## **AMMINISTRAZIONE CENTRALE**AREA RELAZIONI INTERNAZIONALI PROJECTS & MOBILITY OFFICE





Organising institution

Università degli Studi di Padova Dipartimento di Neuroscienze – DNS

Prof. Angelo Antonini

Partner Institutions

Kings College (UK) university of lund, (Sweden) Goettingen University (Germany)

University of Rotterdam (The Netherlands)

Course Title and Description

## Understanding Neurodegeneration from bench to clinic, from molecules to brain

The Summer School, with a "learning by doing" approach, focuses on innovations and new methods of investigation on the topic of neurodegeneration where it is possible to address aspects related to molecular, instrumental and clinical alterations to better understand the complexity of neurodegenerative processes with particular reference to Parkinson's disease and synucleinopathies. The aim of the Summer School is to provide participants with the theoretical and practical tools to operate in the multidisciplinary context of translational research and transfer this knowledge to clinical practice.

The Summer School in organized in sessions for small groups, face-to-face and in the laboratory, so that participants will be able to learn and master the new methods of investigation through direct experience. The Summer School will also be characterised by an interdisciplinary approach, involving the fields of neurology, basic sciences, genetics, biology and psychology, with the aim of creating an environment that integrates the training skills of individual trainees, and at the same time establishes a common basis for interaction between professionals in the field of neuroscience.

The Summer School will last seven days. The theoretical lectures, held by experts in the field of neurodegeneration, will focus on new methods of investigation in the field of research and on good practice procedures in the clinical field.

There will be 5 teaching areas with lectures and workshops:

- 1) Anatomy and Neurogenetics
- 2) Cognitive-behavioural and brain imaging
- 3) Translational neuroscience and animal models
- 4) Intestinal microbiome and inflammatory bowel diseases with relation to the contribution to neurodegeneration
- 5) Innovative biological therapies

The lectures will be accompanied by practical workshops that will allow the trainees to put into practice the aspects covered during the lectures.

**Period** 18/07/2022 – 25/07/2022

ETCS credits 20

Course fee N/A

**Course Level** Students, graduates and PhD in Medicine. Biology, Psychology