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Microbial Genomics and Evolution

Guest Editor:

Dr. Louis-Marie Bobay

Department of Biology, University
of North Carolina, Greensboro,
NC 27411, USA

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Message from the Guest Editor

The microevolution and the forces driving the structure and dynamics of microbial populations remain poorly described. Although we have now established that microbes are extremely diverse, the mechanisms underlying microbial diversification and speciation remain to be uncovered and the impact of selection, ecology, and neutral processes on these mechanisms are not yet fully understood. Sequencing technologies have revealed that microbes have an unprecedented degree of genomic diversity, where strains not only differ in allelic profiles, but typically display highly variable gene contents. The diversity of the gene repertoires of a given species, the pan-genome, is an intriguing feature of prokaryotes and the function and evolutionary dynamics of the variable fraction of the pan-genome remain largely unknown. Finally, understanding the precise interaction between microbes and their environment is another complex endeavor that researchers using novel -omics approaches are starting to unveil in more detail.

This Special Issue will focus on microbial genomics and evolution and welcomes genomic and metagenomic studies that aim to understand the evolution of microbes and their genomes.



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Special Issue



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Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan

Department of Pathology, The University of Alabama at Birmingham, 1825 University Blvd, SHEL 814, Birmingham, AL 35294-2182, USA

Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving 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.

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Genes Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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