DK | Specialist screening site

University of Copenhagen – Biotech Research & Innovation Centre (BRIC)

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„EU-OPENSCREEN connects resources and technologies in a common effort to provide top-notch screening possibilities for European researchers. BRIC is looking forward to contribute to this community with our expertise on high content screening.“

At a glance

- Partner site specialized in high content screening
- Medium throughput capacity for smaller commercial or academic libraries (10k) and phenotypic validation libraries
- More than 10 years of experience with a variety of phenotypic readouts (autophagy, ribosome modifications, cell cycle regulation, DNA damage, neuronal homeostasis, cancer cell proliferation, protein degradation pathways)
- Advanced image analysis on physiologically relevant 3D cultures

Infrastructure and technical focus

- High content imaging in 2D and 3D
- Advanced image analysis of complex phenotypes
- Live-cell imaging
- Advanced in-house developed data analysis pipelines
- Screening platform, including liquid handling stations and flexible acoustic liquid transfer in nanoliter scale
- Full support during assay development and screening process

Projects past and present

siRNA screen of the DDR pathway to investigate drug effects

Drug screen on the rescue of radiation response in astrocytes

Drug screen of patient derived tumor organoids co-cultured with fibroblasts

Arrayed CRISPR screen of DDR pathway genes in breast cancer cells

siRNA screen on autophagy mechanisms in cancer

siRNA screen on effect of DDR and nuclear localization genes on nucleoli in response to damage

Our science in selected publications

A high-throughput screen identifies the long non-coding RNA DRAIC as a regulator of autophagy
Oncogene. 2019; 38:5127-5141

High-throughput siRNA screening applied to the ubiquitin-proteasome system
Methods in Molecular Biology: Proteostasis 2016; 1449:421-39

eIF5A is required for autophagy by mediating ATG3 translation
EMBO Rep. 2018; 19:e46072

Further info and site-contact

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