

PREFACE

This 12th graduate Neuropsychopharmacology course, designed for PhD students and postdocs in the field of neurosciences, is organized by the Graduate School Neurosciences Amsterdam Rotterdam and the Centre for Human Drug Research (Leiden). The course addresses our current understanding of the pharmacology of CNS active drugs, the discovery of CNS drug targets as well as the development of innovative medicines and therapies, allowing students to become familiar with the fascinating field of neuropsychopharmacology.

During the course, the major classes of pharmacotherapeutics for the clinical management of various neurological and psychiatric diseases and the pathological mechanisms of these brain disorders will be discussed.

Attendance of all lectures is mandatory and will be honoured with a certificate. Accreditation covers 40 hours in the graduate teaching programs on neuroscience. If you are not able to attend a specific activity, please notify the course coordinator dr. Micha Wilhelmus (m.wilhelmus@amsterdamumc.nl).

We hope that you will appreciate this course,

The organizing committee,

Dr. Micha M.M. Wilhelmus

Dr. Benjamin Drukarch

Prof.dr. Taco de Vries

Dr. Merel Rijnsburger

PROGRAM

Course on Neuropsychopharmacology September 13-17, 2021

Topics and places

- September 13 Basics of (neuropsychopharmacology, AUMC, Amsterdam
Location: Online
- September 14 Impulsivity, compulsivity & addiction, AUMC, Amsterdam
**Location: O2 building, Auditorium, De Boelelaan 1108,
Amsterdam**
- September 15 Psychopharmacology, AUMC, Amsterdam
Location: Online
- September 16 CNS drug development and clinical neuropsychopharmacology,
CHDR, Leiden. Location: Online
- September 17 Neuroinflammatory and neurodegenerative disorders, AUMC,
Amsterdam. Location: Online

Basics of (neuropsychopharmacology)

Coordinator: Dr. Micha M.M. Wilhelmus

Monday September 13, VU Amsterdam.

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| 10.00 – 10.15h | Opening and introduction. Dr. Micha Wilhelmus, AUMC, Amsterdam |
| 10.15 – 12.00h | Pharmacodynamics: a recap. Dr. Benjamin Drukarch, AUMC, Amsterdam |
| 12.00 – 13.30h | Lunch break |
| 13.30 – 14.30h | The controversy about antidepressants: do they work or not?
Dr. Christiaan Vinkers, AUMC, Amsterdam |
| 14.30 – 16.00h | Pharmacokinetics: a recap. Dr. Benjamin Drukarch, AUMC, Amsterdam |

Impulsivity, compulsivity & addiction

Coordinator: Prof.dr. T.J. de Vries

September 14, location: O2 building, Auditorium, De Boelelaan 1108, Amsterdam

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| 10.45 – 11.00 | Coffee/Tea and Welcome
Prof.dr. T.J. de Vries, Amsterdam UMC, location VUmc |
| 11.00 – 11.45 | Compulsivity
Dr. I. Willuhn, UvA/AMC, Amsterdam |
| 11.50 – 12.35 | Addiction: a treatable brain disease.
Prof.dr. A. Goudriaan, Amsterdam UMC, location AMC |
| 12.35 – 13.15 | Lunch (not provided) |
| 13.15 – 14.00 | Psychopharmacology of ADHD.
Dr. T. Pattij, Amsterdam UMC, location VUmc |
| 14.05 – 14.50 | Use of DREADDS to identify and manipulate addiction circuitry.
Dr. N. Marchant, Amsterdam UMC, location VUmc |
| 14.50 – 15.05 | Coffee/Tea |
| 15.05 – 16.00 | Keynote lecture: N=1; precision psychiatry in autism
Dr. H. (Hilgo) Bruining, Amsterdam UMC, location AMC |

CNS drug development and clinical neuropsychopharmacology

Coordinator: Dr. Micha M.M. Wilhelmus

Wednesday September 15, CHDR, Leiden

09:30 – 09:35	Welcome. Micha Wilhelmus & Jeroen van Smeden
09:35 – 09:55	Drug Development – From Phases to Questions - Part I Jeroen van Smeden
10:00 – 10:45	First-in-Human CNS studies. Joop van Gerven
10:45 – 11:00	Break
11:00 – 11:30	Drug Development – From Phases to Questions - Part II Jeroen van Smeden
11:30 – 12:15	Early phase clinical pharmacological proof-of-concept of new disease-modifying drugs for neurodegenerative disorders: a case study. Maurits Vissers
12:15 – 13:00	Lunch break
13:00 – 13:45	PK&PD of BBB penetrating drugs; does the compound enter the CNS. Philip Kremer
13:45 – 14:15	Sleep Deprivation and the Neurocart – CHDR case studies. Jules Heuberger
14:15 – 14:30	Break
14:30 – 15:15	Caffeine in sustained attention. Micha Wilhelmus
15:15 – 16:00	Digital CHDR-tour. Jeroen van Smeden
~16:00	Closing. Micha Wilhelmus & Jeroen van Smeden

Psychopharmacology

Coordinator: Dr. Micha M.M. Wilhelmus

Thursday September 16, VU Amsterdam

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| 10.00 – 10.45h | Neuropsychopharmacology. An overview part I. Dr. Micha Wilhelmus, AUMC, Amsterdam |
| 10.45 – 11.00h | Coffee/tea break |
| 11.00 – 12.00h | Neuropsychopharmacology. An overview part II. Dr. Micha Wilhelmus, AUMC, Amsterdam |
| 12.00 – 13.30h | Lunch break |
| 13.30 – 14.30h | Pharmacogenetics in psychiatry. Dr. Pierre Bet, Dept of Clinical Pharmacology & Pharmacy, AUMC, Amsterdam |
| 14.30 – 15.30h | Antipsychotic Drugs: Mechanisms of action and pharmacological profiles. Dr. Taco Werkman, Swammerdam Institute for Life Sciences, University of Amsterdam. |

Neuroinflammatory and neurodegenerative disorders

Coordinators: Dr. M. Rijnsburger

Friday September 17, VU Amsterdam

- 09.00 – 09.45h Multiple sclerosis: aetiology and pathology
Dr. Merel Rijnsburger, AUMC, Amsterdam
- 09.45 – 10.15h Carla Rodriguez-Mogeda: B cells and MS and Do's and don'ts
during your PhD, AUMC, Amsterdam
- 10.15 – 11.30h Coffee/Tea break
- 11.30 – 12.15h Impulse control in Parkinson's disease
Dr. Chris Vriend, AUMC, Amsterdam
- 12.15 – 13.00h Lunch break
- 13.00 – 13.45h Alzheimer's disease: aetiology, pathology and therapeutics
Dr. Micha Wilhelmus, AUMC, Amsterdam
- 13.45 – 14.30h Inflammation as therapy in AD
Dr. Jeroen Hoozemans, AUMC, Amsterdam
- 14.30 – 15.00h Coffee/Tea break
- 15.00 – 16.00h Keynote: Neuropsychopharmacology in zebrafish
Dr. Tjakko van Ham, Erasmus MC, Rotterdam