

Cover image: Synovial biopsies of patients with SpA were stained immunohistochemically for CD31 and podoplanin before treatment and after application of infliximab. See p 1610

### Editor

Tore K Kvien

### Associate Editors

Francis Berenbaum

Hans Bijlsma

Dimitrios Boumpas

Gerd Burmester

Mary Crow

### Editorial office

Annals of the Rheumatic Diseases

BMJ Publishing Group Ltd

BMA House

Tavistock Square

London WC1H 9JR, UK

T: +44 (0)20 7383 6250

F: +44 (0)20 7383 6668

E: [ard@bmj.com](mailto:ard@bmj.com)

ISSN: 0003-4967 (print)

ISSN: 1468-2060 (online)

Impact Factor: 6.411

**Disclaimer:** ARD is owned and published by BMJ Publishing Group Ltd (a wholly owned subsidiary of the British Medical Association) and the European League Against Rheumatism. The owners grant editorial freedom to the Editor of ARD. ARD follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

ARD is intended for medical professionals and is provided without warranty, express or implied. Statements in the journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group, the European League Against Rheumatism or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply endorsement.

To the fullest extent permitted by law, the BMJ Publishing Group shall not be liable for any loss, injury or damage resulting from the use of ARD or any information in it whether based on contract, tort, or otherwise. Readers are advised to verify any information they choose to rely on.

**Copyright:** © 2008 BMJ Publishing Group and European League Against Rheumatism. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission. ARD is published by BMJ Publishing Group Ltd, typeset by The Charlesworth Group and printed in the UK on acid-free paper from sustainable forests by Cambrian Printers Limited, Aberystwyth, UK.

*Annals of the Rheumatic Diseases* (USPS No: 002-152) is published monthly by BMJ Publishing Group and distributed in the USA by SPP, 75 Aberdeen Road, Emigsville, PA 17318, USA. Periodicals postage paid at Emigsville, PA, USA. POSTMASTER: send address changes to *Annals of the Rheumatic Diseases*, PO Box 437, Emigsville, PA 17318-0437, USA.

## Editorial

- 1497** When patients with rheumatoid arthritis fail tumour necrosis factor inhibitors: what is the next step?



*J S Smolen, M E Weinblatt*

## Reviews

- 1499** The metastasis associated protein S100A4: a potential novel link to inflammation and consequent aggressive behaviour of rheumatoid arthritis synovial fibroblasts

*L Ošlejšková, M Grigorian, S Gay, M Neidhart, L Šenolt*

- 1505** Utility of animal models for identification of potential therapeutics for rheumatoid arthritis

*M Hegen, J C Keith Jr, M Collins, C L Nickerson-Nutter*

## Clinical and epidemiological research

- 1516** IL-6 receptor inhibition with tocilizumab improves treatment outcomes in patients with rheumatoid arthritis refractory to anti-tumour necrosis factor biologicals: results from a 24-week multicentre randomised placebo-controlled trial

*P Emery, E Keystone, H P Tony, A Cantagrel, R van Vollenhoven, A Sanchez, E Alecock, J Lee, J Kremer*

- 1524** Knee alignment differences between Chinese and Caucasian subjects without osteoarthritis

*W F Harvey, J Niu, Y Zhang, P I McCree, D T Felson, M Nevitt, L Xu, P Aliabadi, D J Hunter*

- 1529** Cigarette smoking, disease severity and autoantibody expression in African Americans with recent-onset rheumatoid arthritis

*T R Mikuls, L B Hughes, A O Westfall, V M Holers, L Parrish, D van der Heijde, M van Everdingen, G S Alarcón, D L Conn, B Jonas, L F Callahan, E A Smith, G Gilkeson, G Howard, L W Moreland, S L Bridges Jr*

- 1535** The diagnostic value of scintigraphy in assessing sacroiliitis in ankylosing spondylitis: a systematic literature research

*I H Song, J Carrasco-Fernández, M Rudwaleit, J Sieper*

- 1541** Reduction of fatigue in Sjögren syndrome with rituximab: results of a randomised, double-blind, placebo-controlled pilot study

*S Dass, S J Bowman, E M Vital, K Ikeda, C T Pease, J Hamburger, A Richards, S Rauz, P Emery*

- 1545** Premorbid knee osteoarthritis is not characterised by diffuse thinness: the Framingham Osteoarthritis Study

*D J Hunter, J B Niu, Y Zhang, M LaValley, C E McLennan, M Hudelmaier, F Eckstein, D T Felson*

- 1550** Lymphotoxin 252A>G polymorphism is common and associates with myocardial infarction in patients with rheumatoid arthritis

*V F Panoulas, S N Nikas, J P Smith, K M J Douglas, P Nightingale, H J Milionis, G J Treharne, T E Toms, M D Kita, G D Kitas*

- 1557** Anti-cyclic citrullinated peptide revised criteria for the classification of rheumatoid arthritis

*K P Liao, K L Baira, L Chibnik, P H Schur, K H Costenbader*

- 1562** Head-to-head comparison of the Lyon Schuss and fixed flexion radiographic techniques. Long-term reproducibility in normal knees and sensitivity to change in osteoarthritic knees

*M-P Heliö Le Graverand, E P Vignon, K D Brandt, S A Mazzuca, M Piperno, R Buck, H C Charles, D J Hunter, C G Jackson, V Byers Kraus, T M Link, T J Schnitzer, A Vaz, B Wyman*

- 1567** Anti-tumour necrosis factor therapy in patients with refractory Takayasu arteritis: long-term follow-up

*E S Molloy, C A Langford, T M Clark, C E Gota, G S Hoffman*

- 1570** Vitamin K in hand osteoarthritis: results from a randomised clinical trial

