



The Role of HIF-1a in Animal Physiology and Biochemistry

Guest Editors:

Prof. Dr. Zhengchao Wang

College of Life Sciences, Fujian
Normal University, Fuzhou
350007, China

Prof. Dr. Ningjun Li

Department of Pharmacology
and Toxicology, School of
Medicine, Virginia
Commonwealth University,
Richmond, VA 23298, USA

Dr. Yang Zhang

Department of Pharmacological
& Pharmaceutic, University of
Houston, Houston, TX 77204, USA

Deadline for manuscript
submissions:

closed (31 May 2023)

Message from the Guest Editors

Dear Colleagues,

Given the role of biological macromolecule HIF-1a in physiopathological processes, many specific small molecule compounds and natural products targeting HIF-1a are attracting more and more attention, accompanied by the development of nanomaterials and chemical modification for the chemical delivery of such substances. To increase the specificity of these drugs and their bioavailabilities, several feasible approaches and some pharmaceutical investigations can be undertaken with special interest, both in academia and in the pharmaceutical industry. These include HIF-1a-specific small molecule inhibitors (such as echinomycin and oltipraz), drug delivery systems based on lipids and nanomaterials, and the molecules that interact with HIF-1a in vivo. This Special Issue aims to provide a forum to disseminate the latest information on the specificity, bioavailability, and delivery of these chemical drugs and natural products—and their pharmaceutical effects during disease processes.

Prof. Dr. Zhengchao Wang

Prof. Dr. Ningjun Li

Dr. Yang Zhang

Guest Editors





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical
Biology and Phytochemistry,
University of Münster,
Corrensstrasse 48, D-48149
Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Contact Us

Molecules Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/molecules
molecules@mdpi.com
[X@Molecules_MDPI](#)