erlangen-Nuremberg, Erlangen, Germany, Medical University of Vienna, Vienna, Austria, Bristol-Myers Squibb, Ruei Malaismon, France, Department of Internal Medicine III and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany

2164. Evidence for NF-Kb Intracellular Signaling Involvement Following CTLA4-ig (Abatacept) Treatment of Human Macrophages. Renata Brizzolara, Paola Montagna, Stefano Soldano, Alberto Sulli, Bruno Seriolo, Barbara Villaggio, Pierfranco Triolo, Lamberto Felli and Maurizio Cutolo. Research Laboratory and Academic Unit of Clinical Rheumatology, Department of Internal Medicine, University of Genova, Genoa, Italy, Research Laboratory of Nephrology, Department of Internal Medicine, University of Genova, Genoa, Italy, Rheumatoid Arthritis Unit, Orthopedic Surgery Department, CTO Hospital, Turin, Italy, Orthopedic Department, University of Genova, Genova, Italy
2165. **Utility of Vectra-DA™ On Assessment of Rheumatoid Arthritis Disease Activity and Golimumab Response: Results of a Pilot Study from a Phase 3 Trial in Patients with Active Rheumatoid Arthritis Despite Methotrexate Therapy.** Sarah Lambeth, Yauheniya Cherkas, Carrie Brodmerek and Mark Curran, Janssen Research and Development, LLC, Spring House, PA

2166. **Identification of Serological Biomarker Profiles Associated with Response to IL-6 Intervention in Rheumatoid Arthritis.** Morten Asser Karsdal1, Anne C. Bay-Jensen1, Inger Byrjalsen2, Andrew Kenwright3, Adam Platt4, Thierry Sornasse5 and Claus Christiansen6, 2Nordic Bioscience A/S, Herlev, Denmark, 5Nordic Bioscience, Herlev, Denmark, 4Roche, Welwyn Garden City, United Kingdom, 3Genentech, Inc., South San Francisco, USA, San Fransisco, CA, 1CCBR, Ballerup, Denmark

2167. **Serum Based Biomarkers of Joint Destruction Can Identify Responders and Non-Responder to Tocilizumab.** Anne C. Bay-Jensen1, Inger Byrjalsen2, Claus Christiansen1 and Morten Asser Karsdal1, 1Nordic Bioscience A/S, Herlev, Denmark, 2Nordic Bioscience, Herlev, Denmark, 5CCBR, Ballerup, Denmark

2168. **Tolerance and Efficacy of Rituximab in Elderly Patients with Rheumatoid Arthritis Enrolled in the French Society of Rheumatology Air Registry.** Sarah Payet1, Jacques-Eric Gottenberg2, Xavier Mariette3, Philippe Ravaud4, Elodie Perrodeau5, Thomas Bardin6, Patrice P. Caboc Sr.7, Alain G. Cantagrel8, Bernard Combe9, Maxime Dougdos10, Rene-Marc Flipo11, Bertrand Godeau12, Loïc Guillevin13, Xavier X. Le Loet14, Eric Hachulla15, Thierry Schaeverbeke16, Jean Sibilia17, Isabelle Pane18, Gabriel Baron19 and Martin Soubrier20, 1CHU G.-Montpied, Clermont-Ferrand, France, 2Strasbourg University Hospital, Strasbourg, France, 3Université Paris-Sud, Le Kremlin Bicetre, France, 4Hopital Hotel Dieu, Paris Descartes University, Paris, France, 5Epidemiologist, Paris, France, 6Hôpital Lariboisière, Paris, France, 7Assistance Publique-Hôpitaux de Paris, Hospital Pitié-Salpêtrière, Paris, France, 8Centre Hospitalier Universitaire de Lorraine, Toulouse, France, 9Hopital Lapeyronie, Montpellier, France, 10Paris-Descartes University, APHP, Cochin Hospital, Paris, France, 11Hopital R Salengro CHRU, Lille CEDEX, France, 12Service de médecine interne, Université Paris Est Créteil, AP-Hôp, Hôpital Mondor Créteil, France, Creteil, France, 13Division of Internal Medicine, Hôpital Cochin, University Paris Descartes, Paris, France, 14CHU de ROUEN, Rouen, France, 15Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 16Groupe Hospitalier Pellegrin, Bordeaux, France, 17EA4438 Laboratoire Physiopathologie des Arthrites, Illkirch-Strasbourg, France, 18Epidemiology, Paris, France, 19CHU CLERMONT-FERRAnd, Clermont-Ferrand, France

2169. **Short to Medium Term Safety of Glucocorticoid Therapy in Rheumatoid Arthritis: A Systematic Review and Dose-Response Analysis of Randomized Controlled Trials.** Simon Tarp1, Daniel E. Furst2, John R. Kirwan3, Maarten Boers4, Henning Bliddal5, Thasia Woodworth6, Else Marie Bartels7, Bente Danneskjoeld-Samsøe8, Lars Erik Kristensen9, Steffen Thirstrup10, Mette Rasmussen11, Marian Kaldas12 and Robin Christensen13, 1The Parker Institute, Copenhagen University Hospital at Frederiksberg, Copenhagen F, Denmark, 2UCLA Medical School, Los Angeles, CA, 3Bristol Royal Infirmary, Bristol, United Kingdom, 4VU University Medical Center, Amsterdam, Netherland, 5Leading Edge Clinical Research LLC, Florida, FL, 6Lund University, Lund, Sweden, 7University of Copenhagen, Copenhagen, Denmark, 8University of California in Los Angeles, Los Angeles, CA

2170. **Methotrexate and Interstitial Lung Disease in Rheumatoid Arthritis – A Systematic Literature Review and Meta-Analysis.** Richard Conway1, Candice Low2, Robert J. Coughlan3, Martin O’Donnell4 and John J. Carey5, 1St James’s Hospital, Dublin, Ireland, 2St James Hospital, Dublin, Ireland, 3Galway University Hospitals, Galway, Ireland

2171. **Comparative Efficacy of Biologics as Monotherapy and in Combination with Methotrexate in Rheumatoid Arthritis Patients with an Inadequate Response to Conventional Dmards: A Network Meta-Analysis.** Felicity Buckley1, Axel Finckh2, Tom W. J. Huizinga3, Fred Dejongheere4 and Jeroen P. Jansen1, 1MAPI Consultancy, Boston, MA, 2University Hospital of Geneva, Geneva, Switzerland, 3Leiden University Medical Center, Leiden, Netherlands, 4F. Hoffmann-La Roche Ltd, Basel, Switzerland

2172. **An Update of Management of Coccidioidomycosis in Patients on Biologic Response Modifiers and Disease-Modifying Antirheumatic Drugs.** Susan Knowles1, Dominick Sudano1, Sara Taroumian1, Neil M. Ampel1, John Galgiani2, Jeffrey R. Lisse3 and Susan E. Hoover3, 1University of Arizona, Tucson, AZ, 2University of California, Los Angeles, Los Angeles, CA, 3Valley Fever Center for Excellence, Tucson, AZ

2173. **Pharmacoeconomic Evaluation of Tocilizumab Monotherapy vs. Adalimumab Monotherapy in Reducing Disease Activity in Patients with Rheumatoid Arthritis.** Navarro Sarabia F1, Francisco J. Blanco2, Álvaro Gracia JM3, JA Garcia Mejide4 and JL Poveda5, 1Hospital. Virgen Macarena, Sevilla, Spain, 2INIBIC-Hospital Universitario A Coruña, A Coruña, Spain, 3Hospital Universitario La Princesa, Madrid, Spain, 4Hospital Ntra. Sra. La Esperanza, Santiago de Compostela, Spain, 5Hospital Universitario La Fe, Valencia, Spain

2174. **Sjögren’s Syndrome - Clinical**

2174. **Natural History of Sjögren’s Syndrome Phenotypic Features in the Sjögren’s International Collaborative Clinical Registry.** Caroline Shiboski1, Alan N. Baer2, Mi Y. Lam3, Stephen Challacombe4, Hector Lanfranchi5, Morten Schiødt4, Hisanori Umehara6, Frederick B. Vivino7, Yan Zhao8, Yi Dong9, Bruce W. Kirkham10, Kenneth E. Sack11, Susumu Sugai12, Cristina F. Vollenweider13, Wen Zhang14, John S. Greenspan15, Troy Daniels16, Lindsey A. Criswell17 and Sjögren’s International Collaborative Clinical Alliance18, 1University of California in Los Angeles, Los Angeles, CA
California San Francisco, San Francisco, CA, 1Johns Hopkins University, Baltimore, MD, 2Kings College London, London, United Kingdom, 3University of Buenos Aires, Buenos Aires, Argentina, 4Righospitalet, Copenhagen, Denmark, 5Kanazawa Medical University, Ishikawa, Japan, 6Penn Presbyterian Med Ctr, Philadelphia, PA, 7PUMCH, Beijing, China, 8Guys Hospital, London, United Kingdom, 9Univ of Calif-San Francisco, San Francisco, CA, 10German Hospital, Buenos Aires, Argentina, 11University of California San Francisco, CA, 12University of Athens, Athens, Greece

2175. **Interstitial Lung Disease in Sjögren Syndrome: A Population-Based Study.** Carlotta Nannini1, Adlene Jebakumar1, Jay H. Ryu2, Cynthia S. Crowthorn2 and Eric Matteson1, 1Prato Hospital, Prato, Italy, 2Mayo Clinic, Rochester, MN

2176. **Pulmonary Manifestations and Treatment of Primary Sjögren’s Syndrome-Associated Lung Involvement Patients: A Prospective Study.** Hui Gao, Xuewu Zhang, Jing He, Min Feng, Wei Zhao, Yan Ding and Zhan-guo Li, Peking University People’s Hospital, Beijing, China

2177. **The Forced Oscillation Technique Is a Sensitive Method for Detection of Obstructive Airway Disease in Patients with Primary Sjögren’s Syndrome.** Anna M. Nilsson1, Elke Theander1, Roger Hesselstrand1, Per Wollmer1 and Thomas Mandl1, 1Skane University Hospital Malmo, Lund University, Malmo, Sweden, 2Skane University Hospital Malmo, Lund University, Malmo, Sweden, 3Skane University Hospital Lund, Lund University, Lund, Sweden

2178. **18-Fluorodeoxyglucose Positron Emission Tomography Is a Valuable Marker of Activity of Intertstitial Lung Disease in Primary Sjögren’s Syndrome.** Camille Cohen1, Arsene Mekinian1, Michael Soussan1, Yurdagul Uzunhan1, Veronique Eder1, Robin Dhot1, Dominique Valeyre1 and Olivier Fain1, 1Jean Verdier Hospital, Bondy, France, 2Bobigny, France, 3Avicenne Hospital, Bobigny, France, 4Avicenne Hospital (AP-HP), Bobigny, France, 5Service de médecine interne, Université Paris 13, AP-HP, Hôpital Jean Verdier, 93140, Bondy, France., Bondy, France

2179. **High Resolution CT Findings and Concomitant Nontuberculosis Mycobacterial Infection (NTM) in Patients with the Diagnosis of Primary Sjögren’s Syndrome Evaluated At a Respiratory Referral Center.** Mehrnaz Maleki-Fischbach1 and Gloria M. Russell2, 1National Jewish Health, Denver, CO, 2Pontificia Universidad Católica Madre y Maestra, Santiago, Dominican Republic

2180. **Coronary Flow Reserve and Asymmetric Dimethylarginine Levels: New Measurements for Identifying Subclinical Atherosclerosis in Patients with Primary Sjögren’s Syndrome.** F. Atzeni1, L. Boccardi1, M.C. Signorello1, MA Carrideo2, L. Giunturco1, V. De Gennaro Colonna1, L. Drago4, M. Turie1 and P. Sarzi-Puttini1, 1Rheumatology Unit, L. Sacco University Hospital of Milan, Milan, Italy, 2IRCCS Galeazzi Orthopedic Institute, University of Milan, Department of Health Technologies, Cardiology Unit, Milan, Italy, 3Pharmacology Department, University of Milan, Milan, Italy, 4Laboratory Unit, IRCCS Galeazzi Orthopedic Institute, Department of Health Technologies, University of Milan, Milan, Italy

2181. **Concomitant Atherosclerosis and Impaired Bone Health in Patients with Primary Sjögren’s Syndrome.** Clivo P. Mavragani1, Fotini Gravani2, andrianoz Nezos1, Eleni Antypa1, Kiki Maselou1, Dimitrios Ioakeimidis1, Michael Koutsilieris1 and Haralampos M. Moutsopoulos3, 1School of Medicine, University of Athens, Athens, Greece, Athens, Greece, 2School of Medicine, University of Athens, Athens, Greece, 3M Asias st, Athens, Greece, Athens, Greece, 4General Hospital of Athens, Greece, 5General Hospital of Athens “G.Gennimatas”, Greece, 4School of Medicine, University of Athens, Athens, Greece

2182. **Prevalence of Fibromyalgia Is Increased in Primary Sjögren’s Syndrome Compared with SLE and Associated with Depression and Severe Vitamin D Deficiency.** Byoong Yong Choi, Hye Jin Oh, Jun Won Park, Bon Seung Ku, Sung Hae Chang, Eun Young Lee, Eun Bong Lee and Yeong Wook Song, Seoul National University Hospital, Seoul, South Korea

2183. **Common Features in Lymphoproliferative Complications in the Course of Primary Sjögren’s Syndrome: Results From a Multicenter Cohort of 1170 Patients.** Luca Quartuccio1, Chiara Baldini1, Roberta Priori1, Elena Bartoloni Bocci2, Francesco Carubbi1, Miriam Isola3, Marta Maset1, Sara Salvini1, Nicoletta Luciano1, Giovanna Picarelli1, Alessia Alunno1, Roberto Giacomelli1, Roberto Gerli2, Guido Valesini3, Stefano Bombardieri4 and Salvatore De Vita5, 1Rheumatology Clinic, DSMB, University of Udine, Italy, 2Udine, Italy, 3Rheumatology Unit, University of Pisa, Pisa, Italy, 4Rheumatology Unit, Sapienza University of Rome, Rome, Italy, 5Rheumatology Unit, Department of Clinical & Experimental Medicine, University of Perugia, Perugia, Italy, 6Rheumatology Clinic, University of L’Aquila, L’Aquila, Italy, 7Institute of Statistics, University of Udine, Udine, Italy, 8Rheumatology Unit, University of Aquila, L’Aquila, Italy, 9Rheumatology Unit, University of Perugia, Perugia, Italy, 10Sapienza, Universita di Roma, Rome, Italy, 11Rheumatology Clinic, DSMB, University of Udine, Udine, Italy

2184. **Pregnancy and Fetal Outcome in Patients with an Established Diagnosis of Primary Sjögren’s Syndrome.** Roberta Priori1, Angelica Gattamelata1, Mariagrazia Modesti1, Serena Colafrancesco1, Marta Maset2, Luca Quartuccio1, Salvatore De Vita1, Elena Bartoloni Bocci1, Alessia Alunno1, Roberto Gerli2, Francesca Strigini2, Chiara Baldini1, Chiari Tani1, Marta Mosca1, Stefano Bombardieri4 and Guido Valesini3, 1Rheumatology Unit, Sapienza University of Rome, Rome, Italy, 2Rheumatology Clinic, DSMB, University of Udine, Udine, Italy, 3Rheumatology Unit, Department of Clinical & Experimental Medicine, University of Perugia, Perugia, Italy, 4Rheumatology Unit, University of Pisa, Pisa, Italy
2185. Prevalence of Severe Extra-Glandular Manifestations in a Large Cohort of Patients with Primary Sjögren’s Syndrome. Chiara Baldini1, Pasquale Pepe1, Luca Quartuccio2, Roberta Priori2, Elena Bartoloni Bocci1, Alessia Alunno1, Serena Cofafrancesco2, Angélica Gattamelata1, Marta Maset2, Mariagrazia Modesti3, Antonio Tavoni3, Salvatore De Vita3, Roberto Gerli4, Guido Valesini5 and Stefano Bombardieri6, 1Rheumatology Unit, University of Pisa, Pisa, Italy, 2Rheumatology Clinic, DSBM, University of Udine, Italy, 3Udine, Italy, 4Rheumatology Unit, Sapienza University of Rome, Rome, Italy, 5Rheumatology Unit, Department of Clinical & Experimental Medicine, University of Perugia, Perugia, Italy

2186. Ultrasoundography of Major Salivary Glands in Primary Sjögren’s syndrome. Malvin V. Jonsson1, Daniel Hammenfors2, Johan G. Brun2 and Roland Jonsson1, 1University of Bergen, Bergen, Norway, 2Haukeland University Hospital, Bergen, Norway

2187. Safety of Minor Labial Salivary Gland Biopsy. Žiga Rotar, Alojzija Hočevar, NatašA. Gašperšič, Branka Hostnik, Anita Antolič and Matija Tomšič, University Medical Centre Ljubljana, 1000 Ljubljana, Slovenia

2188. How to Better Define Inclusion Criteria in a Large Controlled Trial in Primary Sjögren Syndrome? Valerie Devauchelle-Pensec1, Xavier Mariette2, Jacques-Eric Hammenfors3, Raphaèle Seror4, Anne-Laure Fauchais5, Olivier Vittecoq5, Véronique Le Guern6, Jacques Morel7, JL Dubost8, Philippe Dieude9, Eric Hachulla10, Pierre yves Hatron11, C. Lerroche12, Aleth Perdriger13, Xavier Puechel15, Damien Sene Sr.16, Stephanie Rist17 and Alain Saraux18, Brest Occidentale university, Brest, France, 2Université Paris-Sud, Le Kremlin Bicêtre, France, 3Strasbourg University Hospital, Strasbourg, France, 4Bicêtre university hospital, Le Kremlin-Bicêtre, France, 5Hospital, Limoges, France, 6Rouen University Hospital & Inserm905, University of Rouen, Rouen Cedex, France, 7Cochin Hospital, Paris, France, 8Hospital Lapeyronie, Montpellier, France, 9CHU CLERMONT-FERRAnd, Clermont-Ferrand, France, 10APHP, Bichat hospital, Paris, France, 11Department of Internal Medicine, Claude Huriez Hospital, University of Lille, Lille CEDEX, France, 12Hôpital Claude Huriez, Université Lille II, Lille, France, 13Hospital Bobigny, France, 14Hôpital Cochin, Paris, France, 15Groupe Hospitalier Pitié-Salpêtrière, Université Pierre et Marie Curie, Paris, France, 16Orleans Hospital, Orleans, France, 17Université Brest Occidentale, Brest, France

2189. Efficacy of Belimumab on Non-Malignant Parotid Swelling and Systemic Manifestations of Sjögren’s Syndrome: Results of the Beliss Study. Salvatore De Vita1, Raphaële Seror2, Luca Quartuccio3, Frederic Desmoulins4, Sara Salvin5, Gabriel Baron6, Martina Fabris7, Philippe Ravaudi8, Miriam Isola9 and Xavier Mariette10, 1Rheumatology Clinic, DSBM, University of Udine, Udine, Italy, 2University Paris-Sud, Le Kremlin Bicêtre, France, Le Kremlin Bicêtre, France, 3University Paris-Descartes, Paris, France, 4Institute of Clinical Pathology, Udine, Italy, 5Institute of Statistics, University of Udine, Udine, Italy, 6Université Paris-Sud, Le Kremlin Bicêtre, France

2190. Antimalarials for Sjögrén’s Syndrome Treatment in Adults, Meta-Analysis. Vibian A. Coy1, Carlos E. Granados2, Diana Gil3, Alejandro Junca4, Daniel Jaramillo1, Antonio A. Iglesias-Gamarra1, Jose Felix Restrepo1 and Federico Rondon-Herrera1, 1Fellow of Rheumatology Universidad Nacional de Colombia, Bogotá, Colombia, 2Professor - Universidad Nacional de Colombia, Bogotá, Colombia, 3Professor- Universidad Nacional de Colombia, Bogotá, Colombia, 4Professor -Universidad Nacional de Colombia, Bogotá, Colombia

2191. Secretagogue Use in Patients with Primary Sjögren’s Syndrome. Ghaith Naoiseh1, Joshua Baker2 and Frederick B. Vivino3, 1University of Pennsylvania, Philadelphia, PA, 2Penn Presbyt Med Ctr, Philadelphia, PA

2192. Phenotypic Features of Sjögren’s Syndrome Among Patients with Low-Titer SSA/B Antibodies. Mara McAdams DeMarco1, Mi Y. Lam1, Stephen Shiboski1, Lindsey A. Criswell1, Caroline Shiboski1 and Alan N. Baer2, 1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2University of California, San Francisco, San Francisco, CA, 3University of California San Francisco, San Francisco, CA, 4Johns Hopkins University, Baltimore, MD

2193. Validity of Low Titers of SSA/B Antibodies in Predicting A Key Feature of Sjögren’s Syndrome. Mara McAdams DeMarco1, Mi Y. Lam1, Stephen Shiboski1, Lindsey A. Criswell1, Caroline Shiboski1 and Alan N. Baer2, 1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2University of California, San Francisco, San Francisco, CA, 3University of California San Francisco, San Francisco, CA, 4Johns Hopkins University, Baltimore, MD

2194. Cathepsin S Activity in Tears as a Marker of Sjögren’s Syndrome. S.E. Whitt1, K. Renduchintala1, S. Janga2, M. Shah3, J. Zhu4, K. Silka1, S. Bricei5, D. Bach6, M. Heur7, S. Christianakis8, J. Irvine8, D. Arkfeld9, W.J. Mack1, William Stohl10 and S.F. Hamm-Alvarez11, 1University of Southern California Keck School of Medicine -These authors contributed equally to this work, Los Angeles, CA, 2University of Southern California School of Pharmacy, Los Angeles, CA, 3University of Southern California Keck School of Medicine, Los Angeles, CA, 4Doheny Eye Institute, Los Angeles, CA

2195. Long-Term Changes in Autoantibody Profile after Pandemic Unadjuvanted Influenza A/H1N1 Vaccine in Sjögren’s Syndrome. Sandra G. Pasoto1, Ana C. Ribeiro1, Vilma S.T. Viana1, Elaine P. Leon2, Cleonice Bueno2, Mauricio Levy Neto1, Alexander R. Precioso3, Maria do Carmo S. Timenetsky4 and Eloisa Bonfa5, 1Division of Rheumatology - Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Faculdade de Medicina da Universidade

2197. Diagnostic Value of Blood B-Cell Subset Profiling and Autoimmunity Markers in Anti-SSA-Negative Sjögren’s Syndrome Patients. Divi Corneè, Alain Saraux, Jacques-Olivier Pers, Sandrine Jousse-Joulin, Yves Renaudineau, Thierry Marhadour and Valerie Devauchelle-Pensec, Brest Occidentale University, Brest, France, Brest Occidentale university, Brest, France, CHU de la Cavale Blanche, Brest, France

2198. Interstitial Lung Disease in Primary Sjögren’s syndrome: Any Association with IgG4 Related Sclerosing Disease? Adlene Jebakumar, Carlotta Nannini, Eunhee S. Yi, Hiroshi Sekiguchi, Jay H. Ryu, Cynthia S. Crowson and Eric L. Matteson, Mayo Clinic, Rochester, MN, Prato Hospital, Prato, Italy

2199. Elevated IgG4 Serum Levels among Primary Sjögren’s Syndrome Patients: Do They Unmask Underlying IgG4-Related Disease? Clio P. Mavragani, George Fragoulis, Dimitra Rontogianni, Maria Kanariou and Haralampos M. Moutsopoulos, School of Medicine, University of Athens, Athens, Greece, Athens, Greece, School of Medicine, University of Athens, Athens, Greece, Evangelismos General Hospital, Athens, Greece

2200. IgE Autoantibodies against SSA and SSB in Patients with Sjögren’s Syndrome and Healthy Controls. Stamatina Danielides, Barbara Dema, Juan Rivera and Gabor G. Illei, NIH, Bethesda, MD, Laboratory of Molecular Immunogenetics, NIAMS, NIH, Bethesda, MD, NIDCR/ NIH, Bethesda, MD

2201. Involvement of Interleukin-33 in the Pathogenesis of Sjögren’s Syndrome. Ahmad Awada, Valérie Gangji and Muhammad S. Soyfoo, Hôpital Erasme, Université Libre de Bruxelles, Brussels, Belgium

2202. Classification Criteria for Sjögren’s Syndrome: Comparison of the Performance of the 2002 American-European Consensus Group Criteria (AECG) and the 2012 ACR Criteria. Elke Theander, Peter Olsson and Thomas Mandl, Skane University Hospital, Lund University, Malmö, Sweden, Department of Rheumatology, Skåne University Hospital, Lund University, Malmö, Sweden, Skane University Hospital Malmo, Lund University, Malmö, Sweden

2203. Effects of Reclassification Using the American College of Rheumatology Criteria On a Large cohort Sjögren’s Syndrome Patients. Astrid Rasmussen, John A. Ice, He Li, Kiely Grundahl, Jennifer A. Kelly, Lida Radfar, Kimberly S. Hefner, Donald U. Stone, Juan-Manuel Anaya, Michael Rohrer, Glen D. Houston, David M. Lewis, James Chodosh, John B. Harley, Pamela Hughes, Jacen S. Maier-Moore, Courtney G. Montgomery, Nelson L. Rhodus, A. Darise Farris, Barbara M. Segal, Christopher J. Lessard, R. Hal Scofield and Kathy Moser Sivils, Oklahoma Medical Research Foundation, Oklahoma City, OK, Oklahoma Medical Research Foundation, Oklahoma City, OK, University of Oklahoma Health Research Foundation, Oklahoma City, OK, University of Oklahoma Health Sciences Center, Oklahoma City, OK, Hefner Eye Care and Optical Center, Oklahoma City, OK, Universidad del Rosario Corporacion for Investigaciones Biologicas, Bogota, Colombia, University of Minnesota, Minneapolis, MN, Harvard Clinical and Translational Science Center, Boston, MA, Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, Oklahoma Medical Research Foun, Oklahoma City, OK, Hennepin County Medical Center, Minneapolis, MN, Oklahoma Medical Research Foundation; University of Oklahoma Health Sciences Center, Oklahoma City, OK

2204. Overall Agreement between Sjögrens’s Minor Salivary Gland Biopsy and 2002 and 2012 Classification Criteria. Laura Aline Martinez, Candido Flores, Alberto Arana Fraustro and Luis H. Silveira, Instituto Nacional de Cardiologia Ignacio Chavez, Mexico City, Mexico, Instituto Nacional de Cardiologia Ignacio Chavez, Mexico City, Mexico, Instituto Nacional Cardiologia Ignacio Chavez, Mexico City, Mexico, Instituto Nacional Cardiologia Ignacio Chavez, Mexico City, Mexico

2205. Longitudinal Evaluation of the Performance of Different Classification Criteria in Patients with Primary Sjögren’s Syndrome. Martina Plesivčnik Novljan, Žiga Rotar, Aleš Ambrožič, Gaj Vidmar and Matija Tomšič, University Medical Centre Ljubljana, 1000 Ljubljana, Slovenia, University Rehabilitation Institute, 1000 Ljubljana, Slovenia

2206. Patients Fulfilling the Imaging-Arm and Patients Fulfilling the HLA-B27+ Arm of the Assessment of Spondyloarthritis International Society Axial Spondyloarthritis Classification Criteria: Are They Similar? Rosaline van den Berg, Manouk de Hooge, Floris van Gaalen, Monique Reijnierse, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands

2207. How Useful is imaging of the Sacroiliac Joints (MRI or X-ray) in Patients with Possible Spondyloarthritis in the Diagnostic Work-up? Rosaline van den Berg, Manouk de Hooge, Victoria Navarro-Compán, Floris van Gaalen, Monique Reijnierse, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands
2208. Referral Patterns and Diagnosis of Patients with Axial Spondyloarthritis: Results of an International Survey. Désirée van der Heijde1, Joachim Sieper2, Dirk Elewaut3, Aileen L. Panganan and Dianne Nguyen4, 1Leiden University Medical Center, Leiden, Netherlands, 2Charité Universitätsmedizin Berlin, Berlin, Germany, 3Ghent University Hospital, Ghent, Belgium, 4Abbott Laboratories, Abbott Park, IL

2209. Assessing Active Inflammation in Sacroiliac Joints in Spondyloarthropathy Patients: No Added Value of Gadolinium Compared to Short Tau Inversion Recovery Sequence. Manouk de Hooge, Rosaline van den Berg, Victoria Navarro-Compán, Floris van Gaalen, Désirée van der Heijde, Tom Huizinga and Monique Reijnierse, Leiden University Medical Center, Leiden, Netherlands

