Department of Biomedical Sciences

BMS

Annual Report 2024

university of groningen

UMCG

2024 Annual Report

Department of Biomedical Sciences

1. Foreword / 2024

Hereby we present to you our fifth Annual Report of the Department of Biomedical Sciences (BMS). As with our previous reports, this edition aims to provide you with a quantitative overview of all our activities and achievements in the year 2024, with a focus on our scientific research, educational programs, business development, and outreach initiatives.

The quantitative data in this report reflect on individual achievements but are almost always the result of collaborative efforts within our department, the UMCG or (inter)national collaborations which are instrumental in these successes. We highly value that team spirit and are proud of those who made that come to fruition.

In 2023, the Department became part of a new cluster, Biomedical Science & Technology, consisting of the departments Biomedical Sciences, ERIBA and Biomaterials and Biomedical Technology. The complementarity in expertise between these three departments offers opportunities for innovative collaborations, talent development, and inspiring education and research.

Unfortunately, the landscape for preclinical (biomedical) research is becoming increasingly daunting, and an important strategy for a resilient department is team science. Ideally, researchers and educators in our department and cluster synergize for innovative teaching, research or valorization strategies, as there is extensive expertise in our department and cluster regarding all these domains.

2024 was a successful year, in the education domain, we provided extensive and outstanding education to many UMCG and RUG BSc and MSc programs. Research-wise, two Gravitation grants landed in the department that provide long-term funding stability. But the future is also somewhat uncertain, we might face budgetary constraints, much-appreciated colleagues will retire, and it is unclear if and how we can account for the expertise that will leave with them. However, I am convinced that with the drive and ambition in our department, we will continue to offer high-quality innovative education and perform cutting-edge research to unravel the molecular and cell biological principles that underlie fundamental biomedical processes and if perturbed the associated pathologies. With unwavering determination, dedication, team-spirit, and innovative technologies in research and education, we will continue to educate our biomedical professionals of the future.

I am very appreciative of those outside our department who supported and contributed to our work. We can be proud of our department, and I am very thankful for all your efforts and contributions in 2024. I wish you first and foremost a healthy and also a productive 2025.

Bart Eggen
Head of the Department Biomedical Sciences

March 2025

2. Research at BMS

Our mission is to contribute significant advancements to the understanding of the fundamentals of functional and dysfunctional human biology at the molecular, cellular and systems levels that ultimately will be applicable to combat diseases and increase human health span.

In BMS, research and education are intertwined.

- With our research, we aim to discover and transfer knowledge to medical applications.
- With our education, we teach cutting-edge biology to the doctors and scientists of the future.

This way, we strive to advance the cycle of bench-to-bed-to-bench for human well-being.

The societal relevance of this mission is considered to be comprised of the following 3 main items:

1. **Understanding the basic mechanism of the function of cells & systems drives advances in Medicare**
   Nearly all current medical treatments are based on discoveries, often done long before the related application, on detailed insights into how molecules, cells and systems function and how they are derailed in disease.

   * Our early analysis of how precision radiotherapy can be targeted to avoid radiation side effects has been the basis for proton therapy.
   * Our screens in Drosophila melanogaster have led to the discovery of therapeutic compounds now explored for the treatment of PKAN.

2. **We connect state-of-the-art Research with Innovative Education**
   Academic education requires role models and modern teaching.

   * BMS takes pride in intense training and careful supervision of its PhD students.
   * We support problem-based, curiosity-driven learning programs (such as in flipped classrooms), provide basic and advanced courses in science technologies and strategies, and practical courses.
   * We develop novel digital education tools (e-learning).

3. **Collaborations drive discoveries**
   The progress of science is based on specialized expertise for discoveries, but requires intense collaborations amongst experts for driving such discoveries all the way to utilization.

   BMS strives for a great team spirit not only to nurture internal collaboration but also to strongly support collaborations with external partners in and outside the UMCG.

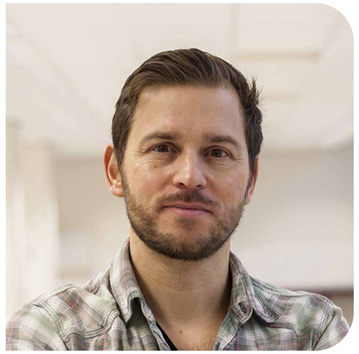
3. Research groups at BMS

Research in the Department of Biomedical Sciences is divided into the following four sections:

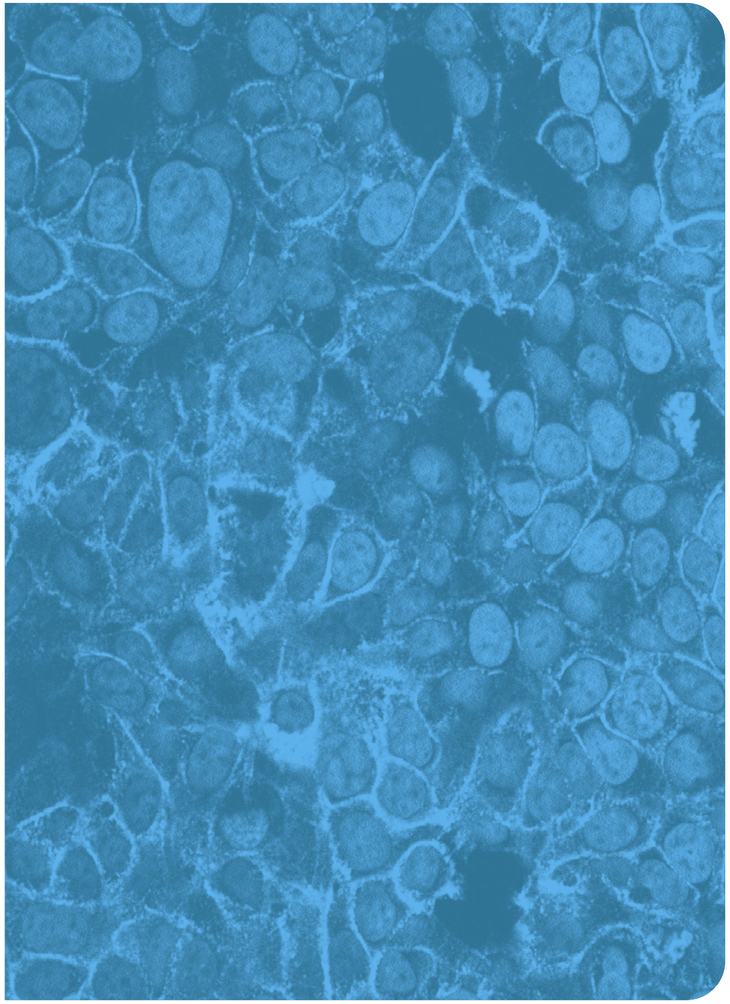
3.1 Section Anatomy and Medical Physiology

The section Anatomy and Medical Physiology perform basic research on human motivational processes using different motivational contexts and research techniques. Human motivational process in biomedical education and training also underly the development of several digital applications by our group that support undergraduate and postgraduate anatomy and physiology teaching. These applications can also be implemented in applied research on teaching efficacy. The two facilities of the Section – Dissection Room and Medical Physiology Lab –offer possibilities to collaborate in external research programs.

Groups



The research group of **Janniko Georgiadis** mainly focuses on human motivational processes in i) biomedical education and training, integrating educational science with gaming psychology, and ii) sexual behaviour, focusing on predictive coding theory.



3.2 Section Cognitive Neuroscience

Section Cognitive Neuroscience does research into symptoms and treatment of different psychiatric disorders and age-related cognitive impairment.

Groups

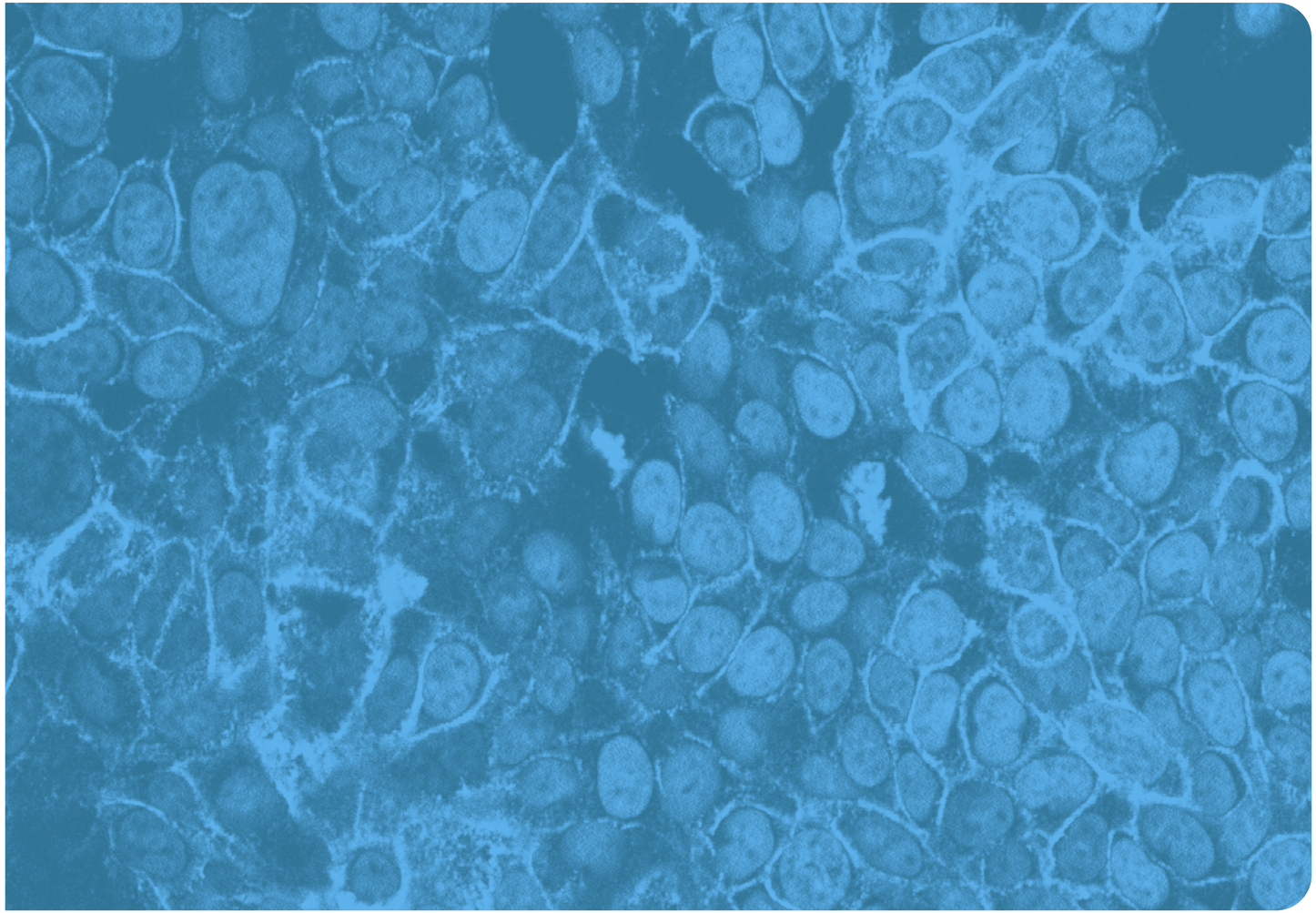
André Aleman (resigned in August 2024) focuses on three lines of investigation: i) Psychiatric symptoms and vulnerability, with a focus on cognitive-emotional interactions, ii) Cognitive ageing, with a focus on mild cognitive impairment and iii) Treatment and prevention, with a focus on non-invasive neurostimulation

Branislava Ćurčić-Blake focuses on brain connectivity analysis and improving cognitive functioning in patients with multiple sclerosis and elderly people with mild cognitive impairment (MCI), as well as auditory verbal hallucinations.

