GLIAL PATHOLOGIES AND NEURODEGENERATIVE DISEASES

**Course description UE M2 MU5BIN07**

**Lead**
ME CATHERINE LUBETZKI ET MR ETIENNE HIRSCH

**Co-lead**

<table>
<thead>
<tr>
<th>Description</th>
<th>Focus</th>
<th>Option</th>
<th>Level</th>
<th>Semestre</th>
<th>ECTS</th>
<th>Maximum enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroscience</td>
<td>Cellular and integrated neuroscience</td>
<td>M2</td>
<td>S3</td>
<td>6</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

**Course structure**

<table>
<thead>
<tr>
<th>Hours Lectures</th>
<th>Hours TD</th>
<th>Hours Practicals</th>
<th>In-class/Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>20h</td>
<td>0</td>
<td>0</td>
<td>100% in-class</td>
</tr>
</tbody>
</table>

**Goals**

The goal of this course is to provide an understanding of the mechanisms of neurodegenerative diseases such as Alzheimer’s, Parkinson’s, and Huntington’s as well as insight into neuronal cell death, genetics and existing treatments.

This course will also focus on the various physiological roles that different glial cells play and the pathologies that are associated with them.

**Themes**

Neurodegenerative diseases, neurodegeneration, genetics, treatments, glial cells and associated pathologies.

**Competencies acquired upon completion of the course (concepts, methodology and tools)**

- Understand the physiopathology of neurodegenerative disorders
- Understand the mechanisms of neuronal cell death
- Have an overview of some of the main neurodegenerative diseases
- Understand some of the techniques for developing new treatments for neurodegenerative pathologies
- Gain information on different types of glial cells and their functioning
- Understand the physiopathology involved in diseases related to glial cells (for example multiple sclerosis, peripheral neuropathy, glial tumours)
- Understand some of the therapeutic strategies for treating glial cell-related disorders
- Learn how to critically analyse neuroscience literature

**Prerequisite**
Basics in Neurobiology

<table>
<thead>
<tr>
<th>Evaluation/100</th>
<th>Written</th>
<th>Oral</th>
<th>CC</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Languages used**

- **In class,**
  - English
- **In documents, educational supports**
  - English

**Location**
Institut du Cerveau et de la moelle épinière, Hôpital de la Salpêtrière