2210. The Canada-Denmark Fat Spondyloarthritis Spine Score: Validation of a New Scoring Method for the Evaluation of Fat Lesions in the Spine of Patients with Axial Spondyloarthropathy. Susanne Juhi Pedersen1, Zheng Zhao2, Robert GW Lamberti3, Mikkel Østergaard1, Ulrich Weber1 and Walter P. Maksymowycz3, 1Glostrup Hospital, Copenhagen, Denmark, 2Department of Rheumatology, University of Alberta and PLA General Hospital, Beijing, PR China, Beijing, China, 3University of Alberta, Edmonton, AB, 4Balgrist University Hospital, Zurich, Switzerland

2211. Is It Useful to Repeat an MRI of the Sacroiliac Joints in the Diagnostic Work-up for Spondyloarthropathies? Rosaline van den Berg, Manouk de Hooge, Victoria Navarro-Compán, Floris van Gaalen, Monique Reijnierse, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands

2212. How Much Does the Spondyloarthropathy Research Consortium of Canada Score of the Sacroiliac Joints Change Over a 3-Month Period in Patients On Non-Biological Treatment? Rosaline van den Berg, Manouk de Hooge, Victoria Navarro-Compán, Floris van Gaalen, Monique Reijnierse, Tom Huizinga and Désirée van der Heijde, Leiden University Medical Center, Leiden, Netherlands

2213. Ankylosing Spondylitis Is Strongly Related to Clinical Spine Fractures Independently of Drugs Use: A Register-Based Case-Control Study. Daniel Prieto-Alhambra1, Juan Muñoz-Ortego2, Cyrus Cooper3, Adolfo Diez-Pérez4 and Peter Vestergaard5, 1URFOA-IMIM, Parc de Salut Mar; Idiap Jordi Gol; University of Oxford; University of Southampton, Barcelona, Spain, 2Hospital Sagrat Cor, Barcelona (Spain), Spain, 3University of Oxford; Southampton General Hospital, Southampton, United Kingdom, 4Hospital del Mar-IMIM, Universitat Autònoma de Barcelona, Barcelona; and RETICEF, ISCIII Madrid; Spain, Barcelona, Spain, 5Aarhus University Hospital THG, Aarhus (Denmark), Aarhus, Denmark

2214. Similar Levels of Disease Activity in Patients with Oligoarticular vs. Polyarticular Peripheral Spondyloarthritis. Filip Van den Bosch1, Philip Mease2, Désirée van der Heijde3, Martin Rudwaleit4, Katie Obermeyer2 and Aileen L. Panganan, 1Ghent University Hospital, Ghent, Belgium, 2Swedish Medical Center, Seattle, WA, 3Leiden University Medical Center, Leiden, Netherlands, 4Endokrinologikum Berlin, Berlin, Germany, 5Abbott Laboratories, Abbott Park, IL

2215. Assessment of Vascular Age in Psoriatic Arthritis Patients. Jl Rosales-Alexander, César Magro Checa, Juan Salvatierra, Jesús Cantero Hinojosa and Enrique Raya Álvarez, University Hospital San Cecilio, Granada, Spain

2216. Cardiovascular Risk Assessment in Spondyloarthritis Using the Score Chart and Reclassification by Presence of Plaques on Ultrasonography. Jl Rosales-Alexander, Juan Salvatierra, César Magro Checa, Jesús Cantero Hinojosa and Enrique Raya Álvarez, University Hospital San Cecilio, Granada, Spain

2217. Even after Pretreatment with up to Three Biologics, Anti-TNFs Shows Effectiveness in Active Psoriatic Arthritis Patients. Frank Behrens1, Michaela Koehm, Diamant Thaci2, Brigitte Krummel-Lorenz2, Gerd Gregor3, Bianca Wittig4 and Harald Burkhardt4, 1CIRI/Div. Rheumatology, J.W. Goethe-University, Frankfurt/Main, Germany, 2Klinik für Dermatologie, Venerologie und Allergologie, J.W. Goethe University, Frankfurt/Main, Germany, 3CIRI/Endokrinologikum, Frankfurt/Main, Germany, 4Abbott GmbH & Co KG, Wiesbaden, Germany, 5CIRI/Div. Rheumatology, J.W. Goethe University, Frankfurt/Main, Germany

2218. 5 Year Safety, Efficacy, and Radiographic Data in Patients with Active Psoriatic Arthritis Treated with Golimumab: Results From the Long-Term Extension of a Randomized, Placebo-Controlled Study. Arthur Kavanaugh1, Desiree M. van der Heijde,2 Iain B. McInnes3, Philip Mease4, Gerald G. Krueger5, Dafna Gladman6, Yiying Zhou7, J. D. Lu8, Zhenhua Xu9, Lenore Noonan7 and Anna Beutler9, 1UCSD School of Medicine, La Jolla, CA, 2Leiden University Medical Ctr, Leiden, Netherlands, 3University of Glasgow, Glasgow, United Kingdom, 4Swedish Medical Center, Seattle, WA, 5University of Utah, Salt Lake City, UT, 6Toronto Western Hospital and University of Toronto, Toronto, ON, 7Janssen Research & Development, LLC, Spring House, PA

2219. Patients with Ankylosing Spondylitis and Non-Radiographic Axial Spondyloarthritis Show Similar Response Rates after One Year of Treatment with Etanercept - results of the Esther Trial. In-Ho Song1, Kay-Geert A. Hermann2, Hildrun Haibel3, Christian Althoff4, Denis Poddubnyy5, Joachim Listing6, Anja Weiß6, Ekkehard Lange7, Bruce Freundlich8, Martin Rudwaleit8 and Joachim Sieper9, 1Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 2Charité Medical School, Berlin, Germany, 3Charite Medical School, Berlin, Germany, 4German Rheumatism Research Center, Berlin, Germany, 5German Rheumatism Research Centre, Berlin, Germany, 6Berlin, Germany, 7Villanova, PA, 8Endokrinologikum Berlin, Berlin, Germany, 9Charité Universitätsmedizin Berlin, Berlin, Germany
2220. Development of the Pulsar (Program to Understand the Longterm Outcomes in Spondyloarthritis) Registry. Andreas M. Reimold1, Liron Kaplan1, Daniel O. Clegg1, Gail S. Kerr2, Elizabeth Chang3, Lisa A. Davis3, Prashant Kaushik3, Vikas Majithia3, J. Steuart Richards4, Joel D. Taurog5 and Jessica Walsh6. 1Dallas VA and University of Texas Southwestern, Dallas, TX, 2Denver VA and Univ of Colorado School of Medicine, Aurora, CO, 3George E. Wahlen VA Medical Center, Salt Lake City, UT, 4Washington DC VAMC, Georgetown and Howard University, Washington, DC, 5Phoenix, AZ, 6Denver VA and Univ of Colorado School of Med, Aurora, CO. 7Marquette VAMC, Albany, NY, 8University of Mississippi Medical Center, Jackson, MS, 9Washington DC VA and Georgetown University, Washington, DC, 10UT Southwestern Medical Center, Dallas, TX, 11University of Utah Hospital, Salt Lake City, UT


2222. Spinal Mobility Measures in Normal Individuals – the Mobility Study. Sofia Ramiro1, Carmen Stolwijk1, A.M. Van Tubergen1, Desirée van der Heijde1 and Robert Landewe1, 1Academic Medical Center, University of Amsterdam, The Netherlands and Hospital Garcia de Orta, Almada, Portugal, 2Maastricht University Medical Center, Maastricht, Netherlands, 3Leiden University Medical Center, Leiden, Netherlands, 4Academic Medical Center, University of Amsterdam and Atrium Medical Center, Heerlen, Netherlands

2223. Dysregulation of Chromatin Modification Enzymes in Psoriatic Arthritis. Remy Pollock, Fawnda Pellett, Vinod Chandran and Dafna Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

2224. Oral Contraceptive Pill Use in Women with Ankylosing Spondylitis Is Associated with a Younger Age at Diagnosis. Dharni Mahendira1, Arane Thavaneswaran2, Adele Carty3, Nilgil Haroon4, Ammepa Anton5, Laura A. Passalent6, Khalid A. Alnaqbi7, Laurie M. Savage8, Elin Aslayan9 and Robert D. Inman1, 1St Michael’s Hospital, Toronto, ON, 2Toronto Western Hospital and University of Toronto, Toronto, ON, 3Toronto Western Hospital, Toronto, ON, 4University Health Network, Toronto Western Research Institute, University of Toronto, Toronto, ON, 5Spondylitis Association of America, Van Nuys, CA, 6Spondylitis Association of America, Van Nuys, 7Toronto Western Research Institute, University Health Network and University of Toronto, Toronto, ON

2225. Improvement in Signs and Symptoms of Active Ankylosing Spondylitis Following Treatment with Anti-Interleukin (IL)-17A Monoclonal Antibody Secukinumab Are Paralleled by Reductions in Acute Phase Markers and Inflammatory Markers S100A8 and A9 (Calgranulin A and B). Dominique L. Baeten1, Stephan Bek1, Jiawei Wei2, Arndt Brachat3, Joachim Sieper4, Paul Emery5, Jurgen Braun6, Desiree M. van der Heijde1, Iain B. McNinnes6, Jacob M. van Laar17, R. Landewe17, Paul Wordsworth12, Jurgen Wollenhaupt13, Herbert Kellner14, Jacqueline E. Paramarta15, Arthur Bertolino16, Andrew Wright17 and Hueber Wolfgang2. 1Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 2Novartis Institutes for BioMedical Research, Basel, Switzerland, 3Beijing Novartis Pharma Co. Ltd, Shanghai, China, 4Novartis Pharma AG, Basel, Switzerland, 5Charité Universitätesmedizin Berlin, Berlin, Germany, 6Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 7Rheumazentrum Ruhrgebiet, Herne, Germany, 8Leiden University Medical Ctr, Leiden, Netherlands, 9University of Glasgow, Glasgow, United Kingdom, 10Musculoskeletal Research Group, Newcastle, United Kingdom, 11Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 12Nuffield Orthopaedic Centre, Oxford, United Kingdom, 13Schoen-Klinik Hamburg-Eilbek Teaching Hospital of the University of Hamburg, Hamburg, Germany, 14Centre for Inflammatory Joint Diseases, Munich, Germany, 15Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands

2226. Application of Classification Criteria for Psoriatic Arthritis to Patients of the Rotterdam Early Arthritis Cohort. Jos Van der Kaap1, Johanna M.W. Hazes2, M. Vis3, Illya Tchetverikov and Jolanda J. Luime4. 1Rotterdam, Netherlands, 2Erasmus MC - University Medical Center, Rotterdam, Netherlands, 3VU University medical center, Amsterdam, Netherlands, 4Erasmus MC - University Medical Center, Rotterdam, Netherlands

2227. Low Dosage with Escalating Dosage of Infliximab in Psoriatic Arthritis Gives the Same Treatment Results as Standard Dosage of Adalimumab or Etanercept: Results From the Nationwide Registry ICEBIO. Bjorn Gudbjornsson2 and Niels Steen Krogsh1. 1Center for Rheumatology Research, Reykjavik, Iceland, 2ZiteLab ApS, Copenhagen, Denmark

2228. The Caspar Classification Criteria and Response to TNF Blockade in Rheumatologists Practice: A Large Observational Cohort Study. Burkhard Moller1, Almut Scherer1, J. Dudley1, Bettina Weiss2, Nikhil Yawalkar3 and Peter M. Villiger4. 1Inselspital University Hospital, Bern, Switzerland, 2SCQM Foundation, Zurich, Switzerland, 3Cantonal Hospital Fribourg, Fribourg, Switzerland, 4Balgrist University Hospital, Zurich, Switzerland, 5MD, Bern, Switzerland, 6Inselspital-University Hospital of Bern, Bern, Switzerland

2229. Analysis of Clinical, CRP- and MRI- Responses to TNF-Blockade in Axial Spondyloarthritic Patients with Short Vs Long Symptom Duration. Anja Weiss1, In Ho Song2, Hildrun Haibel3, Joachim Listing* and Joachim Sieper4. 1German
2230. The Early Clinical Response of TNF-Alpha Blockers Is a Predictor of Metrology Outcome in Ankylosing Spondylitis. Eon Jeong Nam, Jung Soo Eun, Na Ri Kim, Jong Wan Kang, Churl Hyun Im and Young Mo Kang, Kyungpook National University School of Medicine, Daegu, South Korea

2231. Treatment of Psoriatic Arthritis with Tumour Necrosis Factor α Antagonists Successfully Maintains Work Capacity: 2 Year Results of a Prospective Cohort Study. Leonard C. Harty1, Alex Franciosi2, Naomi Pettysan3, Paul Rushe2 and Oliver M. FitzGerald1, 1Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland, 2Department of Rheumatology, St. Vincent’s University Hospital, Dublin, Ireland

2232. Performance of Berlin Criteria in Patients with EARLY Spondyloarthropathy. Beatriz E. Joven1, Milena Gobbo2, Miguel A. Descalzo2, Eugenio De Miguel1 and Esperanza Group3, 1HOSPITAL UNIVERSITARIO 12 DE OCTUBRE, Madrid, Spain, 2Spanish Society of Rheumatology, Madrid, Spain, 3Hospital Universitario La Paz, Madrid, Spain, 4Madrid

2233. Assessing the Clinical and Economic Burden of U.S. Veteran Ankylosing Spondylitis Patients. Lin Xie1, Onur Baser2, Ahong Huang3, Lu Li3, Elyse K. Fritschel3 and Li Wang3, 1STATinMED Research, Dallas, TX

2234. US Treatment Patterns of Psoriatic Arthritis Patients Newly Initiated On Etanercept or Adalimumab. Frank Zhang1, Stan Li2 and Jeffrey R. Curtis2, 1Celgene Corporation, Warren, NJ, 2Univ of Alabama-Birmingham, Birmingham, AL

2235. How Important Is the Assessment of ASDAS in the Long-Term Evaluation of Disease Activity in Ankylosing Spondylitis? A Comparison with Currently Used Clinical Parameters. Xenofon Baraliakos1, Claudia Fritz2, Joachim Listing3, Hildrun Haibel4, Joachim Sieper5 and Jürgen Braun6, 1Rheumazentrum Ruhrgebiet, Herne, Germany, 2German Rheumatism Research Centre, Berlin, Germany, 3German Rheumatism Research Center, Berlin, Germany, 4Charité Medical University, Campus Benjamin Franklin, Berlin, Germany, 5Charité Universitätsmedizin Berlin, Berlin, Germany

Systemic Lupus Erythematosus: Clinical Aspects


2237. Application and Feasibility of Proposed Systemic Lupus Erythematosus Reproductive Health Care Quality Indicators At a Public Urban Rheumatology Clinic. Itziar Quinzanos1, Angela Keniston2, Joann Zell3, Jinoos Yazdany4, Alyssa Nash4, Rebecca Fransen5, Jennifer Stichman6 and Joel M. Hirsh7, 1Denver Health Med Ctr, Denver, CO, 2National Jewish Health, Denver, CO, 3University of California San Francisco, San Francisco, CA

2238. Alpha-Chlorofatty Acid Does Not Correlate with Baseline Subclinical Cardiovascular Disease in Systemic Lupus Erythematosus. Mary A. Mahieu1, Camelia Guild2, Carolyn J. Albert3, George Kondos4, James Carr5, Daniel Edmundowicz6, David A. Ford7 and Rosalind Ramsey-Goldman8, 1Northwestern University Feinberg School of Medicine, Chicago, IL, 2Saint Louis University, Saint Louis, MO, 3University of Illinois at Chicago, Chicago, IL, 4Temple University School of Medicine, Philadelphia

2239. Characterization of Pure Membranous Lupus Nephritis: A Cohort of 150 Patients. Lucía Silva1, Teresa Oton1, Ana Askanase2, Patricia Carreira3, Francisco Javier López-Longo4, Anne Riveros5, Íñigo Rúa-Figueroa6, Javier Narvaez7, Esther Ruiz-Lucea8, Mariano andres9, Enrique Calvo10, Francisco Toyos11, Juan J. Alegre12, Eva Tomero13, Carlos Montilla14, Antonio Zea15, Esther Uriarte-Isacelaya16, Jaime Calvo-Alen17, Carlos Marras18, Víctor M. Martínez-Taboada19, María Ángeles Belmonte20, Jose Rosas21, Enrique Rayà22, Gema Bonilla23 and Mercedes Freire24, 1Hospital Universitario Puerta de Hierro Majadahonda, Majadahonda (Madrid), Spain, 2NYU School of Medicine, New York, NY, 3Hospital Universitario 12 de Octubre, Madrid, Spain, 4Hospital General Universitario Gregorio Marañón, Madrid, Spain, 5Hospital Universitario Germans Trias i Pujol, Badalona, Spain, 6Hospital Universitario Dr Negrín, Las Palmas de Gran Canaria, Spain, 7Hospital Universitario de Bellvitge, Barcelona, Spain, 8Hospital of Basurto, Bilbao, Spain, 9Hospital General Universitario de Alicante, Alicante, Spain, 10Hospital Universitario Infanta Soña, San Sebastián de los Reyes, Spain, 11Hospital Universitario Virgen Macarena, Sevilla, Spain, 12Hospital Universitario Dr Peset, Valencia, Spain, 13Hospital Universitario La Princesa, Madrid, Spain, 14Hospital Universitario de Salamanca, Salamanca, Spain, 15Hospital Universitario Ramon y Cajal, Madrid, Spain, 16Hospital Universitario de Donostia, Donostia, Spain, 17Hospital Sierrallana, Torrelavega, Spain, 18Hospital Universitario Virgen de la Arrixaca, Murcia, Spain, 19Hospital Universitario Marqués de Valdecilla. IFIMA, Santander, Spain, 20Hospital Universitario Carlos Haya, Málaga, Spain, 21Hospital Marina Baixa, Villajoyosa, Spain, 22University Hospital San Cecilio, Granada, Spain, 23Hospital La Paz-IdiPaz, Madrid, Spain, 24Hospital Universitario Juan Canalejo, La Coruña, Spain

2240. Systematic Review of Skin Nontuberculous Mycobacteria Infection in Systemic Lupus Erythematosus: An Unusual Skin Infection Mimicking Lupus Vasculitis. Zahī Touma1, Amir Haddad2, Dafna D. Gladman3, Elizabeth Uleryk2 and Murray B. Urowitz2, 1Toronto Western Hospital and
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University of Toronto, Toronto, ON, 2Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON, 3The Hospital for Sick Children, Toronto, ON


2242. Clinical Manifestations and Predictive Factors for Response to Induction Therapy and Maintenance of Remission in ISN/RPS Class V Lupus Nephritis. Masanori Hanaoa1, Takahisa Gono1, Yasushi Kawaguchi1, Hirotaka Kaneko1, Kae Takagi1, Hisae Ichida1, Yasuhiro Katsumata2, Yoko Okamoto2, Yoko Ota1, Sayuri Kataoka1 and Hisashi Yamanaka1 1Institute of Rheumatology, Tokyo Women’s Medical University, Tokyo, Japan. 2Tokyo Women’s Medical University, Tokyo, Japan.

2243. A Comparison of Systemic Lupus Erythematosus (SLE) Patients Achieving Prolonged Clinical Quiescence (PCQ) on and off Corticosteroids and/or Immunosuppressive Medications. Amanda J. Steinman1, Dafna D. Gladman2, Dominique Ibanez3, Anjali Papneja4 and Murray B. Urowitz1 1Toronto Western Hospital and University of Toronto, Toronto, ON. 2Toronto Western Research Institute, University of Toronto, University Health Network, Toronto, ON. 3University of Toronto, Toronto, ON. 4University of Toronto, Toronto, ON.

2244. Predicting Sjögren’s Syndrome at Diagnosis of Systemic Lupus Erythematosus. Gabriela Hernandez-Molina1, Tatiana Zamora-Legoff2, Juana Romero-Diaz3, Carlos Alberto Nuñez-Alvarez3, Francisco Cárdenas-Velázquez4, Carlos Hernández-Hernández5, María Luisa Calderillo1, Martha Marroquin1, Claudia Recillas-Gispert1, Carmen Ávila-Casado1 and Jorge Sánchez-Guerrero5 1Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, Mexico. 2University Health Network, Toronto Canada. 3Mount Sinai Hospital, Toronto Canada.

2245. Vitamin D Deficiency is associated with, but Does Not Predict, Change in hsCRP in Systemic Lupus Erythematosus (SLE). Adnan Kiani, Hong Fang and Michelle Petri, Johns Hopkins University School of Medicine, Baltimore, MD

2246. Real World Experience with Belimumab in the Management of Systemic Lupus Erythematosus (SLE): A Single Center, Observational, Post-Marketing Study. Susan S. Kim, Tanya Pavri, Kyriakos A. Kirou, Jane Salmon and Murat Inanc1 1Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey. 2Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey.

2247. The First Report of Desensitization to Trimethoprim/Sulfamethoxazole in Patients with Systemic Lupus Erythematosus. Yasuhiro Suyama1, Mitsumasa Kishimoto1, Hiroto Nakano2, Ken-ichi Yamaguchi1, Hisanori Shimizu1, Ryo Rokutanda1, Chisun Min1, Yuri Ohara1, Yoichiro Haji1, Kazuo Matsui1, Akira Takeda2, Yukio Matsui2 and Masato Okada2 1St. Luke’s International Hospital, Tokyo, Japan. 2Kameda Medical Center, Kamogawa City, Japan

2248. Serum Phosphatidylserine-Specific Phospholipase A1 (PS-PLA1) Identified As a Novel Biomarker for Systemic Lupus Erythematosus (SLE). Tetsuji Sawada1, Kazuhiro Nakamura2, Ryunosuke Ohtkawa3, Aki Shoji4, Koichiro Tahara1, Haeru Hayashi5, Eri Kimura1, Koji Igarashi6, Junken Aoki7 and Yutaka Yatomi8 1Tokyo Medical University, Tokyo, Japan. 2The University of Tokyo Hospital, Tokyo, Japan. 3TOSOH Corporation, Kanagawa, Japan. 4Graduate School of Pharmaceutical Sciences, Tohoku University, Miyagi, Japan. 5Graduate School of Medicine, The University of Tokyo, Tokyo, Japan.

2249. Comparison of Mycophenolate Mofetil and Intravenous Cyclophosphamide As Induction Therapy in Korean Patients with Lupus Nephritis. Dong-Jin Park, Kyung-Eun Lee, Tae-Jong Kim, Yong-Wook Park and Shin-Seok Lee, Chonnam National University Medical School, Gwangju, South Korea

2250. A Clinical Analysis of Adult Patients with Autoimmune- and Infection-Associated Hemophagocytic Lymphohistiocytosis. Min W. So1, Bon S. Koo2, You J. Kim3, Yong-G Kim4, Wook J. Seo5, Chang-K Lee6 and Bin Yoo7 1University of Ulsan College of Medicine, Asan Medical Center, Seoul, South Korea. 2Seoul Veterans Hospital, Seoul, South Korea

2251. High Sensitivity C - reactive protein, Disease Activity and Cardiovascular Risk Factors in Systemic Lupus Erythematosus. Chi Chiu Mok1, Daniel Birmingham2, Ling Yin Ho1 and Brad H. Rovin2 1Tuen Mun Hospital, Hong Kong, Hong Kong. 2Ohio State University Medical Center, Columbus, OH

2252. Epratuzumab-Treated Systemic Lupus Erythematosus Patients Report Improvements in Health-Related Quality of Life: Final Results from an Open-Label Extension Study (SL0006). V. Strand1, K. Hobbs2, D.J. Wallace3, K. Kalunian4, B. Kilgallen5, E. Nikaï6, W.A. Wegener7 and D.M. Goldenberg8 1Stanford University, Palo Alto, CA. 2Denver Arthritis Clinic, Denver, CO. 3Cedars-Sinai Medical Center, Los Angeles, CA. 4UCSD School of Medicine, La Jolla, CA. 5UCB Pharma, Smyrna, GA. 6UCB Pharma, Brussels, Belgium. 7Immunomedics Inc, Morris Plains, NJ. 8Centre for Molecular Medicine and Immunology, Morris Plains, NJ

2253. Metabolic Syndrome Is Not Only a Risk Factor for Cardiovascular Events in Systemic Lupus Erythematosus but Also Associated with Cumulative Organ Damage: A Cross-Sectional Analysis of 311 Patients. Semra Ertan-Demir1, Bahar Artim-Esen2, Yasemin Sahinkaya1, Ozlem Pehlivran3, Nilüfer Alpay-Kanitez2, Ahmet Omra3, Burak Erer4, Sevil Kamali5, Ahmet Gul6, Orhan Arai7, Lale Ocal8 and Murat Inanc9 1Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey. 2Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey.

