Research Master Drug Development and Neurohealth

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24 March 2018

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Drug Development and Neurohealth (DN)

Started in 2016



- The brain doesn't distinguish between medicines and illegal substances
- DN teaches how to find and make new brain medicines



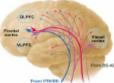
Drug Development and Neurohealth

- Research of new drugs in CNS disorders
- neurochemical brain targets of CNS disorders
- multidisciplinary: neuroscience, toxicogenomics, (psycho-)pharmacology, biological psychiatry
- from "cells in tubes" to "new medicines in patients"
- Research career: academia, industry, government



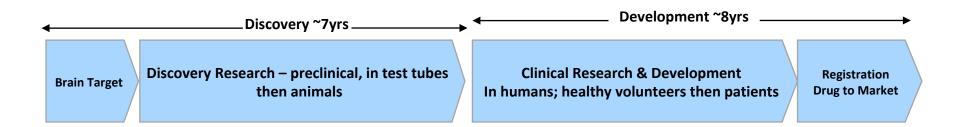






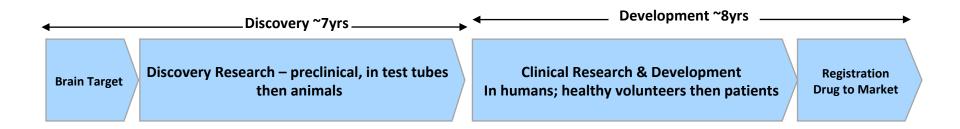


Courses aligned to drug research & development pipeline



This is about finding new medicinal drugs and making them work for dementia, depression, schizophrenia, autism, ADHD, , basically all neuropsychiatric diseases that can be targeted biologically

Courses aligned to drug research & development pipeline



Pharmacoepidemiology Target Discovery Drug Discovery Safety & Drug Metabolism Clinical Development **Applied Therapeutics** Genetics Psychiatric Neuroscience Neuropsychopharmacology **Biomedical Brain Imaging** Big Data in Drug Discovery Animal Models Electrophysiology Introduction to: Molecular & Biochemical Techniques / Psychology Project management Valorisation Robot-based high-throughput screening In silico Drug Discovery Western Blotting Neuroanatomy Advanced Statistics I and II, SPSS, LISREL, Colloquia, Scientific Writing, Grant Writing, Electives

Core Courses Practicals Workshops Parallel Courses



Staff from different Faculties and Departments



Develop your own profile!

- Choose / identify your position in the pipeline
 - Preclinical
 - In Vitro, Cell lines, Cell cultures
 - Big Data Neurogenomics, In-Silico Discovery
 - Preclinical Discovery, Animal Models, Psychopharmacology
 - Clinical
 - Test drugs or nutrients in volunteers or patients
 - Experimental Clinical Human Psychopharmacology
 - Clinical effects of medicines: Pharmacoepidemiology
- Electives 5% of curriculum you choose yourself
- Internship 42% of your curriculum in Academia or Industry



Career paths of DN graduates

PhD training → R&D position in:

- Academia
- Healthcare
- Nutrition Industry
- Pharmaceutical Industry
- Governmental Regulatory Office
- Research Consortium in EU or NIMH
- 2016: first cohort of 14 students —> now doing their internships
- 4 in Industries (2 Roche, Basel; 1 Antidote Therapeutics, Washington;
 1 Grünenthal, Aachen)
- 10 in Universities (2 Harvard, USA; 2 Cork, Ireland; 1 Fukuoka, Japan;
 1 Ottawa, Canada; 3 Maastricht; 1 Amsterdam)

Excursions to companies in the first year:

- UCB (Brussels, Belgium)
- Johnson & Johnson (Beerse, B)
- Bayer (Wuppertal, Germany)
- Grünenthal (Aachen, Germany)





Who can apply

Students with a BA in:

- Neuroscience
- Psychology
- Biomedical Science
- Pharmacy
- Medicine
- Life Sciences
- Bioengeneering
- University College
- Science College
- ...



For more information

Talk with student and coordinator after the presentation

Contact DN coordinator: w.riedel@maastrichtuniversity.nl

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