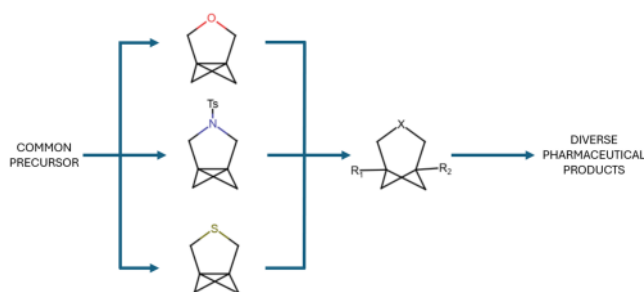


Hetero[3.1.1]propellanes - Precursors to novel, versatile meta-bioisosteres for enhanced drug discovery

The first synthetic route to stable hetero[3.1.1]propellanes - Precursors to versatile hetero-BCHeP bioisosteres for enhanced drug design.

Applications: Drug discovery, lead optimisation, SAR studies



Features	Benefits
Novel heteroatom-containing [3.1.1] propellanes offer an entry to compact hetero-bicyclo[3.1.1]heptanes for precise spatial control of substituents	Potential to improve drug properties e.g. enhance solubility, optimise lipophilicity
Bioisosteric design mimics meta-substituted benzene and pyridine motifs	Expands the chemical space, enabling access to novel 3D fragments for better target engagement and selectivity
General synthetic route enables broad substitution patterns and heteroatom variants	Quickly generates diverse range of analogues for structure-activity relationship studies
Efficient single-step bridgehead disubstitution	Simplifies synthesis of structurally complex hetero-BCHePs with broad therapeutic applicability

Features	Benefits
Hetero-BCHep products are isolable, storable and compatible with downstream transformations	Reduces development risk by replacing problematic aromatic rings with robust, predictable scaffolds

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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