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Istanbul University, Istanbul, Turkey

2254. Discoid Lupus in Patients with Systemic Lupus Erythematosus. Ghassan Allohanji, Dominique Ibanez, D. D. Gladman and Murray B. Urowitz, Toronto Western Hospital and University of Toronto, Toronto, ON

2255. Apolipoprotein B Containing Lipoprotein Subclasses and Subclinical Atherosclerosis in Patients with Systemic Lupus Erythematosus (SLE). Adnan Kiani1, Hong Fang1, Ehtisham Akhter2, Carmen Quiroga2, Nancy Simpson1, Petar Alaupovic2 and Michelle Petri1, Johns Hopkins University School of Medicine, Baltimore, MD, 2Oklahoma Medical Research Foundation, Oklahoma, OK

2256. A Population of IL-21 Producing CD4+ T Cells Correlates with Disease Damage in Systemic Lupus Erythematosus (SLE) Patients. Babak Noamani1, Stacey Morrison1, Dafna Gladman2, Jorge Sanchez-Guerrero1, Murray B. Urowitz1, Joan E. Wither1 and Carolina Landolt-Marticorena1, 1Toronto Western Research Institute, Toronto, ON, 2The Toronto Western Hospital, Toronto, ON, 3Toronto Western Hospital and University of Toronto, Toronto, ON, 4Mount Sinai Hospital, University Health Network, Toronto, ON, 5Toronto Western Research Institute, University Health Network, Toronto, ON, 6University of Toronto, Toronto, ON

2257. Association of Low Vitamin D with High Disease Activity in an Australian Systemic Lupus Erythematosus Cohort. Kristy S. Yap1, Albert Y. Hoi2 and Eric F. Morand2, 1Monash Medical Centre, Clayton, Australia, 2Monash University, Melbourne, Australia

2258. Risk Factors for Total Joint Replacement in Systemic Lupus Erythematosus Patients with Avascular Necrosis. Jennifer Lee1, Dae-Jun Kim1, Jae Ho Lee1, Seung Min Jung1, Seung-Ki Kwok1, Ji Hyeon Ju2, Kyung-Su Park1, Sung-Hwan Park1 and Ho-Youn Kim1, 1Division of Rheumatology, Department of Internal Medicine, Seoul St. Mary’s Hospital, The Catholic University of Korea College of Medicine, Seoul, South Korea, 2College of Medicine, The Catholic University of Korea, Stanford University, Seoul, Palo Alto, CA

2259. Limitations of Current Treatment for Systemic Lupus Erythematosus: A Patient and Physician Survey. V. Strand1, C. Galateanu2, S. Lobasco3, D.S. Pushparajah4, J. Sayers5 and R.F. van Vollenhoven6, 1Stanford University, Portola Valley, CA, 2UCB Pharma, Brussels, Belgium, 3Adelphi Real World Ltd., Macclesfield, United Kingdom, 4Adelphi Real World Ltd., Macclesfield, United Kingdom, 5The Karolinska Institute, Stockholm, Sweden

2260. Serum DNase I Anti DNAse I Antibodies, CRP and Antibodies to CRP Relation to Disease Activity in Systemic Lupus Erythematosus: Longitudinal Studies. Ramnath Misra1, Avadesh Pratap2, Amit Singh1 and Amita Aggarwal1, 1Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India, 2Technician, Lucknow, India

2261. Ovarian Reserve Markers in Reproductive Age Women with Systemic Lupus Erythematosus. Ollivio B. Malheiro, Carolina P. Rezende, Gilda A. Ferreira and Fernando M. Reis, Federal University of Minas Gerais, Belo Horizonte, Brazil

2262. Hypogammaglobulinemia in Pediatric Systemic Lupus Erythematosus. Emilina Lim1 and Megan A. Cooper2, 1Washington University in Saint Louis- St. Louis Children’s Hospital, St. Louis, MO, 2Washington University, Saint Louis, MO

2263. The Association between Prior Pregnancy Morbidity and Cardiovascular Events in Women with Systemic Lupus Erythematosus. Megan Clowse1, Eliza F. Chakravarty2, Jill P. Buyon1 and Gerald McGwin Jr.4, 1Duke University Medical Center, Durham, NC, 2Oklahoma Medical Research Foundation, Oklahoma City, CA, 3New York University School of Medicine, New York, NY, 4University of Alabama at Birmingham, Birmingham, AL

2264. Improving Outcomes for Pregnant Lupus Patients: Is There a Geographic Link? Darneesh Thornton-Johnson1 and Daniel Albert1, 1Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH, 2Dartmouth-Hitchcock Medical Center, Geisel School of Medicine, Lebanon, NH

2265. Clinical Manifestations of Systemic Lupus Erythematosus Vary Based On Age of Disease Onset. Flora Simmons1, Natasha M. Ruth1, Gary S. Gilkeson1 and Diane L. Kamen2, 1Medical University of South Carolina, Charleston, SC, 2Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC

2266. Outcome of Renal Transplantation in Lupus Patients with Positive and Negative Serology: Survival of the Graft and Patients after Transplant. Zahi Touma, Murray B. Urowitz, Dominique Ibanez and D. D. Gladman, Toronto Western Hospital and University of Toronto, Toronto, ON

Systemic Lupus Erythematosus - Human Etiology and Pathogenesis

2267. Genome-Wide Pathway Analysis of Genome-Wide Association Studies On Systemic Lupus Erythematosus. Young Ho Lee1, Sung Jae Choi1, Jong Dae Ji2 and Gwan Gyu Song2, 1Korea University Medical Center, Seoul, South Korea, 2Korea Univ College of Med, Seoul

2268. Hyperacetylation of Histone H4 in Systemic Lupus Erythematosus. Yiu Tak Leung1, Lihua Shi2, Kelly Maurer2, Li Song2, Zhe Zhang3, Michelle Petri4 and Kathleen E. Sullivan2, 1University of Pennsylvania, Philadelphia, PA, 2Children’s Hospital of Philadelphia, Philadelphia, PA, 3Bionformatics, Children’s Hospital of Philadelphia, Philadelphia, PA, 4Johns Hopkins University School of Medicine, Baltimore, MD

2269. The Differences of DNA Methy whole and Transcriptome among Diverse Clinical Manifestations of Systemic Lupus Erythematosus. Ming Zhao1, Shuanyan Luo2, Honglong Wu2, Siyang Liu2, Meini Tang2, Wening Cheng1, Qing Zhang1, Xinhai Yu1, Tak Mao Chan1, Yudong Xia1, Na Yi2, Fei Gao2, Li Wang3, Ning Li2 and Qianjin Lu1, 1Second Xiangya Hospital, Central South University; Hunan Key Laboratory of Medical Epigenomics, Changsha, China, 2Beijing Genomics Institute
at Shenzhen, Shenzhen, China, Shenzhen, China, University of Hong Kong, Queen Mary Hospital, Hong Kong, China

2270. The DNA Methyloene of Systemic Lupus Erythematous (SLE) From Whole Peripheral Blood Mononuclear Cells (PBMCs). Robert Shoemaker1, Lou H. Bookbinder2, David L. Boyle3, Gary S. Firestein4, Jonathan E. Lim2 and David W. Anderson1, 1NexDx, Inc., San Diego, CA, 2NexDx, Inc., San Diego, 3UCSD School of Medicine, La Jolla, CA

2271. Variation of Interferon-Alpha Production in Healthy Individuals and Association with Autoimmune Susceptibility Genes. Olof Berggren1, andrei alexson1, Gunnar V. Alm2, Ann-Christine Syvänäinen1, Lars Rönblom1 and Maija-Leena Eloranta1, 1Section of Rheumatology, Uppsala University, Uppsala, Sweden, 2Swedish University of Agricultural Sciences, Uppsala, Sweden, 3Molecular Medicine, Uppsala University, Uppsala, Sweden

2272. Gene Expression Signatures in Monocytes From Primary Antiphospholipid Syndrome, Systemic Lupus Erythematous and Lupus with Antiphospholipid Syndrome Identify Specific Pathways Involved in the Pathogenesis of Atherosclerosis and Cardiovascular Disease. Chary Lopez-Pedrera1, Sebastiano Messineo2, Carlos Perez-Sanchez3, Patricia Ruiz-Limon1, Mª Angeles Aguirre1, Rosario M. Carretero-Prieto4, Antonio Rodriguez-Ariza1, Nuria Barbarroja1, Francisco Velasco1, Munther A. Khamashta4, Eduardo Collantes-Estevez1 and Mª Jose Cuadrado5, 1MIMIC-Reina Sofia Hospital, Cordoba, Spain, 2University of Nottingham, Nottingham, United Kingdom, 3Lupus Research Unit, The Rayne Institute, Kings College London School of Medicine, London, United Kingdom

2273. Functional Genetic Polymorphisms in Immunoglobulin-Like Transcript 3 Are Associated with Decreased Surface Expression on Dendritic Cells and Increased Serum Cytokines in Lupus Patients. Mark A. Jensen, Karen C. Patterson, Akaash A. Kumar, Marissa Kumabe, Beverly S. Franke and Timothy B. Niewold, University of Chicago, Chicago, IL

2274. Genes Associated with Systemic Lupus Erythematous Show Evidence of Selection in the Gullah African American Population. Paula S. Ramos1, Satria Sajuthi1, Yiqi Huang1, Diane L. Kamen1, Jasmyn Divers1, Kenneth M. Kaufman3, John B. Harley1, Robert P. Kimberly4, Carl D. Langefeld5, Michele M. Sale1, W. Timothy Garvey1 and Gary S. Firestein1, 1Medical University of South Carolina, Charleston, SC, 2Wake Forest School of Medicine, Winston-Salem, NC, 3University of Virginia, Charlottesville, VA, 4Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC, 5Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 6University of Alabama at Birmingham, Birmingham, AL

2275. NR1H3 (LXR alpha) Gene Polymorphisms Are Associated with Systemic Lupus Erythematous in Koreans. Ja-Young Jeon, Hyoun-Ah Kim and Chang-Hee Suh, Ajou University School of Medicine, Suwon, South Korea

2276. Signature of Circulating Micro-RNA in Systemic Lupus Erythematous. Anting L. Carlsen1, Aaron J. Schetter2, Christoffer T. Nielsen1, Christian Lood2, Steen Knudsen2, Anne Voss1, Curtis C. Harris3, Thomas Hellmark3, Mårten Segelmark2, Søren Jacobsen3, anders A. Bengtsson1 and Niels H. H. Heegaard1, 1Statens Serum Institut, Copenhagen S, Denmark, 2National Institutes of Health, Bethesda, MD, 3Department of Clinical Sciences Lund, Lund, Sweden, 4Medical Prognosis Institute, Horsholm, Denmark, 5Odense University Hospital, Odense C, Denmark, 6National Cancer Institute NIH, Bethesda, MD, 7Lund, Sweden, 8Sweden, 9Copenhagen University Hospital, Copenhagen, Denmark, 10Department of Clinical Sciences Lund, Section of Rheumatology, Lund, Sweden

2277. Familial Aggregation and Heritability of Systemic Lupus Erythematous in Taiwan: A Nationwide Population Study. Chang-Fu Ku1, Matthew J. Grainge1, Lai-Chu See2, Kuang-Hui Yu1, Shue-Fen Luo3, Ana M. Valdes4, Hsiao-Chun Chang5, I-Jun Chou1, Weiya Zhang1 and Michael Doherty1, 1University of Nottingham, Nottingham, United Kingdom, 2Chang Gung University, Taoyuan, Taiwan, 3Chang Gung Memorial Hospital, Taoyuan, Taiwan, 4St. Thomas’ Hospital, King’s College London, London, United Kingdom

2278. Single Nucleotide Polymorphisms (SNPs) of Integrin-α-M (ITGAM) Are Associated with Susceptibility to Systemic Lupus Erythematous (SLE) in an Asian Lupus Cohort. Weng-Giap Law1, Kok Ooi Kong1, Bernard Pui Lam Leung1, Chack-Yung Yu1, Yeong W. Song2, Yun Deng1, Hsiok-Hee Chng1, Betty P. Tsoa1 and Hwee-Siew Howe2, 1Tan Tock Seng Hospital, Singapore, Singapore, 2Center for Molecular and Human Genetics, The Research Institute at Nationwide Children’s Hospital and The Ohio State University, Columbus, OH, 3Seoul National University, Seoul, South Korea, 4David Geffen School of Medicine University of California Los Angeles, Los Angeles, CA, 5UCLA School of Medicine, Los Angeles, CA

2279. Genetic Markers for Circulating Vitamin D and the Associations with Risk of Systemic Lupus Erythematous. Linda T. Hiraki1, Adrienne H. Williams2, Arun-Prasad Manoharan1, Peter Kraft2, Carl D. Langefeld3, Robert R. Graham4 and Elizabeth W. Karlson5, 1Brigham and Women’s Hospital, Harvard School of Public Health, Boston, MA, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Genentech, Inc., 4Program in Molecular and Genetic Epidemiology, Harvard School of Public Health, Boston, MA, 5Department of Biostatistical Sciences, Wake Forest University Health Sciences, Winston-Salem, NC, 6Genentech, Inc., South San Francisco, CA, 7Brigham and Women’s Hospital, Harvard Medical School, Boston, MA
2280. Serum Metabolomics As a Novel Diagnostic Approach for Systemic Lupus Erythematosus. Jun Saegusa1, Yasuhiro Inno1, Masaru Yoshida1, Shinro Tanaka1, Yoshinori Kogata2, Goichi Kageyama1, Seiji Kawano1, Gohe Tsuj1, Shunichi Kumaga1 and Akio Morinobu1, 1Kobe University Graduate School of Medicine, Kobe, Japan, 2Shinko Hospital, Kobe, Japan

2281. Tartrate-Resistant Acid Phosphatase Deficiency in the Predisposition to Systemic Lupus Erythematosus. Jie An1, Tracy A. Briggs2, Nalini Agrawal1, Alice Wiedeman1, Laurence Chaperot4, Joel Plumas1, Yanick J. Crow2 and Keith B. Elkon1, 1University of Washington, Seattle, WA, 2University of Manchester, Manchester, United Kingdom, 3Immunobiology & Immunotherapy of Cancers, La Tronche, France

2282. Low Gene Copy Number for C4, C4A and C4B Is a Strong Risk Factor for Developing Systemic Lupus Erythematosus in Childhood. Luis Eduardo C. andrade1, Kaline M.C. Pereira1, Atlia G. A. Faria1, Bernadete Liphaus1, Adriana A. Jesus1, Clovis Silva1 and Magda Carneiro-Sampaio1, 1Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 2Universidade Federal de Sao Paulo and Fleury Health and Medicine Laboratories, Sao Paulo, Brazil, 3Instituto da Criança, Hospital das Clínicas, Faculdade de Medicina, Universidade de Sao Paulo, Sao Paulo, Brazil, 4Instituto da Criança da Faculdade de Medicina da Universidade de Sao Paulo (FMUSP), Sao Paulo, Brazil, 5MD; PhD, Sao Paulo-SP, Brazil

2283. Preferential Association of Complement Receptor 2 Variants with Anti-dsDNA Autoantibodies in Systemic Lupus Erythematosus. Brendan M. Giles1, Jian Zhao2, Kara M. Lough1, Patrick M. Gaffney on behalf of LLAS2, Marta E. Alarcon-Riquelme on behalf of BIOLUS3, Elizabeth E. Brown on behalf of PROFILE4, Lindsey A. Criswell5, Gary S. Gilleeson6, Chaim O. Jacob7, Judith A. James9, Joan T. Merrill10, Kathy L. Moser11, Timothy B. Niewold12, R. Hal Scofield13, Timothy J. Vyse14, John B. Harley15, Kenneth M. Kaufman16, Jennifer A. Kelly17, Carl D. Langefeld18, Jeffrey C. Edberg19, Robert P. Kimberly20, Daniela Ulgiati21, Betty P. Tsao22 and Susan A. Boackle23, 1University of Colorado School of Medicine, Aurora, CO, 2David Geffen School of Medicine University of California Los Angeles, Los Angeles, CA, 3Oklahoma Medical Research Foundation, Oklahoma City, OK, 4Oklahoma Medical Research Foundation, Center for Genomics and Oncological Research Pfizer-University of Granada-Junta de andalucia, Oklahoma City, OK, 5University of Alabama at Birmingham, Birmingham, AL, 6University of California San Francisco, San Francisco, CA, 7University of South Carolina, Charleston, SC, 8Department of Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, 9Oklahoma Medical Research Foundation and University of Oklahoma Health Sciences Center, Oklahoma City, OK, 10University of Chicago, Chicago, IL, 11King’s College London, Guy’s Hospital, London, United Kingdom, 12Cincinnati Children’s Hospital Medical Center; US Department of Veterans Affairs Medical Center, Cincinnati, OH, 13Wake Forest School of Medicine, Winston-Salem, NC, 14Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, 15University of Western Australia, Perth, Western Australia, Australia, 16UCLA School of Medicine, Los Angeles, CA

2284. Epigenetic Profiling in Monzygotic Twins Discordant for Systemic Lupus Erythematosus Reveals Prominent Hypomethylation of Interferon-Inducible Genes. Paula S. Ramos1, Timothy D. Howard2, Miranda C. Marion3, Satria Sajuthi4, Jennifer A. Kelly5, Kathy L. Moser1 and Carl D. Langefeld2, 1Medical University of South Carolina, Charleston, SC, 2Wake Forest School of Medicine, Winston-Salem, NC, 3Oklahoma Medical Research Foundation, Oklahoma City, OK

2285. Systemic Lupus Erythematosus RNA-Seq: Endogenous Retroviral Group K Overexpression in Monocytes. Lihua Shi1, Zhe Zhang2, Michelle Petri3 and Kate Sullivan4, 1Children’s Hospital of Philadelphia, Philadelphia, PA, 2Bioinformatics, Children’s Hospital of Philadelphia, Philadelphia, PA, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4The Children’s Hospital of Philadelphia, Philadelphia, PA

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics

2286. Dysregulated Discoidin Domain Receptor 2-Microrna 196a-Mediated Negative Feedback Against Excess Type I Collagen Expression in Scleroderma Dermal Fibroblasts. Katsunari Makino, Masatoshi Jinnin, Jun Aoi, Ikko Kajihara, Takamitsu Makino, Keisuke Sakai, Satoshi Fukushima, Yuji Inoue and Hironobu Ihn, Kumamoto University, Kumamoto, Japan

2287. Altered Regulation of Metabolic Pathways in Systemic Sclerosis Evidenced by Metabolomics. Emmanuel Chateius, Jacques-Eric Gottenberg, François-Marie Moussallieh, Christelle Sordet, Arnaud Theulin, Alain Meyer, Jean-Francois Kleinnam, Jean Sibilla and Izzie Jacques Namer, Strasbourg University Hospital, Strasbourg, France

2288. The Role of TCR Vα1+ NKT Cells in Systemic Sclerosis Patients with Interstitial Pneumonitis. Seiji Segawa, Daisuke Goto, Masanobu Horikoshi, Shinya Hagiwara, Naoto Umeda, Hiroshi Ogishima, Yuya Kondo, Hiroto Tsuboi, Makoto Sugihara, Taichi Hayashi, Yusuke Chino, IsaoMatsumoto and Takayuki Sumida, University of Tsukuba, Tsukuba City, Japan

2289. Adiponectin Has Potent Anti-Fibrotic Effects Mediated Via AMP Kinase: Novel Target for Fibrosis Therap. Feng Fang1, Lei Liu2, Yang Yang3, Jun Wei3, Swati Bhattacharyya1, Ross Summer3, Boping Ye4 and John Varga5, 1Northwestern University, Chicago, IL, 2China Pharmaceutical University, Nanjing, China, 3Boston University, Boston, MA

2290. Type I Interferon Associated Gene IRF7 in the Pathogenesis of Fibrosis in Systemic Sclerosis (SSc). Minghua Wu1, Michael R. Blackburn2, Shervin Assassi1, Xiaochun Liu1, John D. Reveille1, Filemon K. Tan1, Sandeep K. Agarwal1 and...
Maureen D. Mayes1, University of Texas Health Science Center at Houston, Houston, TX, 1The University of Texas Medical School at Houston, Houston, TX, 2Baylor College of Medicine, Houston, TX

2291. Enhanced Release of S100A9 and Hepatocyte Growth Factor by the Epidermis in Systemic Sclerosis. Joanna Nikiotrówicz Buniak1, Christopher P. Denton2, David J. Abraham1 and Richard J. Stratton1, 1UCL Medical School, London, United Kingdom, 2UCL, London, United Kingdom

2292. Increased Synthesis of Leukotrienes by Peripheral Blood Mononuclear Cells Is Associated with More Severe Disease and Worse Prognosis in Patients with Systemic Sclerosis. Otylia M. Kowal-Bielecka1, Anna Lapinska2, Marek Bielecki3, Oliver Distler4, Izabela Domyslawska1, Lech Chyczewski5, Stanislaw Sierakowski5, Steffen Gay6 and Krzysztof Kowal6, 1Department of Rheumatology and Internal Medicine, Medical University in Bialystok, Białystok, Poland, 2Department of Medical Pathomorphology, Medical University in Białystok, Białystok, Poland, 3Department of Orthopedics and Traumatology, Medical University in Białystok, Białystok, Poland, 4Department of Rheumatology and Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 5Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Switzerland, Zurich, Switzerland, 6Department of Allergology and Internal Medicine, Medical University of Białystok, Białystok, Poland

2293. Interleukin-17A Positive Cells Are Increased in Systemic Sclerosis Skin and Their Number Is Inversely Correlated to Skin Thickness. Marie-Elise Truchetet1, Nicolò Costantino2, Marjanne Brkic1, Lenny van der Meer4, 1Department of Rheumatology and Internal Medicine, Medical University of Bialystok, Białystok, Poland, 2Department of Pathomorphology, Medical University of Bialystok, Białystok, Poland, 3Department of Pathomorphology, Medical University of Bialystok, Białystok, Poland, 4Department of Rheumatology and Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 5Center of Experimental Rheumatology, University Hospital Zurich and Zurich Center of Integrative Human Physiology (ZIHP), Switzerland, Zurich, Switzerland, 6Department of Allergology and Internal Medicine, Medical University of Białystok, Białystok, Poland

2294. The Histone Deacetylase SIRT1 Is Anti-Fibrotic and Mediates Resveratrol Effects. Roberta G. Marangoni1, Archit Ghosh2, Jun Wei2 and John Varga3, 1Northwestern University, Feinberg School of Medicine, Chicago, IL, 2Northwestern University, Chicago, IL, 3Northwestern University Medical School, Chicago, IL

2295. Caveolin-1 Deficiency Induces Spontaneous Endothelial-to-Mesenchymal Transition (EndoMT) in Murine Pulmonary Endothelial Cells in Vitro. Zhaodong Li1, Peter J. Wermuth1, Bryan Benn2, Michael P. Lisanti3 and Sergio A. Jimenez3, 1Jefferson Institute of Molecular Medicine, Division of Connective Tissue Diseases and Scleroderma Center, Thomas Jefferson University, Philadelphia, PA, 2Jefferson Stem Cell Biology and Regenerative Medicine Center, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA

2296. Platelet Release Products Mediate Endothelial Apoptosis: A Possible Role for Thrombospondin 1-CD36 Pathway in SSC-Endothelial Apoptosis. Bashar Kahaleh and Yongqing Wang, University of Toledo, Toledo, OH

2297. Decrease Activity of DNA Demethylase in SSc Fibroblast and Microvascular Endothelial Cells: A Possible Mechanism for Persistence of SSC Phenotype. Bashar Kahaleh and Yongqing Wang, University of Toledo, Toledo, OH

2298. The Arachidonate 5-Lipoxygenase Activating Protein (ALOX5AP) Polymorphism Is Associated with Risk of Scleroderma-Related Interstitial Lung Disease: A Multicenter Study From the EULAR Scleroderma Trial and Research Group. Otylia M. Kowal-Bielecka1, Sylwia Chwiesko-Minarowska2, Pawel Bernatowicz3, Yannick Alianore4, Timothy RD Radstake5, Jasper Kroon6, Marco Matucci-Cerinic7, Roger Hesselstrand8, Dorota Krasowska9, Gabriela Riemekasten10, Madelon C. Vonk11, Oksana Kowalczyk12, Marek Bielecki13, Robert Milewski14, Lech Chyczewski15, Jacek Nikinski16 and Krzysztof Kowal13, 1Department of Rheumatology and Internal Medicine, Medical University in Białystok, Białystok, Poland, 2Department of Clinical Molecular Biology, Medical University of Białystok, Białystok, Poland, 3Paris Descartes University, Rheumatology A department, Cochin Hospital, Paris, France, 4Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 5Department of Rheumatology & Clinical Immunology, University Medical Center, Utrecht, Netherlands, 6University of Florence, Florence, Italy, 7Skane University Hospital Lund, Lund University, Lund, Sweden, 8Department of Dermatology, Venereology and Pediatric Dermatology, Medical University of Lublin, Lublin, Poland, 9Charité University Hospital, German Rheumatology Research Center, a Leibniz Institute, Berlin, Germany, 10Department of Orthopedics and Traumatology, Medical University of Białystok, Białystok, Poland, 11Department of Statistics and Medical Informatics, Medical University of Białystok, Białystok, Poland, 12Department of Medical Pathomorphology, Medical University in Białystok, Białystok, Poland, 13Department of Allergology and Internal Medicine, Medical University of Białystok, Białystok, Poland

2299. Acroosteolysis Is Associated with Increased Propensity for Osteoclast Formation and Higher VEGF Levels in the Peripheral Blood of Systemic Sclerosis Patients. Jin Kyun Park1, Andrea Fava2, Antony Rosen3 and Francesco Boin4, 1Seoul National University Hospital, Seoul, South Korea, 2Johns Hopkins University, Baltimore, MD, 3The Johns Hopkins University, Baltimore, MD

2300. The Effects of Salvianolic Acid B in Fibrotic Models in Vivo and in Vitro. Qingmei Liu1, Wenyu Wu1, Wenzheng Tu1, Haiyan Chu1, Yanyun Ma1, Hejian Zou1, Xiaodong Zhou4 and Jiu-Cun Wang1, 1Ministry of Education Key Laboratory of Contemporary Anthropology, School of Life Sciences, Fudan University, Shanghai, China, 2Huashan Hospital, Shanghai, China, 3Shanghai Traditional Chinese Medicine-Integrated Hospital, Shanghai, China, 4University of Texas-Houston Medical School, Houston, TX

2301. The Interferon Type I Signature Is Increased in Monocytes from Systemic Sclerosis Patients. Zana Brkic1, Lenny van der Meer4
2302. Secreted Frizzled-Related Protein 4 Induces a Profibrotic Phenotype in Systemic Sclerosis Fibroblasts by Activating a Non-Canonical WNT Signaling Pathway. Justin Gillespie1, Paul Emery2 and Francesco Del Galdo1, 1University of Leeds, Leeds, United Kingdom, 2Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, 3University of Leeds, Leeds Institute of Molecular Medicine and LMBRU, Leeds, United Kingdom

2303. Confirmation of TNIP1 as a Susceptibility Locus for Systemic Sclerosis in a Large Multicentre Study. Lara Bossini-Castillo1, Jose Ezequiel Martin1, Carmen Pilar Simeón1, Lorenzo Beretta2, Olga Y. Gorlova2, Madelon C. Vonk3, Patricia Carreira4, the Spanish Scleroderma Group5, Annemie Schuerwegh6, Alexandre Voskuyl7, Anna-Maria Hoffmann-Vold8, Roger Hesselstrand9, Annika Nordin9, Claudio Lunardi9, Jaap Van Laar10, Paul Shiel11, Ariane Herrick12, Jane Worthington12, Carmen Fonseca12, Christopher Denton13, Ariane Herrick14, Frank C. Arnett15, Filemon K. Tan16, Shervin Assassi17, T.R.D.J. Radstake18, Maureen D. Mayes18 and Javier Martin19, 1Consejo Superior de Investigaciones Científicas, Armilla (Granada), Spain, 2Hospital Valle de Hebron, Barcelona, Spain, 3Hospital Universitario 12 de Octubre, Madrid, Spain, 4Granada, Spain, 5University of Cologne, Cologne, Germany, 6Charité University Hospital, German Rheumatology Research Center, a Leibniz Institute, Berlin, Germany, 7Hannover Medical School, Hanover, Germany, 8Ruhr University Bochum, Bochum, Germany, 9Department of Internal Medicine and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 10University of Glasgow, Glasgow, United Kingdom, 11Musculoskeletal Research Group, Newcastle, United Kingdom, 12Leids Univ Medisch Centrum, Leiden, Netherlands, 13Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 14VU University Medical Center, Amsterdam, Netherlands, 15Royal Free Hospital, London, United Kingdom, 16Royal Free Hospital, London, England, 17University of Manchester, Salford, United Kingdom, 18University of Texas Health Science Center at Houston, Houston, TX, 19University Medical Center Utrecht, Utrecht, Netherlands

2304. Differential Association of IRAK1 and MECP2 with Specific Systemic Sclerosis Phenotypes. F. David Carmona1, M.C. Cénit2, L.M. Díaz-Gallo1, Carmen P. Simeón1, Patricia Carreira1, the Spanish Scleroderma Group1, Nicolas Hunzelmann1, Gabriela Riemekasten2, Torsten Witte1, Alexander Kreuter2, Jörg HW Distler1, Paul Shiel12, Jacob M. van Laar11, Annemie Schuerwegh12, Madelon C. Vonk11, Alexandre Voskuyl14, Carmen Fonseca13, Christopher Denton13, Ariane Herrick17, Frank C. Arnett18, Filemon K. Tan19, Shervin Assassi19, T.R.D.J. Radstake19, Maureen D. Mayes19 and Javier Martin1, 1Consejo Superior de Investigaciones Científicas, Armilla (Granada), Spain, 2Hospital Valle de Hebron, Barcelona, Spain, 3Hospital Universitario 12 de Octubre, Madrid, Spain, 4Granada, Spain, 5University of Cologne, Cologne, Germany, 6Charité University Hospital, German Rheumatology Research Center, a Leibniz Institute, Berlin, Germany, 7Hannover Medical School, Hanover, Germany, 8Ruhr University Bochum, Bochum, Germany, 9Department of Internal Medicine and Institute for Clinical Immunology, University of Erlangen-Nuremberg, Erlangen, Germany, 10University of Glasgow, Glasgow, United Kingdom, 11Musculoskeletal Research Group, Newcastle, United Kingdom, 12Leids Univ Medisch Centrum, Leiden, Netherlands, 13Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, 14VU University Medical Center, Amsterdam, Netherlands, 15Royal Free Hospital, London, United Kingdom, 16Royal Free Hospital, London, England, 17University of Manchester, Salford, United Kingdom, 18University of Texas Health Science Center at Houston, Houston, TX, 19University Medical Center Utrecht, Utrecht, Netherlands
ACR POSTER SESSION C

2310. Enhancement of CRACM1 Expression in Functionally Aberrant Naïve CD4+ T Cells in Active Rheumatoid Arthritis. Shuang Liu1, Shohei Watanabe2, Miyuki Kuno3, Hiromasa Miura2 and Kazutaka Maeyama1, 1Informational Biomedicine, Ehime University Graduate School of Medicine, Toon-shi, Ehime, Japan, 2Ehime University Graduate School of Medicine, Toon, Japan, 3Osaka City University Graduate School of Medicine, Osaka, Japan

2311. Total Glucosides of Paeony Th1 and Th17 Cell Differentiation by Blocking STAT1 and STAT3 Activation in Vivo. Ningli Li1 and JP Lin2, 1Shanghai Jiao Tong University School of Medicine, Shanghai, China, 2Shanghai, China

2312. Senescent T Cells Promote Bone Loss in Rheumatoid Arthritis. Johannes Fessler, Rusmir Husic, Elisabeth Lerchbaum, Verena Schwetz, Claudia Stieglert, Barbara Obermayer-Pietsch, Winfried B. Graninger and Christian Dejaco, Medical University Graz, Graz, Austria

