Research Master Drug Development and Neurohealth

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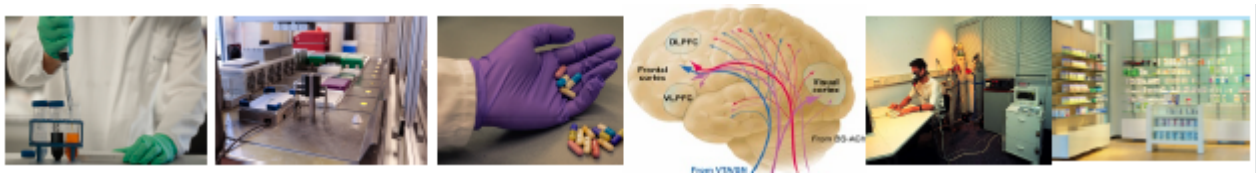
Drug Development and Neurohealth (DN)

- 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



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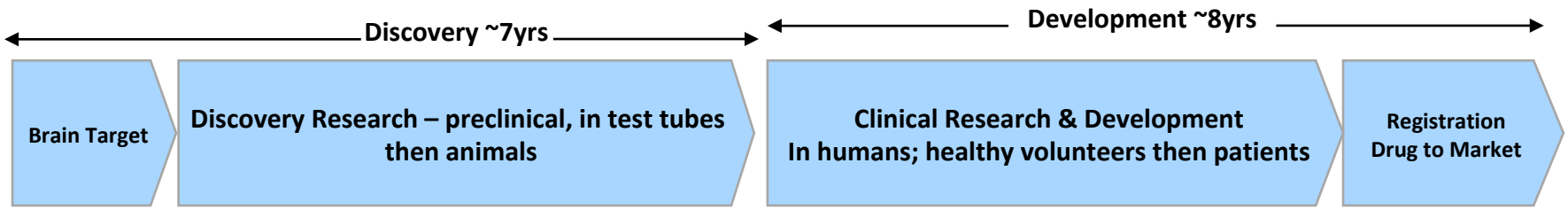
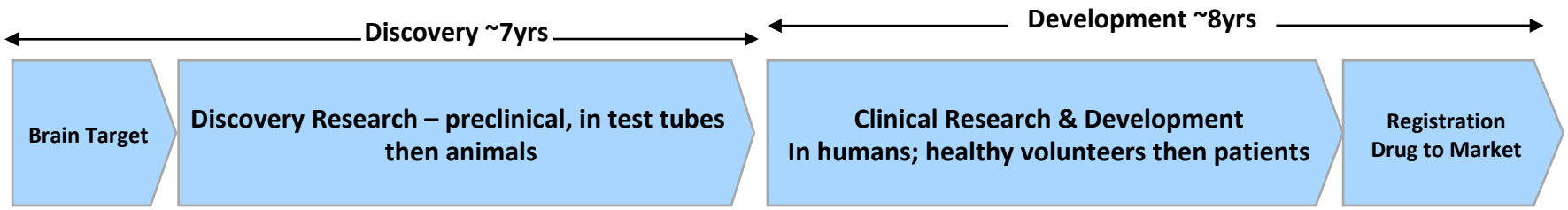
Courses aligned to drug research & development pipeline



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



Target Discovery Drug Discovery Safety & Drug Metabolism Clinical Development Pharmacoepidemiology

Genetics Psychiatric Neuroscience Neuropsychopharmacology Applied Therapeutics

Big Data in Drug Discovery Animal Models Electrophysiology Biomedical Brain Imaging

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

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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:

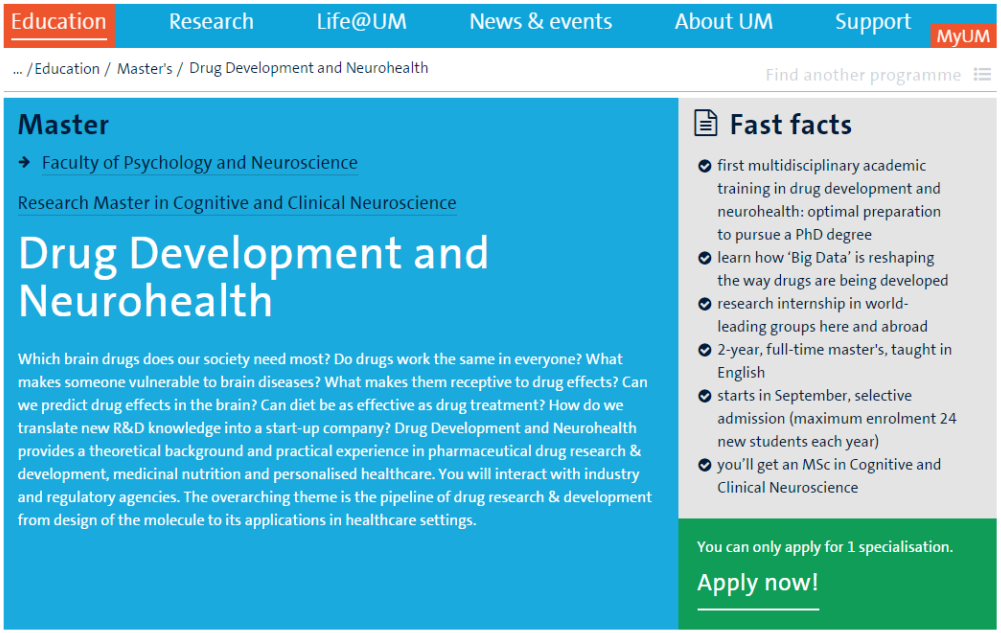
- Neuroscience
- Psychology
- Biomedical Science
- Pharmacy
- Medicine
- Life Sciences
- Bioengeneering
- University College
- Science College
- …

For more information

- Talk with student and coordinator after the presentation
- Contact DN coordinator: w.riedel@maastrichtuniversity.nl
- Visit UM website:

Google:

Drug Development Maastricht



- Facebook site: https://www.facebook.com/MaastrichtRMDN/