At a glance

- Screening site specialized on phenotypic assays in complex cellular systems including primary cultures and patient-derived models with access to the European Chemical Biology Library and the European Academic Compound Library
- Expertise from biochemical up to complex cellular assays
- Deep understanding of cellular trafficking and intracellular interactions by different molecular and imaging techniques
- Deep understanding of molecular mechanisms of cell death and metastasis
- Visiting scientists can work with our team to adapt and screen assays

Infrastructure and technical focus

- Assay development laboratory for miniaturisation and transfer
- Co-cultures, 3D spheroids and organoid models from different solid tumors including patient-derived samples
- Screening of exosome biogenesis/release inhibitors by combining AlphaScreen and immunofluorescence assays together with NTA
- HCS live cell imaging screening by confocal microscopy including Cytomics approach by InCell analyzer
- Cell painting approaches (2D and 3D)
- Advanced informatics and data processing workflows for imaging-based projects

Projects past and present

2020 - 2023 | SynVerPPC - PID2019-108806RB-I00 (Synergistic Approach for Metastatic Tumor and Neurodegenerative Disorder Treatments using Versatile PolyPeptide-based Conjugates)
2019 - 2021 | H2020 EU (Deep-Learning and Hpc To Boost Biomedical Applications For Health)
2018 - 2020 | SAF2017-84689-R (Understanding and drugging the Bcl-2 transmembrane interactome for tumor treatment)
2015 - 2020 | ERC Consolidator Grant 2014 Designing Personalised Polymer-based Combination Nanomedicines for Advanced Stage Cancer Patients (Acronym: MyNano)

Our science in selected publications

Polypeptide-corticosteroid conjugates as a topical treatment approach to psoriasis. Journal of Controlled Release 2020, (318), 210-222
Mcl-1 and Bok transmembrane domains: Unexpected players in the modulation of apoptosis. PNAS 2020,117(45), 27980-27988
High Throughput Screening (HTS) to Identify Exosome Biogenesis and Release Inhibitors, 5th Geiex Symposium, 2019

Further info and site-contact

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