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### Welcome!

Dear PhD student,

Welcome to the PhD program Clinical & Experimental Neuroscience! You are part of the community of about 200 students who share their interest in this area and work towards their PhD graduation This program is part of the PhD curriculum of the Utrecht Graduate School of Life Sciences and is being carried out by the scientific staff of the UMC Utrecht Brain Center.

This booklet summarizes the essentials of the program for PhD students enrolled between April 2019 and April 2020. It contains practical information on procedural steps, the overall lay-out of the PhD program, the individual courses, mentors and important websites.

The various components of our PhD program are meant to improve your skills, broaden your scope in Neuroscience and get more in-depth information on a number of subjects of interest to you. Towards the end, the program can also support you in making the right future career choice.

We hope that you will indeed experience the program as helpful in expanding your skills and insights.

The UMC Utrecht Brain Center wishes you success during your PhD career.

Prof.dr. E.M. Hol Professor of Glia Biology of Brain Diseases Director of the PhD Program Clinical & Experimental Neuroscience

#### **UMC Utrecht Brain Center**

The UMC Utrecht Brain Center is a center that encompasses all UMC Utrecht patient care, research and education in the fields of psychiatry, neurology, neurosurgery, rehabilitation and basic neuroscience.

The UMC Utrecht Brain Center aims to be a scientific center of excellence in Clinical and Experimental Neuroscience, with a special focus on five areas of disease: stroke, epilepsy, neuromuscular disorders, psychotic disorders, neuro-oncology, precision psychiatry and neurodevelopmental disorders. The research in these fields is united by five research approaches: genetic and environmental factors, structural and translational research and the trajectory from research to care.

#### **Neuroscience and Cognition in Utrecht**

The program and research on Clinical and Experimental Neuroscience is carried out primarily in UMC Utrecht Brain Center, that in turn is part of the large neuroscience landscape in Utrecht. The overall field of Neuroscience and Cognition research in Utrecht encompasses research conducted in the UMC Utrecht Brain Center, the Helmholtz Institute, the Utrecht Institute of Linguistics and several other research units not belonging to these 3 large institutes.

### Time line and procedural steps

From the start until the end of the PhD program there are some necessary steps to be made. It starts with registration as PhD student, soon followed by completion of the Training and Supervision Agreement (TSA). Each year there is an Annual Interview by your supervision team (promotor(s), (co)promotors, daily supervisor(s)). Towards the end you will have to apply for the defense of your thesis.

Time line	Action	By whom	To whom
Before the start of the project	Register at MyPhD	PhD student and supervisor(s)	Secretary of dean UMCU D 01.343, Postbus 85500, 3508 GA, Utrecht
Within 3 months after start of project	Complete Training and Supervision Agreement (TSA).	PhD student and supervisor(s)	CEN secretary, STR4.205, Postbus 85060, 3508 AB, Utrecht cen@umcutrecht.nl
Yearly	Annual interview	PhD student and supervisor(s)	CEN secretary (see above)
Timeline and required procedures	All via MyPhD	PhD student and supervisor(s)	Digital
6 weeks prior to PhD defense	Admission of request GS-LS certificate	PhD student	CEN secretary (see above)

The table below summarizes the crucial steps.

## Overall lay-out of the PhD program

Each student taking part in the PhD curriculum of the Graduate School of Life Sciences (including the CEN program) needs to obtain 20 EC (European Credits) to fulfill the criteria of the School. Of these, 4 EC are dedicated to general skill courses.

The overall lay-out is shown below. The various components are explained in brief on the following pages and in more detail in separate sections.

	Type of course	EC	Examples
А	Introduction	0.5	
В	General skills	4	Year1-2: data and time management, communication, etc
			Year3-4: grant writing, publishing, career, support, etc
С	Broad orientation	2.5	UMC Utrecht Brain Center symposia and X-talks, UU summer
			schools, ONWAR retreat, etc
D	In-depth	3	Current issues in Clinical Neuroscience, Neuroimaging,
			Neurodeveloment, Neurospychopharmacology, etc
Е	Eligibles	10	Conferences, summer schools, (clinical) training,

## A) Introduction to the program

This introduction includes an explanation of all the steps and procedures involved in the program. It is organized twice per year:

- Preceding the CEN Summer school in April, on the Sunday-afternoon/evening.
- The last Friday morning of August or 1<sup>st</sup> Friday morning in September.

