

# Fiche UE M2 MU5BIN03

## CELLULAR COMMUNICATION

<b>Responsable</b>	MR LAMBERT					
<b>Descriptif</b>	<i>Parcours type</i>	<i>Option</i>	<i>Niveau</i>	<i>Semestre d'enseignement</i>	<i>ECTS</i>	<i>Effectif maximal</i>
	Neurosciences		M2	S3	6	50
<b>Modalités pédagogiques</b>	<i>Volume horaire Cours</i>	<i>Volume horaire TD</i>	<i>Volume horaire TP</i>	<i>Présentiel/Distanciel</i>		
	40	4		Présentiel : 100%		
<b>Objectifs</b>	The nervous system of vertebrates has developed many specific mechanisms for generating and processing information. This UE presents in detail a few selected examples to illustrate a large part of cellular communication processes. It thus covers aspects of signal integration from the molecular to the cellular and neural network levels.					
<b>Thèmes abordés</b>	Transporters - SNARE proteins - Operation of excitatory synapses - Operation of inhibitory synapses - LTD in Purkinje cells - Plasticity of inhibitory synapses - The dynamic synapse - Metabotropic receptors and synapses - Synaptic integration - Dynamics of second intracellular messengers and modulation of neuronal properties - Glial cells and neuron-glia interactions - The glycinergic system - Roles of calcium channels in pain pathophysiology – Functional plasticity in the spinal nociceptive system - Introduction to the theory of encoding/decoding information at the neuronal level ...					
<b>Compétences acquises à l'issue de l'UE (concepts, méthodologie et outils)</b>	Gain the most recent knowledge in neuronal communication Acquire the methodological procedures to answer a specific scientific issue Develop critical thinking regarding an experimental design, results and literature Develop analysis and synthesis skills					
<b>Prérequis</b>						
<b>Modalités d'évaluation/100</b>	<i>Ecrit</i>	<i>Oral</i>	<i>CC</i>	<i>Autre</i>		
	100					
<b>Langues utilisées</b>	<i>Dans les cours, TD, TP</i>			<i>Dans les documents, supports</i>		
	English			English		
<b>Localisation</b>	Campus Pierre et Marie Curie					