

Evotec's expertise in medicinal chemistry has enabled it to carry out more than 200 collaborations with leading Pharmaceutical and Biotechnology companies.

Evotec has a broad therapeutic knowledge and as a result our scientists are named inventors on more than 100 medicinal chemistry patent applications encompassing many therapeutic areas and a variety of target classes including kinases, GPCR's and ion channels.

Our Capabilities

Structural Biology

Target Class Expertise

Hit to Lead & Lead Optimisation

Computational Chemistry

Pharmacokinetics

Primary & Secondary Screening Support

Skills & Expertise

Structural Biology

- Expertise in *de novo* X-ray crystallographic structure elucidation facilitating novel structural information for rational compound design
- Routine and effective delivery of atomic structure information of bound ligands to drug targets, maximising the efficiency of synthetic chemistry through structure-driven drug discovery

Target Class Expertise

- Significant biology and chemistry expertise in all major target classes resulting in more than 100 patent applications with Evotec scientists as named inventors
- Efficient and successful drug discovery *via* an unrivalled range of solutions from ligand design to delivery of clinical candidates

Hit to Lead & Lead Optimisation

- Hit to lead projects conducted in a rigorous and efficient manner, involving hit-confirmation and validation followed by rapid optimisation
- Highly skilled and experienced medicinal chemists making use of a hypothesis-driven, multiparameter approach to lead optimisation

Computational Chemistry

- Computational and medicinal chemists working closely together applying ligand and structure-based methods, ensuring the effective design of new analogues based on existing or alternative scaffolds
- QSAR and *in silico* ADMET models developed for each project and used in our hypothesis-driven, multiparameter optimisation process

Pharmacokinetics

- Comprehensive range of high quality *in vitro* ADMET assays used to reduce the attrition rate within preclinical and clinical testing.
- Integration of pharmacokinetic and pharmacodynamic information to accelerate lead optimisation programmes for all target classes

Primary & Secondary Screening Support

- Experienced teams of biologists and medicinal chemists working together, enabling the efficient generation, analysis and optimisation of SAR information
- Selectivity and functional assays to maximise SAR information and ensure rapid progression of your programme



Oxytocin receptor antagonists: Library design to clinical candidate

As part of a collaboration with Serono, Evotec co-designed and synthesised a GPCR-biased library of small molecules for screening against a number of GPCR targets including the oxytocin receptor. The screening identified several families of oxytocin antagonists. These were prioritised for further evaluation by an experienced Evotec medicinal chemistry team.

During lead optimisation, the requirements for potent oxytocin receptor antagonism and selectivity versus other GPCR's were achieved and compounds possessing substantial levels of oral bioavailability and *in vivo* efficacy were designed and synthesised. A development candidate was nominated and Evotec carried out process research and development chemistry activities.

"We are impressed by the quality of services and the scientific expertise of the chemists at Evotec, which is greatly enhancing our search for new drug products."

Track Record

- Completed more than 200 programmes for 75 partners
- More than 50 lead generation programmes completed
- Over 200 highly qualified and experienced chemists, analysts and molecular modellers
- More than 65 hit to lead and 40 lead optimisation programmes carried out for various enzyme and receptor targets
- Produced more than 15 preclinical development candidates for our partners
- 7 compounds approved for clinical trials from our collaborations

Drug Discovery Platform

EVolution™: Proprietary Fragment-based Drug Discovery Platform

Assay Development & Screening

Medicinal Chemistry

Compound Libraries*

* Provided through the joint venture between Evotec and RSIL (Evotec-RSIL Limited)



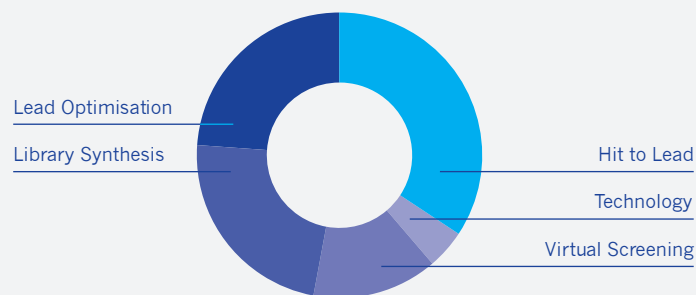
Ultra high throughput screening (uHTS) and medicinal chemistry of novel drug-like compounds

Elixir decided to capitalise on Evotec's comprehensive, high quality expertise to identify novel drug-like compounds for key targets that affect the ageing process. The first uHTS run by Evotec identified potent and drug-like hit structures. Evotec progressed these hits into medicinal chemistry programmes to optimise their potency, selectivity and pharmacokinetic profile.

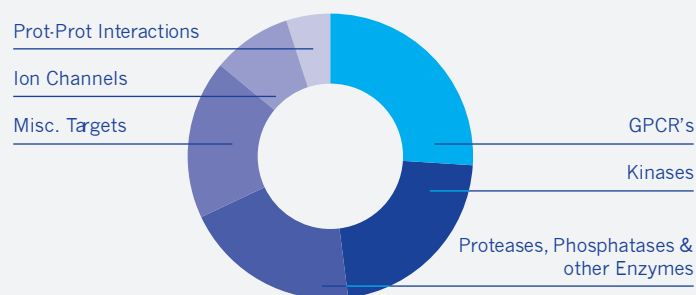
"Evotec is much more than an outsourcing partner to us. Their understanding of the drug discovery, biology processes and experienced consultancy compliment our biology and understanding of the genetics of ageing. In just over a year they (Evotec) have delivered a number of validated lead series and we firmly believe that the partnership has saved us overall two years in development"

Peter DiStefano, Ph.D., Chief Scientific Officer, Elixir Pharmaceuticals

Over 200 programmes carried out



Significant spread of target class expertise



Contact our commercial team:

United States +1.240.683 1199

Europe +44.(0)1235.83 88 35

Asia +49.(0)40.5 60 81-432

Website www.evotec.com

Email info@evotec.com