Special Issue

New Challenges in Microbial Synthetic Biology Applications

Message from the Guest Editor

This Special Issue aims to explore the latest advancements and emerging challenges in microbial synthetic biology, focusing on its applications across various microorganisms, including, but not limited to, bacteria, yeast, cyanobacteria, and microalgae.
1. Innovative Engineering Tools and Approaches: Contributions that discuss novel genetic engineering techniques, including CRISPR/Cas9, TALENs, and other genome editing tools, and facilitate the manipulation of microbial genomes for enhanced production capabilities.
2. Metabolic Pathway Engineering and Optimization: Research that addresses the optimization of metabolic pathways in microorganisms to improve the yield of desired products, including synthetic biology to redesign metabolic networks for efficient biosynthesis.
3. Bioproduction and Bioremediation: Studies that focus on the application of engineered microbes in the production of high-value bioproducts and their use in environmental remediation efforts to address pollution and waste management challenges.
4. Sustainable and renewable production: Insights into sustainable practices in microbial synthetic biology.

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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