Sander Martens (resigned in April 2024) focuses on individual differences in temporal attention within and across sensory modalities.

Iris Sommer aims to improve future perspectives for patients with schizophrenia and other complex brain disorders. Special emphasis is put on biomarkers and personalized medicine. Her group has a broad interest in methods such as imaging, post-mortem analysis, epidemiology and treatment studies.

Marie-José van Tol focuses on the interaction between mood and cognition in major depressive disorders, and especially factors that promote a prolonged course of these disorders and prevent relapse.



3.3 Section Molecular Cell Biology

The research mission of this section is to study basic processes in molecular cell biology to generate novel, fundamental insights related to cellular and organismal fitness. Through high-quality research, we aim at identifying and, where possible, exploiting cellular targets to promote healthy ageing and/or treat human disease.

Groups

Lara Barazzuol (Seconded from the Department of Radiation Oncology) focuses on assessing the effect of DNA damage (as caused by radiation and chemotherapy) on the brain and aims to achieve an improved biological and molecular understanding of cancer treatment-induced neurocognitive dysfunction.

Rob Coppes (Seconded from the Department of Radiation Oncology) focuses on the role, mechanism and regenerative potential of normal tissue stem cells in the response of tissues to different radiation qualities, such as photons and protons.

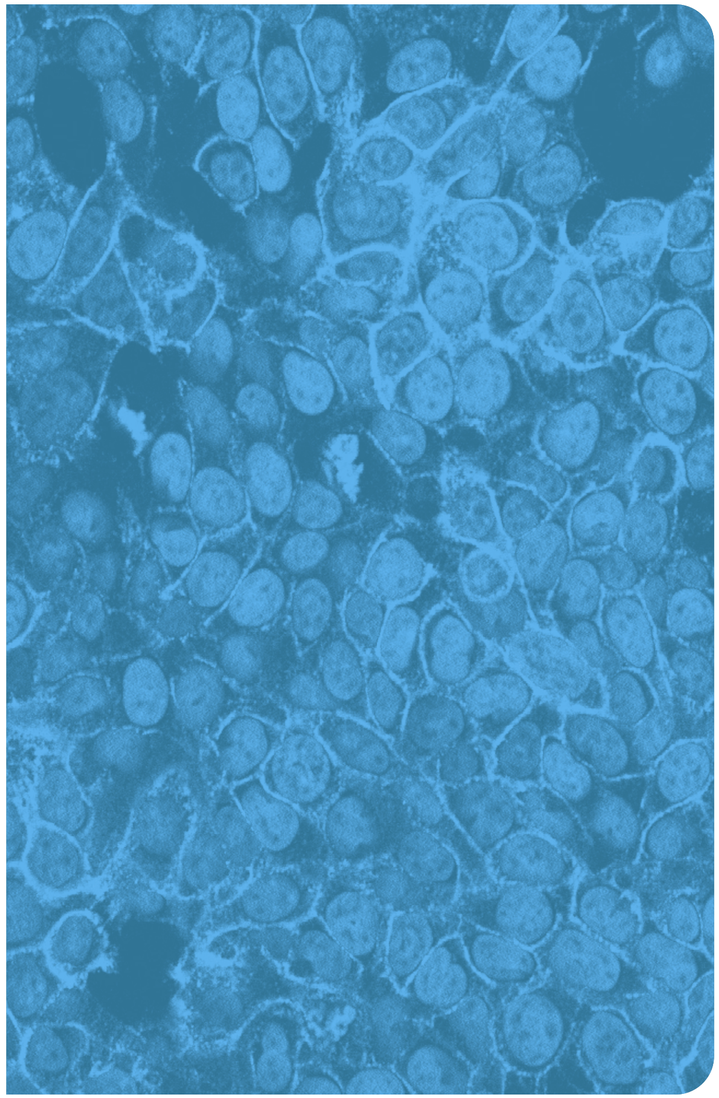
Ben Giepmans aims to better visualize how molecules, organelles and cells act in concert to organize life, and how this may be affected in diseases. The focus is on developing and improving large-scale multimodal microscopy approaches that allow better identification of targets with new probes. Special interest is in uncovering the trigger that leads to, Type 1 diabetes.

Mark Hipp studies the cellular quality control machinery to identify the mechanisms that healthy cells use to prevent toxic protein aggregation, and to help cells to use these mechanisms to prevent diseases associated with protein aggregation.

Harrie Kampinga studies how cells maintain a healthy proteome, which is not only crucial for protein function and hence functionality of cells, but also essential to prevent accumulation of protein damage (protein aggregates) that can lead to a cascade of toxic events that threaten cellular health span. To ensure proper protein homeostasis, an intricate protein quality control (PQC) network exists in cells in which Heat Shock Proteins (HSP), the central research topic in his group, play a central role.

Ody Sibon aims to understand molecular mechanisms behind neurodegenerative diseases presenting with movement disorders. Obtained fundamental insights are used to design treatment strategies which are currently tested in clinical settings.

Sven van Ijzendoorn aims to understand the molecular mechanisms that control the intracellular dynamics of proteins, lipids and membranes in the context of the functional organization of cells, and to understand how these mechanisms contribute to health or, when disrupted, to human disease. In this context, our focus is also on rare congenital disorders caused by disrupted intracellular protein dynamics and cellular organization, which includes elucidating their pathogenesis, development of patient-specific iPSC-based cell models and lead identification for novel therapeutic strategies.



3.4 Section Molecular Neurobiology

The mission of the Section Molecular Neurobiology is to study the central nervous system (CNS) during healthy ageing and neurodegenerative diseases using state-of-the-art techniques.

Groups

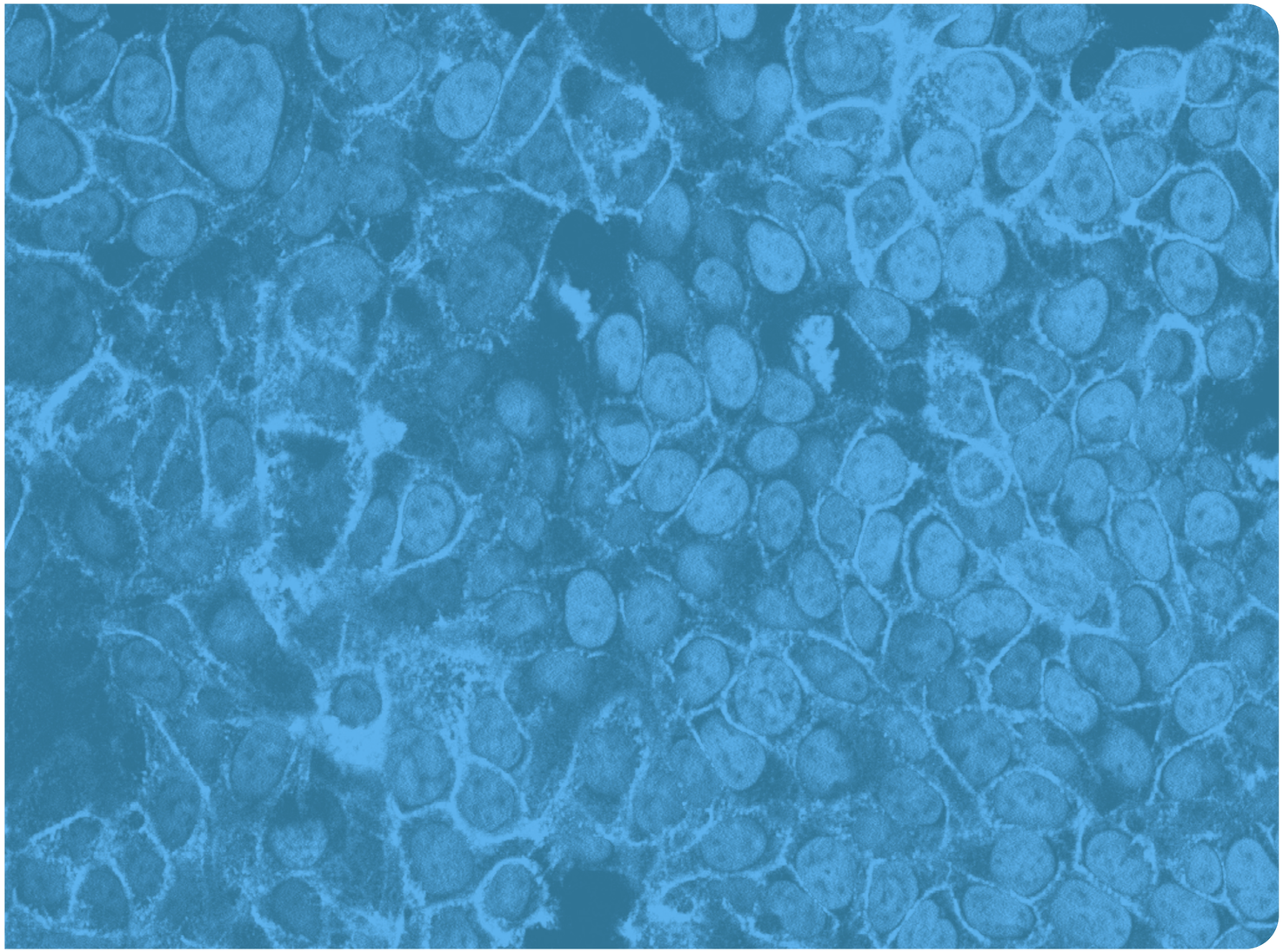
Wia Baron's research interests lie in the area of myelin biogenesis and myelin repair with emphasis on the disease multiple sclerosis (MS). Currently, her research aims at revealing and overcoming environmental restrictions in MS lesions that underlie remyelination failure.

