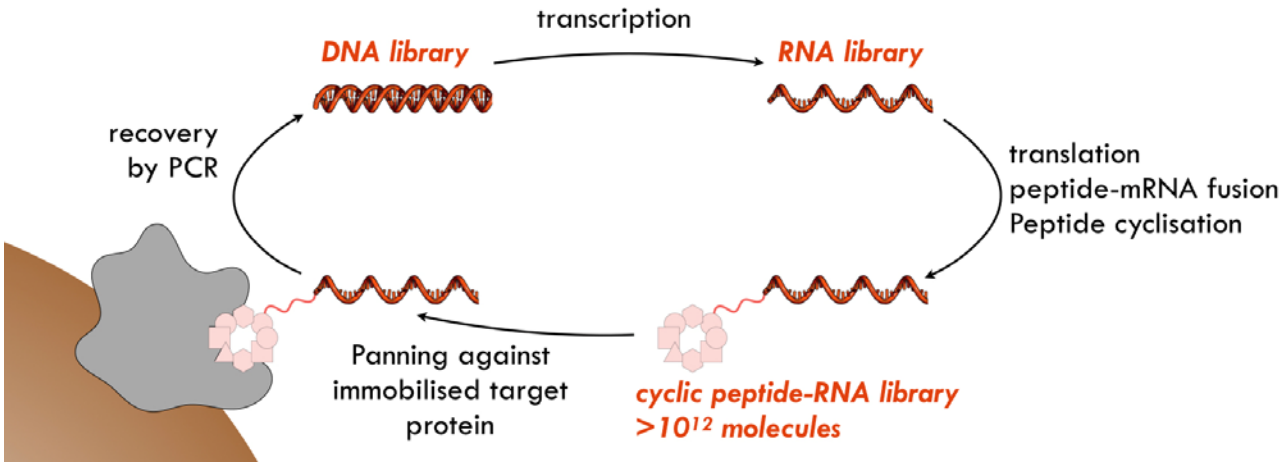
THE UNIVERSITY OF SYDNEY

Cyclic Peptide Display Screening

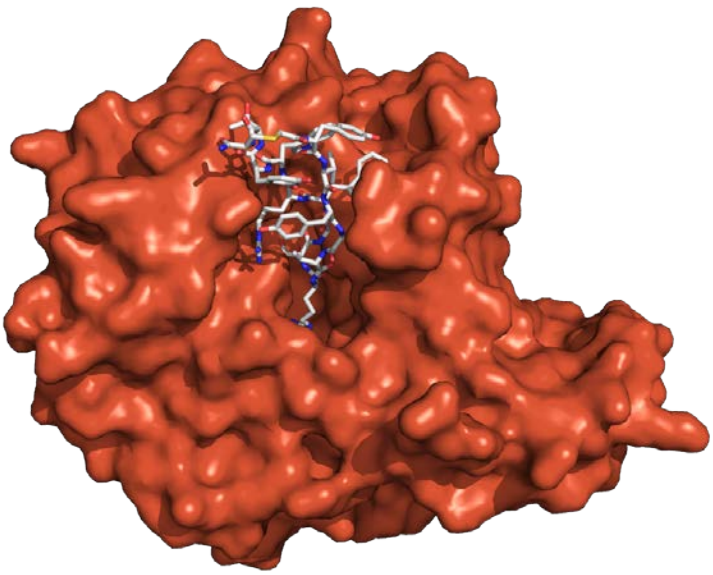


High affinity ligands to any expressible target

Small cyclic peptides are small enough to display drug-like properties, but large enough to block protein-protein interactions, making them applicable to the targeting of virtually any protein. Recently developed techniques allow for the parallel synthesis of trillions of cyclic peptides each linked to their cognate mRNA, which can easily be screened for target affinity (through iterative rounds of target binding and recovery by PCR) leading to the isolation of ligands with exceptional target affinity (low nM K_D) and selectivity (typically, at least an order of magnitude, even for closely related homologues). The molecules identified are amenable to chemical synthesis and can act as either agonists or antagonists. Using techniques that are currently restricted to a handful of academic institutions worldwide, our cyclic peptide display screening capability enables users to rapidly identify high affinity ligands to any expressible protein of interest.

Summary

- Applicable to any expressible protein.
- Leads to identification of multiple ligands.
- Affinities typically nM to pM range.
- Highly selective binders.
- “Hits” are amenable to chemical synthesis.
- Can identify agonists and antagonists



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