

“From fundamental RNA interactions to building an RNA Ecosystem”

**Speaker: Professor Pall (Palli) Thordarson, UNSW RNA Institute and School of
Chemistry, UNSW**



Biography:

Prof. Pall Thordarson (Palli) 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 currently the Director of the newly formed UNSW RNA Institute and the President-Elect 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 the behalf of the NSW Vice-Chancellor's Committee.

Palli has published over 130 referred papers, including in prestigious journals such as Nature and Nature Nanotechnology, his research interest range from Nanomedicine and Light-harvesting Materials to Supramolecular and Systems Chemistry. He has received a number of 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.

Abstract:

In this talk I will discuss our recent work on understanding how RNA interacts with peptides and then chart the course on how that fundamentally driven project, took us towards the exciting frontier of RNA-based therapeutics and then how this has then underpinned our contributions towards building a RNA ecosystem and manufacturing capabilities in Australia.

Recently, biologists have come to recognise that non-coding RNA plays a major role as a structural and organisational element in cell biology and development. The dynamic interactions between non-coding RNA and various intrinsically disordered proteins (IDP – effectively very long unfolded peptide chains) leads to the formation of condensates that are often referred to as liquid-liquid phase separated (LLPS) droplets. We entered this field, noting the similarities between these RNA-protein droplets and peptide-gels – materials that we have been studying for a considerable time.

[Abstract document.pdf](#)

All welcome!

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