The CAJAL Advanced Neuroscience Training Programme

**Course Programme 2016**

**• 2 top European facilities in neuroscience**
**• Lectures by renowned scientists with methodological training sessions**
**• Interactive and engaging atmosphere**
**• Experiments within the frame of short scientific projects**

The CAJAL Training Programme consists of two- or three-week hands-on courses organised by first-class neuroscientists. Topics in 2016 include behaviour and neural systems, computational neuroscience, neuronal trafficking, nutrition and brain functions, hippocampus and glial cells.

**www.cajal-training.org**

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**The CAJAL Advanced Neuroscience Training Programme**

A FENS and IBRO initiative in partnership with Bordeaux Neurocampus and the Champalimaud Foundation

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**Course directors:**
- Casper Hoogenraad (Utrecht University, NL)
- Monica Sousa (University of Porto, PT)
- Olivier Thoumine (University of Bordeaux, FR)

**On-site chair:**
- Olivier Thoumine (University of Bordeaux, FR)

**Venue:**
Bordeaux Neurocampus, France

**Online application:**
January 2016

Cytoskeleton remodeling and axonal trafficking have emerged as one of the most exciting and rapidly moving fields in cellular neurobiology. This course will focus on the following topics: cytoskeleton dynamics, axonal transport, growth cone migration, neuronal plasticity, cytopathogenesis, neurodegeneration and regeneration.

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**Course directors:**
- Florian Engert (Harvard University, US)
- Adam Kampff (University College London, UK)
- Zach Mainen (Champalimaud Foundation, PT)

**On-site chair:**
- Olivier Thoumine (University of Bordeaux, FR)

**Venue:**
Bordeaux Neurocampus, France

**Online application:**
January 2016

Recently, the techniques for studying behaviour, along with those for monitoring and manipulating neural activity during behaviour, have progressed rapidly. This 3-week course is a practical "hands-on" introduction to advanced methods in behavioural neuroscience and will cover sufficient background such that all participants will be able to establish these techniques in their home laboratories.

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**What they say about the CAJAL Programme**

"I find the CAJAL programme a great opportunity for me to learn new things and try out new ideas. There are so many brilliant, enthusiastic students and instructors around, all asking great questions and attempting completely novel experiments: it is just a great environment for science."

Adam Kampff, course director 2015

"We all believe that the CAJAL programme will foster this new pan-European leading training hub for neuroscientists and encourage their perspectives."

Monica de Luca, FENS President and Chair of the CAJAL Steering Committee 2015

"IBRO is pleased to be part of such an excellent partnership. The courses offered are innovative with respect to topics, disciplines and technical infrastructure. Participants will greatly benefit from them."

Elke Glöckner, IBRO Secretaries-General and Chair of the CAJAL Steering Committee 2014

"I liked the CAJAL programme a great opportunity for me to learn new things and try out new ideas. There are so many brilliant, enthusiastic students and instructors around, all asking great questions and attempting completely novel experiments: it is just a great environment for science."

Morgane Nouvian, student 2015

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**More information?**
Contact: cajal@fens.org

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**2016**

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The two major areas of nutritional neurosciences explored in this course are the role of the brain in the regulation of food intake and the effect of nutrients on brain physiology, function and pathology which will influence the risk and progression of mood and cognitive disorders.

The goal of this course is to give in-depth exposure to the breadth of research on the hippocampus and to provide hands-on training in state-of-the-art methods used to study hippocampal function.

This course teaches the central ideas, methods, and practice of modern computational neuroscience, and provides an introduction to theoretical techniques, from the introductory to the more advanced that are critical for understanding and modeling the brain, and for designing and interpreting experiments.