

Special Issue

Synthetic Biology's Potential to Address Undruggable Targets and Difficult-to-Treat Diseases

Message from the Guest Editor

Traditional small-molecule drugs, while essential to modern medicine, face significant limitations. Many potential therapeutic targets, particularly those involved in protein–protein interactions, are considered “undruggable” as they lack the deep binding pockets necessary for small-molecule engagement. The field of Synthetic Biology offers a powerful new constellation of tools for overcoming these challenges. By manipulating DNA to manipulate organisms or systems with novel abilities, synthetic biology enables the development of a new generation of biologics that can address complex biological pathways and targets previously untouched by traditional drug development. We welcome original research articles, reviews, and short communications on topics including, but not limited to:

- Novel biologics and advanced therapies for infectious diseases, cancer, and aging.
- Engineering cells, such as CAR-T cells, for enhanced therapeutic efficacy.
- Developing synthetic biology platforms for vaccine development.
- Designing innovative biological systems to modulate or disrupt protein–protein interactions.
- Applying synthetic biology to address undruggable targets.

Guest Editor

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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