#### <u>B)</u> <u>General skill workshops (0.5 EC per workshop)</u>

During the CEN Summer school in April the multiple workshops will be provided including:

#### 1. For first to second year PhD students:

- Time management
- A guide to networking
- Tutoring Master's students
- 2. For second to third year PhD students:
  - A guide to networking
  - Your worst nightmare
  - Tutoring Master's students
  - Time management

#### 3. For PhD students in their final year:

- Grant writing
- Your worst nightmare

One workshop is given during a different time period:

• Women in Neuroscience: This workshop is only offered in the fall every other year. The next workshop will be in the fall of 2019.

In addition, other workshops or courses focusing on general skills are provided by the Course Center of the Graduate School of Life Sciences (see https://www.uu.nl/en/education/graduate-school-of-life-sciences/phd-programmes/phd-course-centre).

## <u>C)</u> <u>Broad orientation on Neuroscience & Cognition</u>

The Utrecht research environment harbors a large Neuroscience & Cognition community. Students are encouraged to participate in events organized in the Utrecht environment, to broaden their view.

ECs can be obtained by participation in events comprising (details on p. 12):

- The scientific presentations at the CEN Summerschool, i.e. the part not dedicated to general skills workshops
- Interdisciplinary courses on Neuroscience & Cognition provided through UU Summerschools (at PhD level)
- The annual PhD Retreat (organized by the graduate school ONWAR)
- Annual UMC Utrecht Brain Center symposium
- UMC Utrecht Brain Center X-talks (if at least eight are followed)

<u>D)</u> In-depth disciplinary courses in Clinical & Experimental Neuroscience These courses are organized in collaboration with the Amsterdam/Rotterdam graduate school ONWAR. On average three courses are offered annually, each with a duration of approximately 1 week. For details see p. 13.

## General skill courses / workshops

As part of the PhD education, a series of general skill workshops are offered by the UMC Utrecht Brain Center, at no cost for the students. In addition, students can enroll in courses offered by the Course Center of the Graduate School of Life Science. In addition, other parties offer courses but these usually ask substantial fees. Participation in general skill courses (at least 4 EC) is one of the requirements set by the Graduate School of Life Sciences.

Each workshop will be provided at least once per year, most of them during the UMC Utrecht Brain Center Summerschool in mid-April. Several workshops may also be provided a second time early September, but only if at least 10 students have applied. Each workshop gives 0.5 EC. The series of workshops follow the progression through the various stages of a PhD trajectory.

The leading principle is that education occurs in close connection with daily practice of a PhD student. In general, a workshop consists of half a day of plenary education; some preparation might be required.

## **Statistics**

PhD students have the possibility to consult three PIs of the BCRM with specific expertise in statistical analyses. These consultations are on an individual basis; appointments can be made by sending the respective PIs an email. For more general training in (bio) statistics we refer to the GSLS PhD Course Centre, which offers a basic (bio)statistical course for free.

Pls:

Marco Boks (M.P.M.Boks@umcutrecht.nl): expertise - epidemiology combined with genetics

Jan Veldink (J.H.Veldink@umcutrecht.nl): expertise - analyses of large (whole genome) genetic studies

Rachel Brouwer (R.M.Brouwer-4@umcutrecht.nl): expertise - analyses of imaging datasets

Other general skill courses (not provided by BCRM)

• BROK course: this course is obligatory for all researchers within the UMC Utrecht who do research involving patients and / or patient material. The course is offered at least twice a year for three days by the UMC Utrecht and involves an exam (1 EC). For more information:

http://www.umcutrecht.nl/en/Research/Postgraduate-training/Courseinformation

- A large variety in courses provided by the Utrecht GSLS, e.g. on scientific writing, statistics, entrepreneurship etc. The GSLS also offers *That thing called science* a short course in science studies: in this course, several aspects sociological, historical, ethical and philosophical of biomedical science will be discussed. During each session two speakers, experts in their field, will set the scene for a highly interactive session (1 EC). See: <a href="http://www.uu.nl/en/education/graduate-school-of-life-sciences/phd-programmes/phd-course-centre">http://www.uu.nl/en/education/graduate-school-of-life-sciences/phd-programmes/phd-course-centre</a>
- NIBI time management course (only in Dutch): this course gives PhD students insight in the way they could manage their PhD project. The course is much more extensive than the workshop of the BCRM and is provided by the NIBI (Dutch Institute for Biology) twice yearly (1 EC). For those students for whom the BCRM workshop was not sufficient to handle their work situation. Costs: €750, for NIBI members €600. For more information: <u>https://www.nibi.nl/pagina/trainingeffectieve-planning</u>
- Courses on statistics: Students can choose to enrol in more extensive statistical training than provided by the GSLS. A large ariety of courses is provided by the Free University https://www.epidm.nl/nl/cursussen/
- The Utrecht *Centrum voor Leren* offers some specific courses for PhD students, like developing a research proposal, presenting at a conference, research planning and time management. <u>http://www.uu.nl/onderwijs/centrum-voor-onderwijs-en-leren/aanbod/wo-hbo</u>
- A lot of (general skill) courses are offered online. These can be followed as part of the training program as long as you send Geert Ramakers a link to the course to assess the amount of EC and your supervisor sends an email to Geert Ramakers stating that the course is at PhD level and important for your PhD.

