

## Ouverture en Neurosciences 1

Module : Hippocampus: from cells to physiology and human pathology

<b>Responsable</b>	Jean Christophe Poncer					
<b>Co-responsable</b>	Eric Schwartz					
<b>Descriptif</b>	<b>Parcours type</b>	<b>Option</b>	<b>Niveau</b>	<b>Semestre d'enseignement</b>	<b>ECTS</b>	<b>Effectif Maximal</b>
	Neurosciences	Neurosciences Cognitives et Comportementales – NCC Neurosciences Cellulaires et Intégrées – NCI- Sciences de la Vision	M2	S3	3	35
<b>Modalités pédagogiques</b>	<b>Volume horaire Cours</b>	<b>Volume horaire TD</b>	<b>Volume horaire TP</b>		<b>Présentiel ou distanciel</b>	
	22,5	0	0		présentiel	
<b>Objectifs</b>	These courses address the physiology and pathologies of the brain by focusing on a cortical structure particularly well studied and involved in numerous functions. The hippocampus is indeed not only implicated in the processes of memory and spatial navigation but also in multiple neurological and psychiatric disorders. These courses aim at shedding light on hippocampal function at all levels, from cells and their synapses to human brain and its pathology.					
<b>Thèmes abordés</b>	<ul style="list-style-type: none"> <li>- Introduction.</li> <li>- Anatomy : the hippocampus in his context</li> <li>- Cellular and synaptic morphology</li> <li>- Development.</li> <li>- Cellular and synaptic physiology</li> <li>- Long-term synaptic plasticity.</li> <li>- Oscillations and Behavior</li> <li>- Hippocampus and Spatial Navigation</li> <li>- Hippocampal Neurogenesis and cognition.</li> <li>- Functional Imaging and Episodic memory.</li> <li>- Hippocampus and Alzheimer Disease</li> <li>- Epilepsy of the temporal lobe</li> </ul>					
<b>Compétences acquises à l'issue de l'UE (concepts, méthodologie et outils)</b>	<ul style="list-style-type: none"> <li>- Basic concepts in Neuroscience and cellular biology</li> <li>- Basic knowledge of electrophysiology</li> </ul>					
<b>Prérequis</b>						
<b>Modalités d'évaluation/100</b>	<b>Écrit</b>	<b>Oral</b>	<b>CC</b>	<b>Autre</b>		
	100					
<b>Langues utilisées</b>	<b>Dans les cours, TD, TP</b>			<b>Dans les documents, supports</b>		
	english			english		
<b>Localisation</b>	Institut du Fer à Moulin					