Bart Eggen focuses on neuron-glia signalling and on the epigenetic regulation of different glial cell phenotypes and associated functionalities. This research is focused on brain development, ageing and perturbed functions of cells of the central nervous system cell in neurodegenerative conditions.

Inge Holtman focuses on the effect of natural genetic variation on susceptibility to brain diseases using state-of-the-art computational and machine learning approaches.

Susanne Kooistra focuses on how the epigenome regulates glial cell identity and function under neuroinflammatory conditions like multiple sclerosis, using single cell-omics approaches.

Inge Zijdewind investigates mechanisms – at the level of muscles, spinal cord, and cortex – responsible for increased levels of fatigue and fatigability in different groups of subjects (including multiple sclerosis). Additionally, associated effects of fatigue and fatigability on physical and cognitive performance, and quality of life are studied.



4. Awarded Research Proposals

At BMS, each year our researchers apply for and receive funding from various research funding agencies across the world. Below we list out the projects that received funding and started with a starting date in 2024. The starting date is when both the UMCG and the funding agency agree that the Grant Agreement enters into force.

€ 9,806,612.87

Total funding for projects started during 2024

Projects awarded to the Group Leaders in 2024

	Group Leader	Funding Body	Project Title	Funding Awarded
1	Baron, W.	Nationaal MS Fonds	Novel disease targets in MS: unravelling the role of astrocytes in remyelination failure. OZ2023-008	€ 576,805.00
2	Baron, W.	Stichting MS Research	Deciphering white matter MS lesion evolution	€ 800,000.00
3	Baron, W.	Stichting MS Research	MoveS	€ 250,000.00
4	Baron, W.	Stichting MS Research	Gli-BBB: Glia-BBB interactions: a double-edged sword in multiple sclerosis?	€ 165,000.00
5	Eggen, B.J.L.	NWO-Zwaartekracht	Institute for Chemical Neuroscience (iCNS)	€ 2,042,430.22
6	Hipp, M.S.	NWO-Zwaartekracht	The FLOW of proteins navigating the landscape trying to not get trapped in the complex system, steered by science to allow smooth FLOW to a functional form.	€ 749,742.00
7	Holtman, I.R.	NWO-Zwaartekracht	Institute for Chemical Neuroscience (iCNS)	€ 951,988.65
8	Kampinga, H.H.	NWO	Accelerated aging of stem cell-derived neurons for improved modelling of neurodegeneration	€ 50,000.00
9	Kampinga, H.H.	University of Pennsylvania	The mitochondrial-related defects in WDR45-defective cells and how to reverse them	€ 56,369.00
10	Sibon, O.C.M.	NWO	Dutch-Belgium Drosophila meeting	€ 5,075.00
11	Sibon, O.C.M.	Tango2 Research Foundation	Investigating CoA imbalance, vitamin B5's role, and metabolomics in TANGO2 deficiency disorder	€ 14,733.00
12	Sommer, I.E.C.	EU	The Delta of Language	€ 2,916,956.00
13	Sommer, I.E.C.	Wellcome Trust	Language in Psychosis	€ 1,001,862.00
14	Sommer, I.E.C.	ZonMw	Hebben vrouwen tijdens of na de menopauze een andere dosering van psychofarmaca nodig dan ervoor?	€ 169,280.00
			Total funding for projects started during 2024	**€ 9,750,240.87**

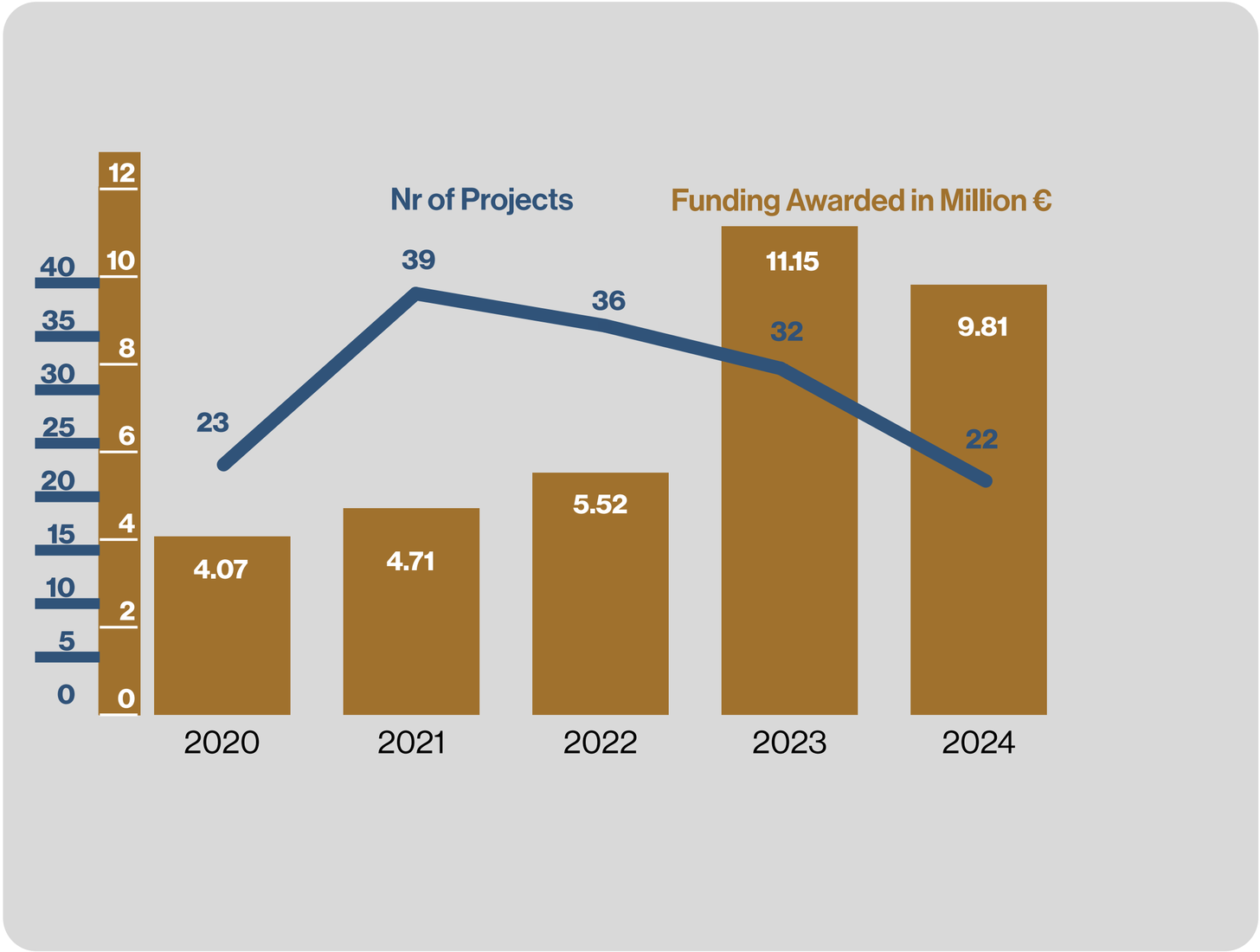
Projects awarded to the PhDs/ Postdocs/ Technicians in 2024

	PhD/ Postdoc	Group Leader	Funding Body	Project Title	Funding Awarded
1	Mahya Hosseini	IJzendoorn, van S.C.D.	Cock J.K. de Stichting	Do Parkinson disease-associated GBA1 variants influence vulnerability to herbicide-induced intestinal barrier dysfunction?	€ 4,600.00
2	Mingyue Sun	IJzendoorn, van S.C.D.	Cock J.K. de Stichting	The distinct role of myosin V in the gut of vertebrates and invertebrates.	€ 4,400.00
3	Mingqian Xu	IJzendoorn, van S.C.D.	Cock J.K. de Stichting	Explore and optimize the generation of naive human pluripotent stem cells derived trophoblast organoid	€ 4,600.00
4	H. Schepers	Sibon, O.C.M.	St. Vrienden Beatrix Kinderziekenhuis	To starve or not to starve, that is the question: establishing a better model to study CoA levels during Pantothenate Kinase Associated Neurodegeneration (PKAN) development	€ 25,000.00
5	Toon Scheurink	Sommer, I.E.C.	Cock J.K. de Stichting	From Gut to Brain and back again	€ 4,572.00
6	Sophie van Zonneveld	Sommer, I.E.C.	Cock J.K. de Stichting	No Guts No Glory	€ 4,600.00
7	Lan Zhou	Sommer, I.E.C.	Cock J.K. de Stichting	From the Window into the Brain: Investigating the Association between Childhood Trauma and Retinal Structural Changes in First Episode Psychosis	€ 4,600.00
8	Nikki Dreijer	Zijdewind, C.A.T.	Cock J.K. de Stichting	Neurophysiological effects of TENS	€ 4,000.00
			Total funding for projects started during 2024		**€ 56,372.00**

