

Special Issue

Advances in Synthetic Biological Approaches to Microbial Engineering

Message from the Guest Editors

Synthetic biology has emerged as a transformative field in microbial engineering, offering unprecedented opportunities to design and construct biological systems with novel functionalities. This rapidly evolving discipline integrates biology, engineering, and computer science principles to create microorganisms with tailored capabilities for diverse applications. Recent advancements in synthetic biology have significantly expanded our capacity to manipulate and program microbial genomes, leading to breakthroughs in biomanufacturing, environmental remediation, biosensing, and medical therapies. This Special Issue on “Advances in Synthetic Biological Approaches to Microbial Engineering” aims to convene eminent researchers to support industrial microbiology research, highlight state-of-the-art advancements, and promote practical implementations. It will comprise accepted submissions addressing genetically modified microorganisms’ creation, development, fundamental characteristics, and applications in diverse biochemical processes and biomanufacturing.

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