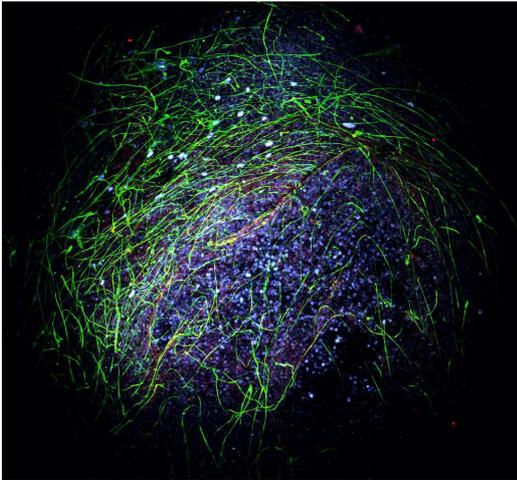


18<sup>th</sup> November 2020

## POST-DOC POSITION AVAILABLE AT VIMM (PADUA, ITALY)

### Biophysical study of brain organoids derived from Parkinson's disease patients



Increasing evidence suggests that Parkinson's disease might be driven by lysosomal dysfunction with cellular waste-clearing. The project aims to functionally characterize midbrain organoids derived from patients carrying pathological variants of the gene encoding the beta-glucocerebrosidase (GBA) lysosomal enzyme, known to confer a 5- to 7-fold increased risk to develop Parkinson's disease. Brain organoids have recently emerged as a three-dimensional tissue culture platform to study neuronal and glial properties in physiological and pathological conditions. The selected candidate will study the structure and functionality of midbrain organoids (<https://youtu.be/cHyhWv37g74U2>) both at single cell and network level using a combination of electrophysiology (patch-clamp) and imaging equipment (wide-field, confocal, 2 photon-STED). The results will be correlated to key pathological pathways including alpha-synuclein aggregation, lysosomal and endoplasmic reticulum stress. The multidisciplinary nature of this new research project

(PRIN, Research Project of National Relevance) is evident from the broad range of expertise of the PIs and Italian centres involved: VIMM, University of Milan, Policlinico of Milan, Humanitas University.

#### QUALIFICATIONS

We are looking for highly motivated candidates holding a master's degree with at least three years research experience, or a Ph.D related to stem cell and/or neurobiology fields. Hands on experience working with molecular biology, human pluripotent stem cells and electrophysiology are meriting. Candidates will also be evaluated based on motivation, flexibility and proved ability to work independently.

#### ABOUT THE VENETO INSTITUTE OF MOLECULAR MEDICINE

The selected candidate will work at the Veneto Institute of Molecular Medicine (VIMM, <https://www.vimm.it/>) in the laboratory of Prof. Mario Bortolozzi, where state-of-the-art biological and biophysical facilities are available. The VIMM is an internationally recognized institute with the mission of establishing a close link between basic and clinical research and promoting translational research. The institute is a dynamic and stimulating environment located in Padua, an attractive historical city close to Venice and the beautiful Dolomites mountains.

#### CONTACTS

Interested candidates should send an email to [mario.bortolozzi@unipd.it](mailto:mario.bortolozzi@unipd.it) including:

- 1) a cover letter describing scientific experience, interests and career goals;
- 2) full CV;
- 3) reference letter and/or names and contact information of at least two professional references.

Applications will be reviewed immediately and considered until the position is filled.

#### JOB DETAILS

**Employer:** University of Padua (Padova), Italy. Website: <http://www.unipd.it/en/>.

**Funding:** Italian Ministry of Research and University (MIUR).

**Supervisor:** Mario Bortolozzi, Ph.D., associate professor at the Department of Physics and Astronomy "G. Galilei", University of Padua. Principal investigator at the Venetian Institute of Molecular Medicine (VIMM), Via G. Orus 2, 35129, Padua, Italy. Website: <http://www.vimm.it/scientific-board/mario-bortolozzi/>.

**Job type:** Post-doc Research Fellowship (Italian "assegno di ricerca").

**Employment type:** 2-year contract available immediately.

**Job hours:** Full-time.