

Màj 18/07/2022

UE 2.2. Current concepts in Neurosciences**12 ECTS****Parcours « Cellular, Integrative and Translational Neurosciences »****ST3: The neurovascular unit in cerebrovascular and neurodegenerative diseases**Contact : vincent.berezowski@univ-lille.fr

This seminar will explore the link between the neuroglial tissue and the brain vascular tissue, the structural and functional complexity of which having given rise to the concept of neurovascular unit. This will be approached in two pathological settings: ischemia and hemorrhage, which can affect macrovessels or microvessels, in connection with neurodegenerative processes. Emphasis will be placed on the interindividual variability observed in the clinical presentation, the risk factors, and the functional consequences of these diseases, which hinders the management of patients. A great emphasis will be placed also on the translation of experimental research to the clinic. Advanced imaging methods and experimental models will be described in order to understand the complexity of tissue interactions in the course of these diseases, and to open perspectives for translational research.

Duration: 2 days**Program**

Each morning, three lectures will be given, and additional time will be assigned to interactions (questions and discussions) with students about the data presented in these lectures.

The students' personal contribution to the seminar will take place in the afternoon through analyzes (prepared before the day of the seminar) of clinical or experimental articles dealing with central questions of the topic. The oral presentation of the results through a visual support will initiate a transversal discussion (clinical / experimental) on the understanding of the pathophysiological processes, the relevance of experimental models, and both clinical and pharmacological approaches.

These discussions will be followed by rapid analysis and presentation of articles with opposite results on the effect of a treatment, or on an uncompromised demonstration of a lesion mechanism. Each of the workgroups will underpin the debate, with the aim of identifying and understanding the points of discrepancy in this research field.

Educational team: Vincent Bérézowski, Sophie Gautier, Maud Pétrault, Laurent Puy, Charlotte Cordonnier