

Arthritis & Rheumatism

An Official Journal of the American College of Rheumatology
www.arthritisrheum.org and www.interscience.wiley.com

VOLUME 60

NOVEMBER 2009

NO. 11

In This Issue	A21
Special Articles	
Editorial: Interpreting Registry-Derived Drug Studies: Does Societal Context Matter? <i>Joel M. Kremer and Jeffrey Greenberg</i>	3155
Editorial: Human Osteoclastogenic T Cells and Human Osteoclastology <i>Shigeru Kotake, Yuki Nanke, Toru Yago, Manabu Kawamoto, and Hisashi Yamanaka</i>	3158
Editorial: The Price of Silence <i>Nathalie C. Lambert</i>	3164
Review: Endothelial Progenitor Cells: Novel Players in the Pathogenesis of Rheumatic Diseases <i>Jörg H. W. Distler, Christian Beyer, Georg Schett, Thomas F. Lüscher, Steffen Gay, and Oliver Distler</i>	3168
Rheumatoid Arthritis Clinical Studies	
Cancer Risk in Patients With Rheumatoid Arthritis Treated With Anti-Tumor Necrosis Factor α Therapies: Does the Risk Change With the Time Since Start of Treatment? <i>Johan Askling, Ronald F. van Vollenhoven, Fredrik Granath, Pauline Raaschou, C. Michael Fored, Eva Baecklund, Christina Dackhammar, Nils Feltelius, Lars Cöster, Pierre Geborek, Lennart T. Jacobsson, Staffan Lindblad, Solbritt Rantapää-Dahlqvist, Tore Saxne, and Lars Klareskog</i>	3180
Brain Involvement in Rheumatoid Arthritis: A Magnetic Resonance Spectroscopy Study <i>Bart J. Emmer, A. Egon van der Bijl, Tom W. J. Huizinga, Ferdinand C. Breedveld, Stefan C. A. Steens, Gerlof P. Th. Bosma, Mark A. van Buchem, and Jeroen van der Grond</i>	3190
Association of Higher Rheumatoid Arthritis Disease Activity During Pregnancy With Lower Birth Weight: Results of a National Prospective Study <i>Yaël A. de Man, Johanna M. W. Hazes, Hugo van der Heide, Sten P. Willemsen, Christianne J. M. de Groot, Eric A. P. Steegers, and Radboud J. E. M. Dolhain</i>	3196
Epitope-Specific Immunotherapy of Rheumatoid Arthritis: Clinical Responsiveness Occurs With Immune Deviation and Relies on the Expression of a Cluster of Molecules Associated With T Cell Tolerance in a Double-Blind, Placebo-Controlled, Pilot Phase II Trial <i>Eva C. Koffeman, Mark Genovese, Diane Amox, Elissa Keogh, Ernesto Santana, Eric L. Matteson, Arthur Kavanaugh, Jerry A. Molitor, Michael H. Schiff, James O. Posever, Joan M. Bathon, Alan J. Kivitz, Rodrigo Samodal, Francis Belardi, Carolyn Dennehey, Theo van den Broek, Femke van Wijk, Xiao Zhang, Peter Ziesenis, Tho Le, Berent A. Prakken, Gary C. Cutter, and Salvatore Albani</i>	3207
The Relationship Between Synovial Lymphocyte Aggregates and the Clinical Response to Infliximab in Rheumatoid Arthritis: A Prospective Study <i>Ruth Klaasen, Rogier M. Thurlings, Carla A. Wijbrandts, Arno W. van Kuijk, Dominique Baeten, Danielle M. Gerlag, and Paul P. Tak</i>	3217
Progressive Multifocal Leukoencephalopathy Following Rituximab Treatment in a Patient With Rheumatoid Arthritis <i>R. M. Fleischmann</i>	3225
Rheumatoid Arthritis Basic Science Studies	
Gadd45 β Deficiency in Rheumatoid Arthritis: Enhanced Synovitis Through JNK Signaling <i>Camilla I. Svensson, Tomoyuki Inoue, Deepa Hammaker, Akihisa Fukushima, Salvatore Papa, Guido Franzoso, Georg Schett, Maripat Corr, David L. Boyle, and Gary S. Firestein</i>	3229
Differential Mechanism of NF- κ B Inhibition by Two Glucocorticoid Receptor Modulators in Rheumatoid Arthritis Synovial Fibroblasts <i>Valerie Gossye, Dirk Elewaut, Nadia Bougarne, Debby Bracke, Serge Van Calenbergh, Guy Haegeman, and Karolien De Bosscher</i>	3241
American College of Rheumatology Office Has Moved	3250
Sjögren's Syndrome	
Clinical and Histologic Evidence of Salivary Gland Restoration Supports the Efficacy of Rituximab Treatment in Sjögren's Syndrome <i>J. Pijpe, J. M. Meijer, H. Bootsma, J. E. van der Wal, F. K. L. Spijkervet, C. G. M. Kallenberg, A. Vissink, and S. Ihrler</i>	3251

