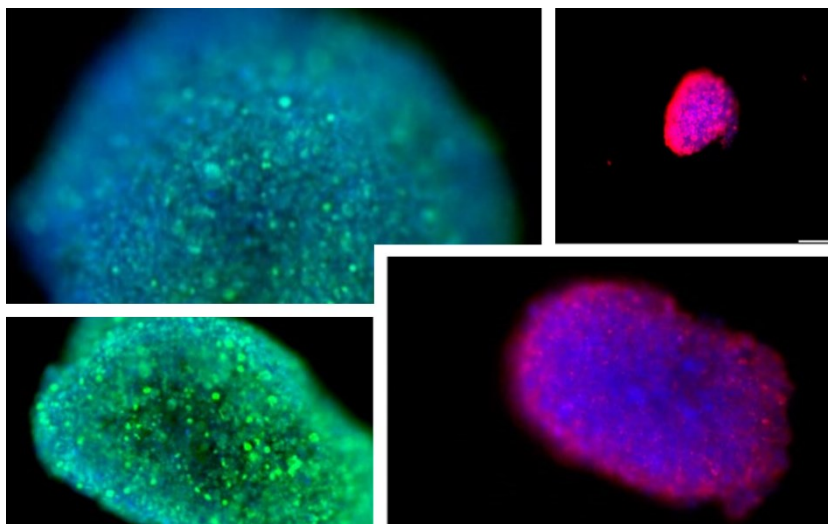


Drug delivery of neuroprotective peptide in a fluid-dynamic *in-vitro* blood-brain barrier (BBB) model

Teresa Barra

Post-Doc at Dept. of Pharmacy,
School of Medicine, University of
Naples, Federico II.

PhD in Biology at the University
of Naples Federico II, Dept. of
Biology, in 2022.



During her PhD, she studied enhance drug delivery of neuropeptides through the central nervous system. She worked on static and dynamic cell culture environment to recreate a physiological blood-brain barrier (BBB) *in-vitro* model, in order to study neuropeptide delivery across the BBB to brain cells. In collaboration with Prof. Salvatore Valiante, her research now focuses on the development of an *in-vitro* three-dimensional fluid-dynamic model of BBB, utilizing bioreactors in which different brain cells can be seeded together in a full working 3D structure ([Barra et al., 2022a](#)). To this end, she is working, by 3D cell culture approach, to obtain spheroids of neuronal cells to study different pharmacological targets. Supported by Parkinson Movement Disorder Foundation, they have studied a 3D dynamic *in-vitro* Parkinson's disease model ([Barra et al., 2022b](#)). To date they are granted two different projects with Prof. Valiante as PI on the enhanced drug delivery for glioblastoma disease. As next steps, the introduction of the 3D bioprinting in the production of BBB *in-vitro* models will be useful to make an affordable and reliable 3D BBB models to evaluate in vitro effective therapeutic approach for many diseases.

Seminar details

Date: Dec 12th, 2023

Time: 16.30

Location: Aula MS1, DICAR