

## Faculty of Medicine



## SBIM2120 Eléments de neurosciences

[30h] 4 credits

**Teacher(s):** Jean-Noël Octave  
**Language:** French  
**Level:** Second cycle

**Aims**

The objectives are to learn the approaches of cellular and molecular biology which allow to develop different experimental models needed to study the mechanisms of neuronal loss, which are found in several neurodegenerative diseases.

**Main themes**

The neurodegenerative diseases, which are presented, are Alzheimer's disease, Parkinson's disease, and prions diseases.

**Content and teaching methods**

Description of the cerebral lesions found in neurodegenerative diseases and analysis of their biochemical composition. Study of the function and the cellular metabolism of the proteins present in the lesions. Construction of cellular and animal models, which allow understanding of some of the cellular and molecular mechanisms involved in neuronal death.

**Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)**

**Assessment:** In the first part of the lectures, the tools of molecular biology needed for the construction of cellular and animal models useful to understand neurodegeneration are presented. Each student has then to analyze recent papers related to a particular neurodegenerative disease and to present his work for all the students.

**Support:** The Power Point presentation corresponding to the first part of the lectures.