Special Issue

Expanding and Reprogramming the Genetic Code

Message from the Guest Editor

The genetic code defines the fundamental rule of translating genetic information into proteins. Due to advanced knowledge and biotechnology, the genetic code has successfully been modified, even in animals. Engineered codes could produce proteins, molecular systems/pathways, and organisms never realized in the history of life, through either artificial design or the autonomous evolution of host cells. Expanded codes have found various applications in basic science and industry, and enabled the exploration of biosystems supported by non-natural proteins. This Special Issue will cover original reports and review articles on method developments, applications, and future perspectives of genetic code expansion, as well as natural variations in translational molecules and machinery, which can inspire new directions of engineering.

Guest Editor

Dr. Kensaku Sakamoto Riken, Division of Structural and Synthetic Biology, Wako, Japan

Deadline for manuscript submissions closed (31 March 2019)



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/16226

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





About the Journal

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.

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

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 and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)