



cells



an Open Access Journal by MDPI

Aging and Metabolic Diseases

Guest Editor:

Dr. Carlos Guillen

Department of Biochemistry and
Molecular Biology, Faculty of
Pharmacy, Complutense
University of Madrid, Ciudad
Universitaria s/n, 28040 Madrid,
Spain

Deadline for manuscript
submissions:

31 December 2024

Message from the Guest Editor

Dear Colleagues,

Different metabolic diseases, including T2DM and obesity, are two related and progressive diseases that represent a major public health problem in our modern society, contributing to alteration in the balance between a healthy situation and an unhealthy situation. Both pathologies share several characteristics, including insulin resistance, hyperactivation of the mTORC1 signaling pathway, a low grade of inflammation, and an aged phenotype. One of the earliest pathophysiological features is insulin resistance, followed by a compensatory mechanism in pancreatic islets, which turns out to manifest hyperinsulinemia. The sustained secretion of pancreatic insulin constrains the incipient glucose intolerance in the second stage of type 2 diabetes progression. However, this compensatory mechanism finally fails, resulting in a full-blown phenotype. In addition to the changes previously mentioned, there are several alterations including mitochondrial dysfunction, dysfunctional autophagy, and an increase in oxidative stress.

We welcome all types of studies related to this topic to be submitted to this Special Issue.



mdpi.com/si/207041

Special Issue



cells



an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities,
6-145 Jackson Hall, 321 Church St
SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation
Centre, The University of
Copenhagen, Copenhagen,
Denmark

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Cell Biology*) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)