

Special Issue

Microbial Metagenomics: From Basic Science to Biotechnological Applications

Message from the Guest Editor

Metagenomics has irrevocably reshaped microbial ecology by enabling direct access to uncultured microbial consortia and their metabolic networks. Since its emergence in the late 1990s, the field has evolved from 16S rRNA gene surveys to multi-omics integration, revealing microbial "dark matter" that constitutes ~99% of environmental biodiversity. This Special Issue seeks to bridge foundational discoveries—such as pan-genome dynamics and lateral gene transfer—with translational innovations in biotechnology. This Special Issue of *IJMS* invites original research and critical reviews that elucidate microbial community functions and harness metagenomic data for industrial and environmental solutions. This Special Issue is led by Dr. Rojas-Herrera and assisted by Dr. Germán Serrano from Universidad Autónoma de Yucatán.

Guest Editor

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Message from the Editor-in-Chief

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