





an Open Access Journal by MDPI

The Pathogenesis of Rheumatoid Arthritis—Breakthroughs in Molecular Mechanisms

Guest Editor:

Prof. Dr. Yuki Nanke

Institute of Rheumatology, Tokyo Women's Medical University, Tokyo 162-8666, Japan

Deadline for manuscript submissions:

closed (31 December 2021)

Message from the Guest Editor

The pathogenesis of rheumatoid arthritis (RA) consists of the formation of synovial villi, inflammation, immune abnormalities, and bone-cartilage destruction. According to these pathogenesis findings, conventional therapy was empirically performed using conventional disease-modifying antirheumatic drugs (csDMARDs). However, since the 1990s, pathogenesis investigations have advanced to include the cloning of IL-6, clarifying the role of IL-17 • Th17 in bone destruction; the cloning of RANKL; anti-RANKL Ab in the therapy of RA in Japan; and the introduction of "Osteoimmunology". In addition, therapies using biological DMARDs have resulted in breakthroughs in pathogenesis investigations; inhibition of the function of a specific molecule by an antibody has clarified its function in vivo, such as "knockout in vivo in human". Recently, inflammatory cell states have been clarified in RA joint synovial tissues by integrating single-cell transcriptomics and mass cytometry. In this Special Issue, both original and review papers present important advances in molecular investigations of RA pathogenesis.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

Contact Us