



Animal and Cellular Models in Metabolomics Research

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Deadline for manuscript
submissions:

closed (30 May 2020)

Message from the Guest Editors

Dear Colleagues,

Metabolomics, an essential tool of modern biochemical research, is no longer solely a hypothesis-generating platform, but rather is extensively used in hypothesis testing studies. Progress in gene manipulation techniques allows the turning on and off of particular enzymatic functions in a cell- or tissue-specific manner.

We therefore invite research and review articles devoted to various aspects of cell and animal models used in metabolic studies. The focus of this Special Issue involves technical approaches and the translation from cell to animal metabolic models. The topics include but are not limited to the use of cell culture and animal models in the exploration of single cell metabolism, high-throughput metabolomics, and the use of stable isotope tracers for metabolic flux analysis. Studies using genetic manipulations or in vivo dietary and pharmacological interventions are particularly welcome. Studies applying in vitro/in vivo imaging of metabolites with the use of DNP-NMR and MRI are highly anticipated. Finally, protocols describing experimental guidelines are also welcome.

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an Open Access Journal by MDPI

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Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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