

**Editor**

Josef S Smolen

**Associate Editors**

Francis Berenbaum  
Dimitrios Boumpas  
Gerd Burmester  
Mary Crow  
Kimme Hyrich  
Rik Lories  
Iain McInnes  
Thomas Pap  
David Pisetsky  
Désirée van der Heijde  
Kazuhiko Yamamoto

**Editorial office**

Annals of the Rheumatic Diseases  
BMJ Publishing Group Ltd  
BMA House  
Tavistock Square  
London WC1H 9JR, UK  
T: +44 (0)20 3655 5889  
E: [ard@bmj.com](mailto:ard@bmj.com)  
Twitter: @ARD\_BMJ  
ISSN: 0003-4967 (print)  
ISSN: 1468-2060 (online)

**Disclaimer:** The Editor of *ARD* has been granted editorial freedom and *ARD* is published in accordance with editorial guidelines issued by the World Association of Medical Editors and the Committee on Publication Ethics. *ARD* is primarily intended for healthcare professionals and its content is for information only. The Journal is published without any guarantee as to its accuracy or completeness and any representations or warranties are expressly excluded to the fullest extent permitted by law. Readers are advised to independently verify any information on which they choose to rely. Acceptance of advertising by *ARD* does not imply endorsement. Neither *EULAR* nor BMJ Publishing Group Limited shall have any liability for any loss, injury or damage howsoever arising from *ARD* (except for liability which cannot be legally excluded).

**Copyright:** © 2021 BMJ Publishing Group Ltd and European League Against Rheumatism. All rights reserved; no part of this publication may be reproduced in any form without permission.

*ARD* is published by BMJ Publishing Group Ltd typeset by Exeter Premedia Services Private Ltd, Chennai, India and printed in the UK on acid-free paper.

*Annals of the Rheumatic Diseases*, ISSN 0003-4967 (USPS 2152) is published monthly by BMJ Publishing Group Ltd, BMA House, Tavistock Square, WC1H 9JR London. Airfreight and mailing in the USA by agent named World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Periodicals postage paid at Brooklyn, NY 11256. US Postmaster: Send address changes to *Annals of the Rheumatic Diseases*, World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Subscription records are maintained at BMA House, Tavistock Square, WC1H 9JR London. Air Business Ltd is acting as our mailing agent.

**Editorials**

- 1 Greetings from the editor 2021  
*J S Smolen*
- 3 COVID-19 cytokine storm: what is in a name?  
*P A Nigrovic*

**Views on news**

- 6 The role of TASL in the pathogenesis of SLE: X marks the spot  
*D S Pisetsky*

**Heroes and pillars of rheumatology**

- 8 Jan Mikulicz-Radecki (1850–1905): return of the surgeon  
*B Manger, G Schett*

**Thinking the unthinkable**

- 11 Publishing in 2@84  
*M Lanzillotta, C Crotti, V M Da Silva Domingues, K Lauper, G R Burmester*

**Review**

- 14 Update on the diagnosis and management of systemic lupus erythematosus  
*A Fanouriakis, N Tziolos, G Bertias, D T Boumpas*

**Viewpoint**

- 26 Trajectories of COVID-19 information in the *Annals of the Rheumatic Diseases*: the first months of the pandemic  
*K Lauper, J W J Bijlsma, G R Burmester*

**Recommendations**

- 31 EULAR definition of difficult-to-treat rheumatoid arthritis  
*G Nagy, N MT Roodenrijs, P MJ Welsing, M Kedves, A Hamar, M C van der Goes, A Kent, M Bakkers, E Blaas, L Senolt, Z Szekanez, E Choy, M Dougados, J WG Jacobs, R Geenen, H WJ Bijlsma, A Zink, D Aletaha, L Schoneveld, P van Riel, L Gutermann, Y Prior, E Nikiphorou, G Ferraccioli, G Schett, K L Hyrich, U Mueller-Ladner, M H Buch, I B McInnes, D van der Heijde, J M van Laar*

- 36 EULAR points to consider for the diagnosis and management of rheumatic immune-related adverse events due to cancer immunotherapy with checkpoint inhibitors  
*M Kostine, A Finckh, C O Bingham 3rd, K Visser, J Leipe, H Schulze-Koops, E H Choy, K Benesova, T R D J Radstake, A P Cope, O Lambotte, J-E Gottenberg, Y Allenbach, M Visser, C Rusthoven, L Thomsen, S Jamal, A Marabelle, J Larkin, J B A G Haanen, L H Calabrese, X Mariette, T Schaeverbeke*

