

Topical Collection

Recent Advances in Protein Phosphorylation

Message from the Collection Editors

This reversible PTM is generally catalyzed by the opposing activities of large families of protein kinase and phosphatase enzymes. For example, the human genome encodes more than 500 protein kinases and about 300 protein phosphatases. Approximately 13000 human proteins have sites that are phosphorylated and dephosphorylated. These numbers reflect the importance and complexity of protein phosphorylation. Abnormal phosphorylation resulting from an imbalance in enzymatic reactions of kinases and phosphatases has been implicated in a wide range of human diseases, including cancer, diabetes mellitus, neurodegeneration, and immune/inflammatory and vascular disorders. Therefore, methods for quantitative and qualitative monitoring of alterations in the phosphorylation states of certain proteins are also very important for studies on the proteome, particularly in relation to the elucidation of the molecular origins of diseases and the rational molecular design of drugs. This Special Issue will focus on the role of protein phosphorylation in all living cells. Original manuscripts and reviews about protein phosphorylation and related pathophysiology and methodology are very welcome.

Collection Editors

Dr. Eiji Kinoshita

Department of Functional Molecular Science, Institute of Biomedical and Health Sciences, Hiroshima University, Kasumi 1-2-3, Hiroshima 734-8553, Japan

Dr. Emiko Kinoshita-Kikuta

Department of Functional Molecular Science, Institute of Biomedical and Health Sciences, Hiroshima University, Kasumi 1-2-3, Hiroshima 734-8553, Japan



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Biomolecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomolecules@mdpi.com

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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.

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

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