

# GIRLS IN PHYSICS BREAKFAST

FOR STUDENTS IN  
YEARS 10, 11 & 12  
INTERESTED IN A  
CAREER IN STEM



## MRI OF MOLECULES: BIOPHYSICS MEETS CELL CHEMISTRY

PROF FRANCES SEPAROVIC  
UNIVERSITY OF MELBOURNE

\$15 per student  
Max. 12 Students per school  
7:30 - 10:00am  
Thur 14 July 2022  
Brother Fox  
Deakin University  
Warnambool

Chat with like minded students and women who have a career in Physics and Engineering. Ask questions about University or working in STEM and explore different careers that might work for you.

'I was talking to a guest at my table and her career sounded so amazing. Then I realised that in 8 years that could be me. I got so excited!'



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# GIRLS IN PHYSICS BREAKFAST

GUEST SPEAKER



**Prof Frances Separovic**  
UNIVERSITY OF MELBOURNE

## MRI OF MOLECULES: BIOPHYSICS MEETS CELL CHEMISTRY

### Speaker:

Prof Frances Separovic is Emeritus Professor of Chemistry and Deputy Director of the Bio21 Molecular Science & Biotechnology Institute, University of Melbourne. After obtaining a BA from Macquarie University, Frances was awarded a PhD in Physics from University of NSW. She has held several honorary positions at international institutions including Harvard Medical School and University of Oxford. Her research interests range from membrane biophysics to determining the structure of biological macromolecules with a focus on antibiotics and toxins. In 2019 Frances received an AO for her distinguished service to science education, as an academic, and to young women scientists.

### Abstract:

*Nuclear Magnetic Resonance (NMR) enables the structure and function relationship of large biomolecules to be determined. This talk will include a brief introduction to NMR spectroscopy, which led to the development of MRI, and how it is used to determine the 3D atomic structure of molecules. We are using NMR to determine the interaction of antibiotics with cell membranes and unravel the interactions of biomolecules from Alzheimer's disease.*



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