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Research Master in Cognitive and Clinical Neuroscience

Drug Development and Neurohealth

Rudy Schreiber

Specialisation

Coordinator

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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

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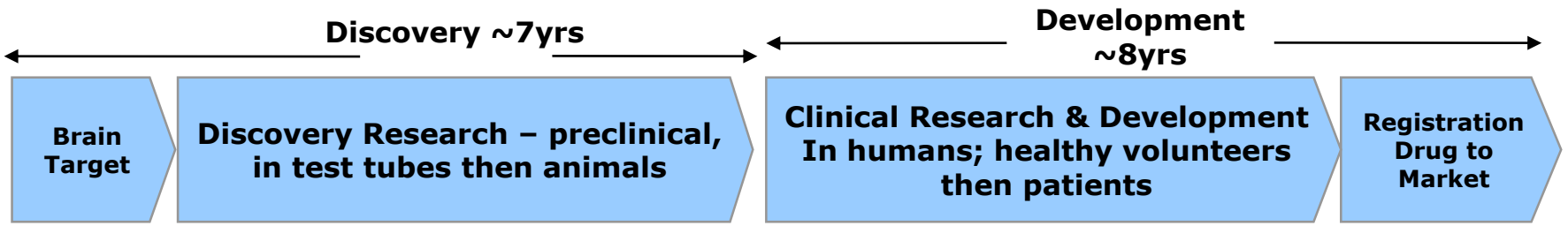
Drug Development and Neurohealth

- 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

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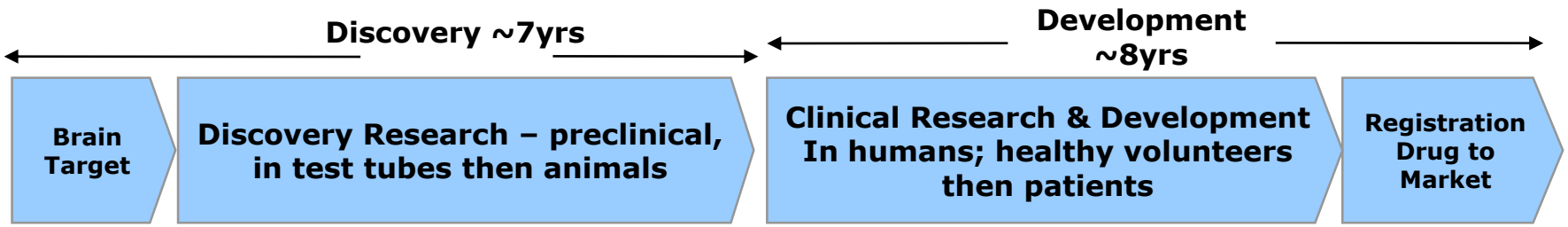
Courses aligned to drug research & development pipeline



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

Core Courses Practicals Workshops Parallel Courses

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Staff from different Faculties and Departments

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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

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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)

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Excursions to companies in the first year:

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

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Who can apply

Students with a BA in:

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

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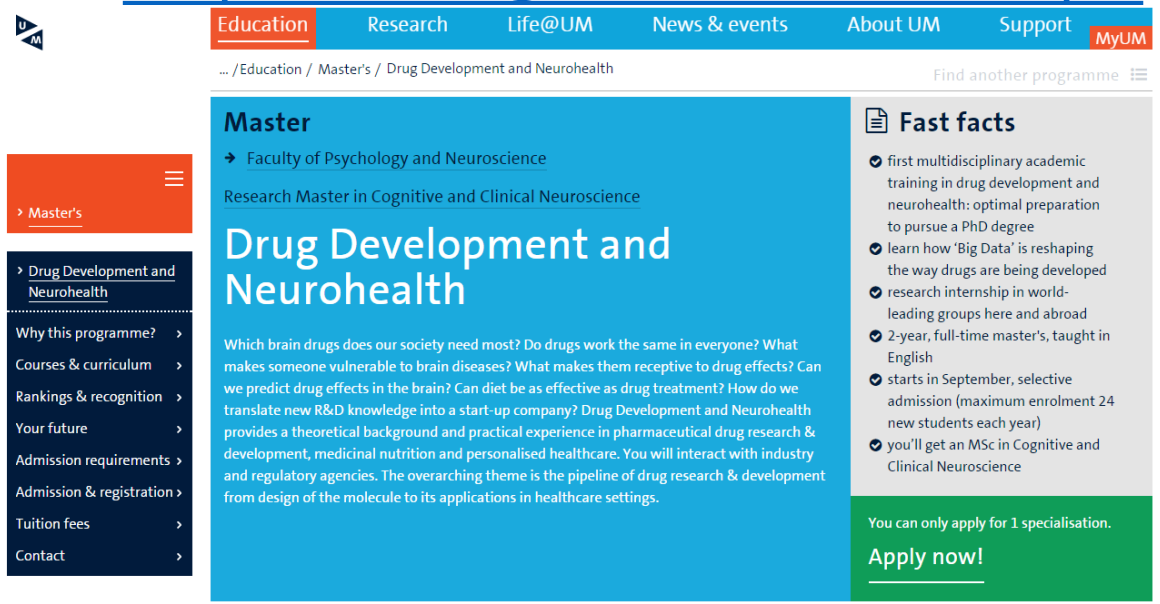
For more information

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

  Google:

  Drug Development Maastricht



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