

Report NZMEC 2018

*New Zealand Microbial Ecology Consortium (NZMEC) Symposium and Workshop v5.0
12-13 April, 2018
University of Auckland*

The New Zealand Microbial Ecology Consortium (NZMEC) is a special interest group of the New Zealand Microbiological Society (NZMS), which has the purpose of promoting microbial ecology and encouraging research collaborations within the New Zealand science sector. We hold a biennial symposium at the University of Auckland to facilitate these interactions and invite a range of international, national and early career researchers to present their work.



At these symposia, we aim to attract a broad mix of microbial ecology topics for presentation and ensure that over half of the presenters are early career researchers and that there is an equal gender spread. We do not charge registration or membership fees to attend, instead relying on generous sponsorship from organisations and societies such as ISME to assist in sponsoring plenary speakers to attend. The format of NZMEC symposia varies from year-to-year and has in the past included workshops on the use of statistics in microbial ecology research, application of Next Generation Sequencing and oral presentations. International plenary speakers in the past have included Catherine Lozupone, Jennifer Martiny, Gene Tyson, Ed Delong, Phil Hugenholtz, Jim Prosser, Jill Banfield, Noah Fierer, and Nicole Webster.

This year, NZMEC v5.0 was held over two days. The first day featured oral presentations on a broad range of topics, while the second day comprised a workshop aimed at getting the most out of Next-Gen amplicon datasets. We had 110 registered attendees including representatives from all NZ universities

and the majority of governmental research agencies (known as Crown Research Institutes, or CRIs) and also a contingent of Australian researchers from a variety of institutions. As always, we aimed for a good mix of plenary international speakers (3), New Zealand principal investigators (8) and early career researchers (11), as well as ensuring an equitable gender balance (12:10 female-male presenter split).

ISME sponsored the third session of the symposium. This enabled the attendance of one of our three New Zealand invited speakers, Dr Charlie Lee (University of Waikato, NZ), and one of our three plenary speakers, Dr Maureen O'Malley (University of Sydney, Australia). Charlie is a Senior Lecturer in environmental microbiology and his talk covered his recent work on the microbial diversity and ecology of Antarctica's Dry Valleys. Maureen's talk discussed the philosophy of microbial ecology research and promoted caution, particularly around linking correlation with causation, in human microbiome research. Both talks were well received and prompted broad discussions. Maureen's talk was also a great primer for our second workshop day around the use of Next-Gen amplicon datasets. The ISME session also included talks by early career researchers Dr Lucy Stewart and Hasinika Gamage. Lucy discussed how a thermophilic archaeal community was facilitating the formation of a green ferruginous clay in a NZ hot spring, while Hasinika spoke on the influence of dietary fibre on human gut microbiology.

Other plenary and invited speakers presenting their research at the symposium were:

- Tanja Woyke, (Joint Genome Institute, USA)
- Mike Manefield (University of New South Wales, Australia)
- Mike Taylor (University of Auckland, NZ)
- Susie Wood (Cawthorn Institute, Nelson, NZ)
- Mitja Remus-Emsermann (University of Canterbury, NZ)

A copy of the Symposium programme is appended to this report.

The Symposium was a great success and we once again appreciate the ongoing support from ISME. The ongoing success of the NZMEC symposia demonstrates the vibrant and broad microbial ecology researcher community in New Zealand.