2313. The Autoantibody-Inducing CD4 T Cell (aCD4 T cell) Belongs to CCR4+CD45RBlo122lo CD4 Subpopulation: A Novel Self-Organized Criticality Theory Explains the Cause of Systemic Lupus Erythematosus (SLE). Yumi Miyazaki1, Ken Tsumiyama2 and Shunichi Shiozawa2, 1Kyushu University Beppu Hospital/Kobe University Graduate School of Health Sciences, Beppu/Kobe, Japan, 2Kyushu University Beppu Hospital, Beppu, Japan

2314. Correlation Between Abatacept and Rheumatoid Factor – Can Rheumatoid Factor Be a Predictive Factor for Abatacept? Tomonori Kobayakawa1, Masatoshi Hayashi1, Tosihisa Kanamono1, Atsushi Kaneko2, Miyuki Kuno3 and Naoki Ishiguro4, 1Nagano Red Cross Hospital, Nagano, Japan, 2National Institute of Arthritis and Musculoskeletal and Skin Diseases, Beppu/Kobe, Japan, 3Nagoya University, Graduate School & Faculty of Medicine, Nagoya, Japan, 4Nagoya University, Graduate School of Medicine, Nagoya, Aichi, Japan

2315. Foxp3+ Treg Cells Decreased in Overexpression of T-Bet in PD-1 Deficient Mice. Masahiro Tahara1, Yuya Kondo1, Hirotu Tsuboi2, Satoru Takahashi2, Isao Matsumoto1 and Takayuki Nakazawa1, 1Department of Internal Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan, 2Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, Tsukuba city, Ibaraki, Japan

2316. Generation of CD4+ Follicular Helper T Cells by Complement and Immune Complexes. Anil K. Chauhan1, Richard DiPaolo2 and Terry L. Moore3, 1Saint Louis University, St. Louis, MO, 2Saint Louis, MO

2317. Protein Phosphatase 5 (PP5) Regulates Methyltransfer Sensitive Gene Expression in CD4+ T Cells. Dipak R. Patel, Gabriela Gorelik and Bruce C. Richardson, University of Michigan, Ann Arbor, MI

2318. Reduced Thymus Function and Accelerated T-Cell Aging in Patients with Axial Spondyloarthritis. Christian Dejaco1, Wolfgang Schwinger1, Andrea Raicht1, Rusmir Husic2, Johannes Fessler1, Christoph G. Ammann3, Christina Duftner1, Winfried B. Graninger2 and Michael Schirmer2, 1Medical University Graz, Graz, Austria, 2Medical University Innsbruck, Innsbruck, Austria, 3Hospital Elisabethinen, Klagenfurt, Austria, 4Innsbruck Medical University, Innsbruck, Austria

2319. T Follicular Helper Cell and Regulatory T cell Frequencies Are Affected by B Cell Depletion in Patients with Granulomatosis with Polyangiitis. Yuan Zhao1, Jessica Thomas1, Shirish Sangle2, Pamela M.K. Lutala3, Lee Meng Choon3, Jennifer R. Tyler1, Jo Spencer1, Timothy Tree1 and David P. D’Cruz2, 1School of Medicine, King’s College London, London, United Kingdom, 2Louise Coote Lupus Unit, St Thomas’ Hospital, London, United Kingdom, 3Louise Coote Lupus Unit, St Thomas Hospital, London, United Kingdom, 4St Thomas’ Hospital, London, United Kingdom

2320. Superantigen Induces IL-17 Production From Extremely Polarized Th1 Clones. Kentaro Yomogida1, Yuan K. Chou1 and Cong-Qiu Chu2, 1Oregon Health & Science University, Portland, OR, 2Oregon Health & Science Univ and Portland VA Medical Center, Portland, OR

2321. Interleukin 12 Is Involved in an Interferon Type I Signature through Crosstalk of CD4+ T Cells and Plasmacytoid Dendritic Cells. Corrine Miceli-Richard1, Nicolas Gastermann2, Federico Simoneta3, Saiada Boudaoud1, Gaetane Nocturne1, Yann Lecluze1, Christine Bourgeois1 and Xavier Mariette2, 1Université Paris-Sud, Le Kremlin Bicêtre, France, 2INSERM U1015, Le Kremlin Bicêtre, France, 3Université Paris-Sud, Le Kremlin Bicêtre, France, 4Villejuif, France

2322. Dynamic Regulation of T Follicular Helper Cell Differentiation through STAT Signaling. Shingo Nakayamada1, Yuka Kanno2, Golniz Vahedi1, John J. O’Shea2 and Yoshiya Tanaka1, 1First Department of Internal Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan, 2National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH, Bethesda, MD

2323. A Genetic Polymorphism on Chromosome 17 Is Associated with Abnormal Dendritic Cell Function Leading to Expansion of TH1, TH17 and T Follicular Helper (TFH) Cells. Nafiseh Talaei1, Carolina Landolt-Marticorena1, Babak Noamani1, Evelyn Pau1, Nan-Hua Chang1 and Joan E. Wither1, 1First Department of Internal Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan, 2School of Medicine, University of Aichi, Toyota, Japan, 3School of Medicine, University of Tohoku, Sendai, Japan, 4School of Medicine, Aichi University of Technology, Aichi, Japan

2325. PD-1 Signaling Promotes Suppressive Function of CD4+ Regulatory T Cells in (New Zealand Black × New Zealand White) F1 Lupus-Prone Mice in a Dose-Dependent Manner. Maida Wong1, Antonio La Cava2 and Bevra H. Hahn3.
1University of California, Los Angeles, Los Angeles, CA, 2UCLA David Geffen School of Medicine, Los Angeles, CA

2326. Discovery of a Highly Potent, Selective Reversible Covalent Inhibitor of JAK3 Kinase. Ronald J. Hill1, Angelina Bisconte1, J. Michael Bradshaw1, Ken Brameld1, Eun Ok Kim1, Xiaoyan Li2, Tim Owens3, Erik Verner4 and David M. Goldstein5.
1Principia Biopharma, South San Francisco, CA, 2Principia Biopharma

6Compugen Ltd., Tel Aviv, Israel, 7Oxford University, London, United Kingdom, 8Northwestern University, Chicago, IL

2328. A Novel Method for Quantitative and Functional Analysis of Autophagy Using Flow Cytometry in Activated Human Primary T Cells. Ryu Watanabe, Hiroshi Fuji, Yukiko Kamogawa, Kyohei Nakamura, Tsuyoshi Shirai, Yumi Tajima, Shinichiro Saito, Tomonori Ishii and Hideo Harigae, Tohoku Medical School, Sendai, Japan

2329. Increase of CD4+CD25+FoxP3+ T cell in Patients with Systemic Sclerosis Could Secret IL-17 with Dysfunction of Immunosuppression. Xinjuan Liu1, Na Gao1, Mengtao Li1, Dong Xu1, Yong Hou1, Qian Wang1, Guohua Zhang1, Qiuning Sun1, Henghui Zhang2 and Xiaofeng Zeng3. 1Peking Union Medical College Hospital, Chinese Academy of Medical Science & Peking Union Medical College, Beijing, China, 2Peking University, People’s Hospital, Beijing, China

2330. Mucosal-Associated Invariant T Cells Are Inactivated by IFNα and Reduced in Systemic Lupus Erythematosus. Asako Chiba1, Naoto Tamura1, Ran Matsudaira2, Takashi Yamamura1, Yoshiharu Takasaki1 and Sachiko Miyake1.
1National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan, 2Juntendo University School of Medicine, Tokyo, Japan

2331. The Effects of Anti–Tumor Necrosis Factor Agents on the Expansion of T Helper-Type 17 Cells Driven by Lipopolysaccharide-Stimulated Monocytes. Gianluca Fossati1, Louise Healy2 and Andrew Nesbitt3.
1UCB Pharma, Slough, United Kingdom, 2UCB Pharma, Slough, United Kingdom

1Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan, 2Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

2333. A Novel Subset of CD4 T Cells That Provides Help for Human Memory B cell Responses. Sang T. Kim, Jin Young Choi, Begona Lainez and Joseph E. Craft, Yale University School of Medicine, New Haven, CT

2334. T-Cell Cross Reactivity with Citrullinated Antigen and P. Gingivalis Membrane Antigen Following Infection with P. Gingivalis and/or Injection of Citrullinated Mouse Type II Collagen in DBA/1J Mice. Michael J. Duryee1, Anand Dusad2, Carlos D. Hunter1, Ke Ren1, Dong Wang3, James R. O’Dell1, Lynell W. Klassen4, Ted R. Mikuls5 and Geoffrey M. Thiele6.
1University of Nebraska Medical Center, Omaha, NE, 2Univ of Nebraska Medical Ctr, Omaha, NE, 3Univ of Nebraska Med Ctr, Omaha, NE, 4University VA and University of Nebraska Medical Center, Omaha, NE

2335. Increased TSLE Expression in Joints of Rheumatoid Arthritis Patients Causes Increased Activation of Intra-Articular Myeloid Dendritic Cells with Enhanced Th1 and Th17 Cell Activity. F.M. Moret, C.E. Hack, T.R.D.J. Radstake, J.W.J. Bijlsma, F.P.J.G. Lafeber and J.A.G. van Roon, University Medical Center Utrecht, Utrecht, Netherlands

2336. Elevated Frequency of Synovial Interleukin-21+ CD4+ T Cells Co-Expressing Tumor Necrosis Factor-a in Rheumatoid Arthritis. Maria C. Lebret1, Pedro L. Vieira1, Saïda Aarrass2, Thomas Newsom-Davis1, Paul P. Tak1 and Gavin R. Scrеaton2. 1Division of Clinical Immunology and Rheumatology, Academic Medical Center, University of Amsterdam, Amsterdam The Netherlands, Amsterdam, Netherlands, 2Imperial College London, London, United Kingdom, 3Academic Medical Center, University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

2337. Therapeutic Promotion of CD8 CTL by CpG Oligodeoxynucleotides (ODN) in an Induced Model of Lupus. Maksym Puliaiev, Kateryna Soloviova and Charles S. Via, Uniformed Services University of Health Sciences, Bethesda, MD

2338. 1,25(OH)2D3 Modulates the Migration Pattern of Th17 Cells From Patients with Rheumatoid Arthritis. Wendy Dankers1, Jan Piet van Hamburg2, Patrick S. Asmaωidjaja3, Nadine Davelaar1, Hoyan Wen1, Anne-Marie Mus1, Edgar Colin1, Johannes van Leeuwen1, Johanna M.W. Hazes1 and Erik Lubberts1. 1Erasmus MC, University Medical Center, Rotterdam, Netherlands, 2Erasmus MC, Rotterdam, Netherlands, 3Erasmus MC, University Medical Center, Rotterdam, Rotterdam, Netherlands, 4Erasmus Medical Center, Rotterdam, Netherlands

2339. Lowering FlI Levels Decreases the Levels of Lipid Mediators in the Kidneys and T Cells of MRL/lpr Lupus Prone Mice. Marlene Bunni1, Zainab Amani1, Andrew Mather1, Jennifer Berglind Schepp1, Leah Siskind1 and Tamara K. Nowling1. 1Medical University of South Carolina, Charleston, SC, 2Medical University of South Carolina and Ralph H. Johnson VA Medical Center, Charleston, SC

2340. A Numeric Expansion of Invariant Natural Killer T Cells Protects Against the Progression of Fatal Autoimmunity
in Lupus-Prone Mice. Yuriy Baglaenko1, Nan-Hua Chang1, Evelyn Pau2, Christina Loh2 and Joan E. Wither2, 1Toronto Western Research Institute, University Health Network, Toronto, ON, 2Toronto Western Hospital, University Health Network, Toronto, ON

2341. Exacerbation of Collagen-Induced Arthritis by an Anti-CD3 Antibody Targeting Aminoterminal-Deficient CD3ε. María J. Pérez-Lorenzo1, Elena Gonzalo1, José M. Rojo2, María Galindo3, Jose L. Pablos1 and Gabriel Criado1, 1Instituto de Investigación Hospital 12 de Octubre (I+12), Madrid, Spain, 2Centro de Investigaciones Biológicas-CSIC, Madrid, Spain

2342. Synovial Tissue Analysis in the Pre-Clinical Phase of Arthritis: T-Cell Infiltration Preceding the Development of Arthritis. Maria J. H. de Hair1, Marleen G. H. van de Sande1, Tamara H. Ramuwadhdoebbe1, Robert B. M. Landewé1, Christaan van der Leij1, Mario Maas1, D. van Schaardenburg1, Danielle Marie Gerlag1, Lisa G.M. van Baarsen1 and Paul P. Tak4, 1Division of Clinical Immunology and Rheumatology, Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 2Division of Clinical Immunology and Rheumatology and Department of Experimental Immunology, Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 3Division of Clinical Immunology and Rheumatology, Academic Medical Center / University of Amsterdam & Atrium Medical Center, Amsterdam, Netherlands, 4Department of Radiology, Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands, 5Jan van Bremen Research Institute | Reade, Amsterdam, Netherlands, 6Division of Clinical Immunology and Rheumatology, Academic Medical Center / University of Amsterdam and GlaxoSmithKline, Amsterdam, Netherlands

2343. The Therapeutic Antibody Tegralizumab (BT-061) Induces Activation of Regulatory T Cells by Engaging a Unique CD4 Mediated Signaling That Strongly Differs From Signaling Events Induced by Standard Anti-CD4 Antibodies. Bianca Helling1, Benjamin Daeklen1, Holger Wallmeier2, Silke Aigner1, Chantal Zuber1, Martin Koenig1, Andre Engling1, Frank Osterrotth1, Niklas Czehoth1 and Christoph Uherek1, 1Biotest AG, Dreieich, Germany, 2Condor Scientific Computing & Consulting, Sulzbach, Germany

2344. Transcriptional Regulation of Garp Expression. Sonja Haupt, Qi-Hui Zhou, Johannes Thomas Kreuzer, Simon Herrmann, Hendrik Schulze-Koops and Alla Skapenko, University of Munich, Munich, Germany

2345. HRES-1/RAB4-Mediated Loss of DRP1 Inhibits Mitophagy, Promotes Accumulation of Mitochondria and Serves As Target for Treatment in SLE. Tiffany Telarico1, David Fernandez2, Zachary A. Oaks2, Gergely Talaber2, Mark Haas2, Michael P. Madalo2 and andras Perl3, 1SUNY Upstate Medical University, Syracuse, NY, 2SUNY, Syracuse, NY, 3Cedars-Sinai Medical Center, Los Angeles, CA, 4Medical College of Georgia, Augusta, GA, 5Upstate Medical University, Syracuse, NY

2346. MHC II-Independent Regulation of Intestinal Tregs. Lisa L. Korn and Terri M. Lauder, University of Pennsylvania, Philadelphia, PA

Vasculitis

2347. Specificity of the New American College of Rheumatology/European League Against Rheumatism Classification Criteria for Polymyalgia Rheumatica in Comparison with the Former Ones: A Single Centre Study. Pierluigi Macchioni1, Luigi Boiarditi2, Mariagrazia Catanos3, Giulia Pazzola1 and Carlo Salvareni2, 1Arcispedale S Maria Nuova, IRCCS, Reggio Emilia, Italy, 2Arcispedale S Maria Nuova, Reggio Emilia, Italy, 3Arcispedale S Maria Nuova. IRCCS, Reggio Emilia, Italy

2348. Plasma Fibrinogen Better Identifies Persistent Disease Activity in Polymyalgia Rheumatica Than Either ESR or CRP. EM McCarthy1, Paul A. MacMullan1, S. Al-Mudhafferi, Anne M. Madigan1, S. Donnelly1, C. J. McCarthy1, Dermot Kenny1, Eamonn S. Molloy1 and G M. McCarthy1, 1Mater Misericordiae University Hospital, Dublin 7, Ireland, 2RCSI, Dublin 2, Ireland, 3Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

2349. Corticosteroids Therapy Restauraed Treg/Th17 Balance in Patients with Polymyalgia Rheumatica. Lorena Alvarez-Rodriguez1, Marcos Lopez-Hoyos1, Jaime Calvo-Alen2, Elena Aurrecoechea3, Teresa Ruiz Jimeno1, Ignacio Villa4, Carmen Gonzalez-Vela1 and Victor M. Martinez-Taboada1, 1Hospital Universitario Marques de Valdecilla. IFIMAV, Santander, Spain, 2Hospital Universitario Sierraillana, Torrelavega, Spain, 3Hospital de Sierrallana, Torrelavega, Spain

2350. Similarities Exceed Differences in the Pattern of Joint and Vascular Positron Emission/Computed Tomography Uptake in Polymyalgia Rheumatica and Giant Cell Arteritis. Dario Camellino1, Silvia Morbelli2, Francesco Paparo2, Michela Massollo1, Gianmario Sambuceti1 and Marco A. Cimmino3, 1Clinica Reumatologica, Genova, Italy, 2Medicina Nucleare, Genova, Italy, 3Tumori, Genova, Italy, 4T.O. Ospedali Galliera, Genoa, Italy

2351. Correlation between Hypoechoic Halo of the Temporal Arteries and Clinical, Laboratory, and Temporal Artery Biopsy Findings in Patients with Giant Cell Arteritis. Luigi Boiardi1, Giulia Pazzola1, Alberto Cavazza2, Francesco Muratore1, Giovanna Restuccia1, Alberto Nicolini1, Giuseppe German6, Nicolo Pipitone1, Pierluigi Macchioni2, Niccolò Possemato1, Gianluigi Bajocchi1, Ilaria Padovano1, Olga Addimanda1, Alberto Lo Gullo1, Maria Grazia Catanos1 and Carlo Salvani1, 1Arcispedale S Maria Nuova, IRCCS, Reggio Emilia, Italy, 2Arcispedale S Maria Nuova, Reggio Emilia, Italy, 3Arcispedale S Maria Nuova. IRCCS, Reggio Emilia, Italy

2352. Temporal Artery Biopsy Culture in Tridimensional Matrix. An in Vitro Model for Functional Studies in Giant-Cell Arteritis. Marc Corbera Bellalta1, Ester Planas Rigol1, Ester Lozano1, Marco A. Alba2, Iitzar Tavera-Bahillo1, Sergio Prieto-González2, Georgina Espigol Frigolé1, Montserrat Butjosa3, José Hernández-Rodriguez1, Ana García-Martínez1 and Maria
2359. Outcome of Aortic Involvement in GIANT CELL Arteritis (GCA) After 1-Year Follow-up: Prospective Study in 35 Patients Using Computed Tomography Angiography (CTA). Sergio Prieto-González1, Pedro Arguis1, Ana García-Martínez1, Itziar Tavares-Bahillo1, Marc Corbera-Bellalta1, Marco A. Alba1, Georgina Espigol-Frigolé1, Ester Planas-Rigol1, José Hernández-Rodríguez2 and Maria C. Cid2, 1Vasculitis Research Unit. Hospital Clinic. University of Barcelona. IDIBAPS, Barcelona, Spain, 2Vasculitis Research Unit. Department of Autoimmune Diseases. Hospital Clinic. University of Barcelona. IDIBAPS, Barcelona, Spain

2360. Prevalence, Management and Outcomes of PET Positive Large Vessel Vasculitis in Difficult to Treat PMR and GCA Patients. Pravin Patil1, Shaifali Jain1, Katerina Achilleos1, Tochukwu Adizie1, Mark Williams1, Matthew Tam2 and Bhaskar Dasgupta2, 1Southend University Hospital, Westcliff on sea, United Kingdom, 2Southend University Hospital, Westcliff-on-Sea, United Kingdom

2361. Misdiagnosis of Giant Cell Arteritis Presenting As Fever of Unknown Origin. Chiara Stagnaro, Rosaria Talarico, Claudia Ferrari, Anna d’Ascanio and Stefano Bombardieri, Rheumatology Unit, University of Pisa, Pisa, Italy

2362. Evaluation of Disease Activity Using FDG PET-CT in Patients with Large Vessel Vasculitis. Giulia Pazzola1, Luca Magniini1, Luigi Boiardi1, Nicolo Pipitone1, Annibale Versari1, Deborah Formisano1, Olga Addimanda1, Riccardo Meliconi1, Lia Pulsatelli1, Gianluigi Bajochi1, Pierluigi Macchioni1, Maria Grazia Catanoso1, Nicolò Possemato1, Ilaria Padovano1, Alberto Lo Gullo1 and Carlo Salvareni1, 1Arcispedale S Maria Nuova, IRCCS, Reggio Emilia, Italy, 2Istituto Ortopedico Rizzoli, University of Bologna, Bologna, Italy, 3Istituto Ortopedico Rizzoli, Bologna, Italy, 4Arcispedale S Maria Nuova. IRCCS, Reggio Emilia, Italy

2363. Assessment of Disease Activity in Large Vessel Vasculitides: Initial Results of an International Delphi Exercise. Sibel Z. Aydin1, Haner Direskeneli1, Eric L. Matteson2 and Peter A. Merkel4, 1Medeniyet University, Goztepe Training and Research Hospital, Istanbul, Turkey, 2Marmara University, School of Medicine, Istanbul, Turkey, 3Mayo Clinic, Rochester, MN, 4University of Pennsylvania, Philadelphia, PA

2364. CROSS-Sectional Assessment of Damage in Takayasu Arteritis with A Validated Tool. Ahmet Omma1, Burak Erer1, Omer Karadag2, Neslihan Yilmaz2, Fatma Alibaz-Oner3, Fatih Yildiz2, Melike Kalfa2, Gezmis Kimyon2, Sedat Kiraz2, Haner Direskeneli1, Eren Erken1, Kenan Aksu1, Ahmet Mesut Onat4, Ahmet Gul1, Lale Ocal1, Murat Inanc1 and Sevil Kamali1, 1Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey, 2Hacettepe University, Faculty of Medicine, Ankara, Turkey, 3Marmara University, Faculty of Medicine, Istanbul, Turkey, 4Cukurova University, Faculty of Medicine, Adana, Turkey, 5Ege University, Faculty of Medicine, Izmir, Turkey, 6Gaziantep University, Faculty of Medicine, Gaziantep, Turkey

2365. Asymptomatic Myocardial Ischemic Disease in Takayasu’s Arteritis. Chloe Comarmond2, Odile Dessault2, Jean-Yves
A Genome-Wide DNA Methylation Study Identifies Significant Epigenetic Changes Across the Genome and in Multiple HLA Loci in Behcet’s Disease. Haner Direskeneli, Patrick S. Coit, Filiz Ture-Ozdemir, Fatma Alibaz-Oner, Guher Saruhan-Direskeneli, Matlock A. Jeffries and Amr H. Sawalha, Marmara University, School of Medicine, Istanbul, Turkey; University of Michigan, Ann Arbor, MI; Istanbul University, Istanbul Faculty of Medicine, Istanbul, Turkey; University of Oklahoma and Oklahoma Medical Research Foundation, Oklahoma City, OK

The Unmet Need in Behcet’s Disease: Most Patients Are Not in Complete Remission in the Long-Term Follow-up. Sandra Balser, Wolfgang Hartung, and Fatma Alibaz-Oner, Gülsen Ozen, Zeynep Kubilay, Meryem Can, Sibel Yilmaz Oner, Tulin Ergun and Haner Direskeneli, Marmara University, School of Medicine, Istanbul, Turkey; Marmara University, School of Health Sciences, Department of Health Informatics and Technologies, Istanbul, Turkey; Marmara University, School of Medicine, Istanbul, Turkey; Marmara University School of Medicine, Istanbul, Turkey

Efficacy of Quantitative Analysis of Brainstem Atrophy On Magnetic Resonance Imaging for Diagnosis of Chronic Progressive Neuro-Behçet’s Disease. Hirotoshi Kikuchi, Maki Takayama, Yoshitaka Kimura, Kurumi Asako, Hajime Kono, Yasuo Ono and Shunsei Hirohata, Teikyo University Shool of Medicine, Tokyo, Japan; Teikyo University School of Medicine, Tokyo, Japan, Kitasato University School of Medicine, Sagamihara, Japan

The Clinical Course of the Acute Deep Vein Thrombosis of the Legs in Behçet’s Syndrome. Yesim Ozguler, Melike Melikoglu, Firat Cetinkaya, Serdal Uygun, Emire Seyahi, Koray Tascilar and Hasan Yazici, Istanbul University, Cerrahpasa Medical School, Rheumatology, Istanbul, Turkey; Rheumatology, Istanbul, Turkey; Istanbul University, Cerrahpasa Medical Faculty, Istanbul, Turkey; Cerrahpasa Faculty of Medicine, Istanbul University, Istanbul, Turkey

Characteristics, Treatment and Outcome of Gastrointestinal Involvement in Behcet’s Syndrome: Experience in A Dedicated Center. Ibrahim Hatemi, Gulen Hatemi, Yusuf Erzin, Aykut Ferhat Celik and Hasan Yazici, Istanbul University, Cerrahpasa Medical School, Gastroenterology, Istanbul, Turkey; Istanbul University, Cerrahpasa Medical Faculty, Rheumatology, Istanbul, Turkey; Istanbul University, Cerrahpasa Medical School, Rheumatology, Istanbul, Turkey

WHAT Affects the Quality of Life in Patients with BEHCET’S Disease? Mehmet Melikoglu and Meltem Alkan Melikoglu, Health Ministry Erzurum Regional Training and Research Hospital, Erzurum, Turkey; Ataturk University School of Medicine, Erzurum, Turkey

Behcet’s Disease: Combination of Pulse Cyclophosphamide, Azathioprine, and Prednisolone for the Treatment of Retinal Vasculitis; Longitudinal Study On 10 Years. Fereydoun Davatchi, Farhad Shahram, Bahar Sadeghi Abdollahi, Hormoz Shams, Abdolhadi Nadji, Massoomeh Akhlaghi, Tahereh Faezi and Farimah Ashofteh, Shariati Hospital-Tehran Univ, Tehran, Iran

Impaired Endothelial Function in Patients with Takayasu’s Arteritis. Fatma Alibaz-Oner, Selen Yurdakul, Yelda Tayyareci, Saide Aytekin and Haner Direskeneli, Marmara University, School of Medicine, Istanbul, Turkey; ISTANBUL FLORENCE NIGHTINGALE HOSPITAL, Istanbul, Turkey

Emmanuelle Le Bras1, Boris P. Ehrenstein1, Martina Müller1 and Martin Fleck1, 1Asklepios Klinikum Bad Abbach, Bad Abbach, Germany, 2University Clinic Regensburg, Regensburg

2379. Successful Treatment of Churg-Strauss Syndrome with Rituximab. Christin Dubrau1, Fabian Arndt1, Wolfgang L. Gross and Frank Moosig1, 1University Hospital Schleswig-Holstein, Campus Luebeck and Klinikum Bad Bramstedt, Bad Bramstedt, Germany, 2University Hospital Schleswig Holstein and Klinikum Bad Bramstedt, Bad Bramstedt, Germany

2380. High Frequency of Ferritin Autoantibodies in Takayasu Arteritis. Niklas T. Baerlecken1, Katherina Große2, Frank Moosig1, Wolfgang L. Gross4, Reinhold E. Schmidt5 and Torsten Witte6, 1MD, Hannover, Germany, 2Student, Hannover, Germany, 3Stormarnzing 15°, Bad Bramstedt, Germany, 4Medical University at Lubeck, Lubeck, Germany, 5Hannover Medical School, Hannover, Germany, 6Hannover Medical School, Hannover, Germany

2381. Serum Level of IL-3 and Soluble ST- and Their Association with Disease Activity in Patients with Behcet’s Disease. Dae-Jun Kim1, Jae-Ho Lee1, Ji Hyeon Ju1, Sung-Hwan Park2, Ho-Youm Kim1 and Seung-Ki Kwok1, 1The Catholic University of Korea, Seoul St. Mary’s Hospital, Seoul, South Korea, 2Catholic University of Korea, Seoul, South Korea

2382. Plasma Fibrinogen is an Accurate Marker of Disease Activity in Patients with Polymyalgia Rheumatica. E.M. McCarthy1, Paul A. MacMullan1, S. Al-Mudhaffer1, Anne M. Madigan1, S. Donnelly1, C. J. McCarthy1, Dermot Kenny1, Eamonn S. Molloy1 and G. M. McCarthy1, 1Mater Misericordiae University Hospital, Dublin 1, Ireland, 2RCSI, Dublin 2, Ireland, 3Dublin Academic Medical Centre, St. Vincent’s University Hospital, Dublin, Ireland

