Special Issue

100th Anniversary of Insulin: Insulin Receptor Signaling in Health and Disease

Message from the Guest Editors

Several signaling molecules have been identified as critical players in the regulation of insulin-induced IR activation. G protein-coupled receptors (GPCR) have recently been implicated in intracellular crosstalk pathways with IR. The integration of GPCR and receptor tyrosine kinase (RTK) signaling is eloquently reviewed. Other reports have also shown that IR can interact with G□i subunits upon receptor activation. The gaps in our knowledge regarding how these metabolite consumptions are implicated in host metabolism via GPCR receptors reinforce the importance of research needed to understand the mechanistic action of these drugs on the body as promising metabolic candidates. Collectively, these findings uncover a unique mode of control for IR activation and present an innovative approach to targeting insulin signaling via GPCR complexes. This research has the potential to uncover (a) novel mechanism(s) of metabolite-induced metabolic changes, epigenetic reprogramming, insulin resistance and diabetes. Original manuscripts and reviews dealing with any aspect of insulin receptor and related pathophysiology are welcome.

Guest Editors

Prof. Dr. Myron R. Szewczuk
Department of Biomedical and Molecular Sciences, Queen's University, Kingston, ON K7L 3N6, Canada

Dr. Fiona Haxho
Faculty of Medicine, University of Toronto, Toronto, ON, Canada

Deadline for manuscript submissions

closed (31 August 2022)

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/84415

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

mdpi.com/journal/biomolecules

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/biomolecules

About the Journal

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

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)

MDPI