

Arthritis & Rheumatism

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

VOLUME 54

OCTOBER 2006

NO. 10

Special Articles

- In Memoriam: Jarvis Edwin Seegmiller, MD, 1920–2006
Dennis A. Carson and Nathan J. Zvaifler 3067
- Editorial: Antimalarial Agents: Closing the Gate on Toll-like Receptors?
Robert Lafyatis, Michael York, and Ann Marshak-Rothstein 3068
- Editorial: Therapy for Giant Cell Arteritis: Can We Do Better?
Robert F. Spiera and Harry Spiera 3071
- Editorial: Stemming Cartilage Degeneration: Adult Mesenchymal Stem Cells as a Cell Source for Articular Cartilage Tissue Engineering
Rocky S. Tuan 3075
- Review: Therapy for Lyme Arthritis: Strategies for the Treatment of Antibiotic-Refractory Arthritis
Allen C. Steere and Sheryn M. Angelis 3079

Rheumatoid Arthritis Clinical Studies

- Influence of Male Sex on Disease Phenotype in Familial Rheumatoid Arthritis
Damini Jawaheer, Raymond F. Lum, Peter K. Gregersen, and Lindsey A. Criswell 3087
- Pharmacogenomic and Metabolic Biomarkers in the Folate Pathway and Their Association With Methotrexate Effects During Dosage Escalation in Rheumatoid Arthritis
Thierry Dervieux, Neal Greenstein, and Joel Kremer 3095
- Clinical Assessment of the Long-Term Risk of Fracture in Patients With Rheumatoid Arthritis
T. P. van Staa, P. Geusens, J. W. J. Bijlsma, H. G. M. Leufkens, and C. Cooper 3104
- Changes in Health Assessment Questionnaire Disability Scores Over Five Years in Patients with Rheumatoid Arthritis Compared With the General Population
Tuulikki Sokka, Hannu Kautiainen, Pekka Hannonen, and Theodore Pincus 3113
- Disconnect Between Inflammation and Joint Destruction After Treatment With Etanercept Plus Methotrexate: Results From the Trial of Etanercept and Methotrexate With Radiographic and Patient Outcomes
Robert Landewé, Désirée van der Heijde, Lars Klareskog, Ronald van Vollenhoven, and Saeed Fatenejad... 3119
- In Vitro and In Vivo Efficacy of a Recombinant Immunotoxin Against Folate Receptor β on the Activation and Proliferation of Rheumatoid Arthritis Synovial Cells
Taku Nagai, Masashi Tanaka, Yasuhiro Tsuneyoshi, Kakushi Matsushita, Nobuhiko Sunahara, Takemasa Matsuda, Hiroki Yoshida, Setsuro Komiya, Masanori Onda, and Takami Matsuyama 3126

Erratum

- Error in reference citation in article by Setoguchi et al (Arthritis Rheum, September 2006)..... 3134

Rheumatoid Arthritis Basic Science Studies

- CTLA-4Ig Suppresses Reactive Oxygen Species by Preventing Synovial Adherent Cell-Induced Inactivation of Rap1, a Ras Family GTPase Mediator of Oxidative Stress in Rheumatoid Arthritis T Cells
P. H. J. Remans, C. A. Wijbrandts, M. E. Sanders, R. E. Toes, F. C. Breedveld, P. P. Tak, J. M. van Laar, and K. A. Reedquist 3135
- The $^{-786}\text{C}/\text{T}$ Single-Nucleotide Polymorphism in the Promoter of the Gene for Endothelial Nitric Oxide Synthase: Insensitivity to Physiologic Stimuli as a Risk Factor for Rheumatoid Arthritis
Inga Melchers, Sabine Blaschke, Markus Hecker, and Marco Cattaruzza 3144
- Oncostatin M Induces Angiogenesis and Cartilage Degradation in Rheumatoid Arthritis Synovial Tissue and Human Cartilage Cocultures
Ursula Fearon, Ronan Mullan, Trevor Markham, Mary Connolly, Shane Sullivan, A. Robin Poole, Oliver FitzGerald, Barry Bresnihan, and Douglas J. Veale 3152
- IKK β Inhibition Protects Against Bone and Cartilage Destruction in a Rat Model of Rheumatoid Arthritis
Lisa Schopf, Anneli Savinainen, Karen Anderson, Julie Kujawa, Michelle DuPont, Matthew Silva, Elizabeth Siebert, Sudeep Chandra, Jennifer Morgan, Pranoti Gangurde, Danyi Wen, Joan Lane, Yajun Xu, Michael Hepperle, Geraldine Harriman, Timothy Ocain, and Bruce Jaffee 3163

