

# ARD

Annals of the Rheumatic Diseases  
The EULAR Journal

## Editor

Leo van de Putte (Nijmegen)

## Associate editors

Thomas Bardin (Paris)  
Johannes Bijlsma (Utrecht)  
Gerd Burmester (Berlin)  
Bevrah Hahn (Los Angeles)  
Frank Wollheim (Lund)  
Anthony Woolf (Truro)

## Methodological adviser

Paco Welsing (Nijmegen)

## Editorial board

Martin Aringer (Vienna)  
Paul Bacon (Birmingham)  
Francis Berenbaum (Paris)  
Maarten Boers (Amsterdam)  
Dimitrios Boumpas (Heraklion)  
Barry Bresnihan (Dublin)  
Hillary Capell (Glasgow)  
Maurizio Cutolo (Genova)  
Gary Firestein (La Jolla San Diego)  
Philippe Goupille (Tours)  
Ellen Gravallese (Boston)  
Wolfgang Gross (Bad Bramstedt)  
Francis Guillemain (Nancy)  
Gabriel Herrero-Beaumont (Madrid)  
Frederic Houssiau (Brussels)  
Tom Huizinga (Leiden)  
Christian Jorgensen (Montpellier)  
George Kollias (Athens)  
Tore Kvien (Oslo)  
Marjatta Leirisalo-Repo (Lund)  
Frank Luijten (Leuven)  
Hanns-Martin Lorenz (Heidelberg)

W Maslinski (Poland)  
Marco Matucci Cerinic (Florence)  
Kusuki Nishioka (Kanagawa)  
Seza Özen (Ankara)  
Thomas Pap (Magdeburg)  
Eliseo Pascual Gómez (Alicante)  
Leonardo Punzi (Padova)  
Lars Rönnblom (Uppsala)  
Blaž Rozman (Ljubljana)  
Georg Schett (Vienna)  
José Da Silva (Coimbra)  
Hendrik Schulze-Koops (Erlangen)  
Alex So (Lausanne)  
Tuulikki Sokka (Nashville)  
Deborah Symmons (Manchester)  
Paul-Peter Tak (Amsterdam)  
Alan Tyndall (Basel)  
Athanasios Tzioufas (Athens)  
Jiří Vencovsky (Praag)  
Michael Ward (Bethesda)  
Michael Weisman (Los Angeles)  
Hasan Yazici (Istanbul)  
Editor, *BMJ*

## Advisory committee

Wim vd Berg (Nijmegen)  
Stefano Bombardieri (Pisa)  
Ferdinand Breedveld (Leiden)  
Leslie Crofford (Michigan)  
Jean-Michel Dayer (Geneva)  
Mike Doherty (Nottingham)  
Maxime Dougados (Paris)  
John Edmonds (Sydney)  
Paul Emery (Leeds)  
Daniel Furst (Seattle)  
Steffen Gay (Zurich)  
Joachim Kalden (Erlangen)  
Edward Keystone (Toronto)  
Lars Klareskog (Stockholm)

Peter Lipsky (Dallas)  
Stefan Lohmander (Lund)  
Ravinder Maini (London)  
Emilio Martin Mola (Madrid)  
Haralampos Moutsopoulos (Athens)  
James O'Dell (Omaha)  
Karel Pavelka (Prague)  
Josef Rovensky (Piestany)  
Yehuda Shoenfeld (Tel-Hashomer)  
Josef Smolen (Vienna)  
Walther van Venrooy (Nijmegen)  
Eric Veys (Gent)  
Allan Wiik (Denmark)

## Instructions to authors

All papers must be submitted via BenchPress at <http://submit-ard.bmjournals.com/>

## Subscription information

See IBC

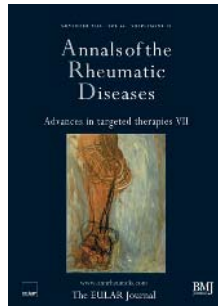
## Copyright

© 2005 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 the prior permission of *Annals of the Rheumatic Diseases*

Authors are required to grant *Annals of the Rheumatic Diseases* an exclusive licence to publish; further details available online at [www.annrheumdis.com/misc/lfora.shtml](http://www.annrheumdis.com/misc/lfora.shtml)

