







an Open Access Journal by MDPI

Metformin: Mechanism and Application

Guest Editor:

Dr. Jolanta Weaver

Institute of Cellular Medicine, Newcastle University, Newcastle, UK

Deadline for manuscript submissions:

closed (20 July 2018)

Message from the Guest Editor

Although metformin has been available for almost a century, Europe only discovered it 60 years ago. However, it took a further 38 years for America to appreciate its virtues. Metformin has been shown to be the first cardioprotective drug in type 2 diabetes, as born by UKPDS trial, and others that followed. The scientific interest in metformin has recently increased with a variety of tissues being studied, and use of metformin in a wide range of patients outside licensed indications. The pleiotrophic actions of metformin stretch from improving insulin resistance, membrane-related effects to cardioprotective mechanism via CD34+ umbilical cord blood stem cells and the reduction of myocardial infarct size.

This Special Issue of the International Journal of Molecular Sciences has the aspiration of addressing (nonexclusively) the mechanisms of metformin action in different tissues from endothelial cells, hepatocytes, myocytes, cancer cells to clinical studies of translational design supported by laboratory investigations.











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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

Contact Us