Special Issue

Synthetic Genetic Elements, Devices, and Systems

Message from the Guest Editors

From the limited modification of characteristics of natural elements to originally designed elements, various synthetic genetic elements have been reported. "Genetic devices", such as logic gates and memory elements, and higher order "genetic systems". This Special Issue "Synthetic Genetic Elements, Devices, and Systems" will explore the current state-of-the-art in this growing field. We hereby invite articles (full articles, short communications, and reviews) covering a broad range of topics.

Topics for this Special Issue include, but are not limited to:

- a) Synthetic genetic elements in prokaryotes and eukaryotes (promoters, transcription factors, RBS, degradation tags, transcriptional terminators, sensors, indicators, ribozymes and riboswitches, enzymes such as recombinases and proteases as regulatory elements, etc.).
- b) Synthetic genetic circuits as devices and systems (either involving or not involving synthetic genetic elements, but with the purpose of eliciting designed behavior).
- c) Methods to develop synthetic genetic elements, devices, and systems.
- d) Applications for laboratory and industrial use.
- e) History and future perspectives.

Guest Editors

Dr. Yusuke Kato

Division of Biotechnology, Institute of Agrobiological Sciences, National Agriculture and Food Research Organization (NARO), Oowashi 1-2, Tsukuba, Ibaraki 305-8634, Japan

Prof. Dr. Chunbo Lou

CAS Key Laboratory of Quantitative Engineering Biology, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, 1068 Xueyuan Avenue, University Town, Nanshan, Shenzhen 518055, China

Deadline for manuscript submissions

closed (15 March 2022)



Life

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/74572

Life
Editorial Office
MDPI, Grosspeteranlage 9
4052 Basel, Switzerland
Tel: +41 61 683 77 34
life@mdpi.com

mdpi.com/journal/ life





Life

an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.0 Indexed in PubMed



About the Journal

Message from the Editor-in-Chief

Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

Editor-in-Chief

Prof. Dr. Lluís Ribas de Pouplana

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, 08028 Barcelona, Spain

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, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (Paleontology)