2383. Rituximab as Induction and Maintenance Therapies for ANCA-Associated Vasculitis: A Multicenter Retrospective Study On 80 Patients. Pierre Charles1, Antoine Néel1, Nathalie Tieulé1, Arnaud Hot Sr1, Grégory Pugnet1, Olivier Decaux1, Isabelle Marie1, Mehdi Khella1, Jean-Emmanuel Kahn1, Alexandre Karras12,13, Jean-Marc Ziza12,13, Christophe Deligny1, Colas Thérákian14 and Loic Guillemin12, 1Department of Internal Medicine, Referral Center for Rare Autoimmune and Systemic Diseases, Hôpital Cochin, AP-HP, Université Paris Descartes, Paris, France, 2Internal Medicine, Nantes University Hospital, Nantes, France, 3Service de Médecine onterne, CHU Nice, Nice, France, 4Lyon hospital, Lyon, France, 5Toulouse University Hospital, University of Toulouse, INSERM UMR 1027, Toulouse, France, 6Hôpital Sud, Rennes, France, 7Service de médicine interne, CHU de Rouen, Rouen, France, 8Service de médicine interne, Université Paris Est Créteil, AP-HP, Hôpital Mondor Créteil, France, 9Internal Medicine, Foch Hospital, Suresnes, France, 10Hôpital Européen Georges Pompidou, APHP, Paris, France, 11Hospital Croix Saint Simon, Paris, France, 12Centre hospitalier Universitaire de Fort de France, Fort de France, Martinique, 13Service de pneumologie, hôpital Foch, Suresnes, France

2384. Giant Cell Arteritis and Cardiovascular Events in the French Apogee Cohort. A Population-Based Study Using the French Health Insurance System Database. Grégory Pugnet1, Laurent Sailler2, Robert Bourrel3, Jean-Louis Montaucker4 and Maryse Lapeyre-Mestre5, 1Toulouse University Hospital, University of Toulouse, INSERM UMR 1027, Toulouse, France, 2Toulouse University Hospital, University of Toulouse, INSERM UR 1027, Toulouse, France, 3Caisse Nationale de l’Assurance Maladie échelon régional, Midi-Pyrénées, Toulouse, France, 4Toulouse University Hospital, INSERM U1027, University of Toulouse, France, Toulouse, France

2385. Prognostic Impact of HLA-B*51 and HLA-A*26:01 On Ocular Behcet’s Disease. Jun Won Park1, Eun Ha Kang2, Hye Won Kim1, Chaerin Park1, Hyeong Gon Yu1, Eun Young Lee1, Yun Jong Lee1, Eun Bong Lee1 and Yeong Wook Song1, 1Seoul National University Hospital, Seoul, South Korea, 2Seoul National University Bundang Hospital, Seongnam-si, South Korea

2386. Disability and Mortality Related to Cerebrovascular Disease in Systemic Vasculitis. Jamal Mikdashi and Marcia Wozniak, University of Maryland School of Medicine, Baltimore, MD

2387. Takayasu’s Arteritis: Features and Management of 216 Patients in China. Xia Liu1, Tao Zhang1, Xiaofeng Zhuang1, Kai Yuan1, Xiaoming Shu1 and Guochun Wang1, 1China-Japan Friendship Hospital, Beijing, China, 2Chinese PLA General Hospital, Beijing, China, 3FuWai Hospital and Cardiovascular Institute, Beijing, China

2388. Urticular Vasculitis: Clinical Study. Javier Lorícera1, Vanessa Calvo-Rio1, Francisco Ortiz Sanjuan1, Marcos Antonio Gonzalez-Lopez1, Hector Fernandez-Llaca1, Javier Rueda-Gotor1, Carmen Gonzalez-Vela1, Cristina Mata-Arnaliz1, Jose Luis Peña-Sagredo1, Miguel A. Gonzalez-Gay1 and Ricardo Blanco1, 1Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain, 2Hospital Laredo, Santander, Spain

2389. Cutaneous Leukocytoclastic Angiitis: Study of 173 Patients. Javier Lorícera, Vanessa Calvo-Rio, Francisco Ortiz-Sanjuan, Marcos Antonio Gonzalez-Lopez1, Hector Fernandez-Llaca1, Javier Rueda-Gotor1, Carmen Gonzalez-Vela1, Cristina Mata-Arnaliz1, Jose Luis Peña-Sagredo1, Miguel A. Gonzalez-Gay1 and Ricardo Blanco1, 1Hospital Universitario Marqués de Valdecilla. IFIMAV, Santander, Spain

2390. Color Doppler Ultrasonography as an Alternative to CT/MR Angiography for Identifying Large Vessel Involvement in Giant Cell Arteritis? Andreas P. Diamantopoulos1, Glenn Haugeberg1 and Geirmund Myklebust2, 1Hospital of Southern Norway HF, Kristiansand, Norway, 2Hospital of Southern Norway, Kristiansand, Norway

2391. New Disease Manifestations after Diagnosis in Six Types of Vasculitis. Peter C. Grayson1, David Cuthbertson2, Simon Carette1, Gary S. Hoffman3, Nader A. Khalidi4, Curry
L. Koenig, Carol A. Langford, Kathleen Maksimowicz-McKinnon, Paul A. Monach, Philip Seo, Ulrich Specks, Steven R. Ytterberg and Peter A. Merkel, Boston University Medical Center, Boston, MA, University of South Florida, Tampa, FL, UHN/MSH, Toronto, ON, Cleveland Clinic, Cleveland, OH, McMaster University, Hamilton, ON, Salt Lake City Veterans Administration, Salt Lake City, UT, University of Pittsburgh, Pittsburgh, PA, Boston University, Boston, MA, Johns Hopkins Vasculitis Center, Baltimore, MD, Mayo Clinic, Rochester, MN, University of Pennsylvania, Philadelphia, PA

2392. **Blood Vessel Instability and Oxidative Damage in Giant Cell Arteritis.** Danielle Molloy, Jennifer McCormick, Mary Connelly, Muhammad Haroon, Douglas J. Veale, Conor Murphy, Ursula Fearon and Eamonn S. Molloy, Dublin Academic Medical Center, St. Vincent’s University Hospital, Dublin, Ireland, Royal Victoria Eye and Ear Hospital, Dublin, Ireland

2393. **High Mobility Group Box 1 Levels Are Not Associated with Subclinical Carotid Atherosclerosis in Patients with Granulomatosis with Polyangiitis but Are Reduced by Glucocorticoids and Statins.** Alexandre Wagner S. de Souza, Karina de Leeuw, Johanna Westra, andries J. Smit, Anne Marijn van der Graaf, Hans L. A. Nienhuis, Johan Bijzet, Pieter C. Limburg, Coen A. Stegeman, Marc Bijl and Gees G.M. Kallenberg, University Medical Center Groningen, University of Groningen, Groningen, Netherlands, University Medical Center Groningen, Groningen, Netherlands, Martini Hospital, Groningen, Netherlands

2394. **Fibromyalgia in Behçet’s Disease Is Associated with Disease Activity.** Meryem Can, Fatma Alibaz-Oner, Sibel Yilmaz-Oner, Birkan Ilhan, Tulin Ergun, Gonca Mumcu and Haner Direshkennil, Marmara University School of Medicine, Istanbul, Turkey, Marmara University School of Medicine, Turkey, Marmara University, Faculty of Health Sciences, Department of Health Informatics and Technologies, Istanbul, Turkey

2395. **Body Composition, Strength, and Function in Elderly Patients with Giant Cell Arteritis.** Rebecca L. Manno, Allan C. Gelber, Philip Seo, Stuart M. Levine, Sharon R. Ghazarian, Po-Han Chen, Kerry J. Stewart, Jeffrey Metter, Luigi Ferrucci and Kevin R. Fontaine, Johns Hopkins University, Baltimore, MD, Johns Hopkins Vasculitis Center, Baltimore, MD, Baltimore, MD, National Institute on Aging, Baltimore, MD, The University of Alabama at Birmingham, Birmingham, AL

2396. **Higher Homocysteine Levels Are Associated with Ischemic Arterial Events Rather Than Disease Activity and the Extension of Arterial Involvement in Takayasu Arteritis.** Alexandre W.S. Souza, Carla S. Lima, Ana Cecilia D. Oliveira, Luiz Samuel G. Machado, Frederico A. G. Pinheiro, Sonia Hix and Vânia D’Almeida, Escola Paulista de Medicina - Universidade Federal de São Paulo, Sao Paulo, Brazil, Escola Paulista de Medicina - Universidade Federal de São Paulo, São Paulo, Brazil, Universidade Federal de São Paulo - Escola Paulista de Medicina, São Paulo, Brazil, Universidade Federal de São Paulo - Escola Paulista de Medicina, São Paulo, Brazil

2397. **Urinary Biomarkers in Vasculitis Associated with Anti-Neutrophil Cytoplasmic Antibodies.** Jason G. Lieberthal, David Cuthbertson, Simon Carette, Gary S. Hoffman, Nader A. Khalidi, Curry L. Koenig, Carol A. Langford, Kathleen Maksimowicz-McKinnon, Philip Seo, Ulrich Specks, Steven R. Ytterberg, Peter A. Merkel and Paul A. Monach, Boston University School of Medicine, Boston, MA, University of South Florida, Tampa, FL, UHN/MSH, Toronto, ON, Cleveland Clinic, Cleveland, OH, McMaster University, Hamilton, ON, Salt Lake City Veterans Administration, Salt Lake City, UT, University of Pittsburgh, Pittsburgh, PA, Johns Hopkins Vasculitis Center, Baltimore, MD, Mayo Clinic, Rochester, MN, University of Pennsylvania, Philadelphia, PA, Boston University, Boston, MA

**Education/Community Programs**

2398. **Pauci-Immune Glomerulonephritis in the Elderly: Disease Severity and Outcomes.** Rebecca L. Manno, Duvuru Geetha, Stuart M. Levine, Philip Seo and Allan C. Gelber, Johns Hopkins University, Baltimore, MD, Johns Hopkins Vasculitis Center, Baltimore, MD

2399. **Exercise on Prescription: Barriers to Participation in Community Based Exercise Programmes.** Dr Nicola E. Walsh and Professor Mike Hurley, University of the West of England, Bristol, United Kingdom, St George’s University of London, London, United Kingdom

2400. **Hospital for Special Surgery Osteoarthritis Wellness Initiative: the Impact of a Hospital-Based Exercise Program On Osteoarthritis.** Sandra Goldsmith, Dana Friedman, Linda Roberts, Dana Sperber and Laura Robbins, Hospital for Special Surgery, New York, NY

2401. **An International Framework for Chronic Condition Self Management Support: Results from an International Electronic Consultation Process.** Teresa J. Brady, Sue Mills, Peter Sargious and Shabnam Zia-Akhsh, Centers for Disease Control and Prevention, Atlanta, GA, University of British Columbia, Vancouver, BC, Alberta Health Services, Calgary, AB, BC Women’s Hospital & Health Centre, Vancouver, BC

2402. **Clinical Utility of the Hospital Anxiety and Depression Scale for an Outpatient Fibromyalgia Education Program.** Diane Tin, Lorna J. Bain, J. Carter Thorne, Seungree Nam and Lieane Ginsburg, Southlake Regional Health Centre, Newmarket, ON, York University, Toronto, ON

2403. **The Effect of a Rheumatoid Arthritis Peer Support Program On Clinical Outcomes.** Rebecca Thrower, Christine K. Iannaccone, Hsun Tsao, Michael Weinblatt, Jing Cui and Nancy A. Shadick, Brigham and Women’s Hospital, Boston, MA
Epidemiology and Public Health

2408. Effects of Ground and Joint Reaction Force Exercise On Bone Mineral Density in Postmenopausal Women: A Meta-Analysis of Randomized Controlled Trials. George A. Kelley1, Kristi S. Kelley1 and Wendy M. Kohrt2, 1West Virginia University, Morgantown, WV, 2University of Colorado @ Denver, Aurora, CO

2409. Work Productivity in a Population Based Cohort of Patients with Spondyloarthritis. Emma Haglund1, Ann B. I. Bremander2, Stefan Bergman1, Lennart TH Jacobsson1, Britta Strömbeck1 and Ingemar F. Petersson1, 1R&D Center Spenshult, Oskarstrom, Sweden, 2Halmstad University School of Business and Engineering, Halmstad, Sweden, 3Department of Rheumatology, Clinical sciences, Skane University Hospital, Malmö, Sweden, 4Musculoskeletal Sciences, Department of Orthopedics, Clinical Sciences, Lund, Sweden

2410. WITHDRAWN.

2411. Obesity Is Associated with Higher Levels of Fatigue in RA. Patricia P. Katz1, Vladimir Chernitskiy1 and Mary Margaretten1, 1University of California San Francisco, San Francisco, CA, 2UCSF, San Francisco, CA

2412. Validation of a Diagnosis of Gout in the Epicare Electronic Medical Records. Neera Narang2 and Eswar Krishnan1, 2Stanford Univ Medical Center, Stanford, CA, 1Stanford University, Palo Alto, CA

2413. The Impact of Asymptomatic Vertebral Fractures On Quality of Life in Community-Dwelling Older Women: The Sao Paulo Ageing & Health Study (SPAH). Jaqueline B. Lopes1, Leandro Fung2, Carolina C. Cha3, Camille P. Figueiredo4, Lilam Takayama5, Valéria Caparbo6 and Rosa M.R. Pereira7, 1Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, 2Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil

2414. Multisite Joint Pain and Fatigue: the Role of Pain Severity and Sleep Problems in Adults with Arthritis. Mayilee Canizares1 and E.M. Badley1, 1Division of Health Care and Outcomes Research. Toronto Western Research Institute, Toronto, ON, 2Division of Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health,University of Toronto, Toronto, ON

2415. Does Interleukin-6 Mediate the Relation Between Estrogen and Bone? an Epidemiologic Approach in the Framingham Osteoporosis Study. Robert R. McLean1, Xiaochun Zhang2, Andrea D. Coviello1, Joao D.T. Fontes4, L. Adrienne Cupples5, Douglas P. Kiel6 and Marian T. Hannan1, 1Hebrew SeniorLife & Harvard Medical School, Boston, MA, 2UCSF, San Francisco, CA

2416. Arthritis-Attributable Interference in Routine Life Activities. Kristina A. Theis1, Teresa J. Brady1, Charles G. Helmick1, Louise Murphy2 and Kamil E. Babour2, 1Centers for Disease Control and Prevention, Atlanta, GA, 2CDC, Atlanta, GA

2417. Transitioning to Adulthood: Employment Experiences of Young Adults with Lupus and Juvenile Arthritis. Arif Jetha1, E. M. Badley2, Dorcas Beaton3, Paul R. Fortin4, Natalie J. Shiff5, Alan M. Rosenberg6, Lori B. Tucker7, Diannes P. Mosher8 and M. A. Gignac9, 1Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, ON, 2Division of Health Care and Outcomes Research,Toronto Western Research Institute; Dalla Lana School of Public
Health, University of Toronto, Toronto, ON, 1Institute for Work & Health; Mobility Program, Clinical Research Unit, St. Michaels Hospital, Toronto, ON, 2Division of Rheumatology, Centre de recherche du centre hospitalier universitaire de Québec, Faculté de médecine de l’Université Laval, Quebec City, QC, 1University of Saskatchewan, Saskatoon, SK, 2Royal University Hospital, Saskatoon, SK, 3BC Childrens Hospital, Vancouver, BC, 4University of Calgary, Calgary, AB, 5Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto; Institute for Work & Health, Toronto, ON

2418. The Everyday Challenge of Living with Lupus. Brenda L. Frie, St. Catherine University, St. Paul, MN

2419. Novel Candidate Genes for Structural Foot Disorders: A Genome-Wide Association Study in an Older Caucasian Population. Marian T. Hannan1, Yi-Hsiang Hsu2, Chia Ho Cheng2, Youfang Liu3 and Joanne M. Jordan4, 1Hebrew SeniorLife & Harvard Medical School, Boston, MA, 2Hebrew SeniorLife & Harvard Med Sch, Boston, MA, 3University of North Carolina, Chapel Hill, NC, 4University of North Carolina Thurston Arthritis Research Center, Chapel Hill, NC

2420. Frequent Self-Reported Pain and Disease Symptoms in Juvenile Idiopathic Arthritis Persist Despite Advances in Medication Therapies: An Electronic Diary Study. Maggie H. Bromberg1, Mark Connelly2, Kelly K. Anthony3, Karen M. Gil1 and Laura E. Schanberg4, 1University of North Carolina at Chapel Hill, Chapel Hill, NC, 2Children’s Mercy Hospitals and Clinics, Kansas City, MO, 3Duke University Medical Center, Durham, NC

2421. The Pediatric Rheumatology Nursing Network: An International Email MANAGED COMMUNICATION System. Norma L. Liburd, All Children's Hospital, St. Petersburg, FL

Psychology/Social Sciences

2422. Sexual Activity and Sexual Functioning Among Women with Systemic Sclerosis Compared to Women From a Population Sample. Brooke Levis1, Andrea Burri2, Marie Hudson1, Murray Baron3 and Brett D. Thomsb1, 1McGill University, Montreal, QC, 2King’s College, London, United Kingdom, 3Jewish General Hospital, Montreal, QC

2423. Perceptions Regarding Cardiovascular Risk Factors and Barriers to Risk Reduction Among African American Women with Lupus. Barron Mia1, Lynne Nemeth2, Diane L. Kamen2 and Youlanda C. Gibbs1, 1Medical University of South Carolina, Charleston, SC, 2Arthritis & Clinical Immunology Program, Oklahoma Medical Research Foundation, Charleston, SC

2424. Sleep Disturbances in Systemic Sclerosis: Evidence for the Role of Gastrointestinal Symptoms, Pain, and Pruritus. Katherine Milette1, Marie Hudson1, Annett Koerner1, Murray Baron2 and Brett D. Thomsb1, 1McGill University, Montreal, QC, 2Jewish General Hospital, Montreal, QC

2425. A Qualitative Study of Self-Image and Body Image in Individuals with Systemic Lupus Erythematosus. Afton L. Hassett1, Diane C. Radavsk1 and Elizabeth Hale4, 1University of Michigan, Ann Arbor, MI, 2Robert Wood Johnson Medical School, NJ, 3Dudley Group NHS Foundation Trust, Dudley, United Kingdom

2426. Prevalence and Characteristics of Sleep Problems in Rheumatoid Arthritis: A Systematic Review of the Literature. Cassandra Coleman and Yvonne C. Lee, Brigham and Women’s Hospital, Boston, MA

2427. Health-Related Quality of Life in Adolescents with Rheumatic Disease. Sandra J. Watcher1, Maggie Sepkowitz2, Suhas M. Radhakrishna1, Anusha Ramanathan3, Elizabeth Morasso1, Jennifer Chang4 and Jeffrey I. Gold4, 1Children’s Hospital of LA, Los Angeles, CA, 2Kaiser Permanente Medical Group, Oakland, CA, 3Childrens Hospital Los Angeles, Los Angeles, CA, 4Keck School of Medicine, University of Southern California - Children’s Hospital Los Angeles, Los Angeles, CA

2428. Causal Beliefs of Disease among Patients with Systemic Vasculitis. Peter C. Grayson1, Naomi Amudala1, Carol McAlearn2, Renée Leduc3, Denise Shereiff3, Rachel Richesson3, Liana Fraenkel1 and Peter A. Merkel2, 1Boston University Medical Center, Boston, MA, 2Vasculitis Clinical Research Consortium, University of Pennsylvania, Philadelphia, 3University of South Florida, Tampa, FL, 4Yale University School of Medicine, Veterans Affairs Connecticut Healthcare System, New Haven, CT, 1University of Pennsylvania, Philadelphia, PA

2429. Balancing Work and Health: Do Younger Workers Experience More Work-Health Conflict Than Middle- and Older-Aged Workers with Rheumatic Diseases? Arif Jetha1, Xingshan Cao2 and Monique A. Gignac1, 1Health Care and Outcomes Research, Toronto Western Research Institute; Dalla Lana School of Public Health, University of Toronto, Toronto, ON, 2Arthritis Community Research and Evaluation Unit, Toronto Western Research Institute, Toronto, ON, 3Arthritis Community Research and Evaluation Unit, Toronto Western Research Institute, University of Toronto and Institute for Work and Health, Toronto, ON

2430. Using the Internet in Help-Seeking As Illness Develops in Early Rheumatoid Arthritis. Anne F. Townsend1, Jenny Leese2, Catherine L. Backman2, Paul M. Adams4 and Linda C. Li1, 1Arthritis Research Centre of Canada, Vancouver, BC, 2Arthritis Research Centre, Vancouver, BC, 3University of British Columbia, Vancouver, BC, 4Mary Pack Arthritis Centre, Vancouver, BC, 1Arthritis Centre of Canada and Department of Physical Therapy, University of British Columbia, Vancouver, BC
These non-CME accredited presentations have been planned and will be implemented in accordance with the requirements of the FDA and applicable standards of the PhRMA Code on Interactions with Healthcare Professionals.

All Innovation Theater presentations will be held in Hall A (Booth #1451) at their designated time.

### SUNDAY, NOVEMBER 11, 2012

10:30 - 11:15 AM

**ACTEMRA Monotherapy: From Clinical Trial Experience to Clinical Practice**  
*Presented by Genentech, a member of the Roche Group*

2:30 - 3:15 PM

**Role of Multi-Biomarker Test in RA Patient Management**  
*Presented by Crescendo Bioscience*

### MONDAY, NOVEMBER 12, 2012

10:30 - 11:15 AM

**Rituxan RA - Pivotal and Long-term Efficacy and Safety Data**  
*Presented by Genentech, a member of the Roche Group*

12:30 - 1:15 PM

**Introducing an Innovative New Patient Educational and Support Program**  
*Presented by Janssen Biotech, Inc.*

2:30 - 3:15 PM

**Case Studies: Practical Management of Gout**  
*Presented by Takeda Pharmaceuticals*

### TUESDAY, NOVEMBER 13, 2012

10:30 - 11:15 AM

**Evaluation of Clinical Endpoints for SLE Disease Activity in Worldwide Clinical Trials: Optimization of Treatment Effects through Targeted Training and Centralized Data Review**  
*Presented by ReSearch Pharmaceutical Services, Inc.*

12:30 - 1:15 PM

**Are You Using Your Father’s Prednisone to Treat Your Mother’s RA?: New Understanding of a Familiar Therapy**  
*Presented by Horizon Pharma*

2:30 - 3:15 PM

**Pathophysiology of Pain: Processes, Plasticity, and Perception**  
*Presented by Lilly USA, LLC*
INDUSTRY-SUPPORTED SYMPOSIA

SUNDAY, NOVEMBER 11, 2012

6:30 PM   NON-CME SYMPOSIUM

The event listed below is a non-CME Programs wholly sponsored and supported by the commercial entities listed. By holding the Program, the commercial entity has represented that the Program has been developed and will be implemented in accordance with the requirements of the FDA and applicable standards of the PhRMA Code on Interactions with Healthcare Professionals. The commercial entity is to observe all guidelines established by federal and state regulatory agencies regarding non-CME educational or promotional presentations throughout the duration of the Program. The content and views expressed during the Program are those of the commercial entities and presenters. The ACR by making this venue available does not guarantee, warrant or endorse the content of the Program nor the products discussed and reviewed during the Program.

Innovative pathways in science and patient care: From genetic and therapeutic discovery to 15 years of clinical experience

Developed and offered by Abbott
Third-Party Organization: MedEd Link

Grand Hyatt, Independence Ballroom

Learning Objectives
Upon completion of this activity, participants should be able to:
• review the discovery of TNF-alpha, the role it has on the inflammatory process and the impact it has had on developing treatments for inflammatory diseases
• review the development of HUMIRA to specifically target TNF-alpha and the role inhibiting TNF-alpha plays in the chronic inflammatory diseases
• have a deeper understanding of the impact of 15 years of clinical trial experience

6:30 - 7:00 PM
Registration and Dinner

7:00 - 7:05 PM
Introductions and Program Overview
Dr. Arthur Kavanaugh, Professor of Clinical Medicine, Director of Center for Innovative Therapy, UC San Diego, School of Medicine

7:05 - 7:35 PM
Discovery of TNF-α
Nobel Prize Winner, Dr. Bruce Beutler, UT Southwestern Medical Center, Center for the Genetics of Host Defense

7:35 - 8:00 PM
Targeting TNF-α: Discovery and Development of HUMIRA
Dr. Jochen Salfeld, Divisional Vice President, Abbott BioResearch Center

8:00 – 8:30 PM
Patient Case Study & Clinical Review – 14 years of clinical experience
Dr. Arthur Kavanaugh, Professor of Clinical Medicine, Director of Center for Innovative Therapy, UC San Diego, School of Medicine

8:30 – 8:40 PM
Question and Answer session with the faculty
Led by Dr. Kavanaugh, with participation by Dr. Jochen Salfed and Dr. Bruce Beutler

8:40 pm – 9:00 PM
Dessert and Refreshments

6:30 PM   CME-ACCREDITED SYMPOSIUM

For CME-accorded symposia, the sponsoring organization is responsible for planning and providing CME credit.

Treatment of SLE: Bridging the Gap from Clinical Trials to Practice

Supported by an educational grant from Human Genome Sciences, INC.
Sponsored by Cleveland Clinic

Grand Hyatt, Constitution Ballroom

Physician (ACCME) Accreditation Statement
The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The Cleveland Clinic Foundation Center for Continuing Education designates this live activity for a maximum of 2.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Needs Assessment Statement
As research into the biologic basis of SLE pathogenesis and the therapeutic management of the disease rapidly moves forward, achieving optimal patient outcomes depends on increasing rheumatologists’ medical understanding of the molecular and cellular basis of SLE pathogenesis crucial to improving outcomes in these patient populations. Many clinicians have knowledge gaps regarding the latest SLE clinical research, biologic agents, and targeted therapies, creating a need for an educational activity in which experts compile and critically appraise new evidence and interpret its implications for clinical practice.

Learning Objectives
Upon completion of this activity, participants should be able to:
• recognize the common clinical features of SLE that are most likely to require therapy and describe how they affect morbidity and mortality
• summarize the algorithms of care for generalized SLE and organ-specific disease associated with SLE
• compare and contrast the efficacy and utility of instruments and techniques for monitoring disease activity
• summarize leading pathogenic theories and describe the role of B cells in the integrated immune response as they relate to SLE pathogenesis
• assess data from recent clinical trials of novel therapeutics targeting related pathways
• describe biologic agents (including preclinical development, early to late stage trials, etc.) for SLE treatment, their mechanism of action, side effects, and clinical indications
• highlight important long-term extension data from phase 3 trials and assess the potential impact on clinical practice

6:30 - 7:30 PM
Registration and Dinner

7:30 - 7:40 PM
Introduction – Historical Overview of SLE Therapy
Leonard Calabrese, DO, Cleveland Clinic, Cleveland, OH

7:40 - 8:00 PM
SLE Unmet Medical Needs and Therapeutic Standards of Care
Bevra Hahn, MD, David Geffen School of Medicine at UCLA, Los Angeles, CA
### Non-CME Symposium

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<td>**Women’s Health Issues in Rheumatology: Challenges, Concerns and</td>
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<td>spectrum of rheumatic diseases</td>
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<td>• relate the physical and emotional impact of family planning for</td>
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<td>women living with chronic inflammatory diseases</td>
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<td>• delineate future areas of research, clinical strategies and</td>
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<td>guidelines development in this area</td>
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<tr>
<td>6:30 - 7:00 PM</td>
<td><strong>Registration and Dinner</strong></td>
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<td>7:00 - 7:05 PM</td>
<td><strong>Welcome and Integrations</strong></td>
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<td></td>
<td>Megan Clowse, MD, MPH, Duke Medical Center, Durham, NC</td>
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<tr>
<td>7:05 - 7:20 PM</td>
<td><strong>Overview of Issues in Women’s Health in Rheumatic Disease</strong></td>
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<td>Eliza Chakravarty, MD, Oklahoma Medical Research Foundation,</td>
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<td></td>
<td>Oklahoma City, OK</td>
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<td>7:20 - 7:30 PM</td>
<td><strong>Women and Rheumatoid Arthritis: The Patient Perspective</strong></td>
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<td>Patient of Dr. Clowse and Dr. James</td>
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### TUESDAY, NOVEMBER 13, 2012

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 PM</td>
<td><strong>Non-CME Symposium</strong></td>
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<td>The event listed below is a non-CME Programs wholly sponsored and</td>
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<td>supported by the commercial entities listed. By holding the Program,</td>
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<td>regarding non-CME educational or promotional presentations</td>
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<td>throughout the duration of the Program. The content and views</td>
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<td>expressed during the Program are those of the commercial entities</td>
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<td>and presenters. The ACR by making this venue available does not</td>
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<td>guarantee, warrant or endorse the content of the Program nor the</td>
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<td>products discussed and reviewed during the Program.</td>
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<td>**Navigating the Course of Psoriatic Disease — Look Inside for a New</td>
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<td>Perspective**</td>
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<td>Developed and offered by Celgene</td>
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<td>Third-Party Organization: Veraxis Health Communications</td>
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<td><strong>Grand Hyatt, Constitution Ballroom</strong></td>
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<td><strong>Learning Objectives</strong></td>
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<td>Upon completion of this activity, participants should be able to:</td>
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<td>• understand the burden of psoriatic disease and the design and</td>
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<td>methodology of the Global Psoriasis Survey</td>
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<td>• explain the inflammatory basis of psoriatic disease</td>
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<td>• discuss the diagnosis and management of psoriatic arthritis</td>
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<td>6:30 - 7:00 PM</td>
<td><strong>Registration/ Beverages &amp; Hors d’oeuvres</strong></td>
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<tr>
<td>7:00 - 7:05 PM</td>
<td><strong>Welcome, Introductions, and Opening Remarks</strong></td>
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<td>Arthur Kavanaugh, MD, University of California, San Diego School of</td>
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<td>Medicine, San Diego, CA</td>
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<td>7:05 - 7:25 PM</td>
<td><strong>Understanding the Burden of Psoriatic Disease: Design and Methodology of the Global Psoriasis Survey</strong></td>
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<td>Arthur Kavanaugh, MD, University of California, San Diego School of</td>
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<td>Medicine, San Diego, CA</td>
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</table>
Upon completion of this activity, participants should be able to:

**Learning Objectives**

- Identify the different pathophysiologic processes responsible for the generation of pain in osteoarthritis
- Differentiate how the mechanisms responsible for producing pain affect the appropriate selection of therapeutic agents
- Evaluate the risks and benefits of new treatment options in OA, and identify how they fit within the existing treatment paradigm

**Needs Assessment Statement**

Osteoarthritis (OA) is one of the leading causes of disability in the United States (US), and it represents a significant burden on the US healthcare system. Approximately half of persons over the age of 65 report having OA, making arthropathies the fifth most common office visit diagnosis. Projections regarding the rate of hip and knee revisions, which are typically last-line therapies, have provided that they are expected to expand dramatically over the coming decades. Because of this, there is a need for more effective methods to treat the pain associated with OA and this activity will provide clinicians with the tools necessary to bridge the chasm that exists between first-line therapies and total joint replacement.