5. Facts and Figures

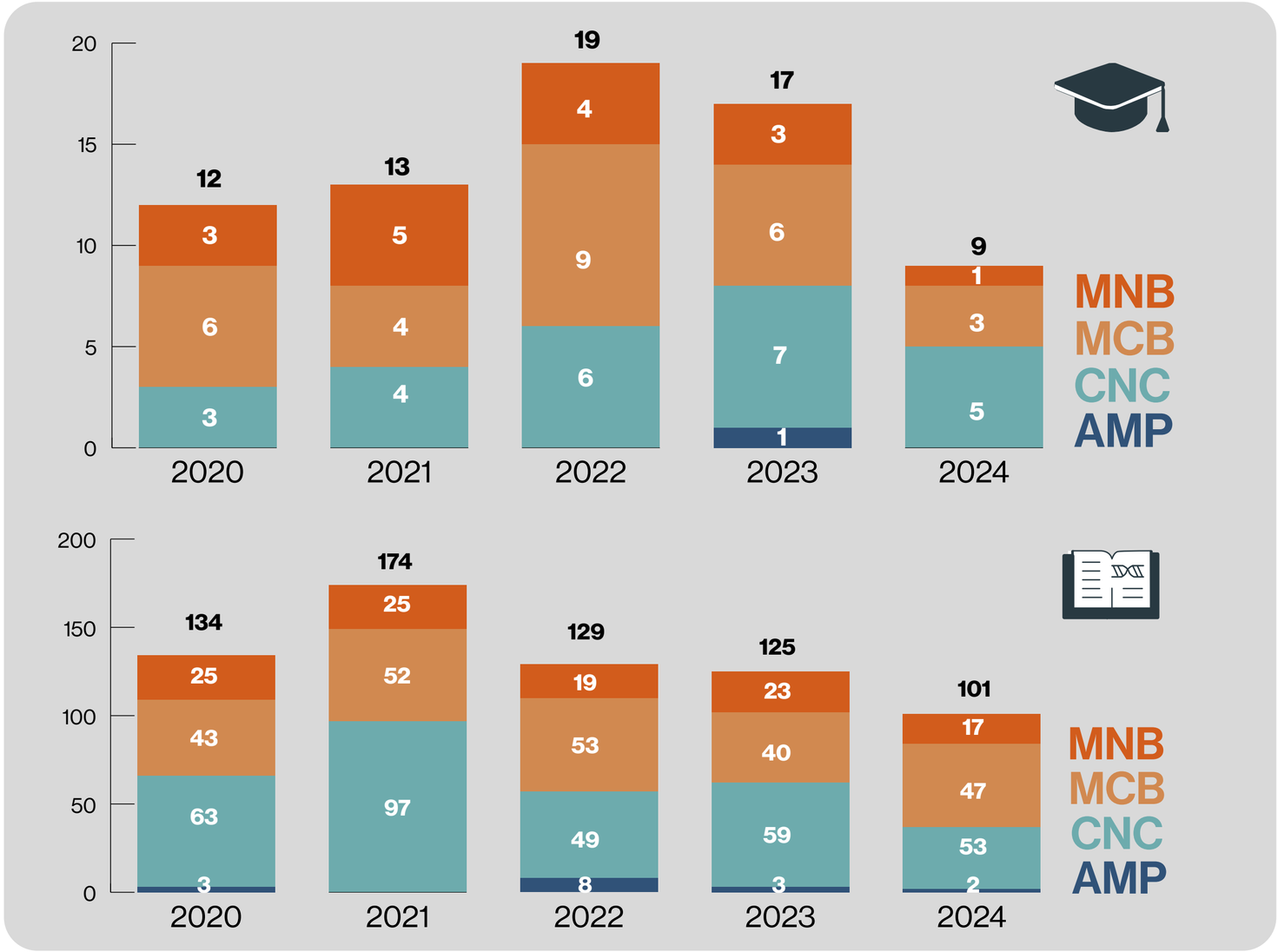
5.1 Funding/Grants awarded

* See the previous section for a list of awarded projects started in 2024.



5.2 PhD Graduations

* See the Appendix 1 for a list of all PhD theses defended per section at the end of the report.

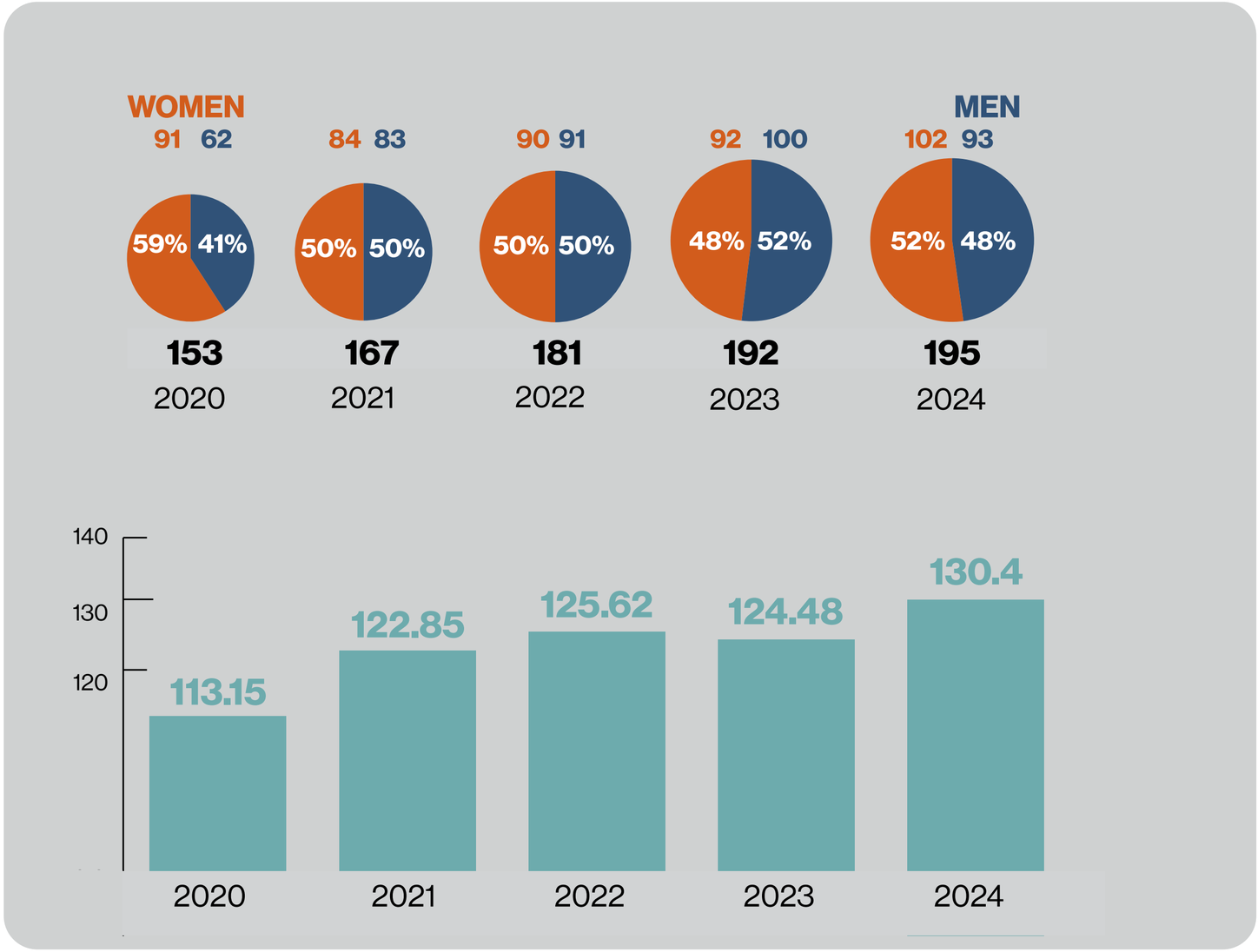


5.3 Scientific Publications

* See Appendix 2 for a list of all publications published per section at the end of the report.

5.4 People

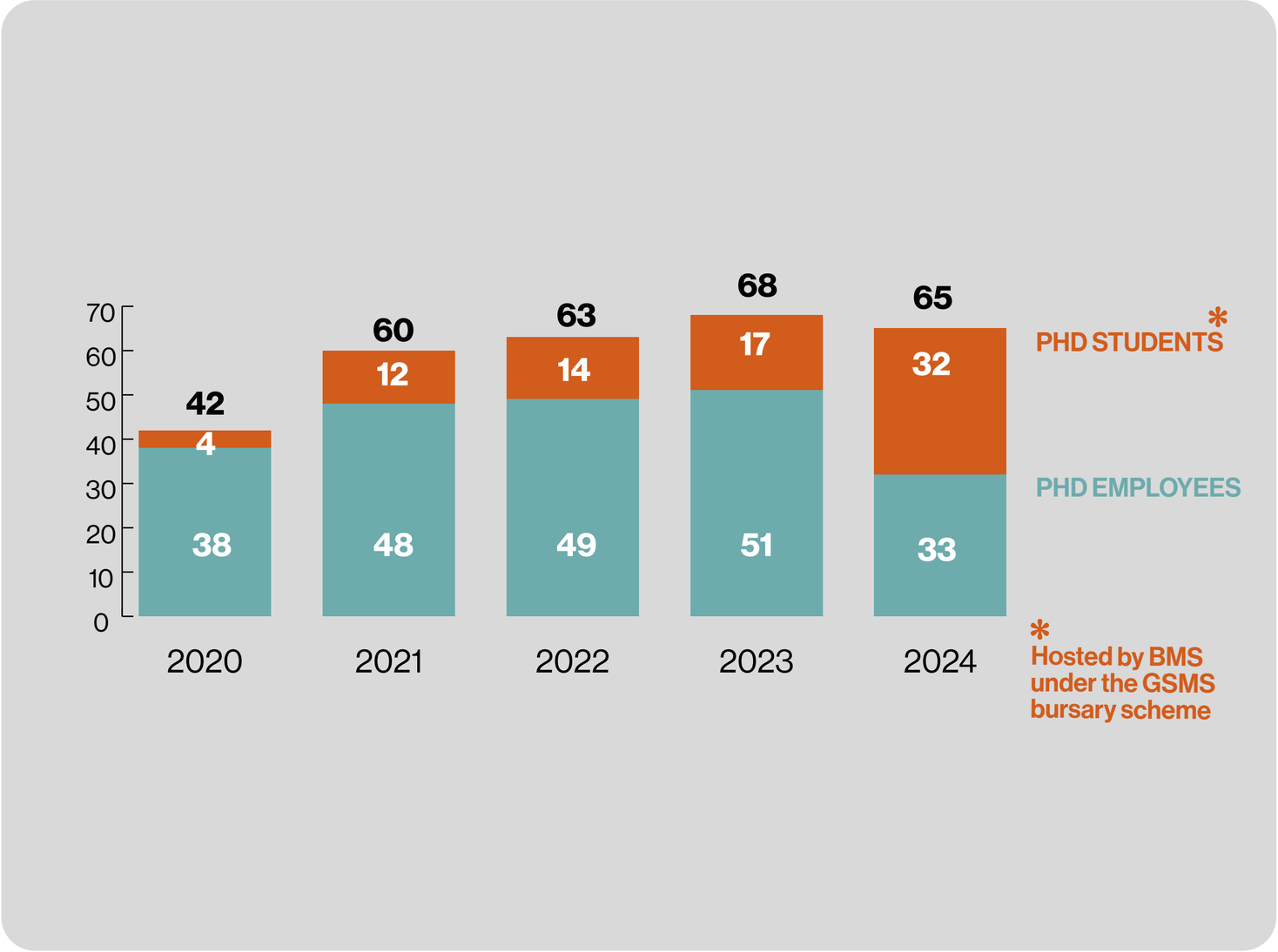
5.4.2 Employees



5.4.3 Full Time Equivalent

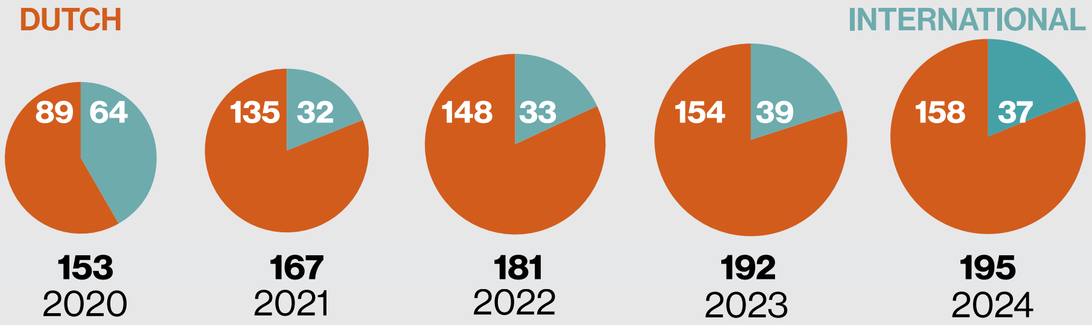
5.4 People

5.4.3 PHD Students



5.4 People

5.4.4 International



NATIONALITIES*

Belgian	1	Greek	1	Pakistani	1
Brazilian	1	Hungarian	1	Polish	1
Canadian	1	Iranian	1	Romanian	2
Chinese	1	Italian	5	Russian	3
Cyprus	1	Mexican	2	Spaniard	2
German	7	Dutch	158	Syrian	1
Filipino	1	Austrian	1	South African	2
				Swedish	1

*

These numbers include only paid employees, and exclude guests, bursary students or other unpaid personnel.

