

# Diversity, Genetics and Evolution of Microbial Communities

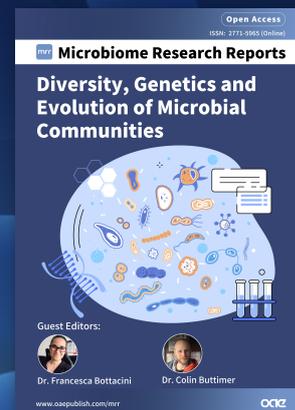
## Guest Editors:



**Dr. Francesca Bottacini**  
Department of Biological Sciences, Múster Technological University, Cork, Ireland.



**Dr. Colin Buttmer**  
APC Microbiome Ireland, University College Cork, Cork, Ireland.



## Special Issue Introduction:

High-throughput sequencing and integrative multi-omics approaches have contributed to advancing our knowledge of the diversity and assembly of microbial communities, their evolution, and the mechanism of interaction with host and ecosystem. Strategies such as metabolic competition, cooperation, and syntrophic relationships play an important role in establishing interactions between multi-species ecological networks, and also shaping the composition and functionality of the whole community. Microorganisms acquire and lose genes quite dynamically and this constant flow of genetic material represents an important source of genetic variation and evolution. The interaction between bacteria, phages, plasmids, and mobile genetic elements influences fitness, survival, cooperation, and symbiosis between microbes, with genetic variations being responsible for novel emerging functions. Combined genomic and functional approaches have been revealed to be instrumental in elucidating relationships between genomic and phenotypic diversity, and mechanistic insights into their effect at a community and sub-community level remain an area deserving of further exploration. This special issue aims to gather the latest advances in the application of genomic and functional investigations in the study and characterization of microbial communities, the diversity of their members, and their cross-interactions. Researchers are invited to submit research or review articles showing the application of computational predictive methods and functional genomics for the study of bacterial and virome communities, their interplay, evolution, and characterization of new molecular pathways.

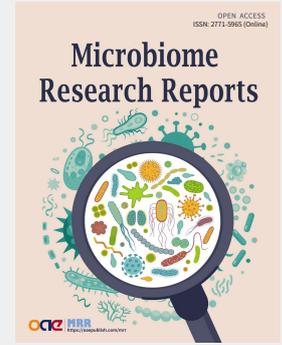
**Submission Deadline: 31 May 2023**

## Benefits to Authors:

- The APCs (\$600) will be WAIVED;
- Enjoy faster publication than regular submissions;
- Authors will be invited as Guest Speakers to our journal webinars. The webinar will be held via Zoom and it will also be broadcast live on Youtube and the Chinese WeChat Official Account, Video Account, Bilibili;
- A special interview will be provided to authors and will be promoted on the journal homepage and all media promotion platforms of both via the journal and publisher.

## Journal Introduction:

*Microbiome Research Reports (MRR)* is an international peer-reviewed, open access journal. The overall aim of *MRR* is to publish high quality researches from scientists with a common interest in microbiome/microbiota research in all its multidisciplinary aspects. The journal is founded by OAE Publishing Inc., under the guidance of our Editor-in-Chief Professor Marco Ventura (University of Parma, Italy). *MRR* was officially launched on July 26 2021. Looking forward to your attention and cooperation! Welcome to contact the editorial office for details, [editorialoffice@mrrjournal.net](mailto:editorialoffice@mrrjournal.net).



## Editorial Board team:



Takane Katayama Jose Munoz-Munoz Lorena Ruiz Sudarshan A. Shetty Silvia Arboleya Gabriele A. Lugli



Sin-Hyeog Im Maria L. Marco Abelardo Margolles Paul Ross Christian Milani Daniele Del Rio Seppo Salminen Catherine Stanton



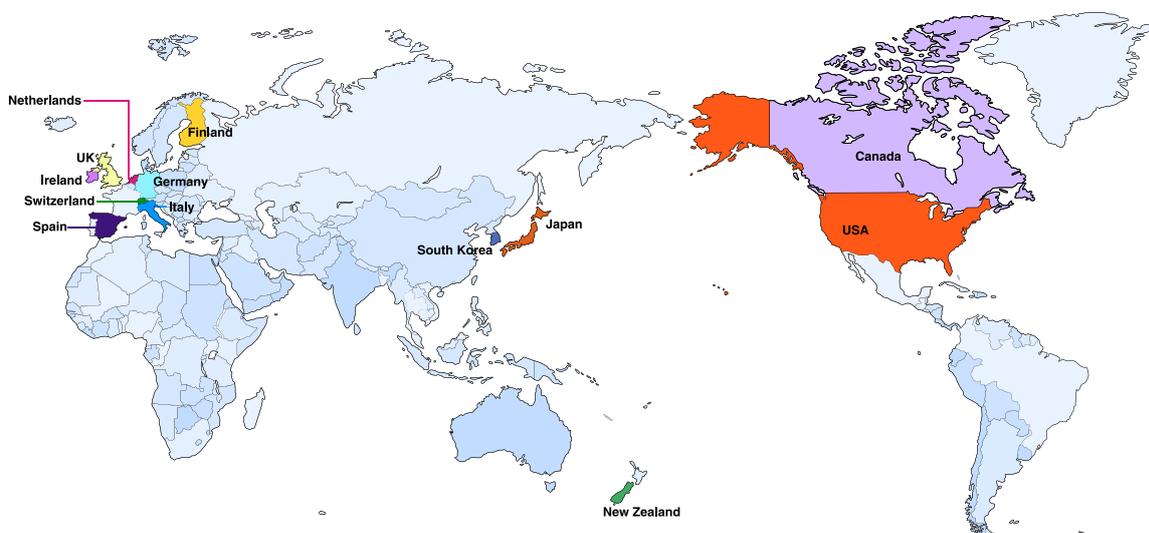
Marco Ventura Emma Allen-Vercoe Giovanni Barbara Rodolphe Barrangou Dirk Haller Miguel Gueimonde Maria C. Collado Christophe Lacroix



Karen Scott Francesca Turrone Clara Belzer Douwe Van Sinderen Pedro Mena Erwin G. Zoetendal Eric Altermann Francesca Bottacini



Ryan Chanyi Jennifer Mahony Leonardo Mancabelli Amira Metwaly Xu Zhang Halina E. Tegetmeyer



Scan the QR code to view the journal website