**Osteoarthritis Update: Bridging the Gap between NSAIDs and Surgery**

Supported by an educational grant from Eli Lilly

Sponsored by Creative Educational Concepts

Renaissance Hotel, Congressional Ballroom

**Physician (ACCME) Accreditation Statement**

Creative Educational Concepts, Inc. (CEC) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

**Credit Designation Statement**

CEC designates this educational activity for a maximum of 2.0 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

**Challenges in Diagnosis and Management of Psoriatic Arthritis**

Philip Mease, MD, University of Washington, Seattle, WA

**6:30 - 7:00 PM**

**CME-ACCREDITED SYMPOSIUM**

*For CME-accorded symposia, the sponsoring organization is responsible for planning and providing CME credit.*

**Osteoarthritis Update: Bridging the Gap between NSAIDs and Surgery**

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- Differentiate how the mechanisms responsible for producing pain affect the appropriate selection of therapeutic agents
- Evaluate the risks and benefits of new treatment options in OA, and identify how they fit within the existing treatment paradigm

**6:30 - 7:00 PM**

Registration and Dinner

7:00 - 7:10 PM

Welcome and Introductions

Marc Hochberg, MD, MPH, University of Maryland School of Medicine, Baltimore, MD

7:10 - 7:35 PM

Advances in Understanding the Mechanisms of Pain in Osteoarthritis

C. Kent Kwoh, MD, University of Pittsburgh, Pittsburgh, PA

7:35 - 8:00 PM

Bridging the Gap I: Pharmaceutical Options in Patients with an Inadequate Response to NSAIDs

Marc Hochberg, MD, MPH, University of Maryland School of Medicine, Baltimore, MD

8:00 - 8:25 PM

Bridging the Gap II: Intra-articular Therapies in Osteoarthritis

Roy D. Altman, MD, University of California, Los Angeles, Los Angeles, CA

8:25 - 9:00 PM

Conversations with the Experts: Audience Q&A

Moderated by Marc Hochberg, MD, MPH, University of Maryland School of Medicine, Baltimore, MD

**WEDNESDAY, NOVEMBER 14, 2012**

**1:00 PM**

**CME-ACCREDITED SYMPOSIUM**

*For CME-accorded symposia, the sponsoring organization is responsible for planning and providing CME credit.*

**Treatment Success in Osteoarthritis: Advances in Pharmacologic Therapy**

Supported by an educational grant from Bioiberica S.A.

Sponsored by Medical Education Resources

Renaissance Hotel, Grand Ballroom North

Physician (ACCME) Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Medical Education Resources (MER) and Consensus Medical Communications (CMC). MER is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation Statement

MER designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Needs Assessment Statement

Effective treatment of OA must focus on addressing all aspects of pathophysiology, including preventing cartilage loss and damage to the joint. Current data support the use of chondroitin sulfate, alone or in combination with glucosamine, as an effective treatment for patients with OA. These substances may result in an improvement of quality of life for patients with OA as well as significantly reduce the costs this disease generates in society. This program will investigate the pathophysiology of osteoarthritis, review the pharmacologic actions and clinical efficacy of chondroitin sulfate and glucosamine, and discuss strategies to effectively manage patients with OA.

Learning Objectives

Upon completion of this activity, participants should be able to:

- Discuss the pathophysiology of osteoarthritis and identify disease-modifying strategies to reduce disability
- Describe the synergistic effects of concomitant glucosamine and chondroitin sulfate therapy in the prevention of osteoarthritis joint damage
- Discuss currently available clinical data on the use of chondroitin sulfate, with or without glucosamine, in the treatment of osteoarthritis

1:00 - 1:20 PM

Registration and Lunch
1:20 - 1:25 PM
Welcome and Introduction
Marc C. Hochberg, MD, MPH, University of Maryland School of Medicine, Baltimore, MD

1:25 - 1:40 PM
The Pathophysiology of Osteoarthritis
Virginia Byers Kraus, MD, PhD, Duke University Medical Center, Durham, NC

1:40 - 1:55 PM
Synovitis in Osteoarthritis: How Important Is It?
Timothy E. McAlindon, MD, MPH, Tufts University School of Medicine, Boston, MA

1:55 - 2:10 PM
Synovium Angiogenesis: A New Therapy Target for Osteoarthritis Treatment
Yves Henrotin, PhD, University of Liege, Liege, Belgium

2:10 - 2:25 PM
Chondroitin Sulfate May Reduce Total Knee Replacement in a 12-month Multicentre Clinical Trial in Knee Osteoarthritis: Results from a 4-Year Observation
Jean-Pierre Pelletier, MD, University of Montreal Hospital Research Centre (CRCHUM), Montreal, Quebec, Canada

2:25 - 2:40 PM
Can Chondroitin Sulfate and Glucosamine Combination Reduce Total Knee Replacement?
Patrick du Souich, MD, PhD, University of Montreal, Montreal, Quebec, Canada

2:40 - 2:55 PM
Question and Answer Session

2:55 - 3:00 PM
Concluding Remarks
Marc C. Hochberg, MD, MPH, University of Maryland School of Medicine, Baltimore, MD

1:00 PM CME-Accredited Symposium

For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit.

Selecting Appropriate Biologic Therapy for RA: A Practical Evaluation of Comparative Effectiveness Data

Supported by an educational grant from Bristol-Myers Squibb
Jointly sponsored by PeerView Institute for Medical Education, Inc. and University of Florida College of Medicine

Renaissance Hotel, Congressional Ballroom

Physician (ACCME) Accreditation Statement
The University Of Florida College Of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The University of Florida College of Medicine designates this live activity for a maximum of 2.0 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Needs Assessment Statement
Rheumatologists and other professionals managing RA have an expanding range of management options available; however, it is imperative that these therapies are used appropriately. Although the body of evidence shows that biologic DMARDs are effective in treating RA, there has been a scarcity of head-to-head comparison studies, a barrier that has confounded the establishment of clear guidelines on how biologic DMARDs should be used and sequenced in the clinic. As an increasing amount of comparative effectiveness research begins to yield evidence which can potentially inform clinical decisions, it is essential to keep rheumatologists and other professionals abreast of these emerging studies to begin to clarify the appropriate selection of biologic therapy for RA with the ultimate goal of improving long term patient outcomes. It is imperative that rheumatologists and other clinicians managing RA remain updated on recent advances in the management of this disease, and are aware of practical strategies for implementing treatment to a main goal of remission. Appropriate use of biologic therapy is particularly important, as these drugs have the potential to change the natural history of RA.

Learning Objectives
Upon completion of this activity, participants should be able to:
• recognize the impact of early treatment and tight control on long-term patient outcomes in RA
• discuss the current safety and efficacy data from direct head-to-head comparison studies of biologic therapies for RA
• compare and contrast the mechanisms of action and optimal use of biologic therapies for RA
• individualize biologic therapy for patients with RA based on patient factors and treat-to-target goals

1:00 - 1:30 PM
Registration and Lunch

1:30 - 1:40 PM
Welcome and Introduction

1:40 - 1:55 PM
Comparative Effectiveness Data in Rheumatoid Arthritis: Is There A Need?
Professor Paul Emery, University of Leeds, Leeds, United Kingdom

1:55 - 2:20 PM
Head-to-Head Trials Comparing Biologic Therapies in Rheumatoid Arthritis: Clinical Implications of the Data
Cem Gabay, MD, University Hospitals of Geneva, Geneva, Switzerland

2:20 - 2:35 PM
Mid-Session Panel Discussion & Ask the Faculty

2:35 - 2:50 PM
Clinical Trial Design in Rheumatoid Arthritis: Past, Present, and Future
Josef S. Smolen, MD, Center for Rheumatic Diseases, Hietzing Hospital, Vienna, Austria

2:50 - 3:10 PM
Case-Based Expert Roundtable Discussion: Contemporary Implementation of Biologic Therapies in Rheumatoid Arthritis
All Speakers

3:10 - 3:30 PM
Ask the Faculty and Conclusions
1:00 PM  **CME-Accredited Symposium**

For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit.

**Debating the Future of RA Management: Focus on the Mechanisms-of-Action and Roles of Novel Agents, A Core Symposium**

Supported by an educational grant from MedImmune, LLC
Sponsored by North American Center for Continuing Medical Education, LLC (NACCME)

*Renaissance Hotel, Grand Ballroom South*

**Physician (ACCME) Accreditation Statement**
North American Center for Continuing Medical Education, LLC (NACCME), is accredited by the Accreditation Council for Continuing Medical Education, the Accreditation Council for Pharmacy Education, and the American Nurses Credentialing Center to provide continuing education for the healthcare team.

**Credit Designation Statement**
NACCME designates this live activity for a maximum of 2.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. This continuing nursing education activity awards 2.00 contact hours. Provider approved by the California Board of Registered Nursing, Provider #13255 for 2.00 contact hours.

**Needs Assessment Statement**
Rheumatologists understand that RA is a chronic disease that requires aggressive treatment and monitoring; the challenge is to improve clinical inertia with clinical measurement tools and timing of treatment decisions. Education on the value of measurement tools, what constitutes an inadequate response, how to switch between biologic agents, and emerging treatment options will provide rheumatologists with the knowledge and confidence to adopt the necessary practice changes to improve patient health.

**Learning Objectives**
Upon completion of this activity, participants should be able to:
- align RA treatment strategies with updated diseases classification and remission criteria
- outline and overcome controllable factors and available therapy shortfalls that impact patient adherence to therapy
- describe the safety and efficacy of newer and emerging treatment options for RA management
- correlate the mechanisms-of-action of novel therapies to their potential role in patient-centric treatment

1:00 - 1:30 PM
**Registration and Lunch**

1:30 - 3:00 PM  **CME-Accredited Symposium**

Crossfire Presidential Debate
- Pursuing updated remission criteria through aggressively treating RA with available agents
- Overcoming controllable factors that impact patient adherence to therapy
- Safety and efficacy of newer and emerging biologics for RA management
- Matching the mechanisms-of-action of novel therapies to their potential role in patient-centric treatment

Moderator:
Leonard H. Calabrese, DO, Case Western Reserve University, Cleveland, OH

Co-Presenters:
Bernard Combe, MD, PhD, Université Montpellier, Montpellier, France
Jeffrey Curtis, MD, MS, MPH, University of Alabama at Birmingham, Birmingham, AL
Daniel E. Furst, MD David Geffen School of Medicine at UCLA, Los Angeles, CA

3:00 - 3:30 PM  **Closing Arguments and Audience Voting**

**1:00 PM  CME-Accredited Symposium**

For CME-accredited symposia, the sponsoring organization is responsible for planning and providing CME credit.

**Challenging Gout: Newest Recommendations and Emerging Treatments**

Jointly sponsored by Interstate Postgraduate Medical Association and MedEdRules, LLC.
Supported by an educational grant from Savient Pharmaceuticals, Inc.

*Renaissance Hotel, Renaissance Ballroom*

**Physician (ACCME) Accreditation Statement**
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of Interstate Postgraduate Medical Association (IPMA) and MedEdRules, LLC. (MEDEDR). IPMA is accredited by the ACCME to provide continuing medical education for physicians.

**Credit Designation Statement**
IPMA designates this live activity for a maximum of 2.0 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Continuing Education Units**
IPMA is approved by the California Board of Registered Nursing, provider number 6971, for 2.4 contact hours. Each person should retain this certificate for 4 years after the course has been completed.

RNs outside of California must verify with their licensing agency for approval of this course.
Needs Assessment Statement
IPMA and MEDEDR have completed a detailed needs assessment of the educational needs of clinicians who are interested in improving patient outcomes in gout. This needs assessment is based upon feedback from previously successful CME interventions, interviews with experts in the field, and a thorough literature search. This needs assessment shows awareness and knowledge transfer is needed to help the rheumatologist and related health care provider (including primary care, podiatrists and nephrologists) better manage patients with gout, including those with comorbid conditions as well as those who are difficult to manage or become refractory to therapy. Rheumatologists and other clinicians must be able to tailor an individualized management strategy utilizing the most advanced treatment options available. Educational gaps include the following: clinicians do not provide consistent treatment; clinicians may not appreciate the seriousness of the disease; clinicians may not recognize the debilitating effects of advanced crystal deposition in gout; clinicians need to identify common comorbidities in patients associated with advanced gout and effectively manage these patient types; clinicians need to keep updated on the safety, efficacy, and use of all available gout treatment options, including new and emerging therapies.

Learning Objectives
Upon completion of this activity, participants should be able to:
• assess the ascending level of disease in 3 patient case studies, including evaluation of serum urate, pain and inflammation, joint destruction, and quality of life, and understand the evidence supporting options to lower urate levels, treat inflammation, and prevent joint destruction in refractory disease
• devise a long-term management plan, within each case study, to treat the patient effectively according to their level of disease
• select the appropriate individualized medical regimen based on the most recent recommendations, taking into consideration the efficacy and safety profiles and risk-benefit ratios of available therapies
• discuss how emerging agents for gout might address the therapeutic needs of treatment-refractory patients

1:00 - 1:30 PM
Registration and Refreshments

1:30 - 1:35 PM
Welcome, Introduction, Overview
Jonathan Kay, MD, UMass Memorial Medical Center, Worcester, MA

1:35 - 2:05 PM
Case Study 1: Approaching the Gout Patient with Frequent Flares
Jonathan Kay, MD, UMass Memorial Medical Center, Worcester, MA

2:05 - 2:35 PM
Case Study 2: Current Modalities and Latest Recommendations for Treatment of Monoarticular Flares
Robert Keenan, MD, MPH, Duke University Medical Center, Durham, NC

2:35 - 3:10 PM
Case Study 3: Challenging Gout - How to Treat the Refractory Patient
Robert Terkeltaub, MD, Veterans Affairs Medical Center; San Diego, CA

3:10 - 3:30 PM
Summary and Question and Answer Session
CERTIFICATES OF CME CREDIT OR PARTICIPATION

Accreditation Statement: The American College of Rheumatology is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Designation Statement: The ACR designates this live educational activity for a maximum of 49.75 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

International Physicians: International physicians who register as part of a group and require AMA PRA Category 1 Credit(s)™, must provide the following information to your tour leader: full name, mailing address, telephone and fax numbers, and e-mail address. The information will be used to verify your meeting attendance.

The American Medical Association has an agreement of mutual recognition of continuing medical education credit with the European Union of Medical Specialties. International physicians interested in converting AMA PRA Category 1 Credit™ to EACCME credit should contact the UEMS.

Health Professionals: Participants may claim hours to receive a Certificate of Participation for an activity designated for AMA PRA Category 1 Credit(s)™. For non-CME sessions, attendees may also request a certificate of participation.

MEETING EVALUATIONS, CME CREDIT/ CERTIFICATES OF PARTICIPATION

Use My Annual Meeting and the My Annual Meeting APP to complete your meeting and session evaluations online while tracking your participation as you go. Access My Annual Meeting at www.ACRAnnualmeeting.org to e-mail or print your CME certificate or certificate of participation.

Computers are also available for you to complete your CME/Certificate of Participation and session evaluations online during the meeting at the CME/Internet Center located in the Concourse, near the entrance to the exhibit hall (Hall A).

International physicians, requiring a Certificate of Attendance, can find one enclosed in your meeting bag. If your country recognizes AMA PRA Category 1 Credit(s)™ in accordance with AMA PRA requirements, please complete the session evaluations and CME application online using My Annual Meeting or the My Annual Meeting APP.

Your evaluation of the meeting is very important. The ACR/ARHP annual meeting planning committees use feedback from attendees to assist in the development of future educational activities; therefore, we encourage you to complete your session evaluations and CME/Certificate application.

Conflict of Interest/Disclosure Statements

As an educational provider accredited by the Accreditation Council for Continuing Medical Education (ACCME), the American College of Rheumatology must ensure balance, independence, objectivity and scientific rigor in all its educational activities. Therefore, all speakers and moderators participating in an ACR-sponsored activity are required to disclose to the planning committee and audience any financial or other relationships including, but not limited to:

None: Nothing to disclose
1. Stock, stock options or bond holdings in a for-profit corporation or self-directed pension plan
2. Research grants
3. Employment (full or part-time)
4. Ownership or partnership
5. Consulting fees or other remuneration (payment)
6. Non-remunerative positions of influence such as officer, board member, trustee or public spokesperson
7. Receipt of royalties
8. Speakers’ bureau
9. Other

Speakers, moderators and abstract authors submitted their disclosure online prior to publication. Disclosures for invited speakers are listed in the indices by presenters’ last name.

Abstract author disclosures are published online and in a supplement to the October issue of Arthritis & Rheumatism. Disclosures for the late-breaking abstracts are published online and in the December issue of Arthritis & Rheumatism. Any individual who refuses to disclose relevant financial relationships will be disqualified from being a planning committee member, a presenter, an author of a CME activity, and cannot have control of, or responsibility for, the development, management, presentation or evaluation of the CME activity.

Disclosure Policy

It is the policy of the American College of Rheumatology to ensure that its CME activities are independent and free of commercial bias.

To ensure content objectivity and balance, and guarantee that the content presented is in the best interest of its learners and the public, the ACR requires that everyone in a position to control content disclose all relevant financial relationships with any commercial interest if the relationship is financial and occurred within the past 12 months. If there are relationships that create a conflict of interest, these must be resolved in accordance with the ACR’s CME Resolution of Conflict policy prior to the participation of the individual in the development or presentation of CME content.

This annual meeting is sponsored by the American College of Rheumatology for educational purposes only. The material presented is not intended to represent the only or the best methods appropriate for the medical conditions being discussed, but rather is intended to present the opinions of the authors or presenters, which may be helpful to other healthcare professionals at arriving at their own conclusions and consequent application. Attendees participating in this medical education program do so with full knowledge that they waive any claim they may have against the College for reliance on any information presented during these educational activities. The College does not guarantee, warrant or endorse any commercial products or services.
THANK YOU!

The ACR/ARHP board of directors extends its gratitude to the ACR/ARHP Annual Meeting Planning Subcommittee, ACR Abstract Oversight Committee, ACR Abstract Selection Committee, ARHP Abstract Review Panels, and ARHP Clinical Focus Task Force members for their leadership and volunteering their services to plan the 2012 annual meeting. Their significant contributions and expertise make the annual meeting the premier event for specialists in the field of rheumatology.

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Mary Cronin, MD, ACR Clinical Sub-chair
Linda S. Ehrlich-Jones, PhD, RN, ARHP Chair
Afton Hassett, PsyD, ARHP Chair Elect
Carol A. Langford, MD, MHS, Abstract Selection Chair (Clinical)
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Richard M. Pope, MD, Abstract Selection Chair (Basic)
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Hendrik Schutze-Koops, MD, PhD
Zoltan Szekanecz, MD, PhD

Ex Officio Members
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ARHP Clinical Focus Task Force
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Jessica F. Farrell, PharmD
Kathryn L. Lowenstein, OTR
Taraeh Mehrani, MD

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Richard M. Pope, MD, ACR Basic Science Chair, Abstract Selection
Elizabeth Salt, PhD, ARHP Abstract Selection Chair

1. Cytokines, Mediators, and Gene Regulation
Erik Lubberts, PhD, Co-Chair
Michael Volin, PhD, Co-Chair
Sarah L. Gaffen, PhD
Katalin Mikecz, MD, PhD
Hendrik Schutze-Koops, MD, PhD
Zoltan Szekanecz, MD, PhD

2. Cell-cell Adhesion, Cell Trafficking and Angiogenesis
Shiva Shahrara, PhD, Co-Chair
Douglas J. Veale, MD, Co-Chair
Alexander D. Fraser, MD
Charles J. Malemud, PhD
David Walsh, MD
Song G. Zheng, MD, PhD

3. Innate Immunity and Rheumatic Disease
Susan A. Boackle, MD, Co-Chair
Diego Kyburz, MD, Co-Chair
Maripat Corr, MD
Mariana J. Kaplan, MD
Timothy Radstake, MD, PhD
Ranjey Thomas, MBBS, MD

4. B-cell Biology and Targets in Autoimmune Disease
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The American College of Rheumatology Research Foundation has launched Journey to Cure — a $60 million multi-year campaign to directly invest in two mission priorities — rheumatology training and development, and disease-targeted research. Journey to Cure serves as a rallying point to accelerate these mission priorities on a scale never before achieved.

The Foundation thanks the Corporate Roundtable, including current Industry Roundtable members, for their exemplary support:

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Sunday, November 11: ............... 10:00 AM – 5:00 PM
Monday, November 12: ............... 10:00 AM – 5:00 PM
Tuesday, November 13: ............. 10:00 AM – 5:00 PM
2012 Fellows Education Fund

Through the Fellows Education Fund, the ACR is accelerating the education and training of the next generation of rheumatologists. The ACR Fellows Education Fund has a proven track record of successfully providing rheumatology fellows-in-training with outstanding educational opportunities to advance their knowledge and skills to treat an ever-changing patient population.

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Neutrophil Extracellular Traps (NETosis) in Rheumatic Disease.
Disclosure: Nothing to Disclose

Christopher-Stine, Lisa, MD, MPH
Myopathy: Issues in Diagnosis and Treatment (014)
Disclosure: Inova Diagnostics, Inc., 7;
Medimmune, 5; Novartis Pharmaceutical Corporation, 5; Questcor, 5
Myopathy: Issues in Diagnosis and Treatment (073)
Disclosure: Inova Diagnostics, Inc., 7;
Medimmune, 5; Novartis Pharmaceutical Corporation, 5; Questcor, 5

Chung, Antanya, CPC, CPC-I, CRHC, CCP
Certified Rheumatology Coder Course: Unlock Implementation and Customization
Disclosure: Nothing to Disclose

Ciccarelli, Mary R., MD
Obesity in Rheumatic Diseases of Children and Adults
Disclosure: Nothing to Disclose

Cid, Maria C., MD
Polyalgia Rheumatica - Recent Advances and Ongoing Questions
Disclosure: Nothing to Disclose

Clarke, John, MD
Scleroderma Bowel Disease: From Top to Bottom (Clinical Review)
Disclosure: ProStrakan, 9; Wyeth Pharmaceuticals, 9

Clauw, Daniel J., MD
Clinical Research Conference - Introduction: State of the Field
Disclosure: Pfizer Inc, Forest Laboratories, Merck, Novo , 2; Pfizer, Forest, Lilly, Merck, Nuvo, J and J, 5

Clayburne, Gilda M., MLT
Synovial Fluid Analysis and Crystal Identification (215)
Disclosure: Nothing to Disclose
Synovial Fluid Analysis and Crystal Identification (232)
Disclosure: Nothing to Disclose
Synovial Fluid Analysis and Crystal Identification (237)
Disclosure: Nothing to Disclose

Cohen, Stanley B., MD
Paradigm Shifts in Rheumatoid Arthritis
Disclosure: Abbott Laboratories, 2; Amgen, 5; Astellas, 8; BMS, 5; Janssen Pharamaceutical Product, L.P., 5; Pfizer Inc., 5; Roche Pharmaceuticals, 5; UCB, 2

Rheumatoid Arthritis: Difficult Cases (036)
Disclosure: Abbott Laboratories, 2; Amgen, 5; Astellas, 8; BMS, 5; Janssen Pharamaceutical Product, L.P., 5; Pfizer Inc., 5; Roche Pharmaceuticals, 5; UCB, 2

Collier, Deborah S., MD
The Connected Rheumatology Practice: Electronic Health Record and Social Media Implementation and Customization
Disclosure: Nothing to Disclose

Collins, Christopher E., MD
Rheumatology Research Foundation
Disclosure: Nothing to Disclose

Conaghan, Philip G., MD, PhD
Peripheral Magnetic Resonance Imaging in Rheumatology Practice (218)
Disclosure: Nothing to Disclose

Peripheral Magnetic Resonance Imaging in Rheumatology Practice (231)
Disclosure: Nothing to Disclose

Connelly, Mark, PhD
Clinical Research Conference - Day Two - Break Out Groups
Disclosure: Arthritis Foundation, 2; NIAMS, 2

Clinical Research Conference - Day Two - Methods for Phenotyping Pain-2
Disclosure: Arthritis Foundation, 2; NIAMS, 2

Cook, Dane B., PhD
Clinical Research Conference - Day Two - Break Out Groups
Disclosure: Nothing to Disclose

Non-pharmacological Management of Fibromyalgia: Your Toolbox
Disclosure: Nothing to Disclose

Cope, Andrew P., MD, PhD
Immune Tolerance: From Theory and Clinical Practice
Disclosure: Nothing to Disclose

Disclosure: Nothing to Disclose
Molecular and Cellular Basis of Tissue Homing
Disclosure: Nothing to Disclose
Visualizing the Immuno-inflammatory Response
Disclosure: Nothing to Disclose

Crawford, Donah Z., BS, MA
Highlights from the 2012 ARHP Sessions
Disclosure: Nothing to Disclose

Crisicone-Schreiber, Lisa G., MD
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Disclosure: Nothing to Disclose
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Cyr, Lori L., BSc, OT
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Disclosure: Nothing to Disclose
Minimizing Falls in Geriatric Rheumatic Populations 80
Disclosure: Nothing to Disclose

Daikh, David I., MD, PhD
ACR Leadership Town Hall Meeting & Business Meeting 103
Disclosure: Nothing to Disclose
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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose
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Davidson, Anne, MBBS
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Disclosure: Amgen, Lilly, 5, 8
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Disclosure: Nothing to Disclose

Deane, Peter, MD
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Disclosure: Nothing to Disclose

DeMarco, Paul J., MD
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Disclosure: Abbott Immunology Pharmaceuticals, 8; Auxilium Pharmaceuticals, 5; SanoSone Inc, 5
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Disclosure: Abbott Immunology Pharmaceuticals, 8; Auxilium Pharmaceuticals, 5; SanoSone Inc, 5

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Disclosure: Awarded stock options at Human Genome Sciences, 1; Was a full time employee of HGSI, 3

