Special Issue

Microbial Genome Engineering and Synthetic Biology

Message from the Guest Editors

Synthetic biology has enabled us to engineer microbial cells for useful purposes by rewriting and editing their genomes. With the emergence of a variety of powerful genome engineering techniques such as CRISPR/Cas systems, our ability to engineer microbial genomes has substantially increased in recent years. However, rationally designing and reshaping a genome to produce the desired phenotype remains enormously difficult, and more genome engineering strategies need to be explored, especially for non-model microorganisms that have potential useful applications. This Special issue will cover the latest trends and developments of genome engineering tools and other synthetic biology techniques, and their application to give rise to improved or novel phenotypes in microorganisms, especially in non-model species. Original research or review papers are highly welcome for submission on the following topics: CRISPR/Cas-based genome editing methods, recombineering techniques, methodologies for genome-scale engineering, development of programmable chassis, multiplex genome editing, metabolic engineering, novel genome-modification tools, genome engineering in non-model microbes.

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Deadline for manuscript submissions

closed (15 March 2023)

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Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

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