



MASTER EUROPÉEN - ISIS IN NEUROSCIENCE AND BIOTECHNOLOGY

CURSUS DESCRIPTION

Two years Master program in Neuroscience and Biotechnology (120 ECTS) funded by the European TEMPUS program. International curriculum with identical core courses with multiple diploma recognition obtained in collaboration with Universities from Euro-Mediterranean countries (France, Italy, Spain, Egypt, Morocco and Lebanon).

Semesters 1 and 2: acquisition of general concepts, including the following modules: 1- Cellular neurobiology; 2- Biotechnology & bioinformatics; 3- Functional and cognitive neuroanatomy; 4- Experimental approaches in neuropathology; 5- Behavior, emotion and cognition; 6- Methodologies; and elective courses: 7- Neuropharmacology; 8- Genomics and proteomics; 9- Developmental biology and ageing; 10- Biophysics.

Semester 3: two modules: 11- Economy and 12- Bioethics, regulations and laws, and 4 specialized tracks in basic or applied neuroscience based on each partner expertise in fundamental or biomedical neurosciences, from cellular to integrative physiology and behavioural neuroscience.

- Track 1: Molecular and cellular Neurosciences, including 3 teaching units: 1- Plasticity and cell communication; 2- Neurogenesis, stem cells and Transplantation; 3- Case study in biotechnology.
- Track 2: Integrative neurophysiology, including 4 teaching units: 1- From sensation to perception; 2- From perception to action; 3- Integrative physiology; 4- Computational neuroscience.
- Track 3: Medical neuroscience and neuroimaging, including 3 modules: 1- Morphofunctional neuroimaging; 2- Pathophysiology of neurological diseases; 3- Diagnostic and therapeutic tools development.

Semester 4: dedicated to practical training in an academic lab or a private company. Application to PhD programs is available in the consortium members institutions, or in any research institution worldwide.

Bilingual cursus in English and French displayed presentially, on moodle «ISIS» platform, and using videoconferences.

Aim of the Master

To acquire high-level innovative and interdisciplinary training in neuroscience. To conceive and conduct projects in neuroscience and biotechnology. To develop connections and networking in neuroscience across the Mediterranean.

Registration fees

- 9 000 \$ for Physicians.
- 12 000\$ for Pharmacists, Dentists, Psychomotricians, Orthophonists, Biomedical engineers and Life sciences students

Prerequisite

- Initial education: BSc in Life sciences or any equivalent in Biomedical science.
- Long life learning: Professional activity as Clinician researcher or Engineer in fundamental biology or biomedicine.

Admission form

Letter of motivation, Curriculum vitae, Interview.

Contact: Pr Jean TAMRAZ, MD, PhD, Program Director (jtamraz@usj.edu.lb)
Pr Nassim FARES, PhD, Master Coordinator (nassim.fares@usj.edu.lb)
<http://isis.i-learn.unito.it>

www.usj.edu.lb



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