

HKU project funded under the NSFC/RGC Joint Research Scheme

Discovery of Novel Molecular Glue Molecules by Using DNA-encoded Chemical Libraries (DELs)

Principal Investigator (Hong Kong):

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Project Summary:

Molecular glue is a class of small molecules capable of inducing neo-interactions between two proteins that do not interact under natural conditions. Molecular glues have shown great potential in interrogating 'undruggable' drug targets of human diseases. However, most molecular glues known today were discovered by serendipity, and a rational and systematic approach to their discovery is highly desired. This project will utilise DNA-encoded chemical library (DEL), a powerful screening technology, to realise the rapid discovery of new molecular glues and to use the molecular glues to address some of the most challenging targets in cancers and other human diseases.

港大「聯合科研資助基金計劃」項目

基於 DNA 編碼分子庫 (DEL) 技術發現新型分子膠水

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項目簡介：

分子膠是一類能夠誘導兩種在天然條件下不相互作用的蛋白質之間產生新相互作用的小分子化合物。近年來，分子膠在針對人類疾病中眾多「不可成藥」藥物標靶方面顯示出巨大的潛力。然而，當今已知的大多數分子膠都是偶然發現的，因此需要一種基於理性設計，且系統化的方法用於分子膠的發現。本項目將利用 DNA 編碼分子庫（DEL）藥物研發篩選技術，實現新型分子膠的快速發現，並利用所發現的分子膠化合物來針對癌症和其它疾病中一些最具挑戰性藥物靶標進行新藥研發。