

***NeuroConferences organized by the Master 2 FCN of UCB Lyon 1 –  
with the support of Labex Cortex  
2024***

**A journey through epilepsy: from the neurobiology to  
advance therapy**

Organizer: **Dr Vincent MAGLOIRE**

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Epilepsy is a devastating neurological disease that affects approximately 0.5 - 1% of the population worldwide and in ~30% of cases, seizures continue despite optimal medication. Pharmacoresistant epilepsy is associated with high rates of comorbidities and increased mortality.

This NeuroConference Serie aims at giving an overview of the research done in epilepsy from its neurobiology to the development of advanced therapy. On the first day, we will discuss what is epilepsy and what is an epileptic neuronal network. On the second day, we will continue our journey by looking at various processes occurring in an epileptic brain that permit seizures as well as affect normal brain functions such as memory, sleep or even the respiratory system. Finally, on the last day, we will explore potential new genetic approaches to treat pharmaco-resistant epilepsy.

By the end of the conference, you should have a better understanding of what type of neurophysiological processes and brain functions are affected in this neurologic disease. In addition, you will be aware of a range of new cutting-edge genetic approaches that are been developed to rescue an epileptic network.

**An overview of epilepsy from synapse to patients: a neural network disease**

**Wed  
Oct 2**

**14.00-15.00**

**Dr Vincent MAGLOIRE (TIGER, Centre de Recherche en Neurosciences de Lyon, Bron)**

Title: What is an epileptic network? A neurobiological perspective

**15.15-16.15**

**Dr Elif KOKSAL ERSOZ (COPHY, Centre de Recherche en Neurosciences de Lyon, Bron)**

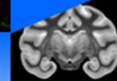
Title: What is an epileptic network? A computational perspective

**16.30-17.30**

**Dr Julien JUNG (EDUWELL, iEEG, Centre de Recherche en Neurosciences de Lyon, Bron)**

Title: What is an epileptic network? A clinical perspective.

Amphi Neurocampus  
CRNL (CH Le Vinatier,  
Bat. 462, 95 bd Pinel,  
Bron)



<p><b>Thu</b> <b>Oct 3</b></p>	<p><b>Epileptogenesis and ictogenesis processes</b></p>		<p>Amphi Neurocampus CRNL (CH Le Vinatier, Bat. 462, 95 bd Pinel, Bron)</p>
	<p>9.30-10.30</p>	<p><b>Dr Wanda GRABON / Dr Laurent BEZIN (TIGER, Centre de Recherche en Neurosciences de Lyon, Bron)</b></p> <p>Title: Neuroinflammation in epileptogenesis: harmful or protective?</p>	
	<p>10.45-11.45</p>	<p><b>Dr Jean-Bernard MANENT (Institut de neurobiologie de la méditerranée, Marseille)</b></p> <p>Title: From genes to abnormal epileptic networks: the example of cortical and subcortical heteropia</p>	
	<p>12.00-13.00</p>	<p><b>Dr Elena DOSSI (Centre interdisciplinaire de recherche en biologie, Collège de France, Paris)</b></p> <p>Title: Ictogenesis in cortical microcircuits: what can we learn from human epileptic tissues?</p>	
	<p><b>Beyond seizures: impact of epilepsy on brain functions</b></p>		
	<p>15.00-16.00</p>	<p><b>Dr Laetitia CHAUVIERE (Institute for Molecular and Behavioral Neuroscience, University of Cologne, Cologne, Germany)</b></p> <p>Title: Memory processes alteration in epilepsy</p>	
	<p>16.15-17.15</p>	<p><b>Dr Amanda ALMACELLAS BARBANOJ (Institute of Neurology, University College London, UK)</b></p> <p>Title: Malformations of cortical development, epilepsy and co-morbidities.</p> <p>ONLINE speaker</p>	
<p>17.30-18.30</p>	<p><b>Pr Sylvain RHEIMS (TIGER, Centre de Recherche en Neurosciences de Lyon, Hospices Civils de Lyon, Bron)</b></p> <p>Title: Epilepsy, central respiratory dysfunction and risk of SUDEP</p>		
<p><b>Fri</b> <b>Oct 4</b></p>	<p><b>Advance Therapy for refractory epilepsy</b></p>		<p>Amphi Neurocampus CRNL (CH Le Vinatier, Bat. 462, 95 bd Pinel, Bron)</p>
	<p>9.30-10.30</p>	<p><b>Dr Christophe HENRICH (Stem Cell and Brain Research Institute, Bron)</b></p> <p>Title: Reprogramming reactive glia into GABAergic interneurons: a new avenue to reduce epileptic seizures</p>	
	<p>10.45-11.45</p>	<p><b>Dr Amy RICHARDSON (Institute of Neurology, University College London, UK)</b></p> <p>Title: Gene therapy for epilepsy harnessing chloride regulation</p> <p>ONLINE speaker</p>	
<p>12.00-13.00</p>	<p><b>Dr Gareth MORRIS (Division of Neuroscience, Manchester University, UK)</b></p> <p>Title: miRNA in epilepsy and their potential to treat epilepsy</p> <p>ONLINE speaker</p>		