



**Course:  
From Human Neuroanatomy to Psychopathology**

June 11-14, 2018  
Maastricht University

# Introduction

This EURON/MHeNS course introduces PhD students to basic concepts and modern methods of neuroanatomy, functional neuroanatomy and neuropathology. Particular emphasis is placed on the neuroanatomical background of neurological and psychiatric disorders.

The course of four consecutive days consists of lectures on mammalian brain anatomy, vasculature of the brain, functional and structural MRI methodologies. On all days students receive practical training in lab courses including dissection of a human brain and microscopical neuroanatomy of rodent brains and samples from human neuropathologies. There will be site visits to the MRI and TMS facilities and the Nanoscopy M4I unit. On several days we will link the functional and anatomical concepts to clinical neuropsychiatric disorders such as epilepsy, Parkinson's and Alzheimer's disease, affective disorders and developmental disorders. Current research questions will be addressed in one interactive seminar based on group work.

The multidisciplinary teaching staff consists of experts in the fields of neuroanatomy, neuroscience, imaging, and clinical neuropsychiatry and will provide an excellent learning experience for PhD students working in neuroscience, psychiatry, neurology and psychology.

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## PROGRAMME

**DAY 1** | CHAIRMAN: JÖRG MEY  
Monday June 11<sup>th</sup>, 2018

Location: Keulenzaal, UNS 40, room C0.553

09.00 – 09.15 Registration (coffee)

09.15 – 09.30 Welcome and Introduction into the course | *Jörg Mey*

09.30 – 11.00 Introduction of the students: Elevator Pitches (coffee during the talks)

11.00 – 12.00 Lecture Cerebrovasculature | *Robert van Oostenbrugge*

12.00 – 13.00 Lecture Neuroanatomy I & II | *Jörg Mey*

13.00 – 13.45 Lunch break

Location: UNS 40, Room C 4.577

14.00 – 15.30 Practical Microscopy I | *Ali Jahanshahi, Jörg Mey and Anand Goswami*

15.30 – 16.00 Coffee break (UNS 50, room 1.142A)

Location: Keulenzaal, UNS 40, room C0.553

16.00 – 16.40 New (f) MRI imaging techniques | *Walter Backes*

16.40 – 17.20 Developmental Neurology | *Jeroen Vermeulen*

17.20 – 18.00 Cognition and Neurodegenerative diseases | *Heidi Jacobs*

19.00 Dinner

# Programme

## DAY 2 | CHAIRMAN: GUNTER KENIS Tuesday June 12<sup>th</sup>, 2018

Visits scanners 9.00 - 12.00

Location: Meetingpoint: UNS 50, room 1.142A

The group will be split in two groups for site visits:

**09.00 – 10.30** Group 1: visit to MRI scanner (Walter Backes)  
Group 2: visit to NIBS-Labs (non-invasive brain stimulation) (Alex Sack)

**10.30 – 12.00** Group 1: visit to NIBS-Labs (non-invasive brain stimulation) (Alex Sack)  
Group 2: visit to MRI scanner (Walter Backes)

**12.00 – 12.30** Lunch break (Coen Hemker Zaal UNS 50, room K0.480)

Location: Coen Hemker Zaal UNS 50, room K0.480

**12.30 – 13.15** Neurotransmission - *Alexander Flohr*

### Macroanatomy - Chairman: Jörg Mey

Location: UNS 50, Room 2.142 (for discussions) and the dissection room 2.138A

**12.45 – 15.00** Macroanatomy of the human brain: dissection human brain | *Jörg Mey, Ulrike von Rango or Andreas Herrler, Aleksander Jankovski, Harry Steinbusch, Canan Yurttas*

**15.00 – 15.15** Coffee break (Coen Hemker Zaal UNS 50, room K0.480)

**15.15 – 17.30** Macroanatomy of the human brain: continued

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## DAY 3 | CHAIRMAN: BORIS KRAMER Wednesday June 13<sup>th</sup>, 2018

Location: Coen Hemker Zaal UNS 50, room K0.480

**09.00 – 09.40** Functional and structural MRI correlates of cognitive comorbidity in epilepsy | *Govert Hoogland*

**09.40 – 10.20** Neuropathology | *Anand Goswami*

**10.20 – 11.00** From ex-vivo to in-vivo histology of human cortex with ultra-high field MRI | *Alard Roebroek*

**11.00 – 11.20** Coffee break (Coen Hemker Zaal UNS 50, room K0.480)

Location: UNS 40, Room C 4.577

**11.30 – 12.30** Practical Microscopy II: *Ali Jahanshahi, Jörg Mey and Anand Goswami*

**12.30 – 13.15** Lunch break

### Interactive seminar

Location: UNS40-A0.742, A0.748 and A0.754

**13.30 – 16.00** 3 Parallel seminars: *Boris Kramer/Canan Yurttas/Gunter Kenis*  
Topics: neurodevelopment and other topics

**16.00 – 16.15** Coffee break (Coen Hemker Zaal UNS 50, room K0.480)

Location: Coen Hemker Zaal UNS 50, room K0.480

**16.30 – 17.30** **Invited key lecture:** open for other scientists  
Function and dysfunction of the human brain – insights from functional neuroimaging | *David Linden*

# Programme

**DAY 4** | CHAIRMAN: ALI JAHANSHAH  
Thursday June 14<sup>th</sup>, 2018

Location: UNS 60, room M0.09

**09.10 – 09.50** Neuropsychiatric disorders and deep brain stimulation | *Linda Ackermans*

**09.50 – 10.30** Affective disorders: from neuroanatomy to psychopathology | *Lies Goossens*

**10.30 – 11.10** In vivo molecular neuroreceptor imaging | *Matthias Bauwens*

**11.10 – 11.30** Coffee break (UNS 50, room 1.142A)

## Site visit

Location: UNS 50, level 0

**11.30 – 12.30** Nanoscopy M4I unit: 2 parallel groups- 2 sites: (1) Sample preparation (2) Microscopy -  
*Raimond Ravelli, Carmen López Iglesias, Marie-Helene Lenders*

**12.30 – 13.30** Lunch Break

Location: UNS 40, Room C 4.577

**13.30 – 15.00** Practical Microscopy III | *Ali Jahanshahi, Jörg Mey and Anand Goswami*

**15.00 – 15.15** Coffee break (UNS 50, room 1.142A)

Location: UNS 50, room K4.403

**15.30 – 16.30** Neuroglia | *Bert Brône*

**16.30 – 17.00** Conclusion and plenary discussion

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**Organization:**

Dr Ali Jahanshahi  
Prof. Boris Kramer  
Dr Jörg Mey  
Dr Nicole Senden  
Marie-Thérèse Moers

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