

UE Synaptic Plasticity of the adult nervous system

ECTS 6 credits



Component UFR Chimie-Biologie

- > Teaching language(s): English
- > Open to exchange students: Yes
- > Code d'export Apogée: YAX9BI14

Presentation

Description

The 3h lectures are given by specialists of the field working in Grenoble or in foreign universities. They will deal with the following subjects:

- Principle of electrophysiology
- Principle of calcium and voltage membrane potential imaging
- The use of transgenic mice and bi-photon microscopy to monitor the role of glial cells in the brain.
- · Ischemia: Glutamate receptors and ischemia
- Of Microtubules and Mitochondria
- Stem cells in the CNS
- · Alzheimer's disease: from the gene down to the synapse
- Huntington and axonal transport
- Htt links Neurodegeneration to CNS development

10h will be dedicated to presentations of scientific articles by students.

Each year, a full day congress will be organized on a particular field, coordinated with other M2 NN modules.





Course parts

Tutorials (TD)	9h
Lectures (CM)	27h
	Lectures (CM) Tutorials (TD)

Skills

After this module, the students should be able to:

- 1. Recapitulate the basic cellular and molecular mechanisms underlying learning and memory as well as those compromised in neurodegenerative diseases.
- 2. Apprehend the state-of-the art methods allowing studies of synaptic plasticity both in vitro and in vivo.
- 3. Explain experimental strategies used in a scientific study, analyze and discuss the results.

Useful info

Contacts

Program director

Remy Sadoul Remy.sadoul@univ-grenoble-alpes.fr

Place

> Grenoble

Campus

> Grenoble - University campus