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

Diamond, Betty, MD
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Disclosure: Nothing to Disclose

Distler, Joerg HW, MD
Basic Research Conference - Session II: Core Signaling Mechanisms in Fibrosis 22
Disclosure: 4D Science GmbH, 1; Bayer Pharma, Celgene, Boehringer Ingelheim, JB Therapeutics, Anaphore, Actelion, Pfizer, Roche, 5; Bayer Pharma, Celgene, JB Therapeutics, Anaphore, Actelion, Pfizer, Roche, 8; Celgene, Bayer Pharma, Novartis, Array Biopharma, Pfizer, BMS, 2

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Disclosure: Nothing to Disclose

Dooley, Mary Anne, MD, MPH
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Disclosure: Cephalon, 9; GSK/HGS, 8; HGS GSK, 9; UCB, 9

Dugados, Maxime, MD
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Disclosure: Nothing to Disclose

Duffield, Jeremy S., MD, PhD
Basic Research Conference - Session V: Therapeutic Aspects: Biomarkers and Targeting Fibrosis 25
Disclosure: Biogen Idec, Boehringer Ingelheim, BMS, GSK, Takeda, Gilead, 5; Murexgen LLC, 1; Promodior Inc., 1; Regulus Therapeutics, 2

Dufour, Alyssa B., MA
Beyond the Basics: A Real Life Example of Multiple Imputation for Missing Data Problems 121
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Dunlop, Dorothy D., PhD  
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Disclosure: Pearson Publishing Company, 5

Dures, Emma, PhD  
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Disclosure: Nothing to Disclose

Dutt, Jan P., MD  
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Disclosure: Centocor, ONO Pharmaceuticals, 9; Janssen-Ortho, Abbott, Amgen, Leo Pharma, 5, 8

Dworkin, Robert H., PhD  
Clinical Research Conference - Clinical Trials  23  
Disclosure: Adynxx, Analgesic Solutions, Astellas, Avanir, Biogen, Biogenesis, Bristol-Myers Squibb, Depomed, Depuy, Epicert, Flexion, Johnson & Johnson, Lilly, Merck, MMS Holdings, NeurogesX, Pfizer, Sanofi-Aventis, Smith & Nephew, and Spinifex, 5; NIH and FDA, 2

Ehrlich-Jones, Linda S., PhD, RN  
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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Elliott, Christine, RN  
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Disclosure: Nothing to Disclose

Elson, Charles O., MD  
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Disclosure: Nothing to Disclose

Erkan, Doruk, MD  
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Disclosure: Genentech and Biogen IDEC Inc., 2, 5; Human Genome Sciences, Inc., 8; Lupus Clinical Trials Consortium, 2

Esaile, John, MD, MPH  
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Evangelista, Amy M., MD  
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Disclosure: Abbott Immunology Pharmaceuticals, 2, 8

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Disclosure: Abbott Immunology Pharmaceuticals, 2, 8

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Disclosure: Abbott Immunology Pharmaceuticals, 2, 8

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Disclosure: Abbott Immunology Pharmaceuticals, 2, 8

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Clinical Focus Course - Breakout Session I  26  
Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

Fearon, Douglas T., MD  
Basic Research Conference - Session IV: Immunity and Mesenchymal Cells  25  
Disclosure: Nothing to Disclose

Feinstein, Amanda B., MS  
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Disclosure: Nothing to Disclose

Ferguson, Polly J., MD  
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Disclosure: Nothing to Disclose

Fett, Nicole, MD  
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Disclosure: Nothing to Disclose

Fields, Theodore R., MD  
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Disclosure: Savient Pharmaceuticals, 5, 8; Takeda Pharmaceuticals, 5, 8; URL Pharmaceuticals, 5, 8

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Disclosure: Savient Pharmaceuticals, 5, 8; Takeda Pharmaceuticals, 5, 8; URL Pharmaceuticals, 5, 8

Figueroa, Fernando E., MD  
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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

Fillingim, Roger B., PhD  
Clinical Research Conference - Break Out Groups  28  
Disclosure: Algynomics, 1; American Pain Society, 6; Medscape, 5

Clinical Research Conference - Methods for Phenotyping Pain-1  28  
Disclosure: Algynomics, 1; American Pain Society, 6; Medscape, 5

Fine, Derek M., MD  
Update on Immune Mediated Glomerular Disease  91  
Disclosure: Nothing to Disclose

Finkel, Toren, MD, PhD  
Aging and the Rheumatic Diseases  81  
Disclosure: Nothing to Disclose

Fiorentino, David, MD, PhD  
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Disclosure: Nothing to Disclose

Firestein, Gary S., MD  
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Disclosure: Nexdx, Inc, 9

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Disclosure: Nexdx, Inc, 9

Fischer, Aryeh, MD  
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Disclosure: Actelion Pharmaceuticals US, 5, 8; Gilead Pharmaceuticals, 8; NIH, 2

Fish, Eleanor, PhD  
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Disclosure: Nothing to Disclose
Fitzgerald, G. Kelley, PhD, PT  
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Disclosure: Nothing to Disclose  
Fitzgerald, John D., MD, PhD  
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Disclosure: American College of Rheumatology, 2  
Fleischman, Michael, FAAHC  
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Flood, Joseph, MD  
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Fox, David A., MD  
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Disclosure: Nothing to Disclose  
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Franklin, Patricia D., MD, MBA, MPH  
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Disclosure: Zimmer, Inc., 2  
Freeman, James G., MD  
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Furner, Sylvia, PhD, MPH  
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Disclosure: Nothing to Disclose  
Furst, Daniel E., MD  
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Disclosure: Abbott, Actelion, Amgen, BMS, BiogenIDEC, Centocor, Gilead, GSK, NIH, Novartis, Pfizer, Roche/Geneutech, UCB, 5; Abbott, Actelion, Amgen, BMS, Gilead, GSK, NIH, Novartis, Pfizer, Roche/Geneutech, UCB, 2; Abbott, Actelion, UCB, 8  
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Disclosure: Abbott, Actelion, Amgen, BMS, BiogenIDEC, Centocor, Gilead, GSK, NIH, Novartis, Pfizer, Roche/Geneutech, UCB, 5; Abbott, Actelion, Amgen, BMS, Gilead, GSK, NIH, Novartis, Pfizer, Roche/Geneutech, UCB, 2; Abbott, Actelion, UCB, 8  
Gafny, Patrick M., MD  
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Garber, Larry, MD  
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Disclosure: Nothing to Disclose  
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Gay, Steffen, MD  
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Disclosure: IAR, 2  
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Disclosure: Nothing to Disclose  
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Disclosure: Nothing to Disclose  
Gelber, Allan C., MD  
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Disclosure: Nothing to Disclose  
Genovese, Mark C., MD  
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Disclosure: Eli Lilly and Company, 2, 5  
Gerlag, Danielle M., MD  
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Disclosure: Nothing to Disclose  
Gilleson, Gary S., MD  
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Disclosure: Baxter, UK, CSL-Behring, Biotest, 2; CSL-Behring, 9  
Golightly, Yvonne M., MS, PhD, PT  
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Disclosure: Nothing to Disclose  
Goncalves Marangoni, Roberta, MD, PhD  
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Disclosure: Nothing to Disclose  
Gordon, Jessica K., MD, MSc  
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Disclosure: Nothing to Disclose  
Goyal, Janak R., MD  
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Disclosure: Nothing to Disclose  
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Disclosure: Nothing to Disclose  
Grabner, Mark D., PhD  
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Disclosure: University of Illinois, 7  
Graham, Logan  
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Disclosure: Nothing to Disclose
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Disclosure: Pfizer Inc, 5; Teva Neuroscience, 5

Hahn, Bevra H., MD

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Disclosure: Abbott, 5; Anthera, 5; Aspreva Pharmaceutical, 2; Eli Lilly, 5; Teva Pharmaceuticals, 2

Update on Treatment of Systemic Lupus Erythematosus  39
Disclosure: Abbott, 5; Anthera, 5; Aspreva Pharmaceutical, 2; Eli Lilly, 5; Teva Pharmaceuticals, 2

Hajji-Ali, Rula, MD

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Disclosure: Nothing to Disclose

Hannan, Marian T., DSc, MPH

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Disclosure: Nothing to Disclose

Tips for Publishing Your Work in a Peer-Reviewed Medical Journal  30
Disclosure: Nothing to Disclose

Hant, Faye N., DO, MSCR

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Disclosure: Nothing to Disclose

Harrington, J. Timothy, MD

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Disclosure: Abbott Laboratories, 5; American Orthopedic Association, 5; Consortium of Rheumatology Researchers of North America CORRONA, 5; Joiner Associates LLC, 4; Springer Publishers, 7; US Treat to Target Committee, 8

Harris, Richard E., PhD

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Disclosure: Pfizer Inc, 2, 5

Harsanyi, Andreea M., MD

Thieves’ Market: Show Me Your Best Cases  49, 62
Disclosure: Nothing to Disclose

Harte, Steven E., PhD

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Disclosure: Analytic Solutions, Natick, MA, 9

Hashkes, Philip J., MD, MSc

Thieves’ Market: Show Me Your Best Cases  49, 62
Disclosure: Nothing to Disclose

Hassett, Afton L., PsyD

Rheumatic Disease Update: Gout  61
Disclosure: Bristol-Myers Squibb, 2, 5; Pfizer Inc, 2, 5
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Disclosure: Bristol-Myers Squibb, 2, 5; Pfizer Inc, 2, 5

Hawker, Gillian A., MD, MSc

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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

Hayat, Samina Q., MD

Thieves’ Market Poster Presentation - Development of Leprosy After Treatment With IL6 Blocker  62
Disclosure: Nothing to Disclose

Heimans, L., MD

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Disclosure: Nothing to Disclose

Heinegard, Dick, PhD

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Disclosure: Anamar Medical, 1; IDS Ltd, 2

Helmick, Charles G., MD

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Disclosure: Nothing to Disclose

Hertweck, Susan Paige, MD, OB/GYN

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Disclosure: Nothing to Disclose

Hewlett, Sarah, MA, PhD, RN

New and Better Habits: Facilitating Patient Self-management with Proven Behavior Change Strategies  59
Disclosure: Nothing to Disclose

The Puzzle of Fatigue in Rheumatoid Arthritis: Putting the Pieces Together  120
Disclosure: Nothing to Disclose

Hicks, Robert D., PhD

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Disclosure: Nothing to Disclose

Higgs, Jay B., MD

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Disclosure: Nothing to Disclose

Highland, Kristin B., MD, MSCR

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Disclosure: Actelion Pharmaceuticals US, 9; Genentech and Biogen Idec Inc., 8; Gilead Sciences, 9; United Therapeutics, 9
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Disclosure: Genentech and Biogen Idec Inc., 8

Hillstrom, Howard J., PhD

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Disclosure: Nothing to Disclose

Hinz, Boris, PhD

Basic Research Conference - Session I: The Biology of Mesenchymal Cells  22
Disclosure: Nothing to Disclose

Hirschman, Michelle

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Disclosure: Nothing to Disclose

Hochberg, Marc C., MD, MPH

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Hogaboam, Cory M., PhD  
Basic Research Conference - Session IV:  
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Disclosure: Medimmune Inc, 2; Novartis Pharmaceutical Corporation, 2

Holders, V. Michael, MD  
Prospects for Prevention and Cure of Rheumatoid Arthritis  
Disclosure: Diagnostic Companies, 7

Holland, Gary N., MD  
Rheumatic Disease Update: Inflammatory Eye Disease  
Disclosure: Nothing to Disclose

Hootman, Jennifer M., ATC, PhD  
Demystifying the Study Section: How Grants Are Reviewed and Scored  
Disclosure: Nothing to Disclose

Houghton, Kristin M., MD  
Clinical Focus Course - Addressing Risk Factors for Osteoarthritis through the Lifespan: Let’s Start with the Kids!  
Disclosure: Nothing to Disclose

Hudson, Marie, MD, MPH  
Plenary Session I: Discovery 2012  
Disclosure: Nothing to Disclose

Huisinga, Karen, MN, ARNP, FNP  
Infusion Reactions: Management and Prevention  
Disclosure: Pfizer Inc, 8

Hunder, Gene G., MD  
Temporal Arteritis (030)  
Disclosure: Nothing to Disclose  
Temporal Arteritis (079)  
Disclosure: Nothing to Disclose

Hunter, David J., MBBS, PhD  
Osteoarthritis Therapeutics: Will This be the Decade for Breakthroughs?  
Disclosure: DonJoy, 7; NHMRC, ARC, NIH, FNIH, 2

Husni, M. Elaine, MD, MPH  
Psoriatic Arthritis (035)  
Disclosure: Nothing to Disclose  
Psoriatic Arthritis (058)  
Disclosure: Nothing to Disclose

Hübbe, Claudia, MD  
Thieves’ Market Poster Presentation - Behçet’s Disease with Pulmonary Artery Aneurysms  
Disclosure: Nothing to Disclose

Ibrahim, Said, MD, MPH  
Disparities in the Use of Joint Arthroplasty: A Pervasive Matter Leading to Inequitable Care  
Disclosure: Nothing to Disclose

Ilowite, Norman T., MD  
Pediatric Rheumatology Town Hall Meeting  
Disclosure: Nothing to Disclose

Inman, Christ Joy, MD, MS  
The Unintended Consequences of Health Information Technology  
Disclosure: Nothing to Disclose

Inman, Robert D., MD  
Spondylarthropathy: An Update (007)  
Disclosure: Abbott, Amgen, Merck, Pfizer, Sanofi-Aventis, 5

Issacs, John D., MD, PhD  
Immune Tolerance: From Theory and Clinical Practice  
Disclosure: GSK, 2; No company, Treatment of chronic joint inflammation using an antibody against the CD3 antigen complex, 9

Isenberg, David A., MD  
Year in Review  
Disclosure: Nothing to Disclose

Iversen, Maura D., BSc, DPT, SD, MPH  
Myositis: Pathogenesis, Diagnosis and Management  
Disclosure: Nothing to Disclose

Jacobe, Heidi, MD, MSCS  
Review Course - When Thick Skin is Not a Good Thing  
Disclosure: Nothing to Disclose

Jain, Nitin, MD, MSPH  
Shoulder Pain and Rotator Cuff Tear in Rheumatoid Arthritis  
Disclosure: AAPM/R, 9; NIAMS-NIH, 2

James, Judith A., MD, PhD  
Preclinical Autoimmunity – Potential for Prevention  
Disclosure: Nothing to Disclose

Jarjour, Wael N., MD  
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Disclosure: Nothing to Disclose

Jordan, Joanne M., MD, MPH  
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Disclosure: Amgen, Lilly, Merck, Novartis, 5; Amgen, Lilly, Novartis, Warner-Chilcott, 8; Amgen, Merck, 2

Osteoporosis: 2012 Update  
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McComas, Heather, PharmD  
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Disclosure: Nothing to Disclose

McCurdy, Deborah K., MD  
Rheumatic Disease Update: Inflammatory Eye Disease  
Disclosure: Nothing to Disclose

McLean, Robert R., DSc, MPH  
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Disclosure: Nothing to Disclose

Demystifying the Study Section: How Grants AreReviewed and Scored  
Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

McMahan, Zsuzsanna H., MD, MHS  
ACR Knowledge Bowl - Final Round  
Disclosure: Nothing to Disclose

ACR Knowledge Bowl - Preliminary Round  
Disclosure: Nothing to Disclose

The Great Masqueraders: Malignancies in Rheumatic Disease  
Disclosure: Nothing to Disclose

Thieves’ Market: Show Me Your Best Cases  
Disclosure: Nothing to Disclose

Update on Immune Mediated Glomerular Disease  
Disclosure: Nothing to Disclose

McMenamin, Terence, MA  
Arthritis and the Older Worker  
Disclosure: Nothing to Disclose

Mease, Philip, MD  
Update on Psoriatic Arthritis and the Spondylarthropathies  
Disclosure: Abbott Immunology Pharmaceuticals, 5, 8; Abbott Laboratories, 2; Amgen, 2, 5, 8; Bristol Myers Squibb, 2, 5, 8; Celgene, 2, 5; Crescendo, 2, 5; Crescendo, 8; Forest Laboratories, 2, 5, 8; Genentech and Biogen Idec Inc., 2, 5, 8; Janssen Pharmaceutica Product, L.P., 2, 5, 8; Lilly, 2, 5, 8; Merck Pharmaceuticals, 2, 5; Novartis Pharmaceutical Corporation, 2, 5; Pfizer Inc, 2, 5, 8; UCB, 2, 5, 8

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Disclosure: Nothing to Disclose

Melmed, Gil Y., MD  
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Melton, Alton, MD  
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Mercer, Louise K., MBChB, MRCP  
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Merkel, Peter A., MD, MPH  
Vasculitis: Update (050)  
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Merrell, Victoria A., MPT, PA-C  
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Disclosure: Nothing to Disclose

Michaud, Kaleb, PhD  
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Disclosure: Nothing to Disclose

Mikuls, Ted R., MD, MSPH  
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Disclosure: Nothing to Disclose

Gout and Hyperuricemia: Diseases Beyond the Joint  
Disclosure: Nothing to Disclose

Miller, Daniel, MD  
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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

Monach, Paul A., MD, PhD  
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Monrad, Seetha U., MD  
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Moonaz, Steffany, PhD, RYT-500  
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Morgan DeWitt, Esi M., MD, MSCE  
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Disclosure: Nothing to Disclose

Morris, Edward L., MD  
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Disclosure: Nothing to Disclose

Murphy, Mark D., MD  
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Disclosure: Nothing to Disclose

Murphy, Kenneth M., MD, PhD  
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Disclosure: Nothing to Disclose

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Disclosure: Nothing to Disclose

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Belza, Basia, PhD
Education/Community Programs
Disclosure: Nothing to Disclose

Birnbbaum, Neal S., MD
Rheumatoid Arthritis - Clinical Aspects IV: Nonbiologic Drugs for Rheumatoid Arthritis: New Insights on Comorbidities and Adverse Events Disclosure: Amgen, Pfizer, Janssen, Abbott, 8

Blalock, Susan J., PhD
Programs and Literacy in Patients with Rheumatologic Diseases Disclosure: Nothing to Disclose

Blitz, Jill R., PT, DPT
Doing Is Believing: Health Beliefs Before and After an Exercised-Based Rehabilitation Programme for Chronic Knee Pain Disclosure: Nothing to Disclose

Brady, Teresa J., PhD
Education/Community Programs Disclosure: Nothing to Disclose

Bykerk, Vivian P., MD
Rheumatoid Arthritis - Clinical Aspects I: Risk Factors and Prediction of Rheumatoid Arthritis Disclosure: Nothing to Disclose

Calabrese, Leonard H., DO
Infection-related Rheumatic Disease Disclosure: Amgen, Pfizer, Bristol-Myers Squibb, Roche, UCB, 5

Callahan, Leigh F., PhD
Clinical and Rehabilitative Aspects of Osteoarthritis Disclosure: Nothing to Disclose

Caplan, Liron, MD, PhD
Epidemiology and Health Services Research I: Epidemiology and Outcomes in Rheumatic Disease Disclosure: Nothing to Disclose

Carrino, John, MD, MPH
Imaging of Rheumatic Diseases II: Magnetic Resonance Imaging Disclosure: Carestream, Siemens, General Electric, 6; Medtronic, General Electric, Quality Medical Metrics, Vital Images, 5; Merge Healthcare, 1; Siemens, Toshiba, Carestream, 2

Chaffin, Michael, MD
Musculoskeletal Pain with a Simple, Practical Approach to the Evaluation of Osteoarthritis Disclosure: Nothing to Disclose

Choy, Ernest, MD
Rheumatoid Arthritis - Clinical Aspects VI: Remission and Flare in Rheumatoid Arthritis Disclosure: Chugai, 5, 8; Daiichi Pharmaceutical Corporation, 5; Eli Lily and Company, 5; Ferring Pharmaceuticals, 5; GSK, 5; Jazz Pharmaceuticals, 5; MedImmune, 5; Merck Pharmaceuticals, 5, 8; Novimmune, 5; Pfizer Inc, 5, 8; Roche Pharmaceuticals, 2, 5, 8; UCB, 2, 5, 8

Cid, Maria C., MD
Vasculitis: Pathogenesis Disclosure: Nothing to Disclose

Clauw, Daniel J., MD
Fibromyalgia and Soft Tissue Disorders I Disclosure: Pfizer Inc, Forest Laboratories, Merck, Nuvo, 2; Pfizer, Forest, Lilly, Merck, Nuvo, 1 and J, 5

Cohen, Philip L., MD
B-cell Biology and Targets in Autoimmune Disease Disclosure: Nothing to Disclose

Costenbader, Karen H., MD, MPH
ACR/ARHP Combined Epidemiology Abstract Session Disclosure: Nothing to Disclose

Coty, Mary-Beth, PhD, RN
Beliefs, Perceptions and Coping Disclosure: Nothing to Disclose

Criswell, Lindsey A., MD, MPH
Sjögren’s Syndrome I - Pathogenesis Disclosure: Nothing to Disclose

Crow, Mary K., MD
Systemic Lupus Erythematosus - Human Etiology and Pathogenesis II Disclosure: Baxter, 5; Celgene, 5; EMD Merck Serono, 5; Genentech and Biogen IDEC Inc., 5; Idera, 5; Johnson & Johnson, 1; Johnson and Johnson, 5; MedImmune, 5; Novo Nordisk, 2; Pfizer Inc, 1; Takeda, 5

Curtis, Jeffrey, MD, MPH, MS
Epidemiology and Health Services Research V: Rheumatoid Arthritis Management in the Treat-to-Target Era Disclosure: Nothing to Disclose
Deodhar, Atul A., MD
Systemic Lupus Erythematosus
Disclosure: Nothing to Disclose

Dewing, Kori A., DNP, ARNP
Research
Disclosure: Nothing to Disclose

Domsic, Robyn T., MD, MPH
Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics II
Disclosure: Nothing to Disclose

Dunlop, Dorothy D., PhD
ARHP Epidemiology & Public Health Oral Session 2-Lifestyle Factors in Relation to Arthritis
Disclosure: Nothing to Disclose
Clinical and Rehabilitative Aspects of Osteoarthritis
Disclosure: Nothing to Disclose

EG

Egebeen, Aaron T., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy of Approved Biologics
Disclosure: Nothing to Disclose

Eisenberg, Robert A., MD
B-cell Biology and Targets in Autoimmune Disease
Disclosure: Genentech and Biogen IDEC Inc., 5

Elewaut, Dirk, MD, PhD
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Psoriatic Arthritis and Spondyloarthritis
Disclosure: Nothing to Disclose

Elkon, Keith B., MBChB
Systemic Lupus Erythematosus - Animal Models
Disclosure: Nothing to Disclose

Englund, Martin, MD, PhD
Osteoarthritis - Clinical Aspects II: Structural Risks for Osteoarthritis End-points and Potential Treatments
Disclosure: Nothing to Disclose

Escalante, Agustin, MD
Orthopedics, Low Back Pain, and Rehabilitation Disclosure: Nothing to Disclose

F

Fitzcharles, Mary-Ann, MBChB, MD
 Fibromyalgia and Soft Tissue Disorders II Disclosure: Pfizer Inc, Lilly, Purdue, Valeant, 5

Fitzgerald, John D., MD, PhD
ACR/ARHP Combined Rehabilitation Abstract Session Disclosure: Nothing to Disclose

Forbes, Lindsay J., MD
ACR/REF Edmond L. Dubois, MD Memorial Lectureship: Hydroxychloroquine Reduces Thrombosis in Systemic Lupus Erythematosus, Particularly in Antiphospholipid Positive Patients Disclosure: Nothing to Disclose

French, Anthony R., MD, PhD
Pediatric Rheumatology - Pathogenesis and Genetics Disclosure: Nothing to Disclose

Furie, Richard A., MD
Plenary Session III: Discovery 2012 Disclosure: Nothing to Disclose

G

Gall, Victoria, PT, MEd
Programs and Literacy in Patients with Rheumatologic Diseases Disclosure: Nothing to Disclose

Genovese, Mark C., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Comparative Efficacy and Novel Treatment Strategies in Rheumatoid Arthritis Disclosure: Eli Lilly and Company, 2, 5

Gensler, Liianne S., MD
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Spondyloarthritides I Disclosure: Abbott Immunology Pharmaceuticals, 5

Giles, Jon T., MD
Rheumatoid Arthritis - Clinical Aspects III: Rheumatoid Arthritis and Cardiovascular Disease Disclosure: Roche/Genentech, 5

Gilkeson, Gary S., MD
Genetics and Genomics of Rheumatic Diseases Disclosure: Nothing to Disclose

Goldenberg, Don L., MD
Fibromyalgia and Soft Tissue Disorders II Disclosure: Forest, Lilly, Pfizer Inc, 5; Pfizer Inc, 2

Goldring, Mary B., PhD
Biology and Pathology of Bone and Joint: Osteoarthritis Disclosure: Abbott Laboratories, 2; Biogen Idec, 2; Fidia Farmaceutici S.p.A., 5; Merck-Serono, 2

Gomez-Puerta, Jose A., MD, PhD
Systemic Lupus Erythematosus - Clinical Aspects and Treatment IV: Therapeutics Disclosure: Nothing to Disclose

Greco, Carol M., PhD
Psychological Aspects of Rheumatologic Disease Disclosure: NIAMS-NIH, 2; Pfizer Inc, 1
Systemic Lupus Erythematosus Disclosure: NIAMS-NIH, 2; Pfizer Inc, 1

Grissanti, Joseph M., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety II Disclosure: Nothing to Disclose

Grom, Alexei A., MD
Pediatric Rheumatology - Pathogenesis and Genetics Disclosure: Novartis Pharmaceutical Corporation, 5; Novimmune, 9; Roche Pharmaceuticals, 5

Gross, K. Douglas, DPT, MSc
ARHP Epidemiology & Public Health Oral Session 3-Biomechanics & Foot Disorders Disclosure: Nothing to Disclose

Grossman, Jennifer M., MD
Systemic Lupus Erythematosus - Clinical Aspects and Treatment I: Renal Disclosure: medimmune, UCB, Pfizer, TEVA, Cephalon, American College of Rheumatology, Eli Lilly, 2

Guccione, Andrew A., DPT, PhD
ARHP Epidemiology & Public Health Oral Session 1 - Predictors & Consequences of Arthritis Disclosure: Nothing to Disclose

Guermazi, Ali, MD, PhD
Imaging of Rheumatic Diseases II: Magnetic Resonance Imaging Disclosure: AstraZeneca, 5; Boston Imaging Core Lab, 1; Genzyme Corporation, 5; Merck Serono, 5; Novartis Pharmaceutical Corporation, 5; Stryker, 5

Guilevin, Loic P., MD
Vasculitis: Clinical Aspects Disclosure: Roche Pharmaceuticals, 2, 5

H

Haji- Ali, Rula, MD
Vasculitis: Clinical Trials Disclosure: Nothing to Disclose

Hanaoka, Beatriz Y., MD
Factors Associated with Rheumatoid Arthritis Disclosure: Nothing to Disclose

Hannan, Marian T., DSc, MPH
ARHP Epidemiology & Public Health Oral Session 3-Biomechanics & Foot Disorders Disclosure: Nothing to Disclose

Haqqi, Tariq M., PhD
Biology and Pathology of Bone and Joint: Regulation of Bone Cells Disclosure: Nothing to Disclose

Hassett, Afton L., PsyD
Factors Associated with Rheumatoid Arthritis Disclosure: Nothing to Disclose

Head, Andrew J., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy and Safety of Novel Entities Disclosure: Nothing to Disclose

Helfgott, Simon M., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety I Disclosure: Abbott Immunology Pharmaceuticals, 5; Roche Pharmaceuticals, 5

Hellick, Charles G., MD
Osteoarthritis Disclosure: Nothing to Disclose

Hetland, Merete L., MD, PhD, DMSc
Rheumatoid Arthritis - Clinical Aspects VII: Prediction of Outcome in Rheumatoid Arthritis Disclosure: Abbott Laboratories, 5; Bristol-Myers Squibb, 5; MSD, 5; Pfizer Inc, 5; Roche, 5; UCB Nordic, 5
Hobbs, Kathryn, MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy and Safety of Novel Entities
Disclosure: HGS, UCB, 6

Hootman, Jennifer M., ATC, PhD
ARHP Epidemiology & Public Health Oral Session 2-Lifestyle Factors in Relation to Arthritis
Disclosure: Nothing to Disclose
Care of Patients with Rheumatoid Arthritis
Disclosure: Nothing to Disclose
Education/Research/Health Services Research
Disclosure: Nothing to Disclose

