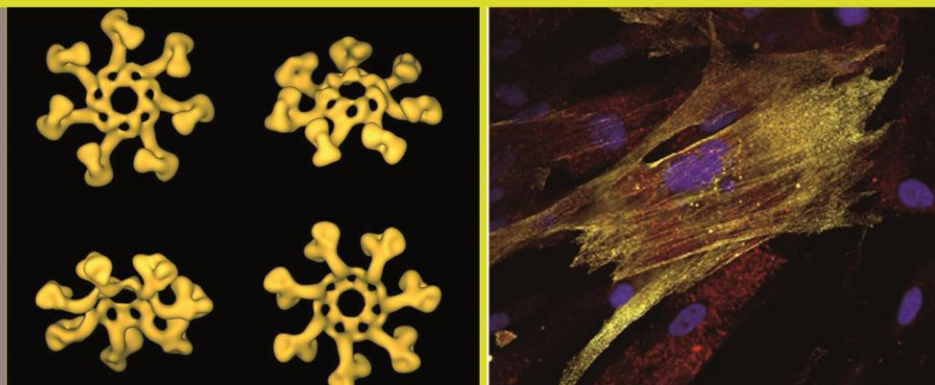**BRUNO MANADAS,** University of Coimbra, Portugal, one of the partners of the Innocore Project.

**HOST:** Manuela Basso and Proteomics and MS facility (Romina Belli and Daniele Peroni)

## SEMINAR

**November, 16th**
**11.30 a.m. via ZOOM**



# A different vision of translational research in biomarker discovery - Case Study for Parkinson´s disease potential biomarkers

The identification of circulating biomarkers that closely correlate with Parkinson's Disease (PD) has failed several times in the past. Nevertheless, in this pilot study, a translational approach was conducted, allowing the evaluation of the plasma levels of two mitochondrial-related proteins, whose combination leads to a robust model with potential diagnostic value to discriminate the PD patients from matched controls. The novelty and success of this pilot study may arise from the combination of: i) a translational research pipeline, where plasma samples are interrogated using knowledge previously obtained from the evaluation of cells' secretome under oxidative stress; ii) the combined used of statistical analysis and an informed selection of candidates based on their link with relevant disease mechanisms, and iii) the use of SWATH-MS, an untargeted MS method that allows a complete record of the analyzed samples and a targeted data extraction of the quantitative values of proteins previously identified. Anjo et al. Translational Neurodegeneration (2020) 9:11

**Bruno Manadas** completed his BSc in Biochemistry in 2001 at the University of Coimbra, Portugal. He then started his PhD in Molecular and Cellular Biology under the supervision of Professor Carlos Duarte in neuroproteomics collaborating with Professor Michael Fountoulakis, at the Academy of Sciences, Athens in Greece. He did a post-doc at the Conway Institute at the University College of Dublin, Ireland with Professor Mike Dunn and Professor David Cotter in neuropsychiatry. He established his lab as a node of the National Mass Spectrometry Network at the Center for Neurosciences and Cell Biology in 2006, has 3 projects as PI, 5 as co-PI, over 90 publications, and has been responsible for a reference lab for Sciex. Collaborating in over 12 ongoing funded projects, his major research field is on biomarker research using both untargeted and translational approaches in neurodegenerative and psychiatry disorders.