

Special Issue

Emerging Trends in Functional Lipid Biosynthesis and Precision Fermentation

Message from the Guest Editors

This Special Issue focuses on precision fermentation strategies to produce functional lipids. It explores metabolic engineering and synthetic biology advancements that enhance lipid biosynthesis for improved food texture, flavor, and nutrition. We aim to highlight sustainable production methods and drive innovation in the food industry. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Metabolism of lipids in microbial systems;
- Biosynthesis of lipids in microbial cell factories;
- Metabolic engineering for production of lipids;
- Fermentation strategies to produce lipid through precision fermentation;
- Lifecycle analysis of bioprocess to produce functional lipids;
- Application of functional lipids in the development of novel foods;
- Production of novel foods and ingredients using functional lipids.

We look forward to receiving your contributions.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Welcome to an open access journal, *Fermentation*, which meets the growing need for a high quality peer-reviewed international journal with easy access to all researchers globally. We hope that you will share our enthusiasm for this journal and look forward to working with you to make *Fermentation* a leader in its field. Your contributions are vital for the success of this journal. Proposals for editing a special issue for a particular topical area are always welcome.

Editor-in-Chief

Prof. Dr. Christian Kennes
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manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.5 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).