Spondylarthritis

- Altered Skeletal Expression of Sclerostin and Its Link to Radiographic Progression in Ankylosing Spondylitis
Heiner Appel, Gisela Ruiz-Heiland, Joachim Listing, Jochen Zwerina, Martin Herrmann, Ruediger Mueller, Hiltrun Haibel, Xenofon Baraliakos, Axel Hempfing, Martin Rudwaleit, Joachim Sieper, and Georg Schett . 3257
- Association of *ERAP1*, but Not *IL23R*, With Ankylosing Spondylitis in a Han Chinese Population
Stuart I. Davidson, Xin Wu, Yu Liu, Meng Wei, Patrick A. Danoy, Gethin Thomas, Qing Cai, Linyun Sun, Emma Duncan, Niansong Wang, Qinghong Yu, Anlong Xu, Yonggui Fu, Matthew A. Brown, and Huji Xu 3263
- Identification of *RGS1* as a Candidate Biomarker for Undifferentiated Spondylarthritis by Genome-Wide Expression Profiling and Real-Time Polymerase Chain Reaction
Jieruo Gu, Yu-Ling Wei, James C. C. Wei, Feng Huang, Ming-Shiou Jan, Michael Centola, Mark B. Frank, and David Yu 3269

Experimental Arthritis

- Impaired Myofibrillar Function in the Soleus Muscle of Mice With Collagen-Induced Arthritis
Takashi Yamada, Nicolas Place, Natalia Kosterina, Therese Östberg, Shi-Jin Zhang, Cecilia Grundtman, Helena Erlandsson-Harris, Ingrid E. Lundberg, Birgitta Glenmark, Joseph D. Bruton, and Håkan Westerblad 3280
- Amelioration of Experimental Arthritis by a Telomerase-Dependent Conditionally Replicating Adenovirus That Targets Synovial Fibroblasts
Shih-Yao Chen, Ai-Li Shiau, Gia-Shing Shieh, Chih-Hau Su, Che-Hsin Lee, Hwei-Ling Lee, Chrong-Reen Wang, and Chao-Liang Wu..... 3290

Cartilage Biology

- DNA Demethylation at Specific CpG Sites in the *IL1B* Promoter in Response to Inflammatory Cytokines in Human Articular Chondrocytes
Ko Hashimoto, Richard O. C. Oreffo, Marc B. Gibson, Mary B. Goldring, and Helmut I. Roach 3303
- Screening of Chondrogenic Factors With a Real-Time Fluorescence-Monitoring Cell Line
ATDC5-C2ER: Identification of Sorting Nexin 19 as a Novel Factor
Akinori Kan, Toshiyuki Ikeda, Taku Saito, Fumiko Yano, Atushi Fukai, Hironori Hojo, Toru Ogasawara, Naoshi Ogata, Kozo Nakamura, Ung-il Chung, and Hiroshi Kawaguchi..... 3314

