

Discover Lecture Series

Presented by the Faculty of Science and Engineering



MACQUARIE
University
SYDNEY · AUSTRALIA

Dough your research: A guide to synthetic yeast

Abstract

Step into the fascinating world of synthetic biology with Paige as your guide! Yeast, once known for brewing beer and wine, can now transform into a powerhouse of innovation. Explore the groundbreaking creation of the first synthetic eukaryote and its monumental implications for tomorrow.

Discover how this unassuming yeast is revolutionizing industries, from biofuels to medicine and beyond. Uncover the secrets of yeast redesigned to produce bioplastics, paving the way towards a sustainable future combating climate change. In just 50 minutes, gain insights into how these tiny yet mighty microbes are reshaping the very fabric of our existence.

Join Paige and be captivated by the limitless possibilities as yeast emerges not just as a brewer's friend, but as a catalyst for transformative change in our world.

Biography



Dr Paige Erpf graduated from The University of Queensland where she did both her undergraduate (Zoology and Biochemistry and Molecular Biology) and Ph.D. (Biochemistry and Molecular Biology). She is currently a synthetic biologist at Macquarie University in the ARC Centre of Excellence in Synthetic Biology. As a post-doctoral researcher in the centre, she is focusing on the development of the first synthetic yeast strain and engineering microbes to work together to help tackle problems arising from climate change.

For the last eight years Paige has specialised in genetic engineering of both industrial and pathogenic yeast. During this time, she has mentored several undergraduate and post graduate students in the lab, along with high school students on placements. She guest lectures in several courses, topics including synthetic biology, microbiology, and ribosome translation. She is also a committee member for JAMS Sydney, an organisation devoted to the organisation of monthly seminars and annual symposium on all things microbes.

In 2023 Paige made her debut in Science comedy, first gig at Enmore Theatre Wildflower Bar and again at the Sydney Fringe Festival. She starred in the 2023 National Science Quiz taking victory and avoided being slimed on television. Given her extensive outreach, Paige is passionate about science and sharing her research and experiences with friends, family, and strangers.