

Assembling a cell-specific transcription complex



Presented by

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Abstract

LIM-domain proteins are transcription factors that act in combination to up-and down-regulate the expression of genes that guide cell specification during development, particularly in the central nervous system. They recognise very similar AT-rich sequences but are very good at regulating the expression of specific genes. We've been using a combination of structural biology and binding studies to try and understand how these transcription factors assemble to form cell-specific transcription complexes with different DNA-targeting binding properties including unusual binding kinetics and transient or dynamic binding events.

Biography

Prof Jacqui Matthews is currently Professor of Protein Chemistry in the School of Life and Environmental Sciences at the University of Sydney. She is an alumna of the University of NSW where she completed a degree in Biochemistry and Chemistry before undertaking a PhD in Protein Folding at the University of Cambridge with Alan Fersht. Jacqui was a post-doc at the Ludwig Institute in Melbourne before moving back to Sydney and being awarded a series of fellowships to work on protein-protein and protein-DNA interactions of LIM family proteins. She also does a lot of teaching, was Program Chair then President of the Lorne Protein Conference, and is coming to the end of her tenure as President of the Australian Society for Biochemistry and Molecular Biology.