N.B. The CEN PhD program in principle only awards credit-points for courses at the PhD level. Students can of course follow courses at the BSc or MSc level, but these will be regarded as means to repair deficiencies in the background of the student, not as integral part of the PhD training. In some cases exceptions can be made; individual cases need to be discussed with Geert Ramakers. Standard exception is: the animal welfare course (3 EC).

## **Broad orientation in Neuroscience & Cognition**

An essential element of this PhD program is to broaden one's view in the field of Neuroscience & Cognition (2.5 EC), especially in the Utrecht area. Participating in the following events provides credit points:

- <u>CEN Summer school</u>. During the CEN Summer school several high profile researchers give keynote lectures and PhD students discuss current issues in neuroscience. Students receive 0.5 EC when they attend all scientific lectures of the Summerschool and participate actively discussions.
- <u>Neuroscience or cognition courses organized by UU Summerschools</u>. Every summer 1-2 courses (each of 1-2 weeks' duration) are organized via UU Summerschools. The number of credit points depends on the duration.
- <u>Annual PhD retreat with the ONWAR</u>. This retreat is mostly organized by the Amsterdam / Rotterdam graduate school in neuroscience ONWAR, in collaboration of a member of our PhD program. During two days, PhD students give oral presentations or present a poster on their project. There are several excellent keynote speakers and there is a social program. The PhD retreat is organized each year in November (1 EC, provided a poster is presented or an oral presentation is given).
- <u>UMC Utrecht Brain Center research symposium</u>. Organized by the Brain Center each year in October / November. At the end of the day there is a poster session in which research conducted within the institute is highlighted (0.5 EC, provided a poster is presented).
- <u>X-talks</u>. Each month, UMC UTRECHT Brain Center hosts a so-called X-talk. These X-talks and their topics are always announced well in advance. Themes that alternate are: Genetics Risk Factors; Environmental Risk Factors; Structure & Connections; Translational Approaches; From Research to Care. During a X-talk meeting there are presentations and discussions on research topics across the entire Brain Center, along these shared interests. Attending the X-talks on a regular basis during your PhD period (8 in total) provides 1 EC.

### In-depth disciplinary courses

To enhance your knowledge in your own field of expertise, disciplinary courses are organized (overall at least 3 EC are required). Of course, if a student likes to attend more disciplinary courses this will be encouraged; EC's will be awarded for these extra courses.

Students can make a free choice from the courses collectively offered by the UMC Utrecht Brain Center and the graduate school ONWAR. All courses will be announced as soon as registration for specific courses opens. There may be a limited capacity, so make sure you register in time. Unless mentioned otherwise, courses run approximately once every two years. Below is a brief inventory, with the name of the graduate school primarily responsible for the organization.

Name	Organized by	EC
Current Issues in Clinical Neuroscience		
(annually)	Brain Center	1.5
A practical and theoretical introduction		
into fMRI (annually; max. capacity: 10)	Brain Center	1
Degenerative Diseases from Clinic to		
Bench	ONWAR	1.4
Topics in Neurophilosophy (annually; max.		
capacity: 15, min. capacity 5)	Brain Center	1.5
Matlab course (annually; max. capacity:		
10)	Brain Center	1.5
	Brain Center	
Neuropsychopharmacology	/ONWAR	1.4
Imaging life at the molecular level	ONWAR	1.8
Experimental Neurophysiology: Theory &		
Practice	ONWAR	1.4
Molecular Neurobiology	ONWAR	2
Neurodevelopment	Brain Center	1.5
Functional Neuroanatomy	ONWAR	1.4
Cognitive Neuroscience	ONWAR	1.1

Students can also select courses from other graduate schools in the Netherlands and/or international courses (e.g. the CAJAL training program).