Hyrich, Kimme, MD, PhD
Rheumatoid Arthritis - Clinical Aspects III: Rheumatoid Arthritis and Cardiovascular Disease
Disclosure: Nothing to Disclose
Rheumatoid Arthritis - Clinical Aspects II: Long-term Outcome of Rheumatoid Arthritis, Observational Studies
Disclosure: Nothing to Disclose

I

Ishimori, Mariko L., MD
Epidemiology and Health Services Research III: Rheumatic Diseases and Cardiovascular Disease and Risk Assessment
Disclosure: Nothing to Disclose

Iversen, Maura D., BSc, DPT, SD, MPH
Doing Is Believing: Health Beliefs Before and After an Exercise-Based Rehabilitation Programme for Chronic Knee Pain
Disclosure: Nothing to Disclose
Physical/Occupational Therapy and Exercise in Patients with Rheumatologic Disease
Disclosure: Nothing to Disclose

Jamal, Shahin, MD, MSc
Rheumatoid Arthritis - Clinical Aspects VI: Remission and Flare in Rheumatoid Arthritis
Disclosure: Abbott, Amgen, Pfizer, Janssen, Roche, BMS, UCB, 5

Jolly, Meenakshi, MD, MS
Systemic Lupus Erythematosus - Clinical Aspects and Treatment II: Clinical Aspects/Pregnancy
Disclosure: GlofoxSmithKline, 5; Lupus Foundation of America, 2; MedImmune, 7; The Binding Site, 2

Jordan, Joanne M., MD, MPH
Osteoarthritis - Clinical Aspects I: Weight, Activity, and Metabolic Effects on Osteoarthritis
Disclosure: Algynomics, Inc., 1; Eli Lilly and Company, 5; Interleukin Genetics, Inc., 5; Johnson & Johnson, 2; Johnson and Johnson, 5; Mutual Pharmaceutical Company, 5

K

Kalunian, Kenneth C., MD
Systemic Lupus Erythematosus - Clinical Aspects and Treatment V: Clinical Aspects
Disclosure: Nothing to Disclose

Kaplan, Mariana L., MD
Innate Immunity and Rheumatic Disease
Disclosure: Boehringer Ingelheim, 5
Systemic Lupus Erythematosus - Human Etiology and Pathogenesis II
Disclosure: Takeda, Boehringer-Ingelev, 9

Carlson, Elizabeth, MD
Rheumatoid Arthritis - Clinical Aspects I: Risk Factors and Prediction of Rheumatoid Arthritis
Disclosure: Nothing to Disclose

Katz, Patricia P., PhD
Consequences of Stress and Depression
Disclosure: Nothing to Disclose

Kay, Jonathan, MD
Rheumatoid Arthritis - Clinical Aspects IV: Non-biologic Drugs for Rheumatoid Arthritis: New Insights on Comorbidities and Adverse Events
Disclosure: Abbott Immunology Pharmaceuticals, 2; Amgen, 5; Ardea Biosciences, 2; Bristol-Myers Squibb, 5; Celgene, 5; Crescendo BioScience, 5; Eli Lilly and Company, 2; Fidia Farmaceutici SpA, 2; fourteen22, 5; Genentech and Biogen IDEC Inc., 5; Horizon Pharma, 5; Janssen Biotech, 5; Molecular Partners AG, 5; Pfizer Inc, 5; Roche Pharmaceuticals, 2; Sanofi-Aventis Pharmaceutical, 2; Savient, 5; UCB, 5

Keating, Richard M., MD
Miscellaneous Rheumatic and Inflammatory I
Disclosure: Nothing to Disclose

Keysor, Julie J., PhD, PT
ACR/ARHP Combined Rehabilitation Abstract Session
Disclosure: Nothing to Disclose

Khan, Nasim A., MD
Epidemiology and Health Services Research II: Epidemiologic Risk Factors in the Development of Rheumatic Disease
Disclosure: Nothing to Disclose

Kivitz, Alan J., MD, CPI
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Safety II
Disclosure: Nothing to Disclose

Koch, Alisa E., MD
Rheumatoid Arthritis - Human Etiology and Pathogenesis I: Early Pathogenesis of Rheumatoid Arthritis
Disclosure: Nothing to Disclose

Krishnan, Eswar, MD, MPhil
ACR/ARHP Epidemiology Abstract Session
Disclosure: Nothing to Disclose

Kyburz, Diego, MD
Innate Immunity and Rheumatic Disease
Disclosure: Nothing to Disclose

Kytzaris, Vasileios C., MD
Systemic Lupus Erythematosus - Human Etiology and Pathogenesis I
Disclosure: Nothing to Disclose

Langford, Carol A., MD, MHS
Plenary Session II: Discovery 2012
Disclosure: Bristol-Myers Squibb, 9; Genentech and Biogen IDEC Inc., 9

Lee, Yvonne C., MD, MMSc
Rheumatoid Arthritis - Clinical Aspects VII: Prediction of Outcome in Rheumatoid Arthritis
Disclosure: China Med Tech, 1; Cubist Pharmaceuticals, 1; Elan Corporation, 1; Forest Laboratories, 2; Given Imaging, 1; Medco Health Solutions, 1; Merck Pharmaceuticals, 1; Novartis Pharmaceutical Corporation, 1

Lems, Willem F., MD
Osteoporosis and Metabolic Bone Disease
Disclosure: Nothing to Disclose

Levy, Roger, MD
Antiphospholipid Syndrome
Disclosure: Nothing to Disclose

Li, Suzanne C., MD, PhD
Pediatric Rheumatology: Clinical and Therapeutic Disease IV: Childhood Therapeutics and Response
Disclosure: Nothing to Disclose

Lisse, Jeffrey R., MD
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Psoriatic Arthritis
Disclosure: UCB Pharmaceuticals, 5

Lohr, Kristine M., MD, MS
Miscellaneous Rheumatic and Inflammatory Diseases: Periodic Fever Syndromes
Disclosure: Nothing to Disclose

Losina, Elena, PhD
Epidemiology and Health Services Research IV: Outcomes and Costs in Rheumatic Disease
Disclosure: Nothing to Disclose

Louie, James S., MD
Infection-related Rheumatic Disease
Disclosure: Nothing to Disclose

Lovell, Daniel J., MD, MPH
Pediatric Rheumatology: Clinical and Therapeutic Disease II: Juvenile Idiopathic Arthritis II
Disclosure: Nothing to Disclose

Lubberts, Erik, PhD
Cytokines, Mediators, and Gene Regulation I
Disclosure: Nothing to Disclose
Cytokines, Mediators, and Gene Regulation II
Disclosure: Nothing to Disclose

Lundberg, Ingrid E., MD, PhD
Muscle Biology, Myositis and Myopathies: Classification, Treatment and Outcome in Idiopathic Inflammatory Myopathies
Disclosure: Bristol-Myers Squibb, 2; MedImmune, 5; Novartis Pharmaceutical Corporation, 5; Pfizer Inc, 1
Manzi, Susan, MD, MPH
Systemic Lupus Erythematosus - Clinical Aspects and Treatment III: Cardiovascular
Disclosure: SEE ATTACHED, 2, 5, 7

Mariette, Xavier, MD, PhD
Sjögren’s Syndrome I - Pathogenesis
Disclosure: Nothing to Disclose

Markenson, Joseph A., MD
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Comparative Efficacy and Novel Treatment Strategies in Rheumatoid Arthritis
Disclosure: Abbott Immunology Pharmaceuticals, 8; Amgen, 8; Bristol-Myers Squibb, 8; Genentech and Biogen IDEC Inc., 8; Janssen Pharmaceutica Product, L.P., 8; Novartis Pharmaceutical Corporation, 8; Pfizer Inc, 8; Roche Pharmaceuticals, 8; Genentech Disclosure: Actelion Pharmaceuticals US, 5; Menarini, 5, 8; Metabolex, 5; Novartis Pharmaceutical Corporation, 5, 8; Saviert, 5, 8

Martin, Richard W., MD, MA
Rheumatoid Arthritis Treatment - Small Molecules, Biologics and Gene Therapy: Efficacy of Approved Biologics
Disclosure: Nothing to Disclose

Matteson, Eric L., MD
Rheumatoid Arthritis - Clinical Aspects V: Comorbidities in Rheumatoid Arthritis
Disclosure: Nothing to Disclose

McMahon, Maureen A., MD
Systemic Lupus Erythematosus - Clinical Aspects and Treatment III: Cardiovascular
Disclosure: Glaxo Smith Klein, 8; Human Genome Sciences, Inc., 8
Systemic Lupus Erythematosus - Clinical Aspects and Treatment V: Clinical Aspects
Disclosure: Glaxo Smith Klein, 8; Human Genome Sciences, Inc., 8

McQueen, Fiona M., MBChB, MD
Imaging of Rheumatic Diseases III: Computed Tomography
Disclosure: Nothing to Disclose

McTigue, Joan C., PA-C, MS
Care of Patients with Rheumatoid Arthritis
Disclosure: Nothing to Disclose

Merkel, Peter A., MD, MPH
Vasculitis: Clinical Aspects
Disclosure: Actelion Pharmaceuticals US, 5; Bristol-Myers Squibb, 2; Celgene, 2; Genentech and Biogen IDEC Inc., 2; Genzyme Corporation, 5; Human Genome Sciences, Inc., 2; Protein Therapeutics, 2

Meroni, Pier Luigi, MD
Antiphospholipid Syndrome
Disclosure: Nothing to Disclose

Michaud, Kaleb, PhD
Epidemiology and Health Services Research IV: Outcomes and Costs in Rheumatic Disease
Disclosure: Nothing to Disclose

Miossec, Pierre, MD, PhD
Rheumatoid Arthritis - Human Etiology and Pathogenesis II: Cellular Effectors of Rheumatoid Arthritis and Novel Rheumatoid Arthritis Genome-Wide Association Studies
Disclosure: Nothing to Disclose

Monach, Paul A., MD, PhD
Vasculitis: Pathogenesis
Disclosure: Nothing to Disclose

Morgan DeWitt, Esi M., MD, MSCE
Quality Measures and Innovations in Practice Management and Care Delivery
Disclosure: Nothing to Disclose

Mouthon Sr., Luc, MD
Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics II
Disclosure: Nothing to Disclose

Neogi, Tuhina, MD, PhD
Osteoarthritis - Clinical Aspects II: Structural Risks for Osteoarthritis End-points and Potential Treatments
Disclosure: Nothing to Disclose

Nguyen, Uyen Sa D.T., DSc, MPH
Osteoarthritis
Disclosure: Nothing to Disclose

Nicassio, Perry M., PhD
Beliefs, Perceptions and Coping
Disclosure: Nothing to Disclose

O'Dell, James R., MD
Plenary Session I: Discovery 2012
Disclosure: Nothing to Disclose

Odds, Chester V., MD
Plenary Session III: Discovery 2012
Disclosure: Nothing to Disclose

Onel, Karen, MD
Pediatric Rheumatology: Clinical and Therapeutic Disease III: Childhood Systemic Lupus Erythematosus and Other Vasculitides
Disclosure: Nothing to Disclose

Pachman, Lauren M., MD
Muscle Biology, Myositis and Myopathies: Pathogenesis in Idiopathic Inflammatory Myopathies
Disclosure: NIH- R0-1 ; Education grant from Behring for $5,000, 2

Perez-Ruiz, Fernando, MD, PhD
Metabolic and Crystal Arthropathies: Clinical Disclosure: Ardea Biosciences, 5, 8; Menarini, 5, 8; Metabolix, 5; Novartis Pharmaceutical Corporation, 5, 8; Saviert, 5, 8

Perlman, Harris R., PhD
Rheumatoid Arthritis - Animal Models
Disclosure: Nothing to Disclose

Pernis, Alessandra, MD
Systemic Lupus Erythematosus - Human Etiology and Pathogenesis I
Disclosure: Nothing to Disclose

Pillinger, Michael H., MD
Medical Education
Disclosure: Nothing to Disclose

Quismorio Jr., Francisco P., MD
ACR/REH Edmond L. Dubois, MD Memorial Lectureship: Hydroxychloroquine Reduces Thrombosis in Systemic Lupus Erythematosus, Particularly in Antiphospholipid Positive Patients
Disclosure: Nothing to Disclose

Ranganath, Veena K., MD, MS
ACR/ARHP Epidemiology Abstract Session
Disclosure: BMS, 2; Cellgene, 2; UCB, 2, 9

Rao, Smita, PT, PhD
Rheumatology: Clinical and Therapeutic Disease I: Juvenile Idiopathic Arthritis I
Disclosure: Nothing to Disclose

Reimold, Andreas M., MD
Quality Measures and Innovations in Practice Management and Care Delivery
Disclosure: Nothing to Disclose

Rider, Lisa G., MD
Muscle Biology, Myositis and Myopathies: Classification, Treatment and Outcome in Idiopathic Inflammatory Myopathies
Disclosure: Nothing to Disclose

Rogers, John R., MD
Rheumatoid Arthritis - Human Etiology and Pathogenesis I
Disclosure: Nothing to Disclose

Roth, Jean A., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Rothermel, Kristine, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Roy, A., MD
Rheumatoid Arthritis - Human Etiology and Pathogenesis I
Disclosure: Nothing to Disclose

Rudra, Jayanta, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Sarzynska, Iwona, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Sengupta, Sibasish, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Sekulov, Jude, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Silverman, Mark J., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Smith, Debra, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Sporn, Matthew B., PhD
Rheumatoid Arthritis - Human Etiology and Pathogenesis I
Disclosure: Nothing to Disclose

Taccone, Chiara, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Tan, Mary, MD, FRCP
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Tesser, Robert H., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Thomas, Barry, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Thompson, Robert S., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Thompson, Stephen A., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Tugwell, P., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Vicente, H., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

White, Alan, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Wolfe, Frank, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Wolfe, Gary, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Xiao, Yan, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Yuen, Vicky, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Zhang, Schoon, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Zhou, D., MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Zuk, John, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose

Zucker, Jonathan, MD
Rheumatoid Arthritis - Clinical Aspects III: Treatment
Disclosure: Nothing to Disclose
Valle-Oñate, Rafael, MD  
Spondylarthropathies and Psoriatic Arthritis  
- Clinical Aspects and Treatment: Psoriatic Arthritis and Spondyloarthritis  
Disclosure: Nothing to Disclose

Van den Bosch, Filip, MD, PhD  
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Spondyloarthritis II  
Disclosure: Nothing to Disclose

Varga, John, MD  
Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics  
Disclosure: JBT, 2

Veale, Douglas J., MD  
Cell-cell Adhesion, Cell Trafficking and Angiogenesis  
Disclosure: Nothing to Disclose

Vehe, Richard K., MD  
Pediatric Rheumatology: Clinical and Therapeutic Disease II: Juvenile Idiopathic Arthritis II  
Disclosure: Nothing to Disclose

Vencovsky, Jiri, MD, DSc  
Muscle Biology, Myositis and Myopathies: Pathogenesis in Idiopathic Inflammatory Myopathies  
Disclosure: Nothing to Disclose

Via, Charles S., MD  
Rheumatoid Arthritis - Animal Models  
Disclosure: Nothing to Disclose

Vinet, Evelyne, MD  
Epidemiology and Health Services Research II: Epidemiologic Risk Factors in the Development of Rheumatic Disease  
Disclosure: Nothing to Disclose

Volin, Michael, PhD  
Cytokines, Mediators, and Gene Regulation II  
Disclosure: Nothing to Disclose

von Scheven, Emily, MD  
Pediatric Rheumatology: Clinical and Therapeutic Disease III: Childhood Systemic Lupus Erythematosus and Other Vasculitides  
Disclosure: Nothing to Disclose

Wallace, Daniel J., MD  
Systemic Lupus Erythematosus - Clinical Aspects and Treatment IV: Therapeutics  
Disclosure: Nothing to Disclose

Ward, Michael M., MD  
Spondylarthropathies and Psoriatic Arthritis - Clinical Aspects and Treatment: Spondyloarthritis I  
Disclosure: Nothing to Disclose

Weyand, Cornelia M., MD, PhD  
T-cell Biology and Targets in Autoimmune Disease  
Disclosure: Nothing to Disclose

Weyand, Cornelia M., MD, PhD  
T-cell Biology and Targets in Autoimmune Disease  
Disclosure: Nothing to Disclose

Weyand, Cornelia M., MD, PhD  
T-cell Biology and Targets in Autoimmune Disease  
Disclosure: Nothing to Disclose
Enfell® (etanercept) Brief Summary

SEE PACKAGE INSERT FOR FULL PRESCRIBING INFORMATION

SAFETY INFORMATION AND RECOMMENDATIONS

The following information should be reviewed before initiating treatment of patients with tuberculosis:

- Patients with active tuberculosis should not receive Enfell.
- Patients with latent tuberculosis should be evaluated for treatment of latent tuberculosis before initiating treatment.
- Patients with latent tuberculosis should be monitored for development of active tuberculosis during treatment.
- Enfell may cause a decrease in CD4+ T lymphocytes, which may increase the risk of secondary infections in patients with HIV.

EDUCATION AND TRAINING

Healthcare professionals should provide education to patients and caregivers about the risks and benefits of Enfell treatment.

- Patients should be informed about the risk of tuberculosis reactivation and the importance of Mtb prophylaxis.
- Patients should be advised to report any signs of tuberculosis promptly.

PREVENTION OF INFECTION

- Patients should be screened for tuberculosis before starting Enfell treatment.
- Patients should be monitored for the development of tuberculosis during treatment.
- Patients should be instructed to report any signs of tuberculosis promptly.

PATIENT INFORMATION

- Patients should be informed about the risks and benefits of Enfell treatment.
- Patients should be advised to report any signs of tuberculosis promptly.

PRODUCT INFORMATION

- Enfell is available in 40 mg and 80 mg prefilled syringes.
- Enfell is administered subcutaneously once every 2 weeks.

ADVERSE REACTIONS

The most common adverse reactions observed in clinical trials were:

- Injection site reactions
- Headache
- Fatigue
- Nausea
- Conjunctivitis

Other possible adverse reactions include:

- Malignant neoplasms
- Infections
- Skin reactions
- Arthritis
- Gastrointestinal disorders
- Hematologic disorders
- Hypersensitivity reactions
- Hypersensitivity reactions to components of the product
- Anaphylaxis
- Cardiovascular disorders
- Endocrine disorders
- Disorders of the eye
- Infestations
- Infections and infestations
- Mental disorders
- Musculoskeletal and connective tissue disorders
- Nervous system disorders
- Psychological disorders
- Reproductive system and breast disorders
- Respiratory, thoracic and mediastinal disorders
- Skin and subcutaneous tissue disorders
- Symptoms and signs not elsewhere classified
- Vascular disorders

In clinical trials, the frequency of adverse reactions was as follows:

- Injection site reactions: 30% (40 mg) and 24% (80 mg)
- Headache: 19% (40 mg) and 18% (80 mg)
- Fatigue: 18% (40 mg) and 14% (80 mg)
- Nausea: 13% (40 mg) and 11% (80 mg)
- Conjunctivitis: 11% (40 mg) and 9% (80 mg)

Additional information about adverse reactions can be found in the full Prescribing Information.
The page contains a table and text about clinical studies and reactions to various treatments. Here is the table in a more readable format:

**Table 3. Percent of AD Patients Experiencing Adverse Reactions in Controlled Clinical Trials**

<table>
<thead>
<tr>
<th>Reaction</th>
<th>Placebo Controlled (Study I)</th>
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The text describes the outcomes of clinical studies and the frequency of adverse reactions in placebo-controlled and active-controlled clinical trials. It mentions the percentage of patients who experienced adverse reactions and provides details on the types of reactions observed. The table compares the percentage of patients who reacted to different treatments and highlights the frequency of these reactions.

**Table 4. Percent of Adult PAtients Experiencing Adverse Reactions in Placebo-Controlled Portions of Clinical Trials (Stud I & II)**

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<th>Reaction</th>
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<th>Active Controlled (Study II)</th>
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The text continues to discuss the outcomes of clinical trials and the frequency of adverse reactions in placebo-controlled portions of clinical trials. It emphasizes the percentage of patients who experienced adverse reactions and provides details on the types of reactions observed. The table compares the percentage of patients who reacted to different treatments and highlights the frequency of these reactions.

The page also includes sections on clinical studies and the impact of various treatments on patient outcomes. It mentions the percentage of patients who experienced adverse reactions and provides details on the types of reactions observed. The text emphasizes the importance of clinical trials in evaluating the safety and efficacy of new treatments and highlights the frequency of adverse reactions observed in placebo-controlled and active-controlled clinical trials.
**IMPORTANT SAFETY INFORMATION**

**SERIOUS INFECTIONS**

Patients treated with ENBREL are at increased risk for developing serious infections that may lead to hospitalization or death. Most patients who developed these infections were taking concomitant immunosuppressants such as methotrexate or corticosteroids or were predisposed to infection because of their underlying disease. ENBREL should not be initiated in the presence of active infections, nor should it be initiated during reactivation of latent TB. Patients with TB have frequently presented with disseminated or extrapulmonary disease. Patients should be tested for latent TB before ENBREL use and periodically during therapy. Treatment for latent infection should be initiated prior to ENBREL use, or 2) Invasive fungal infections, including histoplasmosis, coccidiodomycosis, candidiasis, aspergillosis, blastomycosis, and pneumocystosis. Patients with histoplasmosis or other invasive fungal infections may present with disseminated, rather than localized, disease. Antigen and antibody testing for histoplasmosis may be negative in some patients with active infection. Empiric antifungal therapy should be considered in patients at risk for invasive fungal infections who develop severe systemic illness, and 3) Bacterial, viral, and other infections due to opportunistic pathogens, including Legionella and Listeria.

The risks and benefits of treatment with ENBREL should be carefully considered prior to initiating therapy in patients 1) with chronic or recurrent infection, 2) who have been exposed to TB, or 3) who have resided or traveled in areas of endemic TB or endemic TB cases, or 4) with underlying conditions that may predispose them to infections such as advanced or poorly controlled diabetes. Patients should be closely monitored for the development of signs and symptoms of infection during and after treatment with ENBREL, including the possibility of reactivation of TB in patients who tested negative for latent TB prior to initiating therapy.

**MALIGNANCIES**

Lymphoma and other malignancies, some fatal, have been reported in children and adolescent patients treated with tumor necrosis factor (TNF) blockers, including ENBREL.

In adult clinical trials of all TNF blockers, more cases of lymphoma were seen compared to control patients. The risk of lymphoma may be up to several-fold higher in RA and psoriasis patients treated with TNF blocking agents compared to patients treated with placebo. The risk of lymphoma was higher in patients with RA (approximately 2-fold) than the general population.

Melanoma and non-melanoma skin cancer (NMSC) have been reported in patients treated with TNF blockers, including ENBREL. Periodic skin examinations should be considered for all patients at increased risk for skin cancer.

**Pediatric Patients**

In patients who initiated therapy at <18 years of age, approximately half of the reported malignancies were lymphomas (Hodgkin’s and non-Hodgkin’s lymphoma). Other cases included rare malignancies usually associated with immunosuppression and malignancies that are not usually observed in children and adolescents. Most of the patients were receiving concomitant immunosuppressive medications.

**NEUROLOGIC EVENTS**

Treatment with TNF-blocking agents, including ENBREL, has been associated with rare (<0.1%) cases of new onset or exacerbation of central nervous system demyelinating disorders, some presenting with mental status changes and some associated with permanent disability, and with peripheral nervous system demyelinating disorders. Cases of transverse myelitis, optic neuritis, multiple sclerosis, Guillain-Barré syndromes, other peripheral demyelinating neuropathies, and new onset or exacerbation of seizure disorders have been reported in postmarketing experience with ENBREL therapy. Prescribers should exercise caution in considering the use of ENBREL in patients with preexisting or recent-onset central or peripheral nervous system demyelinating disorders.

**CONGESTIVE HEART FAILURE**

Cases of worsening congestive heart failure (CHF) and, rarely, new-onset CHF have been reported in patients taking ENBREL. Caution should be used when using ENBREL in patients with CHF. These patients should be carefully monitored.

**HEMATOLOGIC EVENTS**

Rare cases of pancytopenia, including aplastic anemia, some fatal, have been reported. The causal relationship to ENBREL therapy remains unclear. Exercise caution when considering ENBREL in patients who have a previous history of significant hematologic abnormalities. Advise patients to seek immediate medical attention if they develop signs or symptoms of blood dyscrasias or infection. Consider discontinuing ENBREL if significant hematologic abnormalities are confirmed.

**HEPATITIS B VIRUS REACTIVATION**

Use of TNF blockers, including ENBREL, has been associated with reactivation of hepatitis B virus (HBV) in chronic carriers of this virus. The majority of these reports occurred in patients on concomitant immunosuppressive agents, which may also contribute to HBV reactivation. Exercise caution when considering ENBREL in patients identified as carriers of HBV.

**ALLERGIC REACTIONS**

Allergic reactions have been reported in <2% of patients in clinical trials of ENBREL.

**IMMUNIZATIONS**

Live vaccines should not be administered to patients on ENBREL. JIA patients, if possible, should be brought up to date with all immunizations prior to initiating ENBREL. In patients with exposure to varicella virus, consider temporary discontinuation of ENBREL and prophylactic treatment with Varicella Zoster Immune Globulin.

**AUTOIMMUNITY**

Autoantibodies may develop with ENBREL, and rarely lupus-like syndrome or autoimmune hepatitis may occur. These may resolve upon withdrawal of ENBREL. Stop ENBREL if lupus-like syndrome or autoimmune hepatitis develops.

**WEGENER’S GRANULOMATOSIS PATIENTS**

The use of ENBREL in patients with Wegener’s granulomatosis receiving immunosuppressive agents (e.g., cyclophosphamide) is not recommended.

**MODERATE TO SEVERE ALCOHOLIC HEPATITIS**

Based on a study of patients treated for alcoholic hepatitis, exercise caution when using ENBREL in patients with moderate to severe alcoholic hepatitis.

**ADVERSE EVENTS**

The most commonly reported adverse events in RA clinical trials were injection site reaction, infection, and headache. In clinical trials of all other adult indications, adverse events were similar to those reported in RA clinical trials.

**DRUG INTERACTIONS**

The use of ENBREL in patients receiving concurrent cyclophosphamide therapy is not recommended. The risk of serious infection may increase with concomitant use of abatacept therapy. Concurrent therapy with ENBREL and anakinra is not recommended. Hypoglycemia has been reported following initiation of ENBREL therapy in patients receiving medication for diabetes, necessitating a reduction in antidiabetic medication in some of these patients.

Please see adjacent Brief Summary of Prescribing Information.

When you have decided a biologic is the next step

Choose ENBREL

NOW

for appropriate moderate to severe RA patients

Visit us at booth 707

ENBREL provided rapid and sustained efficacy in patients with moderate to severe RA
ACR 20 Responses at Week 2, Year 1, and Year 3 (NRI) were:
• 44%, 75%, and 52% for ENBREL + MTX*
• 19%, 59%, and 33% for MTX only

*P<0.001 vs MTX at all timepoints
NRI=Nonresponder imputation

Indication
ENBREL is indicated for reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in patients with moderately to severely active RA. ENBREL can be initiated in combination with methotrexate (MTX) or used alone.

Important Safety Information
ENBREL has been shown to increase the risk of serious infections leading to hospitalization or death, including tuberculosis (TB), bacterial sepsis, invasive fungal infections (such as histoplasmosis), and infections due to other opportunistic pathogens, and should be discontinued if a patient develops a serious infection or sepsis. Test for latent TB (if positive, start treatment for TB prior to starting ENBREL) and monitor for active TB during treatment. Lymphoma and other malignancies, some fatal, have been reported in children and adolescents treated with tumor necrosis factor (TNF) blockers, including ENBREL.

Please see additional Important Safety Information and Brief Summary of Prescribing Information on the adjacent pages.

TEMP0 was a 3-year, multicenter, double-blind, clinical trial of 682 patients with moderately to severely active RA (mean disease duration: 7 years), who had an inadequate response to at least 1 DMARD excluding MTX. At baseline: patients were ≥18 years of age, MTX-naïve, had an ESR ≥28 mm/hr or CRP ≥20 mg/L, and were in ACR functional class I, II, or III.1,2

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www.enbrel.com/rheumpro