*T Neogi, D T Felson, R Sarno, S L Booth*

- 1574** Tight control and intensified COBRA combination treatment in early rheumatoid arthritis: 90% remission in a pilot trial

*L H D van Tuyl, W F Lems, A E Voskuyl, P J S M Kerstens, P Garnero, B A C Dijkmans, M Boers*

- 1578** The *TRAF1/C5* region is a risk factor for polyarthritis in juvenile idiopathic arthritis

*H M Albers, F A S Kurreeman, J J Houwing-Duistermaat, D M C Brinkman, S S M Kamphuis, H J Girschick, C Wouters, M A J Van Rossum, W Verduijn, R E M Toes, T W J Huizinga, M W Schilham, R ten Cate*

## Basic and translational research

- 1581** Imatinib mesylate inhibits in vitro and ex vivo biological responses related to vascular occlusion in giant cell arteritis

*E Lozano, M Segarra, A García-Martínez, J Hernández-Rodríguez, M C Cid*

- 1589** A novel *TNFRSF1A* splice mutation associated with increased nuclear factor kappaB (NF-κB) transcription factor activation in patients with tumour necrosis factor receptor associated periodic syndrome (TRAPS)

*S M Churchman, L D Church, S Savic, L R Coulthard, B Hayward, B Nedjai, M D Turner, R J Mathews, E Baguley, G A Hitman, H C Gooi, P M D Wood, P Emery, M F McDermott*

### MORE CONTENTS ►



This article has been chosen by the editor to be of special interest or importance and is freely available online.




Articles carrying the Unlocked Logo are freely available online under the BMJ Journals unlocked scheme. See <http://ard.bmj.com/info/unlocked.dtl>

C O P E COMMITTEE ON PUBLICATION ETHICS

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics

[www.publicationethics.org.uk](http://www.publicationethics.org.uk)



**1596** Effects of immunosuppressive treatment on microsomal prostaglandin E synthase 1 and cyclooxygenases expression in muscle tissue of patients with polymyositis or dermatomyositis  
 M Korotkova, S Barbasso Helmers, I Loell, H Alexanderson, C Grundtman, C Dorph, I E Lundberg, P-J Jakobsson

**1603** CTLA-4 directly inhibits osteoclast formation  
 R Axmann, S Herman, M Zaiss, S Franz, K Polzer, J Zwerina, M Herrmann, J Smolen, G Schett

**1610** Tumour necrosis factor blockade increases lymphangiogenesis in murine and human arthritic joints  
 K Polzer, D Baeten, A Soleiman, J Distler, D M Gerlag, P P Tak, G Schett, J Zwerina

**1617** Annexin 5 overexpression increased articular chondrocyte apoptosis induced by basic calcium phosphate crystals  
 H K Ea, V Monceau, E Camors, M Cohen-Solal, D Charlemagne, F Lioté

**1626** IgG autoantibodies bound to surfaces of necrotic cells and complement C4 comprise the phagocytosis promoting activity for necrotic cells of systemic lupus erythaematosus sera  
 G E Grossmayer, L E Munoz, C K Weber, S Franz, R E Voll, P M Kern, J R Kalden, G Schett, M Herrmann, U S Gaipf

**1633** Differential Toll-like receptor-dependent collagenase expression in chondrocytes  
 Q Zhang, W Hui, G J Litherland, M J Barter, R Davidson, C Darrah, S T Donell, I M Clark, T E Cawston, J H Robinson, A D Rowan, D A Young

## Letters

**1642** Duration of pre-rheumatoid arthritis anti-cyclic citrullinated peptide positivity is positively associated with age at seroconversion  
 W H Bos, M M J Nielen, B A C Dijkemans, D van Schaardenburg

**1643** Anti-thrombopoietin antibodies suppress megakaryocytic colony formation in vitro in patients with systemic lupus erythaematosus  
 P D Ziakas, H A Papadaki, M Psyllaki, M Voulgarelis

**1644** Anti-tumour necrosis factor  $\alpha$  therapy modulates ghrelin in patients with severe rheumatoid arthritis  
 M A Gonzalez-Gay, M T Garcia-Unzueta, A Berja, T R Vazquez-Rodriguez, C Gonzalez-Juanatey, J M de Matias, J Martin, P H Dessein, J Llorca

**1646** Angiotensin receptor blockers reduce erythrocyte sedimentation rate levels in patients with rheumatoid arthritis  
 M E Perry, M M Chee, W R Ferrell, J C Lockhart, R D Sturrock

**1647** Successful treatment of psoriatic arthritis with rituximab  
 J D Cohen

**1648** Clinical outcome and B cell depletion in patients with rheumatoid arthritis receiving rituximab monotherapy in comparison with patients receiving concomitant methotrexate  
 K Owczarczyk, M Hellmann, G Fliedner, T Röhrs, K Maizus, D Passon, M Hallek, A Rubbert

**1650** Life-table analysis of etanercept with or without methotrexate in patients with psoriatic arthritis  
 A Spadaro, F Ceccarelli, R Scivo, G Valesini

**1652** PostScript

## Take the pain out of research every month

Annals of the Rheumatic Diseases is the premier clinical rheumatology journal in Europe with an impressive impact factor of 6.411, so you'll want the guarantee of reading it every month.

Why not recommend the journal to your librarian or better still, obtain your own personal subscription? You will receive a paper copy every month as well as online access for just £212 a year (€314, \$403). Too much paper on your desk already? An online subscription is just £99 (€147, \$188).

Visit [group.bmj.com/group/subs-sales](http://group.bmj.com/group/subs-sales) - your subscription to this first class journal is just a few clicks away.

[ard.bmj.com](http://ard.bmj.com)

BMJ Journals