- 49 EULAR recommendations for a core data set for pregnancy registries in rheumatology  
*Y Meissner, R Fischer-Betz, L Andreoli, N Costedoat-Chalumeau, D De Cock, R J E M Dolhain, F Forger, D Goll, A Molto, C Nelson-Piercy, R Özdemir, L Raio, S C Rodríguez-García, S Sciascia, M Wallenius, A Zbinden, A Zink, A Strangfeld*

- 57 2019 EULAR points to consider for non-physician health professionals to prevent and manage fragility fractures in adults 50 years or older  
*J Adams, N Wilson, E Huremans, M Bakkers, P Balážová, M Baxter, A-B Blavnsfeldt, K Briot, C Chiari, C Cooper, R G Dragoi, G Gäbler, W Lems, E Mosor, S Pais, C Simon, P Studenic, S Tilley, J de la Torre-Aboki, T A Siamm*

- 65 2019 EULAR points to consider for the assessment of competences in rheumatology specialty training  
*F Sivera, A Alunno, A Najm, T Avcin, X Baraliakos, J W Bijlsma, S Badreh, G Burmester, N Cikes, J AP Da Silva, N Damjanov, M Dougados, J Dudler, C J Edwards, A Iagnocco, F Lioté, E Nikiphorou, M van Onna, S R Stones, D Vassilopoulos, C Haines, S Ramiro*

- 71 Points to consider for the treatment of immune-mediated inflammatory diseases with Janus kinase inhibitors: a consensus statement  
*P Nash, A Kerschbaumer, T Dörner, M Dougados, R M Fleischmann, K Geissler, I McInnes, J E Pope, D van der Heijde, M Stoffer-Marx, T Takeuchi, M Trauner, K L Winthrop, M de Wit, D Aletaha, X Baraliakos, W-H Boehncke, P Emery, J D Isaacs, J Kremer, E B Lee, W P Maksymowych, M Voshaar, L-S Tam, Y Tanaka, F van den Bosch, R Westhovens, R Xavier, J S Smolen*

**MORE CONTENTS ►**

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



This article has been made freely available online under the BMJ Journals open access scheme. See <http://authors.bmj.com/open-access/>



Member since 2008  
JM00004

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

<http://publicationethics.org/>



When you have finished with this please recycle it

**Criteria**

- 88** Preliminary predictive criteria for COVID-19 cytokine storm



*R Caricchio, M Gallucci, C Dass, X Zhang, S Gallucci, D Fleece, M Bromberg, G J Criner, Temple University COVID-19 Research Group*

**Rheumatoid arthritis**

- 96** Comparative effectiveness of first-line tumour necrosis factor inhibitor versus non-tumour necrosis factor inhibitor biologics and targeted synthetic agents in patients with rheumatoid arthritis: results from a large US registry study



*D A Pappas, G St John, C J Etzel, S Fiore, T Blachley, T Kimura, R Puneekar, K Emeanuru, J Choi, S Boklage, J M Kremer*

**Spondyloarthritis**

- 103** Axial involvement in patients with early peripheral spondyloarthritis: a prospective MRI study of sacroiliac joints and spine

*T Renson, P Carron, A-S De Craemer, L Deroo, M de Hooge, S Krabbe, L Jans, M Chen, M Østergaard, F E Van den Bosch, D Elewaut*

**Systemic lupus erythematosus**

- 109** Molecular pathways in patients with systemic lupus erythematosus revealed by gene-centred DNA sequencing



*J K Sandling, P Pucholt, L Hultin Rosenberg, F H G Farias, S V Kozzyrev, M-L Eloranta, A Alexsson, M Bianchi, L Padyukov, C Bengtsson, R Jonsson, R Omdal, B A Lie, L Massarenti, R Steffensen, M A Jakobsen, S T Lillevang, on behalf of the ImmunoArray Development Consortium and DISSECT consortium, K Lerang, Ø Molberg, A Voss, A Trolborg, S Jacobsen, A-C Syvänen, A Jönsen, I Gunnarsson, E Svenungsson, S Rantapää-Dahlqvist, A A Bengtsson, C Sjöwall, D Leonard, K Lindblad-Toh, L Rönnblom*

