

# Centro de Investigación Príncipe Felipe (CIPF)

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Dr. María J. Vicent (Head of Unit)

„Being part of EU-OPENSSCREEN broadens our possibilities to contribute towards the solution of unmet clinical needs. With our expertise in complex cellular systems we will work with you to find the best assay to answer your key scientific questions.“

## 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 Geivex Symposium, 2019](#)

R & D Cloud CEIB: Management System and Knowledge Extraction for Bioimaging in the cloud.

➤ [Advances in Intelligent and Soft Computing 2012, 151, pp.331-338](#)

## Further info and site-contact

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