Bone Biology

- A Novel T Cell Cytokine, Secreted Osteoclastogenic Factor of Activated T Cells, Induces Osteoclast Formation in a RANKL-Independent Manner
Leonard Rifas and M. Neale Weitzmann..... 3324
- Tumor Necrosis Factor α and Interleukin-1 β Modulate Calcium and Nitric Oxide Signaling in Mechanically Stimulated Osteocytes
A. D. Bakker, V. C. da Silva, R. Krishnan, R. G. Bacabac, M. E. Blaauboer, Y.-C. Lin, R. A. C. Marcantonio, J. A. Cirelli, and J. Klein-Nulend 3336

Osteoporosis

- Effects of Teriparatide Versus Alendronate for Treating Glucocorticoid-Induced Osteoporosis: Thirty-Six-Month Results of a Randomized, Double-Blind, Controlled Trial
Kenneth G. Saag, Jose R. Zanchetta, Jean-Pierre Devogelaer, Robert A. Adler, Richard Eastell, Kyoungah See, John H. Krege, Kelly Krohn, and Margaret R. Warner 3346
- Circulating Mesenchymal Stem Cells With Abnormal Osteogenic Differentiation in Patients With Osteoporosis
Luca Dalle Carbonare, Maria Teresa Valenti, Mirko Zanatta, Luca Donatelli, and Vincenzo Lo Cascio..... 3356

Osteoarthritis

- Whole-Body Bone Scintigraphy Provides a Measure of the Total-Body Burden of Osteoarthritis for the Purpose of Systemic Biomarker Validation
Shelby Addison, R. Edward Coleman, Sheng Feng, Gary McDaniel, and Virginia Byers Kraus..... 3366
- The Infrapatellar Fat Pad in Knee Osteoarthritis: An Important Source of Interleukin-6 and Its Soluble Receptor
Emilie Distel, Thomas Cadoudal, Sylvie Durant, Alexandre Poignard, Xavier Chevalier, and Chantal Benelli..... 3374

Systemic Lupus Erythematosus

- Distinct Subtypes of Myelitis in Systemic Lupus Erythematosus
J. Birnbaum, M. Petri, R. Thompson, I. Izbudak, and D. Kerr..... 3378

Childhood Arthritis

- Macrophage Activation Syndrome in Juvenile Systemic Lupus Erythematosus: A Multinational Multicenter Study of Thirty-Eight Patients
Alessandro Parodi, Sergio Davi, Alejandra Beatriz Pringe, Angela Pistorio, Nicolino Ruperto, Silvia Magni-Manzoni, Paivi Miettunen, Brigitte Bader-Meunier, Graciela Espada, Gary Sterba, Seza Ozen, Dowain Wright, Claudia Saad Magalhães, Raju Khubchandani, Hartmut Michels, Patricia Woo, Antonio Iglesias, Dinara Guseinova, Claudia Bracaglia, Kristen Hayward, Carine Wouters, Alexei Grom, Marina Vivarelli, Alberto Fischer, Luciana Breda, Alberto Martini, and Angelo Ravelli, for the Lupus Working Group of the Paediatric Rheumatology European Society 3388
- B Lymphocyte Stimulator Expression in Pediatric Systemic Lupus Erythematosus and Juvenile Idiopathic Arthritis Patients
Sandy D. Hong, Andreas Reiff, Hai-Tao Yang, Thi-Sau Migone, Christopher D. Ward, Katherine Marzan, Bracha Shaham, Wee Choo Phei, Judith Garza, Bram Bernstein, and William Stohl 3400
- Increased Frequency of Extremely Skewed X Chromosome Inactivation in Juvenile Idiopathic Arthritis
Elif Uz, Chigdem Mustafa, Rezan Topaloglu, Yelda Bilginer, Ali Dursun, Ozgur Kasapcopur, Seza Ozen, Aysin Bakkaloglu, and Tayfun Ozcelik 3410
- Classification, Presentation, and Initial Treatment of Wegener's Granulomatosis in Childhood
David A. Cabral, América G. Uribe, Susanne Benseker, Kathleen M. O'Neil, Philip J. Hashkes, Gloria Higgins, Andrew S. Zeff, Daniel J. Lovell, Daniel J. Kingsbury, Anne Stevens, Deborah McCurdy, Peter Chira, Leslie Abramson, Thaschawee Arkachaisri, Sarah Campillo, Anne Eberhard, Aimee O. Hersh, Adam M. Huber, Susan Kim, Marisa Klein-Gitelman, Deborah M. Levy, Suzanne C. Li, Thomas Mason, Esi Morgan DeWitt, Eyal Muscal, Lorien Nassi, Andreas Reiff, Kenneth Schikler, Nora G. Singer, Dawn Wahezi, and Amy Woodward, for the ARChiVe (A Registry for Childhood Vasculitis: e-entry) Investigators Network 3413
- Damage Extent and Predictors in Adult and Juvenile Dermatomyositis and Polymyositis As Determined With the Myositis Damage Index
Lisa G. Rider, Peter A. Lachenbruch, Jason B. Monroe, Angelo Ravelli, Imelda Cabalar, Brian M. Feldman, Maria L. Villalba, Barry L. Myones, Lauren M. Pachman, Robert M. Rennebohm, Ann M. Reed, and Frederick W. Miller, for the IMACS Group 3425

