

# SCREENING LIBRARY

## *Assay Development and Screening*



## OUR CAPABILITIES, SKILLS AND EXPERTISE

### DIVERSE LIBRARY (80,000 COMPOUNDS)

- High quality, diverse and synthesised in-house – not commercially available
- Design guided by Evotec's proprietary library profiler software to ensure all compounds meet stringent criteria
- Compounds prepared using validated synthetic routes, ensuring rapid access to analogues and thus accelerating hit-to-lead optimisation
- More than 60 different structural classes of compounds
- Privileged scaffolds and drug-like functionality complemented with extensive use of proprietary building blocks

### DIVERSE ISLANDS OF SIMILARITY (100,000 COMPOUNDS)

- Compounds acquired from third-party sources to enhance the diversity of the library through "diverse islands of similarity"

- Compounds selected using proprietary software to fill chemical space around Evotec's synthesised collection and gene family focused sets, thus ensuring maximum diversity

- Close neighbours provide SAR information during screening
- Compounds rigorously analysed after purchase to ensure they are of the required purity

### GENE FAMILY FOCUSED SETS (70,000 COMPOUNDS)

- Provides rapid and direct access to library subsets focusing on important target areas
- Experts identified relevant targets within a certain target class, based on a phylogenetic analysis, to ensure an optimal structural diversity
- Chemical structures linked to targets retrieved by comprehensive patent and literature searches

Evotec's library of 250,000 drug-like and lead-like compounds is available to clients for screening. Through continued development and ongoing monitoring, Evotec has ensured that its library is of the highest quality, diversity and novelty. The library is housed in a state-of-the-art compound management facility that is integrated into Evotec's world-leading screening platform. Evotec's screening library has a successful track record of delivering high quality starting points for medicinal chemistry optimisation, resulting in the reduction of time and costs spent on false positives and false negatives.

- Proprietary neural network (Kohonen mapping) software used to identify gene focused sets

### QUALITY MANAGEMENT

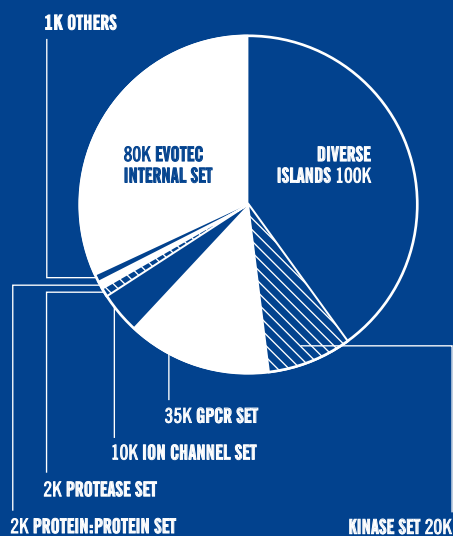
- Evotec has a policy in which new compounds (non-commercial and commercial) are routinely added to maintain novelty, diversity and quality
- Library is stored in DMSO at -20°C under Argon in state-of-art storage system; conditions which have been shown to minimise any potential degradation\*
- Compound management processes are optimised in order to minimise freeze-thaw cycles

\* Ilouga PE, Winkler D, Kirchhoff C, Schierholz B, Woelke J.: Investigation of 3 Industry-Wide-Applied Storage Conditions for Compound Libraries. *J Biomol Screen* 2007; 12: 21-32.

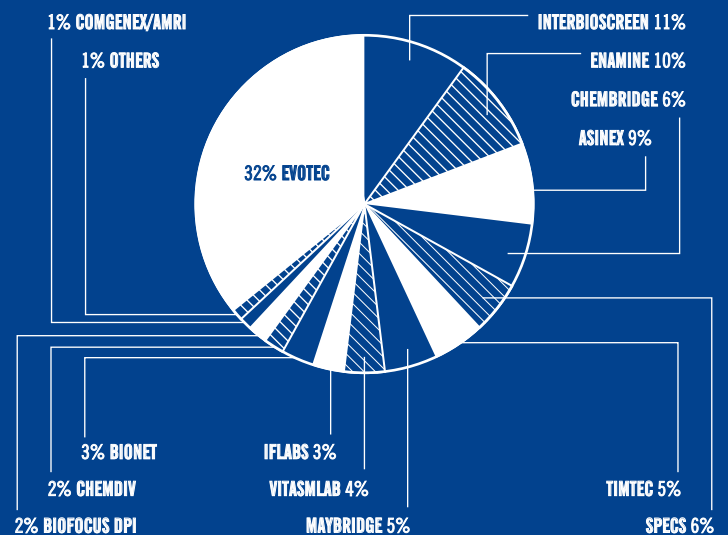
*Evotec's compound library is differentiated by its quality, novelty and diversity. Using this collection will maximise the probability of success in your hit finding programme*

*A 250,000 small molecule screening library designed for quality, novelty and diversity*

- Proven enhanced hit-rate from focussed sets
- Diverse ‘islands’ of similar compounds facilitate hit series selection and provide SAR from screening data
- Regular purity analysis by LC-MS



*A significant proprietary set (32%) and multiple commercial sources deliver diversity and novelty*



- Selecting the right compounds from reliable suppliers to complement Evotec’s in-house synthesised collection
- All external compounds undergo the same rigorous quality control as Evotec’s internal compounds

*Distribution of calculated properties in Evotec’s discovery screening library*