**Systemic sclerosis**

- 118** Genomic Risk Score impact on susceptibility to systemic sclerosis



*L Bossini-Castillo, G Villanueva-Martin, M Kerick, M Acosta-Herrera, E López-Isac, C P Simeón, N Ortego-Centeno, S Assassi, International SSc Group, Australian Scleroderma Interest Group (ASIG), PRECISESADS Clinical Consortium, PRECISESADS Flow Cytometry study group, N Hunzelmann, A Gabrielli, J K de Vries-Bouwstra, Y Allanore, C Fonseca, C P Denton, T RDJ Radstake, M E Alarcón-Riquelme, L Beretta, M D Mayes, J Martin*

**Autoinflammatory disorders**

- 128** Fast diagnostic test for familial Mediterranean fever based on a kinase inhibitor

*F Magnotti, T Malsot, S Georgin-lavialle, F Abbas, A Martin, A Belot, M Fauter, M Rabilloud, M Gerfaud-Valentin, P Sève, A Duquesne, A Hot, S Durupt, L Savey, I Giurgea, G Grateau, T Henry, Y Jamilloux*

**Letter**

- 134** Age-based (<65 vs ≥65 years) incidence of infections and serious infections with tofacitinib versus biological DMARDs in rheumatoid arthritis clinical trials and the US Corona RA registry



*K L Winthrop, G Citera, D Gold, D Henrohn, C A Connell, A B Shapiro, H Shi, A M Onofrei, D A Pappas, H Schulze-Koops*

**Electronic pages**

- e1** Management of rheumatic diseases in the time of covid-19 pandemic: perspectives of rheumatology practitioners from India  
*L Gupta, D P Misra, V Agarwal, S Balan, V Agarwal*
- e2** Antirheumatic agents in covid-19: is IL-6 the right target?  
*P L Capecechi, P E Lazzerini, L Volterrani, M A Mazzei, B Rossetti, G Zanelli, D Bennett, E Bargagli, F Franchi, M Cameli, S Valente, L Cantarini, B Frediani*
- e3** The conundrum of COVID-19 treatment targets: the close correlation with rheumatology. Response to: 'Management of rheumatic diseases in the time of covid-19 pandemic: perspectives of rheumatology practitioners from India' by Gupta *et al* and 'Antirheumatic agents in covid-19: is IL-6 the right target?' by Capecechi *et al*  
*S Monti, C Montecucco*
- e4** Online management of rheumatoid arthritis during COVID-19 pandemic  
*Y Zhang, J Wang, L Zhao, J Xiao, Z Shi*
- e5** Challenges and opportunities in telerheumatology in the COVID-19 era. Response to: 'Online management of rheumatoid arthritis during COVID-19 pandemic' by Zhang *et al*  
*G Figueroa-Parra, C M Gamboa-Alonso, D A Galarza-Delgado*

- e6** Hydroxychloroquine reduces the risk of covid-19 in patients with rheumatic diseases: myth or reality?  
*W Xie, Y Wang, Z Zhang*
- e7** Still early to define a clear role of antimalarial drugs for COVID-19 in patients with rheumatic disease. Response to: 'Hydroxychloroquine reduces the risk of covid-19 in patients with rheumatic diseases: myth or reality?' by Xie *et al*  
*C M Gamboa-Alonso, G Figueroa-Parra, D A Galarza-Delgado*
- e8** To consider or not antimalarials as a prophylactic intervention in the SARS-CoV-2 (COVID-19) pandemic  
*K Parperis*
- e9** Response to 'To consider or not antimalarials as a prophylactic intervention in the SARS-CoV-2 (Covid-19) pandemic' by Parperis  
*F R Spinelli, F Ceccarelli, M Di Franco, F Conti*
- e10** Rituximab for granulomatosis with polyangiitis in the pandemic of covid-19: lessons from a case with severe pneumonia  
*P Guilpain, C Le Bihan, V Foulongne, P Taourel, N Pansu, A T J MARIA, B Jung, R Larcher, K Klouche, V Le Moing*
- e11** Diagnostic and therapeutic challenges for patients with ANCA-associated vasculitides at the time of COVID-19. Response to: 'Rituximab for granulomatosis with polyangiitis in the pandemic of COVID-19: lessons from a case with severe pneumonia' by Guilpain *et al*  
*S Monti, C Montecucco*