Management team BMS

FULL NAME	ROLE
Henk Heidekamp	Managing Director
Harrie Kampinga	Head of the Department (until 31 Aug 2024)
Bart Eggen	Head of the Department (from 1 Sept 2024)
Janniko Georgiadis	Head of the Section Anatomy and Medical Physiology
André Aleman	Head of the Section Cognitive Neuroscience (resigned in Aug 2024)
Iris Sommer	Head of the Section Cognitive Neuroscience
Sven van IJzendoorn	Head of the Section Molecular Cellbiology
Bart Eggen	Head of the Section Molecular Neurobiology
Guus Achterweust	Financial Controller (resigned in August 2024)
Henk van der Werf	Financial Controller, CNC
Jenny Fledderus	Financial Controller, BMS
Ria Ubels	Quality Assurance Manager and Staff Advisor
Mallikarjuna Gurram	Project Manager and Grant support
Wytse Hogewerf	Staff Assistent
Fokje Boomsma-van der Weg	Secretary Anatomy & Medical Physiology
Greetje Noppert	Secretary Molecular Cellbiology
Trix van der Sluis-Rozema	Secretary Molecular Neurobiology
Bote Smid	Secretary Cognitive Neuroscience

6. Facilities

6.1 Dissection Room facility

The Dissection Room facility is a modern facility where real human anatomy can be studied extensively and in considerable detail. The facility strongly supports life-long learning, offering both basic undergraduate courses and specialistic post-graduate trainings across a great variety of teaching and training programs, locally, regionally, nationally and internationally. This irreplaceable form of learning is afforded by **human body donors**, who generously give their body to the University of Groningen to stimulate, support and improve biomedical education and research. The facility has a close collaboration with the **Wenckebach Skills Center** for the optimization of resident training and surgical approaches, for simulating skills needed in the operation room, and for research on clinically relevant anatomy.

Specific services

- 3 different embalming methods to optimally cater to a range of education or research requests.
- partnership with **Wenckebach Skills Center** enables very wide range of education, training, and research activities with donated bodies.

great expertise in organizing international specialistic surgical courses.

People involved in the facility and their roles

Janniko R. Georgiadis Head of the facility
Steve Oosterhoff Manager of the facility
Peter Veldman Prosector
Ronald Meijer Prosector

Contact

Department of Biomedical Sciences
University Medical Center Groningen

Antonius Deusinglaan, 1
Section Anatomy and Medical Physiology
Internal Zipcode FB42
9700 AD - Groningen
The Netherlands

https://umcgresearch.org/w/dissection-room

6.2 Medical Physiology Lab facility

The Medical Physiology Lab is used to teach the basic concepts of physiology to 700-1000 students per year of medicine, human movement sciences, dentistry, pharmacy, biomedical sciences and the University College Groningen. Via experiential learning, these students master the concepts in respiratory physiology, cardiovascular physiology, exercise physiology and neurophysiology: the students experience the tests themselves and they perform those tests on fellow students, and learn to interpret the results. For medical students, this is also their first experience in physical examination and additional measurements, such as electrocardiography, blood pressure measurements, and lung function tests.

In 2020, we received a financial investment from the UMCG to update, upgrade, and increase the numbers of our equipment, to be able to match the practice in the clinic, to deal with larger numbers of students per practical, and to be able to offer high-end courses in physiology for medical residents and specialists. The first investments were used to update (and upgrade) one of the set-ups of exercise physiology, to renew the set-up for continuous blood pressure measurements, and to replace the stethoscopes for the cardiovascular function tests.

People involved in the facility and their roles

Janniko R. Georgiadis Head of the facility
Ruby Otter-Drost Manager of the facility
Annelies van der Molen Coordinator of the facility

Contact

Department of Biomedical Sciences
University Medical Center Groningen

Antonius Deusinglaan, 1
Section Anatomy and Medical Physiology
Internal Zipcode FB42
9700 AD - Groningen
The Netherlands

https://umcgresearch.org/w/medical-physiology-lab

6.3 Cognitive Neuroscience Center (CNC) facility

We provide high-quality measurements and analyses of brain structure and activity using a diversity of cutting-edge technologies. Founded in 2002, the CNC is a research facility where people from the UMCG, the RUG, and external users collaborate, combining a variety of disciplines including medicine, psychology, linguistics, biology, and artificial intelligence.

The main aim of our center is to understand the neural basis of cognitive and emotional functioning during development and ageing using different modalities including fMRI, EEG, NIRS, and neurostimulation.

We focus on different research topics:

- Diverse psychiatric disorders including depression and schizophrenia
- Cognitive Aging
- Attentional and emotional control
- Visual perception
- Food perception
- Language acquisition
- Neurofeedback
- Motor control
- Drug development

We are uniquely placed for a wide variety of (brain) studies. We collaborate with the Department of Nuclear Medicine and Radiology to support integration of PET and MR studies. Besides data acquisition, the CNC supports researchers with analyses and statistics and can provide a workplace environment with its own servers for (guest) researchers. Furthermore, the CNC offers commercial partners a complete brain research 'package' encompassing acquisition, analysis and reporting.

People involved in the facility and their roles

Prof. Iris Sommer Head of the facility

Contact

Cognitive Neuroscience Center
Hanzeplein 1
Triade Building, entrance 24, 1st floor
9713 AP - Groningen
The Netherlands.

For information, you can contact

Mr. Bote Smid Research coordinator
b.smid@umcg.nl
https://umcgresearch.org/w/cognitive-neuroscience-center

6.4 Drosophila melanogaster facility

Drosophila melanogaster (fruit fly) is one of the most well studied animals to answer biological research questions in various fields, including ecology, evolution, behaviour, genetics, biomedical research, development and more.

The Drosophila facility at the UMCG is using a wealth of advanced genetic tools to design fly models to understand biological processes underlying age-related diseases. These models are used to investigate novel treatments for human diseases.

In collaboration with interested parties (researchers, educational organisations) we can design, and assist in generating and providing the requested Drosophila models.

We provide the following services

- Assist in the design of a suitable Drosophila model for research questions
- Infrastructure for interested parties to generate the Drosophila model
- Deliver fruit flies for small scale (genetic) teaching courses

People involved in the facility and their roles

Prof. Ody Sibon Head of the facility
Ellie Eggens-Meijer Technician: logistics Drosophila service unit
Bart Kanon Technician: Drosophila handling
Erika Geubel Technician: Drosophila handling

Contact

Drosophila melanogaster – facility
Department of Biomedical Sciences
University Medical Center Groningen
Antonius Deusinglaan, 1
Section Molecular Cellbiology Internal Zipcode FB32
9700 AD Groningen
The Netherlands
https://umcgresearch.org/w/drosophila-melanogaster

6.5 UMCG Microscopy & Imaging Center (UMIC) facility

Microscopy is a longstanding great enabling technology to help to understand how molecules regulate, or affect, live. UMIC offers training and access to advanced microscopes and image processing aimed at cellular imaging.

UMIC staff is highly enthusiastic because it is again a fantastic time to be a microscopist! Recent developments that already routinely can be used at UMIC include:

(I) intravital microscopy to study molecules and cells in living organism using

- **a.** single-photon confocal laser scanning microscopy (CLSM)
- **b.** two-photon CLSM
- **c.** light sheet microscopy

(II) Robotics allow live-cell imaging plates at high throughput

Special niches at UMIC, including custom-built microscopes and expert assistance that attract international researchers include

- **(i)** correlated light and electron microscopy (CLEM)
- **(ii)** ‘nanotomy’ to analyze molecules and organelles in tissues in a Google earth-like manner with nanometer range resolution
- **(iii)** Identification using ‘Color’ electron microscopy

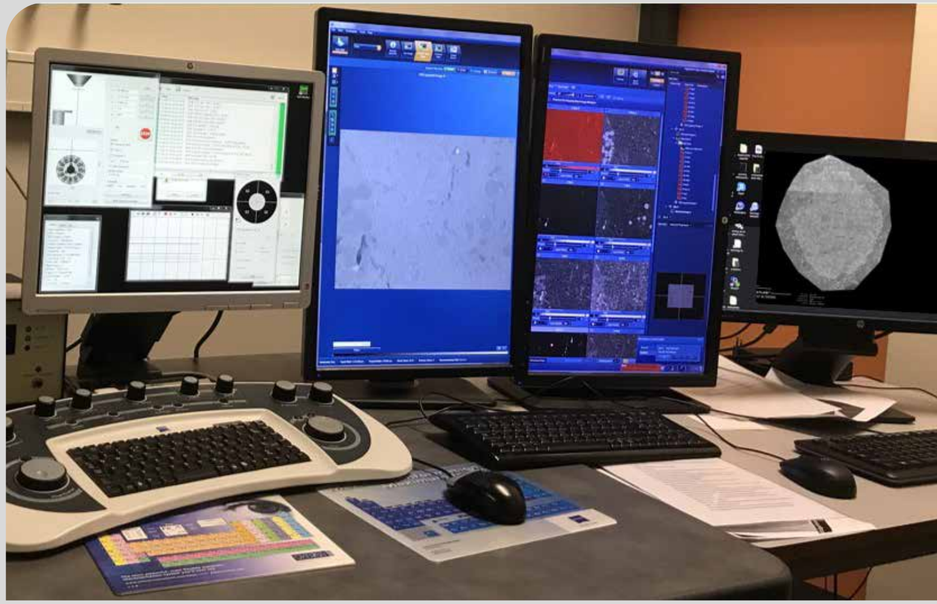


Fig. 6.5a
Multimodal microscopy: Different signals are obtained from the electron microscope that allows ‘nanotomy’and ‘ColorEM’. Samples are sent from other regions in the Netherlands/ world to use these niche techniques in biomedical research.

In 2021 several new techniques are available by a major upgrade of the instruments. UMIC is very dynamic and has many more approaches for cellular imaging, with several new investments planned. Do you want to apply seemingly impossible microscopic approaches in your research, feel free to contact us (www.umic.info).