Myositis

- Interleukin-6 and Type I Interferon-Regulated Genes and Chemokines Mark Disease Activity in Dermatomyositis
Hatice Bilgic, Steven R. Ytterberg, Shreyasee Amin, Kelly T. McNallan, Joseph C. Wilson, Thearith Koeuth, Sonja Ellingson, Brant Newman, Jason W. Bauer, Erik J. Peterson, Emily C. Baechler, and Ann M. Reed .. 3436

Clinical Images

- Adductor Muscle Strain in an Elderly Patient With Suspected Femoral Neck Fracture
Kosei Kawakami, Katsunori Ikari, Koichiro Yano, and Shigeki Momohara 3446

Systemic Sclerosis

- BANK1* Is a Genetic Risk Factor for Diffuse Cutaneous Systemic Sclerosis and Has Additive Effects With *IRF5* and *STAT4*
P. Dieudé, J. Wipff, M. Guedj, B. Ruiz, I. Melchers, E. Hachulla, G. Riemekasten, E. Diot, N. Hunzelmann, J. Sibilia, K. Tiev, L. Mouthon, J. L. Cracowski, P. H. Carpentier, J. Distler, Z. Amoura, I. Tarner, J. Avouac, O. Meyer, A. Kahan, C. Boileau, and Y. Allanore 3447
- Dabigatran, a Direct Thrombin Inhibitor, Demonstrates Antifibrotic Effects on Lung Fibroblasts
Galina S. Bogatkevich, Anna Ludwicka-Bradley, and Richard M. Silver 3455
- A Novel Inhibitor of Smad-Dependent Transcriptional Activation Suppresses Tissue Fibrosis in Mouse Models of Systemic Sclerosis
Minoru Hasegawa, Yukiyo Matsushita, Mayuka Horikawa, Kiyoshi Higashi, Yoshitaka Tomigahara, Hideo Kaneko, Fumiaki Shirasaki, Manabu Fujimoto, Kazuhiko Takehara, and Shinichi Sato 3465

Autoinflammatory Disease

- The 423q Polymorphism of the X-Linked Inhibitor of Apoptosis Gene Influences Monocyte Function and Is Associated With Periodic Fever
Massimo Ferretti, Marco Gattorno, Annalisa Chiocchetti, Riccardo Mesturini, Elisabetta Orilieri, Thea Bensi, Maria Pia Sormani, Giuseppe Cappellano, Elisa Cerutti, Stefania Nicola, Alessandra Biava, Claudio Bardelli, Silvia Federici, Isabella Ceccherini, Maurizia Baldi, Claudio Santoro, Irma Dianzani, Alberto Martini, and Umberto Dianzani 3476

