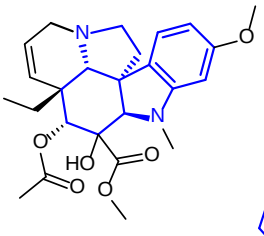
- **4′100 compounds**
- **Source of biologically validated starting points**

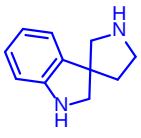
Screening of natural products has inspired discovery of remarkable number of drugs. Enrichment of small libraries with compounds possessing structural motifs validated by nature allows reaching better molecular profile and improves biological response. A special place in drug development should belong to Natural Product-like Fragments as promising starting points within attractive chemicals space.

- *Scaffold Tree approach* was applied to the Universal Natural Product Database (UNPD) comprising over 200K compounds to extract initial Scaffold Set.
- MedChem structural filters and refinements were used in order to remove trivial chemotypes, PAINS and overpopulated cores resulting in the *Reference Scaffold Set* with *550 structures*.
- Substructure and similarity searches were applied to extract compounds bearing natural-like cores and moieties. *Scaffold frequency analysis* was carried out to finalize and optimize fragment library.

Parameter	Range
MW	100 … 300
HAC	7 … 22
ClogP	< 3
HBD	≤ 3
HBA	≤ 4
RotBonds	≤ 4
TPSA, Å^2	< 115



Vindoline



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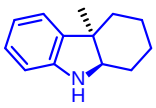

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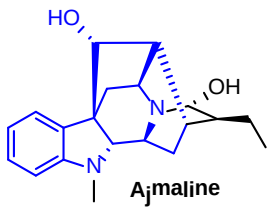

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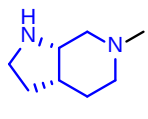

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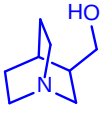

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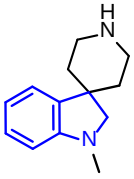

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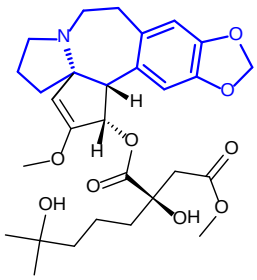
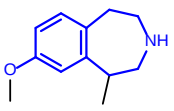


Omacetaxine mepesuccinate



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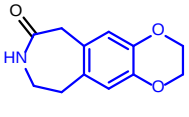

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