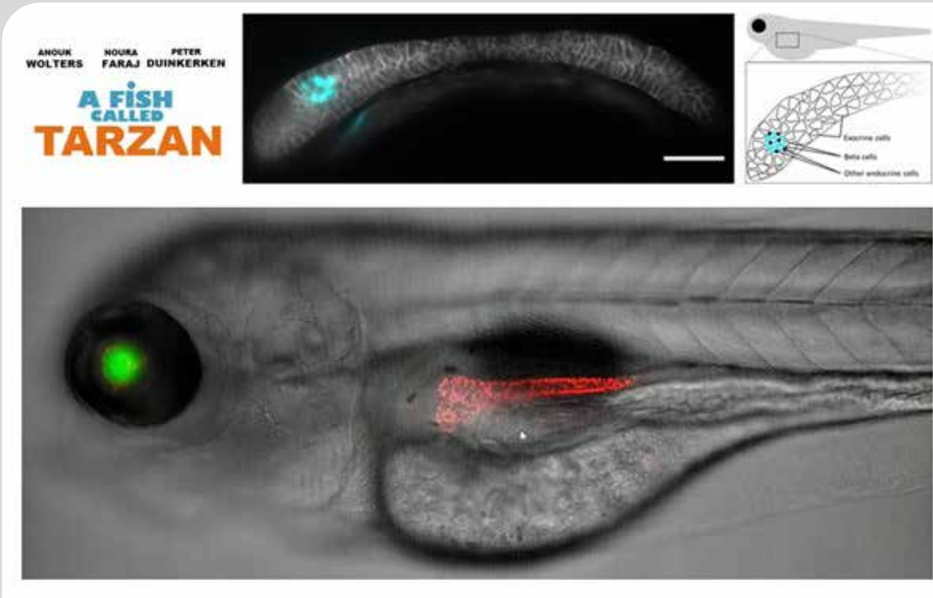


Fig 6.5b
Tarzan (top) and Jane (bottom), zebrafish larvae to study the pancreas in context of Type 1 diabetes. UMIC optogenetics and imaging of living larvae, including using multi-photon , single plane illumination microscopy and FAST-EM.

People involved in the facility and their roles

Ben Giepmans Director
Klaas Sjollema Managing Director Light Microscopy
Jeroen Kuipers Managing Director Electron Microscopy
UMIC participates in the NVvM, NL-BioImaging, NEMI, is a DTL-hotel and nPOD core facility

Contact

UMCG Microscopy & Imaging Center (UMIC)
Antonius Deusinglaan 1 (FB32)
9700 AD Groningen
The Netherlands
EM-dbase nanotomy.org
UMIC core umic.info
https://umcgresearch.org/w/umic

6.6 Cesium-137 γ-ray facility

The Cesium-137γ-ray machine is to be used by authorized researchers to irradiate cells, Drosophila larvae, mice and rats and other samples.

People involved in the facility and their roles

Rob Coppes RPO (Radiation Protection Officer)
Rick Havinga RPE (Radiation Protection Expert)
Uilke Brouwer Contact person radiation worker (level 5)

Contact

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u.brouwer@umcg.nl
https://umcgresearch.org/w/cesium-137-y-ray-facility

6.7 PARTREC facility

PARTREC is a dedicated research facility functioning in synergy with the UMCG Groningen Proton Therapy Center (GPTC). We uniquely combine technological development, preclinical studies, and patient studies with a Research and Development (R&D) programme to continuously improve proton therapy technology and treatment, while assessing the feasibility of other particles for high-precision radiotherapy.

The facility operates a large superconducting cyclotron for experimental research, mainly in the fields of radiation physics and biology. We support the further development of ion beam radiotherapy and the use of cyclotrons and accelerators.

Specific services:

- The cyclotron delivers beams of various ions ranging from protons to oxygen, with energies up to 190 MeV (for protons) and 90 MeV per amu (for ions of helium to oxygen).
- The accelerator is also used by the University of Groningen for nuclear physics research and commercial radiation-hardness testing, with the possibility of using a heavy cocktail of ions as massive as Xe, with an energy of 30 MeV per amu.
- Our technical staff operates the accelerator facility and provides support for designing, building, and operating experimental apparatus.

People involved in the facility and their roles

Alexander Gerbershagen Team Leader for Accelerator and Radiation Physics.

Marc-Jan van Goethem Contact liaison for beam time request/ booking.

Contact

Department of Biomedical Sciences of Cells and Systems
University Medical Center Groningen
Particle Therapy Research Center (PARTREC)
Zernikelaan 25
9747 AA Groningen
The Netherlands
https://umcgresearch.org/w/partrec

7. Education

Teaching and training is also a core activity within the BMS department. BMS staff is involved in a wide range of educational activities spanning multiple faculties and institutions. Below we provide a list of courses and education/training activities that are being coordinated or facilitated by the research staff from the BMS. This list does not include the activities where BMS staff were not the coordinators.

	COURSE	COORDINATOR
Medicine	G2020 Semester 1.1 en 1.2 (course director)	Anne-Marijke Kosta
	G2020 Semester 1.4 en 1.5 (course director)	Hiske van Duinen
	G2020 Semester 2.1 en 2.2 (course director)	Hiske van Duinen
	G2020 Premaster (course director)	Rob Bakels
	Test item assessment panel (TBP, chair)	Rob Bakels
	Test item assessment panel (TBP, member)	Anne-Marijke Kosta
	Committee Profile education (member)	Bart Eggen
	Assessment committee MD/PhD	Ody Sibon
	Educational Committee Medicine (OCG, member)	Carola Haven
	Exam Committee Medicine & dentistry (ECTG, member)	Pepijn Schoonen

	COURSE	COORDINATOR
MMIT	MMIT neuroscience track & MMIT neuroscience week	Susanne Kooistra & Bart Eggen
	Scientific integrity	Sven van IJzendoorn
	Mechanisms of disease and innovative treatment.	Sven van IJzendoorn
	MMIT-CPE Exam committee (chair)	Bart Eggen
Dentistry	Lijn Medische kennis en vaardigheden	Inge Zijdewind

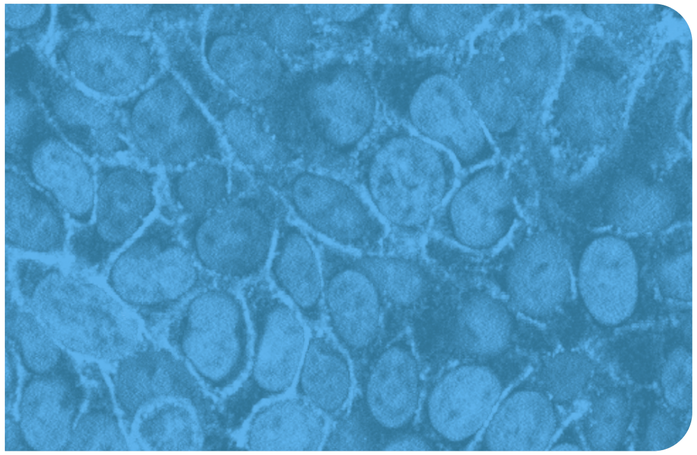
	COURSE	COORDINATOR
Science and Engineering (FSE)	BSc Biology: Medical physiology	Hiske van Duinen
	BSc Biology Medical cell biology	Mario Mauthe
	MSc BCN: Human neuroanatomy	Janniko Georgiadis
	MSc BCN: Functional Neuroscience	Susanne Kooistra
	MSc BCN: Functional Neuroscience (C-track)	Monicque Lorist
	MSc BCN: Membrane Biology and Disease	Wia Baron
	MSc BCN: Stem Cell and Glia Biology	Bart Eggen
	MSc BCN: Cognitive neuropsychiatry	Marie-José van Tol
	BCN board of advisors	Inge Holtman
	Board of examiners (member)	Sven van IJzendoorn
	Educational Committee BCN (member)	Susanne Kooistra
	Advanced Cellular Imaging L	Ben Giepmans

	COURSE	COORDINATOR
GSMS	Ethics in science and Scientific Integrity	Sven van IJzendoorn
	Track coordinator	Sven van IJzendoorn
	Coordinator year 1	Sven van IJzendoorn
Human Movement Science	Bachelor BW: Inspanningsfysiologie	Ruby Otter-Drost
	Bachelor BW: Neuroanatomie 1	Janniko Georgiadis
	Bachelor BW: Algemene fysiologie	Hiske van Duinen
	Bachelor BW: Neurofysiologie	Pepijn Schoonen
University College Groningen	Anatomy & Histology	Eric Sietsema
	Human Physiology	Pepijn Schoonen
	Clinical Psychology: mental health and illness	André Aleman

	COURSE	COORDINATOR
Hanzehogeschool	Anatomie van de mens (Master Physician Assistant)	Carola Haven
	Embryology for Verloskundeacademie Amsterdam-Groningen (AVAG)	Anne-Marijke Kosta & Janniko Georgiadis
UMCG	UMCG committee for language and culture (chair)	Rob Bakels
	Common Trunk surgery residency training program (anatomy coordination)	Carola Haven
	European Medical School Oldenburg-Groningen	Janniko Georgiadis
	Anatomy – Simulation Centre	Carola Haven & Janniko Georgiadis
	Body donation programme	Janniko Georgiadis
	Portfolioholder Education and training Cluster BST	Janniko Georgiadis

8. Scientific dissemination & Business Development

At BMS, we encourage and support researchers to share our know-how, drive discoveries towards applications and (in doing so) collaborate with industries. We welcome collaborations to generate access to our scientific ideas and state-of-the-art facilities. Below we list out results from our recent efforts to connect science with business.



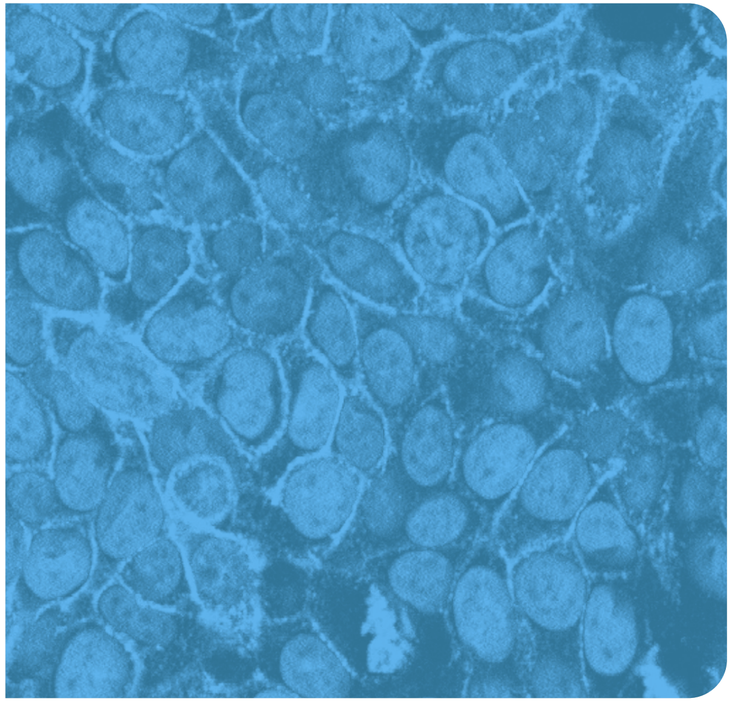
8.1 PKAN

The **Sibon** group discovered and developed a potential treatment for the neurodegenerative disease Pantothenate Kinase-Associated Neurodegeneration (PKAN) (Srinivasan et al., Nat. Chem Biol 2015; Jeong et al., EMBO MOL. MED 2019).