Gout

Role of the Urate Transporter *SLC2A9* Gene in Susceptibility to Gout in New Zealand Māori, Pacific Island, and Caucasian Case–Control Sample Sets

Jade E. Hollis-Moffatt, Xin Xu, Nicola Dalbeth, Marilyn E. Merriman, Ruth Topless, Chloe Waddell, Peter J. Gow, Andrew A. Harrison, John Highton, Peter B. B. Jones, Lisa K. Stamp, and Tony R. Merriman 3485

Vasculitis

Increased Incidence of Cardiovascular Events in Patients With Antineutrophil Cytoplasmic Antibody–Associated Vasculitides: A Matched-Pair Cohort Study

Matthew D. Morgan, Jennifer Turnbull, Umut Selamet, Manvir Kaur-Hayer, Peter Nightingale, Charles J. Ferro, Caroline O. S. Savage, and Lorraine Harper..... 3493

Integrated Cardiac and Vascular Assessment in Takayasu Arteritis by Cardiovascular Magnetic Resonance

Niall G. Keenan, Justin C. Mason, Alicia Maceira, Ravi Assomull, Rory O’Hanlon, Cheuk Chan, Michael Roughton, Jacqueline Andrews, Peter D. Gatehouse, David N. Firmin, and Dudley J. Pennell..... 3501

Concise Communication

The *FCRL3* –169CT Promoter Single-Nucleotide Polymorphism, Which Is Associated With Systemic Lupus Erythematosus in a Japanese Population, Predicts Expression of Receptor Protein on CD19+ B Cells

Andrew W. Gibson, Fu Jun Li, Jianming Wu, Jeffrey C. Edberg, Kaihong Su, John Cafardi, Howard Wiener, Hemant Tiwari, Robert P. Kimberly, and Randall S. Davis 3510

Clinical Images

Lipoatrophy Resulting From Steroid Injection Into the Temporomandibular Joint

Boris Hugle and Ronald M. Laxer 3512

Letters

The p38 MAPK Pathway Mediates Both Antiinflammatory and Proinflammatory Processes: Comment on the Article by Damjanov and the Editorial by Genovese

Andrew R. Clark, Jonathan L. E. Dean, and Jeremy Saklatvala..... 3513

Methodology and Statistical Analysis in the Glucosamine/Chondroitin Arthritis Intervention Trial: Comment on the Article by Sawitzke et al

Kenneth D. Brandt, Steven A. Mazzuca, and Barry P. Katz 3514

Reply

Allen D. Sawitzke, Helen Shi, Martha F. Finco, Dorothy D. Dunlop, Crystal L. Harris, Domenic J. Reda, H. James Williams, and Daniel O. Clegg..... 3515

No Evidence Yet to Change American Heart Association Recommendations for Poststreptococcal Reactive Arthritis: Comment on the Article by van Bommel et al

Gabriele Simonini, Andrea Taddio, and Rolando Cimaz 3516

Reply

J. M. van Bommel, T. W. J. Huizinga, and A. H. M. van der Helm-van Mil 3518

Time to Prove the Infective Etiology of Ankylosing Spondylitis and Related Spondylarthritides: Comment on the Article by Carter et al

Henning Zeidler and Markus Rühl..... 3519

Reply

John D. Carter and Alan P. Hudson..... 3520

Autoantibodies Against the Platelet-Derived Growth Factor Receptor in Scleroderma: Comment on the Articles by Classen et al and Loizos et al

Armando Gabrielli, Gianluca Moroncini, Silvia Svegliati, and Enrico V. Avvedimento 3521

Clinical Image

Fistulization of Aortic Aneurysm Into the Main Bronchus in Giant Cell Arteritis

Gabriele Di Comite and Alberto Morganti 3522

ACR Announcements

A29

Cover image: The figure on the cover (from Bakker et al, page 3342) illustrates the effect of calcium inhibitors on focal adhesions and cell traction in osteocytes. A traction map of an osteocyte under static culture without calcium inhibitors is shown.