

Màj 16/04/2020

## UE 2.2. Current concepts in Neurosciences

## **12 ECTS**

## Parcours « Cellular, Integrative and Translational Neurosciences »

# ST1: Neurodegenerative Diseases: from fundamental mechanisms to clinical applications

Contact: malika.hamdane@inserm.fr

This two days seminar welcomes scientific and medical students who are interested in neurodegenerative disorders. Different aspects of CNS diseases (clinics, genetics, cell and molecular biology) will be treated so that they are accessible to students whatever their training/background. This seminar will focus on Alzheimer's disease, Parkinson's syndromes, and Multiple Sclerosis. This seminar is linked to ST 2.

Master of Biology and Health Sciences – M2

Duration: 2 days

#### Programme

### Day 1

## Students Introduction

- Each student will give a short oral presentation about his/her master degree research topic (5 min, no slide show); with 1) context; 2) aim(s)/working hypothesis; 3) Experimental approach (es) and 4) the main reason for the seminar choice and expectations.
  - Introduction on neurodegenerative disorders Malika Hamdane (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Alzheimer & Tauopathies)
  - **Clinical and neuropathological aspects of proteinopathies** Vincent Deramecourt (Centre Mémoire de Ressources et de Recherche, CHU de Lille)
  - **Physiopathology of Alzheimer's disease & Tauopathies** Nicolas Sergeant (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Alzheimer & Tauopathies)
  - Added value of Genetics for neurodegenerative disorders: the example of Alzheimer's disease Julien Chapuis (Inserm UMR 1167, Equipe Déterminants Moléculaires des Maladies Neurodégénératives)
  - **Cell models for studying neurodegenerative disorders** Morvane Colin (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Alzheimer & Tauopathies)
  - The drosophila model for functional analysis of genetic determinants in neurodegenerative disorders Pierre Dourlen (Inserm UMR 1167, Equipe Déterminants Moléculaires des Maladies Neurodégénératives)

## Day 2

- Physiopathology & diagnostic consequences of parkinsonism: synucleinopathy & dopamine metabolism David Devos (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Pharmacologie Médicale & Neurologie)
- **Relevance of experimental models for parkinsonism** Jean-Marc Taymans (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Brain biology & Chemistry)
- **Strategies for mimicking neurodegenerative disorders in rodent models** Julie Deguil (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Degenerative &vascular cognitive disorders)
- **Neuroinflammation in Neurodegenerative Diseases** Lennart Mars (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Neuroinflammation and Multiple Sclerosis (NEMESIS))
- **Therapeutic approaches in neurodegenerative disorders** Luc Buée (Univ.Lille,Inserm,CHU-Lille UMR-S 1172, Team Alzheimer & Tauopathies) –

#### - Round-table discussion

- From the different talks of the 2 days seminar, each student have to summarize (5 to 10 min per student) at least one of the following items: the seminar highlights, common concepts to NDD, experimental models limits, the most promising therapeutic approaches, ... open questions.

