

Introduction of the Bacteriophage Biology & Therapeutics SIG



**Bacteriophage
Biology &
Therapeutics**

Jeremy J Barr

School of Biological Sciences
Monash University
Email: jeremy.barr@monash.edu

Bacterial viruses, more commonly known as bacteriophages, are by far the most numerous and diverse virus type. More than 100 years since their discovery, the contribution of bacteriophages to fundamental biology, biotechnology and human health continues unabated. Access to new technologies, the growing antibiotic resistance crisis and a surge of new researchers entering the field have all contributed to a phage biology renaissance. Here in Australia, phages are being studied in the context of the microbiome, agriculture and aquaculture, synthetic biology approaches are being used to engineer phages, innovative phage delivery approaches are being developed, and there is an increasing number of translational phage therapy studies being conducted, including clinical trials and compassionate usage cases. As homage, this issue of *Microbiology Australia* is devoted to bacteriophages.

I would like to take this opportunity to promote the Bacteriophage Biology & Therapeutics Special Interest Group (SIG) as part of the Australian Society for Microbiology (ASM) framework. Our goal as a bacteriophage SIG is to support phage research within Australia through associations with the ASM; however, our hope is that the SIG can go well beyond this and shape Australian phage research in a number of ways.

Phage research can be challenging, especially for newcomers to the field. As such, a major goal for the SIG is to develop a collaborative network of phage biologists willing to share knowledge, methods, resources and support for phage researchers within Australia, with a particular focus on providing guidance and support for early career researchers. Having access to such a collaborative network can lead to new research directions, seminar and conference invitations, joint funding opportunities, training programs and job

opportunities. In my opinion, this network is the greatest potential of the SIG.

The Bacteriophage Biology & Therapeutics SIG will promote Australian phage research on both a national and international scale. To date the SIG has helped organise phage symposium sessions at 2018 Molecular Microbiology Meeting (MMM), the ASM 2018 Meeting and the upcoming ASM 2019 Meeting. Further, our members regularly attend and present their research at leading international phage conferences, including Viruses of Microbes and the Evergreen Phage Meeting, often communicating emerging research and trends presented at these conferences to our SIG members.

The SIG also looks to have an influential role in shaping phage therapy within Australia. Connections with numerous stakeholders, including academic researchers, clinicians, biotechnology companies, entrepreneurs, government officials, and the general public are all incredibly important for the translation of phage therapy. Over the coming years the SIG will facilitate collaborations and meetings with interested parties, communicating our involvement in these processes, in order to move translational phage therapy within Australia forward.

In order to accomplish these goals, we have set up a blog site – <https://bacteriophagesig.blogspot.com/> – to better communicate with SIG members and other interested parties. Every three months this site will host a short blog post on phage research and will further update our members on SIG activities, conferences, job postings and other related information.

Finally, I would like to encourage anyone reading this issue who has an interest in phages and would like to participate in, or be updated by the Bacteriophage Biology & Therapeutics SIG, to please reach out to myself or any other SIG member. Now is the time to adsorb and propagate the phage.

Microbiology Australia special issue (Issue 4, 2019) Breaking Research of Early Career and student Researchers

Early career (less than 5 year's post-graduation) and student researchers who would like their area of research to be featured in *Microbiology Australia* are invited to contribute a proposal of their articles and its impact.

For further details please email: editorasm@gmail.com