Currently, financed by the Stichting Zeldzame Ziekte Fonds, Stichting Kans voor PKAN kinderen, de Stichting Lepelaar, ZonMW and the Hersenstichting, an investigator driven clinical trial started (September 2021) for PKAN patients in close collaboration with the Expertise Centre for Movement Disorders, at the UMCG. The product under investigation was designed, developed and produced (clinical usage grade) by prof. Sibon and her collaborators. The product is proven to be effective in Drosophila and mouse models for PKAN and the aim of the clinical study is to test our developed product in the clinic.

8.2 Enatom

Enatom is a joint initiative by the **Section Anatomy & Medical Physiology** and the 360 degree visualization company **VIEMR** to visualize in exquisite detail human anatomical specimens for use in distance learning applications and solutions. Thanks to considerable investments over the past few years, Enatom has made substantial progress in anatomic content and image quality.



8.3 Anatomy Gym

Anatomy Gym is a game-like App for smartphone and tablet to learn anatomical facts. It was launched in 2020. Anatomy Gym has seen considerable interest from users as well as from teaching parties that want to include specific modules. Anatomy Gym is scalable to a very large and diverse audience, and progress has been made to stimulate its further development and sustainability.

8.4 Stem cell therapy

Radiotherapy of head and neck cancer is often accompanied with dysfunction of the salivary glands leading to xerostomia (dry mouth syndrome). Basic science by the **Coppes**' lab linked this to identification of a salivary gland cell stem compartment that is depleted by radiation. This has now developed into a stem cell therapy in which stem cells from the patient are collected before and give back after radiation for the treatment of this side effect. After pre-clinical testing and development of a **protocol for safe clinical use**, a first-in-man Phase I/II trial will start this summer at the UMCG.

9. Outreach activities

Outreach activities by the PIs, PhDs, Postdocs, and Technicians

Besides research and education, all scientific staff members from BMS, including PhD students, postdocs, and group leaders, have been actively involved in the scientific outreach and dissemination activities. Below we list out the notable activities by BMS during the year 2024.

1	**Iris Sommer** Interview in NPO Focus, 25 January 2024 Wat is de impact van de overgang? https://ntr.nl/Focus/287/detail/De-overgang/VPWON_1357255
2	**Iris Sommer** 31 January 2024. UMCG onderzoekt AI-model dat psychoses voorspelt. https://www.skipr.nl/nieuws/umcg-onderzoekt-ai-model-dat-psychoses-voorspelt/
3	**Iris Sommer** 1 Februari 2024. Nominated for Woman in the Media Award. Dit zijn de genomineerden voor de vrouw in de media award Groningen. https://www.rtvnoord.nl/cultuur/1123599/dit-zijn-de-genomineerden-voor-de-vrouw-in-de-media-award-groningen
4	**Iris Sommer** 5 February 2024. Studium Generale Groningen, lecture with Hermie Harmsen. De Bacterie en het Brein. https://www.youtube.com/watch?v=Bn3bEYXdvCo
5	**Iris Sommer** Interview tijdschrift Humo, 23 February 2024. Een duik in de darmen. https://www.humo.be/nieuws/waarom-we-sneller-ten-prooi-vallen-aan-depressie-angststoornissen-of-burn-out-ik-vrees-dat-een-belangrijke-oorzaak-in-ons-voedingspatroon-ligt~bda4d38d/
6	**Iris Sommer** 8 March 2024 lecture Vrouwenbrein at Fabrique / Utrecht: Een energiesector, 1000 vrouwen. Vrouwen in een mannenomgeving en zijn vrouwen nu écht zo anders?
7	**Iris Sommer** Podcast met Arie Boomsma. Over Voeding | Wat doet voeding met je brein https://open.spotify.com/episode/1fjChS9ziqSU9yENj4zmVn
8	**Iris Sommer** 3 – 10 April 2024 SIRS / Florence

9 **Iris Sommer** 16 April 2024 Lezing in Paradiso. Science & Cocktails.
The Bacteria and the Brain
https://www.paradiso.nl/programma/science-cocktails-the-bacteria-and-the-brain/1952585

10 **Iris Sommer** 2 May 2024. Wetenschap op woensdag.
https://www.youtube.com/watch?v=iLbXOAEIUbk

11 **Iris Sommer** 15 May 2024. Webinar voor Vlaamse psychiaters vrouwen met psychose.

12 **Iris Sommer** 22 May 2024. 410 jaar RUG.
Festival der verwondering. Stadschouwburg / Groningen. Bijdrage.
https://www.youtube.com/watch?v=wG_7UOx0rAQ

13 **Iris Sommer** 24- 28 June 2024 Lorentz centre/Leiden
Organisation workshop and annual Trusting Meeting on hormonal influences on mental health and neurocognition

14 **Iris Sommer** 2 July 2024 lezing Grote denkers in Artis Groote Museum.
Wat is de invloed van bacteriën op ons brein?
https://museumnacht.amsterdam/programma/768/wat-is-de-invloed-van-bacterien-op-ons-brein/

15 **Iris Sommer** 26 July 2024. OpenUP. Een gezonde darmflora: de link met je hersenen en mentaal welzijn.
https://openup.com/nl/self-guided-care/videos/een-gezonde-darmflora-de-link-met-je-hersenen-en-mentaal-welzijn/

16 **Iris Sommer** 8 August 2024 Jortcast #797
https://www.nporadio1.nl/podcasts/de-jortcast/111447/797-zomerspelen-iv-xx-xy-en-sekshormonen

17 **Iris Sommer** Collaboration on TV series Alles op Tafe, episode 4: 5 August 2024 NPO 2
https://npo.nl/start/serie/alles-op-tafel/seizoen-1/alles-op-tafel_4/afspelen

18 **Iris Sommer** 19 – 25 September 2024. Spreken op ECNP congres / Milaan

19 **Iris Sommer** Tweewekelijkse column in Trouw vanaf September 2024
https://www.trouw.nl/wetenschap/nieuwe-columnist-iris-sommer-wil-ons-de-behoeften-van-ons-brein-leren-herkennen~b1cb710f/

20 **Iris Sommer** 12 – 13 September International Consortium on Hallucination Research (ICHR)/ Lissabon. Keynote lecture: Hallucinations in different situations and diseases

21 **Iris Sommer** 28 November 2024 Communication Initiative award NGNG team / NWO
https://www.nwo.nl/en/news/meet-the-winners-of-the-nwo-science-awards-2024

22 **Marie-José van Tol** 15 januari 2024. Science Guide - mental health wetenschappers
https://www.scienceguide.nl/2024/01/volgende-patient-de-wetenschap/

23 **Marie-José van Tol** Perestrojka - OOG Radio
https://www.glasnostici.nl/2023/11/21/perestrojka-94-marie-jose-van-tol/

24 **Marie-José van Tol** NAP-nieuws: Iedereen Professor / Uitbreiding Toga UvA
https://www.napnieuws.nl/2024/01/17/uitgebreid-toga-privilege-stap-in-goede-richting/

25 **Marie-José van Tol** Interview met Nederlands Tijdschrift van Geneeskunde
https://www.ntvg.nl/artikelen/het-loont-te-investeren-depressiepreventie

26 **Marie-José van Tol** OOG op Wetenschap, 15 februari 2024
https://open.spotify.com/episode/0gYq8K6GpJN3gIIbnbVHLY?

27 **Marie-José van Tol** 28 March 2024. Interview for website RTV Noord, with radio-interview.
https://www.rtvnoord.nl/zorg/1145446/twee-of-meerdere-depressies-vrijwel-iedereen-die-in-een-zwart-gat-zit-kan-volledig-herstellen

28 **Marie-José van Tol** Interview Alumni-magazine "Broerstraat 5", University of Groningen
https://www.broerstraat5-rug.nl/broerstraat-lente-2024/depressie-voorkomen
27 March 2024.

29 **Marie-José van Tol** Artikel toga's UvA; 17 januari 2024.
https://www.napnieuws.nl/2024/01/17/uitgebreid-toga-privilege-stap-in-goede-richting/

30 **Marie-José van Tol** 15 januari 2024: column: Science Guide - mental health wetenschappers
https://www.scienceguide.nl/2024/01/volgende-patient-de-wetenschap/

31 **Marie-José van Tol** 10 juni 2024: Interview reformatorisch dagblad.
https://www.rd.nl/artikel/1066759-hoogleraar-wil-huis-van-de-stemming-stutten

32 **Marie-José van Tol** Bijdrage wetenschap van A tot Z: X == suicide (Boek: Jim & Dolf Jansen)
https://www.boeken.nl/boeken/9789085711506/2025-26-oplossingen

33 **Marie-José van Tol** 19 juni 2024.
Commentaar NRC op Nature Medicine artikel over Biotypes in depressie
https://www.nrc.nl/nieuws/2024/06/18/op-hersenscans-is-te-zien-welke-vormen-van-depressie-en-angststoornis-er-zijn-a4856818

34 **Marie-José van Tol** 28 augustus 2024. Interview over langcog - Linda. (online)
https://www.linda.nl/lifestyle/gezondheid/laat-leren-goed-hersenen/

35 **Marie-José van Tol** Interview DvhN over bezuinigingen wetenschap
https://dvhn.nl/groningen/Vak-Noord-dit-verwachten-noordelingen-van-het-kabinet-Schoof-29211086.html

36 **Marie-José van Tol** 22 mei 2024. Festival der verwondering: Lustrum gala RUG
https://www.newscientist.nl/blogs/festival-der-verwondering-2024-trots-en-passie-voor-de-wetenschap/

37 **Marie-José van Tol** Bijdrage Noorderzon: lezing over depressie in sessie over de hersenen
https://www.noorderzon.nl/programma/umcg-rug-hanzehogeschool-3
(27 augustus 2024)

38 **Marie-José van Tol** 22 oktober 2024. Publieksacademie Sociale Wetenschappen: Depressie & Burn-out
https://www.youtube.com/watch?v=ZMJtra3b6Kc&ab_channel=UniversityofGroningen

