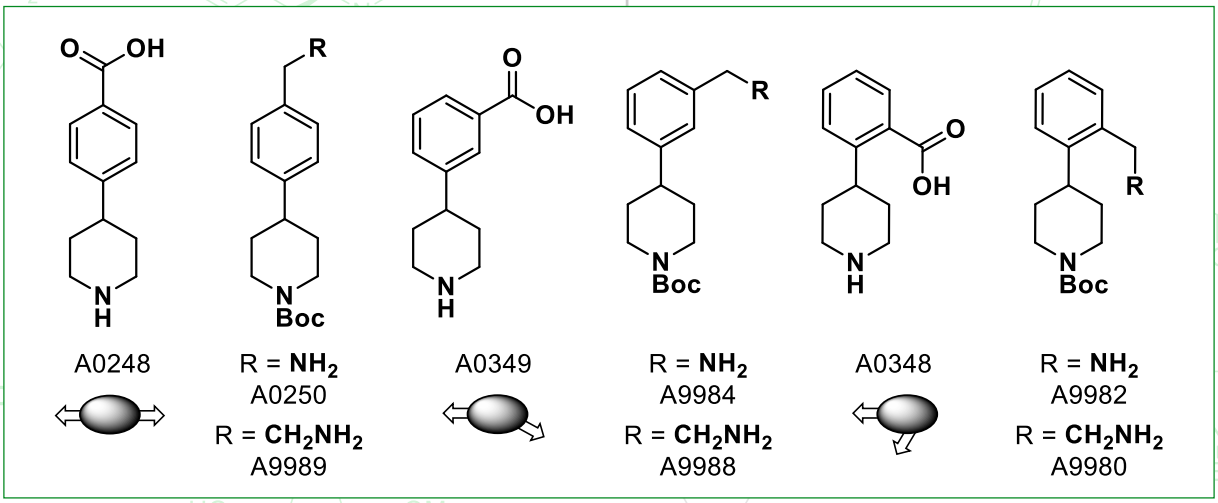
LIVERPOOL CHIROCHEM

Molecules of the Month

Semi-flexible linker for PROTACs

Liverpool ChiroChem Ltd. (LCC) is a chemical technology innovator who recognizes that this is an exciting time for PROTACs, which have been published for the first time almost 20 years ago, and are just reaching clinical trials. Thanks to an event-driven mode of action and their catalytic nature, the PROteolysis Targeting Chimera compounds (PROTACs), by hijacking the ubiquitin-proteasome system to induce degradation of the target, provide an attractive approach for new drug classes. PROTACs are small hetero bifunctional molecules that consist of a protein of interest ligand (Lig-POI), and an E3 ubiquitin ligase recruiting ligand (Lig-E3), connected by a linker (Link).

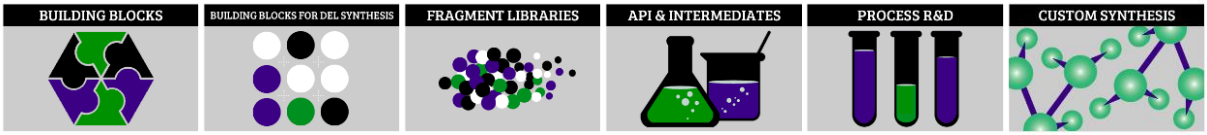
While most researches are focussing on Lig-POI and Lig-E3, LCC's compounds present an original alternative to classical linkers.



With two synthetic handles, the 4-aryl piperidines could be used as semi-flexible linkers, allowing a better control of the 3D-orientation of the PROTACs, compared to other saturated linear linkers. Thanks to the diversity of the synthetic handles available (which are not limited to the structures shown), combinatorial chemistry would give rapid access to a broad range of [Lig-POI]-[Link]-[Lig-E3].

LCC is always excited to support emerging technologies and is looking forward to more collaboration into the PROTACs field. Therefore, LCC will support and attend the European Protein Degradation Congress in Basel (May 2020).

Should you require any further information, do not hesitate to get in touch with us at sales@liverpoolchirochem.com.



University of Liverpool, Department of Chemistry
Crown Street, Liverpool, L69 7ZD, UK
www.liverpoolchirochem.com