

Platforms for the intracellular generation and high-throughput screening of cyclic peptide libraries

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Microcycles are head-to-tail cyclic hexapeptides that hold much promise in drug discovery against the most challenging targets. Here, we will detail several platforms for the preparation of genetically encoded Microcycle libraries in cells and in microfluidic droplets. These libraries have been interfaced with a number of high-throughput assays for the direct identification of functional inhibitors of various protein-protein and protein-DNA interactions, including several first in class compounds. The presentation will include examples in which Microcycle hits from these screens have been scaffold-hopped into small molecules as a first step towards clinical candidates.