Regulation of Mcl-1 Expression in Rheumatoid Arthritis Synovial Macrophages <i>Hongtao Liu, QiQuan Huang, Bo Shi, Polikseni Eksarko, Vladislav Temkin, and Richard M. Pope</i>	3174
Experimental Arthritis	
Bim Deficiency Leads to Exacerbation and Prolongation of Joint Inflammation in Experimental Arthritis <i>John C. Scatizzi, Emily Bickel, Jack Hutcheson, G. Kenneth Haines, III, and Harris Perlman</i>	3182
Osteoarthritis Clinical Studies	
Effect of Hormone Therapy on Risk of Hip and Knee Joint Replacement in the Women's Health Initiative <i>Dominic J. Cirillo, Robert B. Wallace, LieLing Wu, and Robert A. Yood</i>	3194
Oral Salmon Calcitonin Reduces Lequesne's Algofunctional Index Scores and Decreases Urinary and Serum Levels of Biomarkers of Joint Metabolism in Knee Osteoarthritis <i>Daniel-Henri Manicourt, Moïse Azria, Linda Mindeholm, Eugene J.-M. Thonar, and Jean-Pierre Devogelaer</i>	3205
A Prospective Population-Based Study of the Predictors of Undergoing Total Joint Arthroplasty <i>Gillian A. Hawker, Jun Guan, Ruth Croxford, Peter C. Coyte, Richard H. Glazier, Bart J. Harvey, James G. Wright, Jack I. Williams, and Elizabeth M. Badley</i>	3212
The Role of Fibroblasts and Fibroblast-Derived Factors in Periprosthetic Osteolysis <i>Tamas Koreny, Miklós Tunyogi-Csapó, Istvan Gál, Csaba Vermes, Joshua J. Jacobs, and Tibor T. Glant</i>	3221
Osteoarthritis and Cartilage Biology Basic Science Studies	
Tetraspanin CD151 Is Expressed in Osteoarthritic Cartilage and Is Involved in Pericellular Activation of Pro-Matrix Metalloproteinase 7 in Osteoarthritic Chondrocytes <i>Yoshinari Fujita, Takayuki Shiomi, Shigeru Yanagimoto, Hideo Matsumoto, Yoshiaki Toyama, and Yasunori Okada</i>	3233
Matrix Metalloproteinase 10 Promotion of Collagenolysis via Procollagenase Activation: Implications for Cartilage Degradation in Arthritis <i>H. E. Barksby, J. M. Milner, A. M. Patterson, N. J. Peake, W. Hui, T. Robson, R. Lakey, J. Middleton, T. E. Cawston, C. D. Richards, and A. D. Rowan</i>	3244
Premature Induction of Hypertrophy During In Vitro Chondrogenesis of Human Mesenchymal Stem Cells Correlates With Calcification and Vascular Invasion After Ectopic Transplantation in SCID Mice <i>Karoliina Peltari, Anja Winter, Eric Steck, Katrin Goetzke, Thea Hennig, Bjoern Gunnar Ochs, Thomas Aigner, and Wiltrud Richter</i>	3254
Interleukin-1 α Induction of Tensile Weakening Associated With Collagen Degradation in Bovine Articular Cartilage <i>Michele M. Temple, Yang Xue, Michael Q. Chen, and Robert L. Sah</i>	3267
Systemic Lupus Erythematosus	
Abrogation of Skin Disease in Lupus-Prone MRL/Fas ^{lpr} Mice By Means of a Novel Tylophorine Analog <i>Jin-Young Choi, Wenli Gao, Jared Odegard, Her-Shyong Shiah, Michael Kashgarian, Jennifer M. McNiff, David C. Baker, Yung-Chi Cheng, and Joseph Craft</i>	3277
Low Blood Concentration of Hydroxychloroquine Is a Marker for and Predictor of Disease Exacerbations in Patients With Systemic Lupus Erythematosus <i>Nathalie Costedoat-Chalumeau, Zahir Amoura, Jean-Sébastien Hulot, Hala Abou Hammoud, Guy Aymard, Patrice Cacoub, Camille Francès, Bertrand Wechsler, Du Le Thi Huong, Pascale Ghillani, Lucile Musset, Philippe Lechat, and Jean-Charles Piette</i>	3284
Fluctuation in Self-Perceived Stress and Increased Risk of Flare in Patients With Lupus Nephritis Carrying the Serotonin Receptor 1A -1019 G Allele <i>Daniel J. Birmingham, H. N. Nagaraja, Brad H. Rovin, Lacramioara Spetie, Yanxing Zhao, Xiaobai Li, Kevin V. Hackshaw, C. Yung Yu, William B. Malarkey, and Lee A. Hebert</i>	3291
Revised British Isles Lupus Assessment Group 2004 Index: A Reliable Tool for Assessment of Systemic Lupus Erythematosus Activity <i>Chee-Seng Yee, Vernon Farewell, David A. Isenberg, Athiveeraramapandian Prabu, Katharina Sokoll, Lee-Suan Teh, Anisur Rahman, Ian N. Bruce, Bridget Griffiths, Mohammed Akil, Neil McHugh, David D'Cruz, Munther A. Khamashta, Simon Bowman, Peter Maddison, Asad Zoma, Elizabeth Allen, and Caroline Gordon</i>	3300
Vasculitis	
Antiplatelet and Anticoagulant Therapy in Patients With Giant Cell Arteritis <i>Michael S. Lee, Scott D. Smith, Anat Galor, and Gary S. Hoffman</i>	3306
Treatment of Giant Cell Arteritis Using Induction Therapy With High-Dose Glucocorticoids: A Double-Blind, Placebo-Controlled, Randomized Prospective Clinical Trial <i>Mehrdad Mazlumzadeh, Gene G. Hunder, Kirk A. Easley, Kenneth T. Calamia, Eric L. Matteson, W. Leroy Griffing, Brian R. Younge, Cornelia M. Weyand, and Jörg J. Goronzy</i>	3310

