



## LCC'S MOLECULES OF THE MONTH

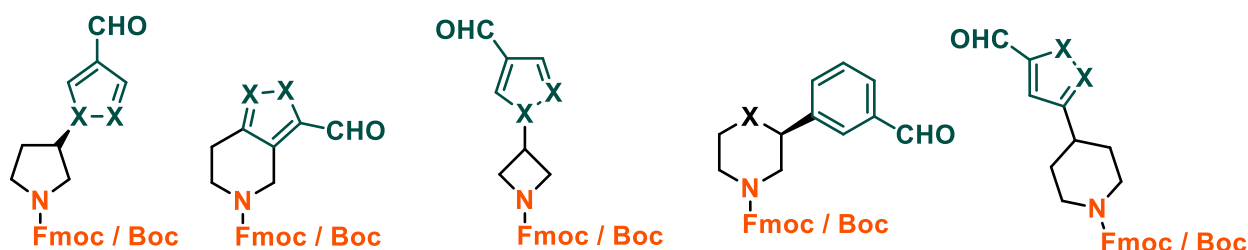
### New Bifunctional DEL Library Design

Aldehydes are a versatile class and an important building block for DEL design, owing to the numerous amounts of DNA compatible transformations into **synthetically useful functional groups** such as:

- Carboxylic Acids via Pinnick oxidation (suitable for DEL in solid phase)
- Amines via Reductive Amination
- Alkenes – Wittig / HWE reaction
- Alkynes – Seyferth–Gilbert homologation
- Oxazoles – isocyanide cyclisation
- Tryptolines – Pictet–Spengler cyclisation

A recent publication<sup>1</sup> commented that the available set of aldehydes for DEL synthesis is highly focused towards benzaldehyde derivatives, which limits structural diversity in library design.

To address the limited diversity profiles of aldehyde building blocks for DEL, we have designed a selection of both aryl and heteroaryl aldehydes bound to a variety of our core sp<sup>3</sup> rich heterocyclic scaffolds, yielding **novel unique building blocks for DEL library design**.



Designed compounds are **mainly bifunctional** in which the amine heterocycle is protected with the desirable Fmoc protecting group (or Boc available on request). Some tri-functionalized scaffolds are also available containing orthogonal Boc / Fmoc protection on differing amine functionalities.

If you would like to find out more or discuss any of this further, do not hesitate to get in touch with us at [sales@liverpoolchirochem.com](mailto:sales@liverpoolchirochem.com).

(1) Zhang, Y.; Clark, M. A. Design Concepts for DNA-Encoded Library Synthesis. *Bioorg. Med. Chem.* **2021**, *41*, 116189. <https://doi.org/https://doi.org/10.1016/j.bmc.2021.116189>.