## Examples of other events for which ECs are awarded

- PhD students in training to become medical specialist, receive 6 EC for the courses they attend as part of their clinical training.
- The attendance and participation of (bi) weekly journal clubs in the department (max. 2 EC).
- The attendance of scientific meetings and symposia (max 5 EC, based on 0.3 EC per day).
- Scientific training abroad, this training should concern the acquirement of a technique or method, not a collaboration project (max 1.5 EC).
- The attendance of other scientific courses, for example courses provided by the other PhD-programs of the Utrecht Graduate School of Life Sciences (EC as stated for the particular course).

#### Spending time abroad

PhD students sometimes perform part of their work in an institute outside of The Netherlands. This international experience in itself is awarded with 1.5 EC. Moreover, if students participate in courses or journal clubs of that institution, they can obtain credit points along the same lines as applied for courses and journal clubs in Utrecht. The PhD program coordinator can help you with the transfer of credits. Preferably this is done <u>before</u> you are going abroad, so that it is clear beforehand how many credit points you can expect to earn.

The UMC Utrecht Brain Center has a standing collaboration with the Institute of Psychiatry in London, Edinburgh Neuroscience and the Munich Neuroscience campus. Furthermore, our students can apply for travel grants at the UMC to one of the UMC Utrecht preferred <u>international partners</u>.

## Your future!

Many PhD students find it difficult to decide what they want to do after finishing their PhD thesis. To help you to explore directions and deal with these uncertainties there is attention for career planning, coaching and information regarding the possibilities of a career inside or outside of academia.

- <u>Workshop career orientation</u>. For students who have difficulties to make a balanced decision on their future, each year a workshop 'career orientation' is organized by external professionals.
- <u>Workshop what is important for a scientific career/building your CV</u>. For students to get an insight what future employers look for in a CV for different career opportunities.
- <u>Career possibilities</u>. An alumni database is present, which provides current PhD students with information on the careers of the alumni. Students can contact the alumni for more information.
- <u>Career planning</u>. Students can always turn to senior scientists for advice on career planning. Don't hesitate to contact scientists either from your own or other departments. They have experienced very similar choices as the ones you are facing now. Geert Ramakers can also advice you on people with the right background to help you.
- Job application and interview.

## PhD student platform

The input and feedback of the PhD students is essential in shaping and innovating our program! Therefore, we have a student platform, which is composed of one PhD student from each participating departments of the CEN program. These students represent all PhD students of their respective departments and discuss with the coordinator on a regular basis what is going on in the departments, what are the new developments within the program and the Graduate School of Life Sciences, upcoming events within the program etcetera. You can contact your representative if you think that something needs to be discussed in the platform or if you have questions and/or suggestions regarding the program. Please check the website of the PhD program regularly for changes in the composition of the PhD student platform.

Leaving members generally invite their successor.

Name	e-mail address	Department
Nick Weaver	n.a.weaver@umcutrecht.nl	Neurology &
		Neurosurgery
Jessy van Asperen	j.v.vanasperen-	Translational
	3@umcutrecht.nl	Neuroscience
Valeria Bonapersona	v.bonapersona@umcutrecht.nl	Translational
		Neuroscience
Marloes van der Goot	m.h.vandergoot@uu.nl	Veterinary Sciences
Jan Sprengers	j.j.sprengers@umcutrecht.nl	Psychiatry
Femke Lammertink	f.lammertink@umcutrecht.nl	Psychiatry
Henk Vink	h.a.vink@umcutrecht.nl	KNO
Eline van Lieshout	e.v.lieshout@dehoogstraat.nl	Rehabilitation Science,
		Physiotherapy & Sport
Lisa Hortensius	l.m.hortensius-	Neonatology
	3@umcutrecht.nl	

## Quality control of the program

We have two bodies in place to monitor the PhD program at the overall and individual level, respectively.

## The PhD Program Committee

Once per year the achievements and contents of the overall PhD programs are discussed by the PhD program committee. Results of the workshop and courses are evaluated based on feedback by the participants obtained for every event. The committee can decide to adjust elements of the program, if necessary. The program committee is composed of PhD students as well as staff members, representing the various departments of the BCRM.

