

GABBA

Graduate Program in Areas of Basic and Applied Biology

Universidade do Porto

Neuroscience Module

- Introduction to Neuroscience –

Organizer

Albino J. Oliveira-Maia

Dates and Venue

April 18th to 22nd 2016

Champalimaud Centre for the Unknown

Lisbon, Portugal

Goals

The study of neuroscience has become truly multidisciplinary in recent years, integrating a considerable array of technologies and approaches into a science aimed at understanding how the brain comes to perceive, acquire and use information. Although molecular, systems and cognitive neuroscience will continue to prosper on their own, there is a growing sense that integration of these fields is inevitable. Recently, powerful tools emerging from molecular genetics, electrophysiology and brain imaging have offered novel perspectives to the study of the brain, and their use has led to an unprecedented ability to both manipulate and observe brain phenomena, across levels of biological complexity. In this module, we will highlight the exciting convergence between molecular, cellular, systems and computational neuroscience. Part of the module will highlight such approaches specifically regarding brain-body interfaces, in an advanced course organized jointly with graduate students from the International Neuroscience Doctoral Programme from the Champalimaud Neuroscience Programme.

Lecturers

Internal:

- Ana Fernandes

<http://neuro.fchampalimaud.org/en/person/151/>

- Albino Oliveira-Maia

<http://neuro.fchampalimaud.org/en/person/52/>

<http://centroclinico.fchampalimaud.org/en/neuropsiquiatria/>

- Carlos Ribeiro

<http://neuro.fchampalimaud.org/en/research/investigators/research-groups/group/Ribeiro/>

- Cristina Afonso

<http://neuro.fchampalimaud.org/en/person/6/>

- Inbal Israely

<http://neuro.fchampalimaud.org/en/person/59/>

- Joaquim Alves da Silva

<http://neuro.fchampalimaud.org/en/person/153/>

- José Oliveira

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- Marta Moita

<http://neuro.fchampalimaud.org/en/research/investigators/research-groups/group/Moita/>

- Noam Shemesh

<http://neuro.fchampalimaud.org/en/research/investigators/research-groups/group/Shemesh/>

External:

- Asya Rolls

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- Dafni Hadjieconomou

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- Jens C. Brüning

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- John Cryan

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- Keith Kelley

<http://brainbody2016.wix.com/workshop#!speakers/glmdx>

- Michael Hasselmo

<http://www.bu.edu/hasselmo/>

Schedule

The Module will consist of lectures and workshops, held in the morning and early afternoon.

From Tuesday to Friday, at the start of each day the students (in groups of 2 or 3) are expected to present an overview of the material covered on the previous day. This should be a 45 minute presentation followed by 15 minutes of discussion and questions. Evaluation for this course will depend on this presentation.

On Wednesday evening we will have the module dinner at Cantina LX (<http://www.lxfactory.com/PT/residentes/restauracao/cantina/>). The GABBA program covers the dinner costs for students. For further details about dinner please contact Cristina Ferreira (cristina.ferreira@neuro.fchampalimaud.org).

On Thursday evening all of you are invited to participate in a session of our scientific outreach programme (Ar - <http://events.ar.fchampalimaud.org/gut-thinking/>). Seats have been reserved for all GABBA students. Please contact Marta Camacho (marta.camacho@neuro.fchampalimaud.org) for details.

		Brain-Body Interactions Advanced Course							
Monday	18.04	Tuesday	19.04	Wednesday	20.04	Thursday	21.04	Friday	22.04
9:30-10:00 Registration		9:00-10:00 Group 1 (19.05) Overview day 1	19:00-19:05 Group 1 (19.05)	9:00-10:00 Group 2 (21.15) Overview day 2	20:04 Group 2 (21.15)	9:00-10:00 Group 3 (21.15) Overview day 3	21.04 Group 3 (21.15)	9:30-10:30 Group 4 (21.15) Overview day 4	22.04 Group 4 (21.15)
10:00-12:00 JAS (25.34) Welcome and introduction		10:00-12:00 MM (19.05) Behavioral Neuroscience		Advanced Course (21.15) (see schedule)		Advanced Course (21.15) (see schedule)		Advanced Course (21.15) (see schedule)	
12:00-13:00 CISS (21.15)						12:00-13:00 CNP Coll. (21.15) Neural coding of space and time in entorhinal cortex.			
LUNCH									
14.30-16.30 II (25.34) Neuronal Structure and Function		14.00-16.00 NS (19.05) Neuroplasticity and Neural Activity		Advanced Course (21.15) (see schedule)		Advanced Course (21.15) (see schedule)		Advanced Course (21.15) (see schedule)	
				20.00 Dinner		21.00 Ar event		18.00 CNP Beer Hour	

II – Inbal Israely
 JAS – Joaquim Alves da Silva
 MM - Marta Moita
 NS – Noam Shemesh

CISS – Champalimaud Internal Seminar Series
 CNP Coll. – Champalimaud Neuroscience Programme Colloquium

Rooms

- 25.34: 2nd floor meeting room in the Champalimaud Neuroscience Programme area
- 21.15: 2nd floor seminar room
- 19.05: 1st floor meeting room in the fly room area

Brain-body Interactions – Advanced course

April 20-22, 2016

Champalimaud Centre for the Unknown, Lisbon, Portugal

Course overview:

Wed. (April 20th)	Thurs. (21st)	Frid (22nd)
Introduction		
(I) Nutrition Carlos Ribeiro Jens Bruening Dafni Hadjieconomou	(II) Microbiome John Cryan	(IV) Translational perspectives Albino Oliveira-Maia José Oliveira
	(III) Immune system Keith Kelly Asya Rolls	(V) Back to the bench Cristina Afonso Round table discussion

Detailed schedule:

Time	Wed. (April 20th)	Thurs. (21st)	Frid. (22nd)
10:00	Registration and introduction	John Cryan	Albino Oliveira-Maia
10:15			
10:30			
10:45			
11:00	Coffee break		
11:15	Carlos Ribeiro	John Cryan	José Oliveira
11:30			
11:45		CNP colloquium (optional)	
12:00			
12:15	Lunch		
12:30	Lunch		
(...)	Lunch		
14:00	Jens Bruening	Keith Kelly	Cristina Afonso
14:15			
14:30			
14:45			
15:00	Coffee break		
15:15	Dafni Hadjieconomou	Asya Rolls	Open discussion around approaches
15:30			
15:45			
16:00			
16:15	Discussion	Discussion	Wrap up
16:30			
16:45			
(...)			
20:00	Dinner with speakers, students and organizers	Ar event on brain-gut interactions (optional)	

Confirmed speakers:

John Cryan (University College Cork, Ireland)

Jens Bruening (Max Plank Institute for Metabolism Research, Germany)

Dafni Hadjieconomou (Imperial College London, United Kingdom)

Carlos Ribeiro (Champalimaud, Portugal)

Keith Kelley (Univeristy of Illinois, USA)

Asya Rolls (Israel Institute of Technology, Israel)

Albino Oliveira-Maia (Champalimaud, Portugal)

José Oliveira (Champalimaud, Portugal)

Cristina Afonso (Champalimaud, Portugal)