

1322nd ORDINARY GENERAL MEETING Wednesday 5 June at 6:30pm

Metcalfe Auditorium, State Library of NSW

(enter from main Library entrance)

The 1321st Ordinary General Meeting of the Royal Society of NSW will take place at **6:30 pm on Wednesday 5 June** in the **Metcalfe Auditorium, State Library of NSW**, followed by an open lecture. Registration and refreshments will be available in the anteroom to the theatre from 6:00 pm, followed by an open lecture.

AGENDA

- 1. WELCOME President, Dr Susan Pond AM FRSN
- 2. MINUTES

Minutes of the 1321st Ordinary General Meeting will be reviewed.

3. CONFIRMATION OF NAMES OF CANDIDATES FOR FELLOWSHIP AND MEMBERSHIP

At its meeting 29 May 2024, the Council, upon recommendation of the Fellows and Members Assessment Committee, resolved to propose the following candidates for admission as Fellows and Members.

FELLOWSHIP

Professor Gerd Schmalz

Laudation – Gerd Schmalz is recognised as an expert in Several Complex Variables and CR geometry.

Dr Julian Leon Huppert

Laudation – Julian Huppert has made substantial contributions to the study of unusual structures of DNA and public policy as both a scientist and politician.

Dr James Crofton Weaver

Laudation – James Weaver is a cardiologist who has made significant contributions to teaching and research on the treatment of heart disease.

Professor Frances Rosamond

Laudation – Frances Rosamond has an international reputation in the field of algorithms and complexity theory.

Mr Warwick Bruce Giblin

Laudation – Warwick Giblin has been a leader in the development of the environmental management profession.

Professor Timothy Kilgour Roberts

Laudation – Tim Roberts has made a substantial contribution as a researcher and educator in the areas of chronic pain, fatigue and autism.

Professor Eric Pui Fung Chow

Laudation – Eric Chow is an internationally recognised epidemiologist in the field of sexually transmitted infections.

MEMBERSHIP

Associate Professor Ingvars Birznieks Dr Mustafa Steve Kassem David Ryan Connolly Reynolds

Benjamin Nossiter

4. PRESENTATION OF FELLOWSHIP AND MEMBERSHIP CERTIFICATES

The President will present certificates to new Fellows whose nomination was tabled at the previous OGM (or who were unable to attend previously to receive their certificate).

Fellowship

Professor Alan Davison

Professor Michael Blumenstein

Professor Peter Philip Gray

Professor Christopher Alan Armstrong

Professor Chennupati Jagadish

Professor Trevor Colin Brown

Professor David Christopher Currow

Dr Sarah Jones

Professor Victoria Katharine Haskins

Professor Andrew Baker

Professor Lyria Kay Bennett Moses

Professor Robert John King

Professor Stuart James Khan

Professor Clement Tien-Hui Loy

Membership

Professor Philip Michael Hansbro

Felicity Nelson

Dr John James Byrne Timmins

Christopher Michael Finn

Sarah Christina Bartlett

Associate Professor Christopher Stephen Paschal McErlean

Dr Michael Alexander de Percy

Dr Hugh Douglas Goold

Nicholas John Meagher

Dr Vafa Darren Ghazavi

Dr Shakeel Ahmed Ibne Mahmood

Assoc Prof Elizabeth Stockdale

Dr Catherine Ball

Associate Membership

Jennifer (Jeny) Broughton Baume

5. REPORT FROM COUNCIL AND COMMITTEES OF COUNCIL

The President will update membership on the key activities underway for 2024.

6. OPEN LECTURE

"RNA and me: from the origins of life and nanomedicine to building an RNA ecosystem"

Professor Pall Thordarson FRSN

Director, UNSW RNA Institute UNSW Sydney

Pall Thordason will discuss his quest for broadening our understanding of how life originated and the RNA world theory and then his work within the burgeoning nanomedicine sector, and how these conspired to throw him into the deep end of the rapid development of a RNA ecosystem in Australia.

The RNA world idea, within the "origin of life" field, centres around the observation that the RNA molecule can do both: carry information (e.g., mRNA) and perform catalytic reactions (e.g., the ribosome – the protein synthesis factory in our cells). For the RNA world hypothesis to be true, there must have been some "intermediate" complex assemblies between simple RNA building blocks and fully functional RNA catalytic/self-replicating systems. Having worked on peptide gels for over a decade, he and his team noted that recent studies in biology suggested that peptides and RNA readily form gel-like structures under certain conditions. They have therefore been investigating if gel formation from short RNA and peptide molecules could form gel-like aggregates and ultimately, if these could provide a pre-biotic chemistry-relevant path for a proto-ribosome to chemically evolve from the pre-biotic soup of chemicals.

Indirectly leading on from the above, Pall entered the field of nanomedicine over a decade ago with an initial focus on targeted delivery with nanoparticles. The potential importance of understanding better how peptides could also aid in the delivery of RNA therapeutics was not lost on his team and therefore, some time ago, he started to argue the case for more investment in RNA therapeutic development. Having first approached our state government in 2019, the recent pandemic and the successful deployment of mRNA vaccines then enabled us to rally scientists for universities and medical research organisations from across the state, and work with like-minded groups in other states, to advance the vision of making Australia a powerhouse in the emerging RNA ecosystem.

About the speaker

Pall (Palli) Thordason obtained his BSc from the University of Iceland in 1996 and a PhD in Organic Chemistry from The University of Sydney in 2001. Following a Marie Curie Fellowship in the Netherlands, he returned to Australia in 2003 and was then appointed at UNSW Sydney in 2007 as a Senior Lecturer where he became a full Professor in 2017. He is the Director of the UNSW RNA Institute and the President of the Royal Australian Chemical Institute (RACI). He is also a program leader for the NSW RNA Production and Research Network and leads the NSW RNA Bioscience Alliance on behalf of the NSW Vice-Chancellor's Committee. Palli has published over 140 referred papers, including in prestigious journals such as Nature and Nature Nanotechnology. His research interest ranges from Nanomedicine, RNA, and peptides to Supramolecular and Systems Chemistry. He is focused on advancing our understanding of how molecules interact with one other and 'self-assemble', and how self-assembly can then be harnessed to create novel functional materials and systems. He has received several awards including the 2012 Le Fèvre Memorial Prize from the Australian Academy of Science for outstanding basic research in Chemistry by a Scientist under the age of 40.

7. VOTE OF THANKS

8. CLOSE - President

Dr Donald Hector AM FRSN Secretary