Special Issue

Synthetic Biology in Modulation and Application of Biofilms

Message from the Guest Editors

Biofilms are structured microbial communities embedded in a self-produced matrix composed of proteins, exopolysaccharides, and extracellular DNA. Compared to planktonic cells, biofilms display unique physiological characteristics that are crucial in clinical, environmental, and industrial contexts. Synthetic biology is an interdisciplinary field that combines biology, engineering, and computational sciences. Its rapid development over the past two decades has opened new possibilities for analyzing, engineering, and applying biofilms in innovative ways. Integrating synthetic biology with biofilm research enables the creation of living materials, bio-manufacturing systems, and bioremediation tools. This Special Issue focuses on recent advances in the modulation and application of biofilms through synthetic biology. We welcome original research articles, technical notes, and both mini and systematic reviews.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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