• *Annals of the Rheumatic Diseases* is published by BMJ Publishing Group, typeset by The Charlesworth Group, and printed in the UK on acid-free paper by Thanet Press, Margate

• Periodicals postage paid, Rahway, NJ. Postmaster: send address changes to: *Annals of the Rheumatic Diseases*, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001, USA



Cover image: Martin van Leeuwen

## contents ARD

Volume 64 Supplement IV November 2005

### Preface

- iv1 Advances in targeted therapies VII *F C Breedveld, J R Kalden, J S Smolen*

### Consensus statement

- iv2 Updated consensus statement on biological agents, specifically tumour necrosis factor  $\alpha$  (TNF $\alpha$ ) blocking agents and interleukin-1 receptor antagonist (IL-1ra), for the treatment of rheumatic diseases, 2005 *D E Furst, F C Breedveld, J R Kalden, J S Smolen, G R Burmester, J W J Bijlsma, M Dougados, P Emery, E C Keystone, L Klareskog, P J Mease*

### Novel aspects of cellular immunology

- iv15 Stimulation of autoimmunity by toll-like receptor ligands *A Limmer, R Ganss, N Garbi, B Arnold, G J Hämmerling*

### Issues in clinical trial design

- iv18 Biological drug use: US perspectives on indications and monitoring *J J Cush*

### Adverse events with biologics

- iv24 Immunological control of tuberculosis: role of tumour necrosis factor and more *S Stenger*
- iv29 Update on tuberculosis and other opportunistic infections associated with drugs blocking tumour necrosis factor  $\alpha$  *K L Winthrop*
- iv31 Current state of tumour necrosis factor  $\alpha$  blockade in Wegener's granulomatosis *C Mukhtyar, R Luqmani*
- iv37 The CORRONA database *J Kremer*
- iv42 The British Society for Rheumatology Biologics Register *K Watson, D Symmons, I Griffiths, A Silman*

### Joint damage

- iv44 What are the roles of metalloproteinases in cartilage and bone damage? *G Murphy, M H Lee*
- iv48 Presentation and analysis of radiographic data in clinical trials and observational studies *R Landewé, D van der Heijde*
- iv52 Are fibroblasts involved in joint destruction? *T Pap, I Meinecke, U Müller-Ladner, S Gay*

### Update on biologics

- iv55 Update on rituximab *R Eisenberg*
- iv58 Alefacept for psoriasis and psoriatic arthritis *A B Gottlieb*

### Psoriasis, psoriatic arthritis, ankylosing spondylitis, and other aspects

- iv61 How early should ankylosing spondylitis be treated with tumour necrosis factor blockers? *J Sieper, M Rudwaleit*

**NEW**  
**ONLINE**  
**SUBMISSION**  
**GO TO**  
**WEBSITE**  
**TO SUBMIT YOUR**  
**MANUSCRIPT**

iv65 Health economics: implications for novel antirheumatic therapies *A Kavanaugh*

## TNF effects and therapeutic response

iv70 What does tumour necrosis factor excess do to the immune system long term?  
*J Clark, P Vagenas, M Panesar, A P Cope*

## Molecular basis of the immune response

iv77 How does B cell depletion therapy work, and how can it be improved? *E A Clark, J A Ledbetter*

## New targets I

iv81 IKK $\beta$  as a target for treatment of inflammation induced bone loss  
*M G Ruocco, M Karin*

iv86 Dendritic cells: potential triggers of autoimmunity and targets for therapy  
*J A Hardin*

## New targets II

iv91 Superagonistic anti-CD28 antibodies: potent activators of regulatory T cells for the therapy of autoimmune diseases  
*N Beyersdorf, T Hanke, T Kerkau, T Hünig*

## New targets III

iv96 The coming of age of galectins as immunomodulatory agents: impact of these carbohydrate binding proteins in T cell physiology and chronic inflammatory disorders  
*J M Ilarregui, G A Bianco, M A Toscano, G A Rabinovich*

iv104 Toll-like receptor 2 signalling and inflammation  
*F Y Liew, M Patel, D Xu*

## Epilogue

iv106 The 2005 International Symposium on Advances in Targeted Therapies: What have we learned in the 2000s and where are we going?  
*R N Maini*