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Application of Bioinformatics in Microbiome

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The microorganisms found in an environment and their activities are collectively referred to as the microbiome. Bioinformatics is an interdisciplinary field of science that combines biology, computer science, informatics, mathematics and statistics to analyze and interpret biological and clinical data. Bioinformatics is not only crucial but essential to extracting meaningful information from cryptic NGS data. This Special Issue aims to demonstrate the latest developments in bioinformatics in the NGS era that have helped advanced our understanding of the microbiome. The issue's scope includes, but is not limited to, the following topics:

1. New computing algorithms for analyzing NGS data;
2. Data management platforms (online or standalone desktop databases) for NGS data;
3. Pipeline development (a collection of analytic software streamlined from upstream to downstream applications);
4. Bioinformatics application in the cloud platform;
5. Artificial intelligence (AI) in microbiome research;
6. New microbiome research discovery, both medical and non-medical, with a significant bioinformatics component;
7. Reviews of the above applications.



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Special Issue



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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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