

Special Issue

Plants as a Promising Biofactory for Bioactive Compounds: 2nd Edition

Message from the Guest Editor

Plants naturally produce a diverse range of bioactive small molecules, such as alkaloids, flavonoids, terpenoids, and phenolic compounds, which are widely utilized as pharmaceuticals and nutraceuticals. Plants can also be genetically engineered to produce valuable recombinant proteins (biologics) for therapeutic and industrial applications, such as cytokines, blood proteins, antibodies, vaccines, and industrial enzymes. The driving forces behind the rapid expansion of plant-based biofactories include their low production cost, product safety, and simple scale-up process. Both whole plants and in vitro cultured plant tissues or cells can serve as a viable bioproduction platform. This Special Issue of *Life* aims to provide a broad spectrum of reviews and original research contributions that report innovative strategies and approaches to enhancing the bioproduction of plant biofactories, as well as novel functions and applications of plant-produced bioactive compounds. In addition to papers focusing on higher plants, those on microalgae and moss production systems are also welcome.

Guest Editor

Prof. Dr. Jianfeng Xu

Arkansas Biosciences Institute, Arkansas State University, Jonesboro, AR 72467, USA

Deadline for manuscript submissions

closed (30 September 2025)



Life

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/175072

Life
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
life@mdpi.com

[mdpi.com/journal/
life](https://mdpi.com/journal/life)





Life

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



[mdpi.com/journal/
life](https://mdpi.com/journal/life)



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, CAPIus / SciFinder, and other databases.

Journal Rank:

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