



Cell and Organ Cultures for Studying Retinal Diseases

Guest Editors:

Prof. Dr. Stephanie C. Joachim

Ophthalmology Department,
Ruhr-Universität Bochum,
Bochum, Germany

Dr. Sven Schnichels

Centre for Ophthalmology,
University Eye Hospital Tübingen,
Tübingen, Germany

Deadline for manuscript
submissions:

closed (31 March 2022)

Message from the Guest Editors

Dear Colleagues,

For many retinal diseases, including age-related macular degeneration (AMD), glaucoma, and diabetic retinopathy (DR), the exact pathogenesis is still unclear. Moreover, the currently available therapeutic options are often unsatisfactory.

To date, research regarding these diseases has mainly relied on animal models. However, animal models do not fully mimic human diseases. In addition, there is growing pressure from society to reduce animal research. This creates a need for alternative and improved disease models.

This Special Issue includes original research and review articles about recent developments regarding in vitro models for retinal diseases.

The topics of this Special Issue include but are not limited to:

- The development of in vitro and ex vivo models (e.g., primary cell cultures, organotypic cultures, organoids, and whole eye cultures);
- The analysis and validation of causative molecular pathways and pathomechanisms;
- Treatment development and testing.



mdpi.com/si/84497

Prof. Dr. Stephanie C. Joachim

Dr. Sven Schnichels

Guest Editors

Special Issue



an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and
Molecular Medicine, Faculty of
Health and Medical Sciences,
University of Copenhagen,
Blegdamsvej 3C, DK-2200
Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer
Science, Virginia Commonwealth
University, Richmond, VA 23284,
USA

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

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

Contact Us

Biomolecules Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/biomolecules
biomolecules@mdpi.com
X@Biomol_MDPI