

## INAUGURAL EDITORIAL

# Metabolism: A rising star in translational medicine

Lemin Zheng<sup>1,2,\*</sup>

<sup>1</sup>The Institute of Cardiovascular Sciences and Institute of Systems Biomedicine, School of Basic Medical Sciences, Key Laboratory of Molecular Cardiovascular Science of Ministry of Education, NHC Key Laboratory of Cardiovascular Molecular Biology and Regulatory Peptides, Beijing Key Laboratory of Cardiovascular Receptors Research, Health Science Center, Peking University, Beijing 100191, China

<sup>2</sup>Beijing Tiantan Hospital, China National Clinical Research Center for Neurological Diseases, Advanced Innovation Center for Human Brain Protection, Beijing Institute of Brain Disorders, The Capital Medical University, Beijing 100050, China

Metabolism is the most basic feature of life and the basis of all life activities. Metabolites are the products of all metabolic processes of living organisms and are the final result and manifestation of the interaction between diseases, drugs, and living organisms, which can be used as carriers and storage of energy, signaling molecules, neurotransmitters, regulators of transcription and translation, *etc.*, playing an important role in the process of life activities.

In current clinical practice, protein and gene detection is an important means of disease diagnosis and treatment, whereas the role of metabolism in health and diseases has not been fully valued. Indeed, the effect of any exogenous stimulus, pathophysiological change, or genetic variation may be reflected in various biological pathways and perturb metabolic homeostasis, thereby altering the concentrations and proportions of metabolites. The metabolic network composed of different metabolites is located downstream of the network of signal transduction, gene regulatory, and protein interaction, which can reflect changes in the genome, transcriptome, and proteome. At the same time, metabolites interact with upstream genes and proteins to feedback the upstream life activity network to maintain the activities of the body. Therefore, metabolism is the terminal regulation of life activities. Metabolic and translational medicine plays an important role in disease diagnosis, classification, and biomarker discovery.

As the medical model is gradually moving toward the "Preventative, Predictive, Personalized, and

Participatory" (4P) medical model, there is an urgent need to bridge the knowledge gaps at the junction of preclinical research and medical applications. An increasing number of studies on metabolic and translational medicine aim to promote the translation of emerging knowledge and technologies into new methods of metabolic diseases, enabling patients and the public at large to benefit from the progress of metabolomics research and translation. *Metabolism and Translational Medicine* (MTM), a peer-reviewed and open access journal, will report new progress, new ideas, new technologies, new methods, and new achievements in the field, focus on the pathophysiological role of metabolites in diseases, and attach great importance to the new concept of translational medicine to promote the communication and cooperation of medicine and related fields and finally promote the development of metabolism-related translational medicine.

As the Editor-in-Chief of the journal, I sincerely hope that MTM will provide a window and communication platform for the majority of medicine-related workers to explore the current situation of translational medicine research in the field of metabolism. I thank friends from all fields for their support, care, and help to the journal. At the same time, I invite colleagues from all circles to continue to pay attention to the journal and support the journal.

## DECLARATIONS


### Conflict of interest

Lemin Zheng is the Editor-in-Chief of the journal. This is the Inaugural Editorial for the journal.

### \*Corresponding Author:

Lemin Zheng, The Institute of Cardiovascular Sciences and Institute of Systems Biomedicine, School of Basic Medical Sciences, Key Laboratory of Molecular Cardiovascular Sciences of Ministry of Education, Health Sciences Center Peking University, No.38, Xueyuan Road, Haidian District, Beijing 100191, China. Email: zhengl@bjmu.edu.cn; <https://orcid.org/0000-0003-4473-6936>

Received: 1 March 2023; Revised: 13 March 2023; Accepted: 14 March 2023; Published: 28 May 2023  
<https://doi.org/10.54844/mtm.2023.0357>

 This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License, which allows others to copy and redistribute the material in any medium or format non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.