# **Bacteriophage Ecology, Evolution and Applications**

## **Guest Editors:**



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### **Special Issue Introduction:**

Bacteriophages (or phages) are bacterial viruses that are ubiquitous in every environmental niche where cognate host bacteria co-exist. Phage-host interactions are dependent on phage-encoded adhesion proteins and host-encoded receptors, both of which dictate the ensuing infection process and evolutionary pathways of both parties. Furthermore, in view of the current antibiotic crisis, phages are increasingly recognised as alternative therapeutics both in human therapeutics as well as in animal husbandry and food production systems. Therefore, phages are of biotechnological relevance in all facets of human life and wellbeing, and in marine and terrestrial environmental niches. This Special Issue welcomes submissions of full research articles, perspectives, reviews, meta-analyses or systematic reviews on all facets of phage biology, ecology, interactions with their hosts and applications in food safety, human health and environmental monitoring. Phage evolution and adaptation to bacterial phage-resistance systems or environmental pressures are key to understanding how phages may be applied in a variety of niches, including agri-food, biotechnology and human and/or animal therapeutics. Therefore, we particularly welcome submissions on the following topics:

- 1. Phage-host interactions
- 2. Phage adhesion, replication and infection processes
- 3. Phage ecology and virome studies in human, food and environmental niches
- 4. Structural analysis of phages, phage proteins or complexes
- 5. Phage evolutionary processes and responses to host or environmental pressures
- 6. Bacterial anti-phage systems and their characterisation
- 7. Phage applications in food safety, human/animal therapeutics or pathogen detection systems
- 8. Functional genomics or functional characterisation of phage-derived proteins
- 9. Comparative phage genomics and taxonomy
- 10. Prophages, their diversity and their associated impact on their host

#### Submission Deadline:30 Apr 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.



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### Editorial Board team:



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