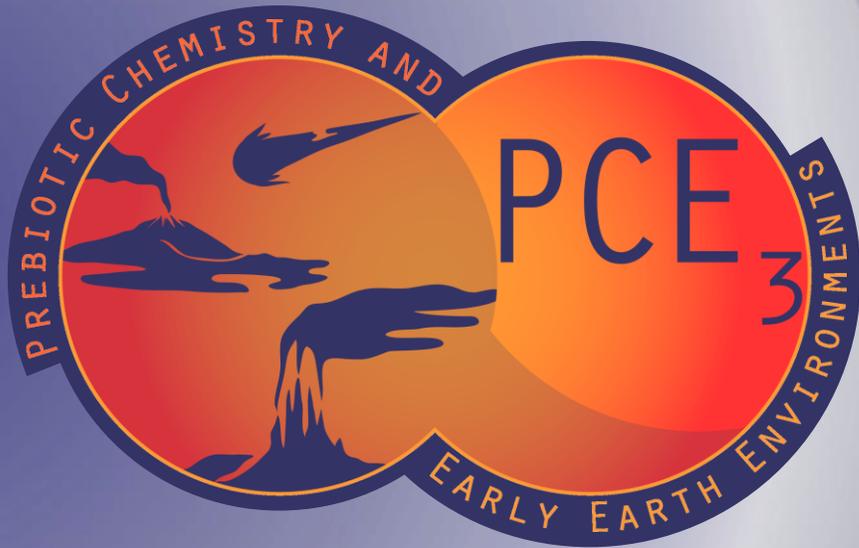


Theme:
Early Life



PCE₃ Seminar Series

Thurs, Nov 3rd - 9 a.m. JST

11 a.m. AEDT

Wed, Nov 2nd - 8:00 p.m. EDT

More information & registration:

prebioticchem.info/seminar-series/index.html



@PCE3_Sci



Fraser Macleod

PhD Candidate

*University of New South Wales,
Burns Lab*

"Ancient Archaea and the Rise of Cellular Complexity"



Hye-Eun Lee

Postdoctoral Researcher

*RIKEN Center for Sustainable Resource
Science, Nakamura Lab*

"Selective ion transport enables power generation in alkaline hydrothermal vents"

Topical introduction by Brendan Burns, Associate Professor at The University of New South Wales in Sydney, Australia

Fraser Macleod

Fraser is a PhD Candidate in Brendan Burns' lab at UNSW. Fraser started his research journey in the School of Biotechnology and Biomolecular Sciences looking at how archaea function as communities of microorganisms. During his PhD, Fraser has been looking at novel archaea in the microbial mats of Shark Bay in Western Australia. Fraser's studies primarily focus on the Asgard archaea, a group of archaea with a close evolutionary relationship to eukaryotes. By studying these archaea, Fraser's work aims to challenge the existing view of the evolution of life.

Hye-Eun Lee

Hye-Eun Lee is a postdoctoral researcher in Prof. Ryuhei Nakamura's group at the Center for Sustainable Resource Science, RIKEN, Japan. She obtained her Ph.D. in Material Science and Engineering at Seoul National University, South Korea, where she studied the interaction between inorganic and organic materials for the rational design of nanomaterials. Hye-Eun is currently working on understanding the deep-sea alkaline hydrothermal vent system in the context of origins of life. She is interested in the role of inorganics and hydrothermal vent system as an evolutionary starting point that might provide the basic building blocks of primitive life.

Brendan Burns

Brendan Burns is an Associate Professor at The University of New South Wales in Sydney, Australia. After his PhD Brendan received prestigious fellowships from the Alexander von Humboldt Foundation and Japan Society for Promotion of Society to undertake post-docs in Germany and Japan. Brendan's research program is focused on unravelling the evolutionary and ecological significance of early Earth microbial ecosystems: microbial mats and stromatolites. The research group at UNSW that he leads is considered one of the best in the world in the study of these modern systems. His group's research transcends all forms of life, from eukaryotes, bacteria, archaea, to viruses. In particular, his research pursues the role of 'microbial dark matter' in these systems including the enigmatic group of Asgard archaea. The aim to break down the traditional distinctions between prokaryotic and eukaryotic life using the archaea as a 'missing link'. Brendan's research also has a strong sustainability focus and has a commitment to improve the understanding and ties of Indigenous people to their lands, aiming for a genuine two-way exchange of knowledge and best practices.

