

IN VITRO iPSC RESEARCH SERVICES

HIGH-VALUE iPSC RESEARCH SERVICES

Patient-derived induced pluripotent stem cells (iPSCs) provide unique opportunities for drug discovery to identify new mechanisms of disease. Evotec has built an iPSC infrastructure that represents one of the largest and most sophisticated platforms in the industry.

Evotec's iPSC platform has been developed with the goal to industrialise drug discovery utilising iPSC-derived cells in terms of throughput, reproducibility and robustness to reach highest standards. Evotec's iPSC platform is closely connected to a variety of in-house key technologies, which – together with our strong focus on standardisation, upscaling and QC – is essential for offering high-value iPSC research services:

- ▶ Robust differentiation protocols or adaptation of client protocols
- ▶ High-quality production of iPSC-derived cells at large scale
- ▶ Disease-relevant phenotypic read-outs for exploratory research and compound profiling/HTS
- ▶ Proprietary iPSC patent portfolio in tissue and disease modeling



Evotec offers flexible entry and exit points for our clients and partners, who can choose only one or up to all of the following building blocks:

iPSC CELL CULTURE

- ▶ Evotec or client iPSC lines
- ▶ Expansion & banking
- ▶ Genetic engineering

CELL DIFFERENTIATION

- ▶ Several established cell types
- ▶ Adaption and optimisation of third party protocols
- ▶ Upscaling from bench-top to production level and bulk quantities
- ▶ Provision of cells for screening in various formats, e.g. frozen vials or assay-ready plates

DISEASE MODELING & EXPLORATORY RESEARCH

- ▶ Induction of disease phenotype and conversion into assay-ready mechanism
- ▶ Validation of target or mechanism
- ▶ Assay development and proof-of-concept

COMPOUND SCREENING AND PROFILING

- ▶ Screening of small and large compound libraries, incl. H2L/LO support
- ▶ High-content and phenotypic screening, e.g. imaging, RT-q PCR, transcriptomics
- ▶ Functional read-outs, e.g. cardiac contractility, microelectrode array, Ca⁺⁺-flux
- ▶ Profiling of small molecules, biologics, and antisense/siRNA screening