PhD program committee 2019: Elly Hol (director) Geert Ramakers (coordinator) Leonard van den Berg (Neurology & Neurosurgery) Sarah Durston (Psychiatry) Jeroen Pasterkamp (Translational Neuroscience) Tanja Nijboer (Rehab., Physiother., Sports) Valeria Bonapersona (PhD Student)

## Annual interviews and mentors of the individual projects

Progress of individual PhD projects (in particular the scientific research) is monitored via the Annual Interviews, which take place between the student and his/her supervising team (usually the promotor(s), co-promotor(s) and/or a daily supervisor). The outcome of the annual interview is reported to the coordinator and director of the program via a form that has to be sent to the CEN secretariat. In addition, at the end of the 1<sup>st</sup> and 3<sup>rd</sup> year (or 1 year before the end of the project in case the project lasts less or more than 4 years), your mentor (see Mentors and counselors page) is present during the Annual Interview, or a separate meeting with the mentor can be organized. This independent scientist will monitor the progress in a constructive way and advise on steps to be taken to ensure a successful completion of the thesis. It is the responsibility of student to contact the assigned mentor for the Annual Interview at the end of the 1<sup>st</sup> and 3<sup>rd</sup> year.

#### **Mentors and counselors**

During the program two types of personal support are available to you.

Firstly, a mentor assigned to you will follow the start and completion of your program, to make sure that all is in place. The Training and Supervision Agreement (TSA) form asks for the name of an independent person as part of the mandatory supervisory committee. The mentor, a senior scientist, is appointed via the coordinator of the PhD program, and will be present at the first and third annual interview (see Annual interviews), or at other times if this is thought to be useful. You can add a second person of you own choice if you wish.

Secondly, we provide counselors. Sometimes students may wish to talk to a completely independent person, outside their own research unit, especially when problems or confidential issues arise. For this reason we have listed names of people who can be supportive and helpful on a confidential basis at critical times. They can also try to help you in case of conflicts.

- Dr. Mirjam Gerrits (Translational Neuroscience), email: M.A.F.M.Gerrits-5@umcutrecht.nl
- Dr. Bob Oranje (Psychiatry), email: b.oranje-2@umcutrecht.nl
- Dr. Bart van der Worp (Neurology & Neurosurgery), email: H.B.vanderWorp@umcutrecht.nl

### Alumni of the program

It is very important for our graduate school to keep in touch with the alumni, since they can confer their experiences in training and career planning with the current generation of students. Some parts of the program critically depend on their input. To improve the contact, we have created a <u>LinkedIn page</u> and we regularly sent out a CEN Newsletter containing information on upcoming events and meetings, PhD defenses and important CEN program-related news.

On exiting the program, PhD students are asked to fill out a questionnaire, which helps us to evaluate the program. In this questionnaire students are also asked for i) the e-mail address on which they can be contacted and ii) some details of their new job. This information is used to keep an alumni database. One day we will also ask you to fill out this form! To keep all information updated, former students are asked to inform us when they change occupation and/or e-mail addresses.

Conversely, it may also be of interest for alumni to keep in touch with CEN. In some years, alumni will be invited to attend the annual UMCU Brain Center symposium.

#### **Contact information**

<u>Director</u> Prof. dr. Elly Hol Room: Stratenum 5.209 Phone: 088-75 50181 E-mail: e.m.hol-2@umcutrecht.nl

<u>Coordinator</u> Dr. Geert Ramakers Room: Stratenum 4.215 Phone: 088-75 68413 E-mail: g.m.j.ramakers@umcutrecht.nl

<u>Secretary</u> Ms. Krista Poel Room: Stratenum 4.205 Phone: 088-75 68034 E-mail: <u>cen@umcutrecht.nl</u> Postal address: STR 4.205, Postbus 85060, 3508 AB, Utrecht

## Interesting websites

- Brain Center Rudolf Magnus: https://www.umcutrecht.nl/en/Research/Research-programs/Brain-Center-Rudolf-Magnus
- Utrecht Graduate School of Life Sciences: http://www.uu.nl/en/education/graduate-school-of-life-sciences
- UMC Utrecht, research and education: http://www.umcutrecht.nl/en/Research/Postgraduate-training
- Neuroscience & Cognition Utrecht: https://www.uu.nl/en/research/neuroscience-and-cognition-utrecht
- Neurofederation http://neurofederatie.nl/
- ONWAR http://www.onwar.nl/
- NENS (European Neuroscience Schools) http://www.fens.org/Training/NENS/
- CAJAL courses http://www.fens.org/Training/CAJAL-programme/
- Elevate (Online courses) http://www.elevatehealth.eu/
- Graduate School Course Center https://www.uu.nl/en/education/graduate-school-of-life-sciences/phdprogrammes/phd-course-centre
- International office UMCU: https://team.mijnumc.nl/connect/onderzoek/Paginas/International-Strategic-Partnerships.aspx