Lyme Disease	
Role of Aggrecanase 1 in Lyme Arthritis	
<i>Aruna K. Behera, Ethan Hildebrand, Jon Szafranski, Han-Hwa Hung, Alan J. Grodzinsky, Robert Lafyatis, Alisa E. Koch, Robert Kalish, George Perides, Allen C. Steere, and Linden T. Hu</i>	3319
Erdheim-Chester Disease	
Variability in the Efficacy of Interferon- α in Erdheim-Chester Disease by Patient and Site of Involvement: Results in Eight Patients	
<i>Julien Haroche, Zahir Amoura, Salim G. Trad, Bertrand Wechsler, Philippe Cluzel, Philippe A. Grenier, and Jean-Charles Piette</i>	3330
Childhood Arthritis	
Pediatric Granulomatous Arthritis: An International Registry	
<i>Carlos D. Rosé, Carine H. Wouters, Silvia Meiorin, Trudy M. Doyle, Michael P. Davey, James T. Rosenbaum, and Tammy M. Martin</i>	3337
Composition of Calcifications in Children With Juvenile Dermatomyositis: Association With Chronic Cutaneous Inflammation	
<i>Lauren M. Pachman, Arthur Veis, Stuart Stock, Kathy Abbott, Frank Vicari, Pravin Patel, Diana Giczewski, Catherine Webb, Lyudmila Spevak, and Adele L. Boskey</i>	3345
Fibromyalgia	
The Influence of Aerobic Fitness and Fibromyalgia on Cardiorespiratory and Perceptual Responses to Exercise in Patients With Chronic Fatigue Syndrome	
<i>Dane B. Cook, Paul R. Nagelkirk, Ashok Poluri, John Mores, and Benjamin H. Natelson</i>	3351
Gout	
Transglutaminase 2 Limits Murine Peritoneal Acute Gout-like Inflammation by Regulating Macrophage Clearance of Apoptotic Neutrophils	
<i>David M. Rose, Anya D. Sydlaske, Amir Agha-Babakhani, Kristen Johnson, and Robert Terkeltaub</i>	3363
Letters	
Association of Methotrexate Effects and Single-Nucleotide Polymorphisms in the Folate Pathway in Rheumatoid Arthritis: Comment on the Article by Wessels et al	
<i>Prabha Ranganathan</i>	3372
Reply	
<i>Judith A. M. Wessels, Tom W. J. Huizinga, and Henk-Jan Guchelaar</i>	3372
Do Apoptotic Cells Accumulate in the Epidermis of Patients With Cutaneous Lupus Erythematosus After Ultraviolet Irradiation? Comment on the Article by Kuhn et al	
<i>Esther Reefman, Pieter C. Limburg, Cees G. M. Kallenberg, and Marc Bijl</i>	3373
Food and Drug Administration Centennial: Recognizing the Guardians of Our Drug Supply	
<i>John F. Beary</i>	3374
ACR Announcements	A15

Cover image: The figure on the cover (from Fujita et al, page 3241) shows in situ zymography of osteoarthritis chondrocytes stained with amido black. The chondrocytes have a round shape because they have not completely spread during the 6-hour incubation.