

DE High-capacity screening site

Fraunhofer Institute for Translational Medicine and Pharmacology (ITMP)

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„EU-OPENSOURCE membership is an essential way for Fraunhofer to connect and collaborate with disease biology experts across Europe. We look forward to working with you and helping discover new hits, leads and chemical tools to facilitate your research.“

At a glance

- High capacity screening site with access to the EU-OPENSOURCE European Chemical Biology Library and the European Academic Compound Library
- Over 300 biochemical and cellular assays developed in past 10 years
- Level 1 and 2 biosafety laboratories including dedicated microbiological screening
- *In-vitro* toxicity and ADME profiling (cell viability to gene-tox)
- Visiting scientists can work with our team to adapt and screen assays
- Cheminformatics and structure expertises for compound selection and prioritisation

Infrastructure and technical focus

- Assay development laboratory for miniaturisation and transfer
- Two large scale automated screening platforms, able to support all main optical and image based assay endpoints
- FACS and live cell imaging screening
- Surface plasmon resonance and target engagement assay for hit characterisation
- Advanced informatics workflows for imaging based projects
- Dedicated iPS laboratory for disease model development and testing



"We offer state-of-the-art infrastructure, an extensive expertise in assay development, HTS and structure-based drug design."

Projects past and present

- 2020 | **EXSCALATE4C** (Compound repurposing for new COVID-19 treatments) ➔ [Link](#)
- 2020 | **NEURIMS** (Validation of the ion channel TRPM4 as a neuroprotective target in Multiple Sclerosis) ➔ [Link](#)
- 2020 | **conSCIENCE** (Cap snatching endonucleases as broad spectrum anti-viral targets) ➔ [Link](#)
- 2019 | **FAIRplus** (Make life science data FAIR - Findable, Accessible, Interoperable, Reusable - and improve data management) ➔ [Link](#)

Our science in selected publications

An automated and high-throughput-screening compatible pluripotent stem cell-based test platform for developmental and reproductive toxicity assessment of small molecule compounds. ➔ [Cell biology and toxicology, 2020, 1-15](#)

Activation of caspase-6 is promoted by a mutant Huntingtin fragment and blocked by an allosteric inhibitor compound. ➔ [Cell chemical biology, 2019 26 \(9\), 1295-1305. e6](#)

In vitro and in silico analysis of the effects of D₂ receptor antagonist target binding kinetics on the cellular response to fluctuating dopamine concentrations. ➔ [British journal of pharmacology, 2018, 175 \(21\), 4121-4136](#)

A high-content small molecule screen identifies novel inducers of definitive endoderm. ➔ [Molecular metabolism, 2017, 6 \(7\), 640-650](#)

Further info and site-contact

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