UNIVERSITÀ
DI TORINO

ID

VP126_BIOS

Visiting Professor Program
Academic Year 2023/2024

TEACHING COMMITMENT: **12 hours**

COURSE TITLE

Cellular Neurophysiology

TEACHING PERIOD

1st term

SCIENTIFIC AREA

Physiology

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

Synaptic Transmission: Excitatory Synapses
Synaptic Transmission Inhibitory Synapses: Heterogeneity of GABA interneurons in CNS
Practical small group workshops: students will be required to work in small groups to solve specific problems concerning the lectures topics relevant to human disease.

LEARNING OBJECTIVES

The course aims at focusing the relevant issues of synaptic transmission and aims to foster basic knowledge of students on cellular neurophysiology and electrical signals transmission as well as integrated knowledge of neurophysiology. Additional objective points to a quantitative analysis of some conceptual and technical approaches to neurophysiological mechanisms from a molecular and postgenomic pint of view, with particular emphasis on selected themes.

TUTORSHIP ACTIVITIES

Ca2+ signals analyses using pClamp software and ImageJ: the tutorship will be offered to PhD students and Master students.

LAB ACTIVITIES

Practical small group: Ca2+ imaging analyses using ImageJ

OTHER ACTIVITIES BESIDES THE COURSE

During the Visiting Professorship, the invited professor will also perform a series of lesson in form of seminars as part of the teaching training organized by the PhD School of “Neuroscience”, in accordance with Prof. Fiorio Pla and Prof De Marchis presenting an updated state of the art of the GABA and glutamate ligand-gated channels at the inhibitory and excitatory synapses relevant to the understanding of mechanisms of synaptic plasticity and the plasticity of disease .

VISITING PROFESSOR PROFILE

The Visiting Professor should have a solid teaching experience in Physiology, preferentially with an academic position, as well as a solid experience in English teaching. Due to the focused topic proposed for the Neurophysiology course the Visiting Professor should have both experience in the teaching of fast synaptic transmission Neurophysiology as well as on ion channels involved. On the other hand, it would be necessary that the Visiting Professor has a international-recognized research experience related to ion channels regulation involvement in Physiopathology. The Visiting Professorship will be a great opportunity for the students to be able to meet and to have the possibility of training abroad.

CONTACT REFERENT

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