High Throughput Biomedicine Unit, Institute for Molecular Medicine Finland (FIMM)

University of Helsinki, Tukholmankatu 8, 00290 Helsinki, Finland

At a glance

- High-end integrated laboratory automation with versatile liquid handling and signal detection instruments
- Access to the EU-OPENSCREEN European Chemical Biology Library and the European Academic Compound Library as well as to local libraries
- Cell-based and biochemical HTS projects utilizing small molecules and/or genome-wide siRNA library
- Established practices for ex vivo testing of patient samples against oncology drugs
- Visiting scientists are welcome to work with our team

Infrastructure and technical focus

- Expertise in screening project planning, assay development, and miniaturization
- HighRes Biosystems automated A-cell robotic platform for fully automated screening projects
- BeckmanCoulter Access platform and ECHOs for acoustic dispensing of liquids at nanolitre scale
- Optical, imaging, RT-qPCR and HT flow cytometry based signal detection modalities
- Data analysis tools and pipelines

Projects past and present

2020 | Drug repurposing for SARS-CoV-2 with an open high throughput drug screening platform
2020 | Multiplexed and miniaturized immunofluorescence assay for SARS-CoV2 immunity measurement with AI-assisted image analysis

Our science in selected publications

Therapeutic targeting of KSP in preclinical models of high-risk neuroblastoma
(Science Translational Medicine (2020), 12: eaba4434)

Network pharmacology modeling identifies synergistic Aurora B and ZAK interaction in triple-negative breast cancer
(NPJ Systems Biology and Applications (2019), 5, 20)

Breeze: an integrated quality control and data analysis application for high-throughput drug screening
(Bioinformatics (2020), 36, 3602-3604)

Methods for high-throughput drug combination screening and synergy scoring.
(Methods in Molecular Biology (2018), 1711, 351-398)

Further info and site-contact

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Prof. Päivi Tammela (Head of Unit)

“As a member of the EU-OPENSCREEN network, our FIMM HTB Unit is looking forward to building exciting new collaborations and to supporting screening projects stemming from your research with our expertise and infrastructure for high-throughput screening.”