

Special Issue

Applications of Systems Biology Approaches in Biomedicine

Message from the Guest Editors

Human diseases such as cancer can be viewed as a system failure, and studying the complexity of a disease requires us to understand its system structure, function, and dynamics. Disease complexity rises from enormous amounts of information on the components (such as genes, RNAs, and proteins) and interactions that comprise a biological system. Advanced mathematical and computational models have played a significant role in improving our understanding of biological systems. Furthermore, translational modeling approaches to a full understanding of the underlying molecular mechanisms of human diseases and their clinical relevance are currently ongoing. However, the systematic integration of multi-omics datasets (such as genomics, transcriptomics, proteomics, and metabolomics) into computational modeling brings about numerous challenges in the field.

Therefore, we call for contributions from researchers with diverse backgrounds (e.g., biomathematics and bioinformatics) and practices in computational biology that aim to address some of the mentioned challenges and difficulties in this field, as well as tools, techniques, and application studies.

Guest Editors

Dr. Xin Lai

Laboratory of Systems Tumor Immunology, Department of Dermatology, Universitätsklinikum Erlangen and Friedrich-Alexander-Universität Erlangen-Nürnberg, 91054 Erlangen, Germany

Prof. Dr. Le Zhang

Department of Computer Science, Sichuan University, Chengdu, China

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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.

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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

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