39 **Marie-José van Tol** 13 maart 2024. Lezing How to conduct Life Festival: NNO & Studium Generale, de Oosterpoort
https://nno.nu/how-to-conduct-life-an-outside-the-box-festival/

40 **Marie-José van Tol** 8 november 2024. Phd-day Groningen; lezing motivatie.
Title talk: "Doing it for the right reason"

41 **Marie-José van Tol** nov 2024. Health in Context - UMCG research institute day,
Title talk: "Doing it for the right reason"

42 **Marie-José van Tol** 29 nov 2024: Dresden, keynote: https://tu-dresden.de/mn/psychologie/die-fakultaet/termine/m-j-van-tol-re-building-a-cognitive-shield-against-depression-neurocognitive-working-mechanisms-of-preventive-interventions-for-lowering-relapse-risk-in-depression

43 **Marie-José van Tol** 18 oktober 2024. Nascholingsbijeenkomst Consortium Psychiatrie, Wenckebach instituut. Title talk: "Een schild tegen depressie: De neurocognitieve werkingsmechanismen van preventieve cognitieve therapie bij terugkerende depressie"

44 **Marie-José van Tol** 5 juli 2024. Lezing symposium Global Neuropsychological Congres, Porto, Portugal. Title talk: "(Re)-Building a cognitive shield against depression: The role of neurocognition in understanding and preventing depression"

45 **Marie-José van Tol** 3 juli 2024. Lezing symposium Global Neuropsychological Congres, Porto, Portugal. Title talk: "A shield against depression: The neurocognitive working mechanisms of preventive cognitive therapy in remitted depression (NEWPRIDE)"

46 **Marie-José van Tol** 18 juni 2024. Lezing 6th International Conference on Social Identity and Health. title talk: "LGBTQIA+ identity disclosure in different social contexts - An Interview Study"

47 **Marie-José van Tol** 30 januari 2024.Policy Dialogue Embassies of the Netherlands and South-Africa: Title talk: "What's this thing called science"

48 **Marie-José van Tol** Sylvius: 11 January 2024. lecture - LIBC Leiden: (Re)-building a shield against depression: Neurocognitive working mechanisms of preventive interventions for lowering relapse risk in depression..

49 **Marie-José van Tol** Akademiekus, Algemene Onderwijs Bond https://www.aob.nl/actueel/artikelen/marie-jose-van-tol-en-kees-storm-winnaars-academiekus-2024/

50 **Marie-José van Tol** Per 1 mei 2024: Appointed to Directeur Research School Behavioural and Cognitive Neurosciences

51 **Marie-José van Tol** Per 1 mei 2024: Appointed to Voorzitter Stuurgroep Nationaal Plan Hoofdzaken (nationaalplanhoofdzaken.nl)

52 **Marie-José van Tol** Per 1 dec 2024: Appointed to Voorzitter Jury Aletta Jacobsprijs Rijksuniversiteit Groningen

53 **Marie-José van Tol:**Per 1 dec 2024: Appointed to Bestuurslid Studium Generale

54 **Mario Mauthe** BPAN patient symposium in Lyson (France) 17 and 18th May

55 **Mario Mauthe** patiëntendag zeldzame bewegingsstoornissen 25 mei 2024 in het UMCG

56 **Rob Coppes** 2024: Gordon Research Podcast Link: https://www.youtube.com/watch?v=K0KwlUuWIlo

57 **Bart Eggen** Herinneringen voor het leven, NPO1, live TV programma uit Nederlands Openluchtmuseum Arnhem over mensen die met dementie te maken hebben, de impact op de omgeving

58 **Bart Eggen** Herinneringen voor het leven, NPO1, live TV programma uit Nederlands Openluchtmuseum Arnhem over mensen die met dementie te maken hebben, de impact op de omgeving

59 **Susanne Kooistra** Lezing & discussie in Comenius leergang. 8 februari 2024

60 **Wia Baron**, **Bart Eggen** and **Susanne Kooistra**: (international) Microglia Meeting 2024: From biology to pathology, February 15-16, 2024, organized by Wia Baron, Bart Eggen and Susanne Kooistra. 15-16 februari 2024. https://bscs.umcg.nl/en/microglia-meeting-2024/

61 **Wia Baron**: Middag voor mensen met MS' organized by Stichting MS Research, June 14, 2024, in collaboration with MS Center Noord Nederland, presentation. 14 juni 2024.

62 **Wia Baron** Annual GliaNed Meeting 2024, February 14, 2024 (organizer)

63 **Inge Holtman** Dutch public abstract about their research manuscript for Stichting MS research: https://msresearch.nl/nieuws/diversiteit-van-ms-beter-in-beeld/

64 **Inge Holtman** Dutch public abstract about their research manuscript for MSCNN https://www.mscnn.nl/actueel/ms-en-big-data-de-diversiteit-van-ms-ontrafelen-door-data-gedreven-onderzoek/

65 **Inge Holtman** Presentation of her research at Jantina Tammes School of Digital Society, Technology and AI

66 **Inge Holtman** webinar onderzoeksprogramma ME/CVS. 22nd Feb 2024. https://www.zonmw.nl/nl/nieuws/terugblik-webinar-over-onderzoek-naar-mecvs

67 **Inge Holtman** Blog: me/cvs beter begrijpen door klachten na inspanning te volgen. 1st Feb 2024.

68 **Niki Dreijer** Middag voor mensen met MS, Hoogkerk, gesprekken tussen mensen met MS en onderzoekers over laatste ontwikkelingen. 14th Feb 2024. https://www.mscnn.nl/actueel/middag-voor-mensen-met-ms-te-hoogkerk/

69 **Leda Maffei** Zspanned zernike. 5th October 2024.

70 **Section Molecular Neurobiology** Middag voor mensen met MS 14 juni 2024 in Hoogkerk

71 **Janneke Bosma** Ovenwantchallenge MSCNN/Janneke Bosma

72 **Allen/MSCNN** Rondom MS (bad Stichting MS Research)

73 **Allen/MSCNN** Meerdere artikelen in de glossy (jaaroverzicht) va n de MS Vereniging Groningen/Noord Drenthe

74 **Allen/MSCNN** podcastserie

10. Appendix 1: PhD graduations

Section Cognitive Neuroscience

More details about the PhD graduations can be found on the university research portal.

1	PhD Student:	**Hugo Corona Hernandez**
	Promotor(s):	**Prof dr I.E.C. Sommer**
	Co-promoter(s):	**Dr. S.G. Brederoo, J.N. de Boer**
	Thesis title:	Hallucinated and spoken linguistic patterns as markers of psychiatric disorders.
	URL:	Proefschrift: https://hdl.handle.net/(...)cb-9af1-8f0bcbf4faef
2	PhD Student:	**Shiral Gangadin**
	Promotor(s):	Prof. dr. I.E.C. Sommer
	Co-promoter(s):	Dr. R.C.W. Mandl
	Thesis title:	In the afterglow: immune dysfunction in schizophrenia spectrum disorders
	URL:	Proefschrift: https://hdl.handle.net/(...)ce-9768-2b476404f798
3	PhD Student:	**Emile d`Angremont**
	Promotor(s):	**Prof. dr. I.E.C. (Iris) Sommer, prof. dr. T. (Teus) van Laar, prof. dr. E.F.J. (Erik) de Vries**
	Co-promoter(s):	**Dr. C.A.T. (Inge) Zijdewind**
	Thesis title:	The hypocholinergic parkinsonian brain. The link to psychosis and the quest for a biomarker.
	URL:	Proefschrift: https://hdl.handle.net/(...)ad-9d4b-7ffa361b819c
4	PhD Student:	**Bodyl Brand**
	Promotor(s):	**Prof. dr. I.E.C. Sommer**
	Co-promoter(s):	**Dr. J.N. de Boer, dr. M.J.H. Begemann**
	Thesis title:	Towards unequal care. Reshaping the treatment of schizophrenia
	URL:	spectrum disorders to the male and female body Proefschrift: https://hdl.handle.net/(...)57-9d3c-f35286f75aa7
5	PhD Student:	**Marlijn Besten**
	Promotor(s):	**Prof. dr. Marie-José, André Aleman**
	Co-promoter(s):	**Marieke van Vugt**
	Thesis title:	Breaking the cycle: the effects of therapeutic intervention techniques on cognitive and affective processes in individuals vulnerable to depressive relapse
	URL:	Proefschrift: https://hdl.handle.net/11370/65aaf107-aee4-496d-84a3-cd5acd7aefaa

Section Molecular Cellbiology

More details about the PhD graduations can be found on the university research portal.

1	PhD Student:	**Voshart, D.**
	Promotor(s):	**Coppes, R.P.**
	Co-promoter(s):	**Barazzuol, L.**
	Thesis title:	Radiation-induced adverse effects in the brain: Microglia and regional responses
	URL:	https://research.rug.nl/en/publications/radiation-induced-adverse-effects-in-the-brain-microglia-and-regi
2	PhD Student:	**Sondorp, L.**
	Promotor(s):	**Kruijff, Schelto**
	Co-promoter(s):	**Coppes, Rob P.**
	Thesis title:	Towards a patient-tailored thyroid cancer treatment plan: fluorescence-guided surgery and novel in vitro models
	URL:	https://research.rug.nl/en/publications/towards-a-patient-tailored-thyroid-cancer-treatment-plan-fluoresc
3	PhD Student:	**Gorter, R.**
	Promotor(s):	**Baron, Wia; Kampinga, Harrie H.; Amor, Sandra**
	Thesis title:	Astrocytes in neurological disease progression: good intentions gone wrong?
	URL:	https://research.rug.nl/en/publications/astrocytes-in-neurological-disease-progression-good-intentions-go

Section Molecular Neurobiology

More details about the PhD graduations can be found on the university research portal.

1	PhD Student:	**Roeland (R.F.) Prak**
	Promotor(s):	**J.D. Laman**
	Co-promoter(s):	**C.A.T. Zijdewind**
	Thesis title:	Fatigue in chronic disease and injury
	URL:	https://hdl.handle.net/11370/35641224-0cd9-47d8-b294-fac3b66f24c2

11. Appendix 2: MSc graduations

MSc Theses

1	MSc Student:	Claudia Serra Monraba
	Supervisor(s):	HH Kampinga & A Dolba
	Thesis title:	The rollercoaster journey towards a breakthrough in Huntington Disease
2	MSc Student:	Daniel Grech
	Supervisor(s):	PR Onck & HH Kampinga
	Thesis title:	Dynamic Duet: The Atomic Interactions between DNAJB6b and Polyglutamine
3	MSc Student:	Hazal Elkin Dolu
	Supervisor(s):	D Potijk & HH Kampinga
	Thesis title:	Tackling Misfolded Protein Aggregation in Neurodegenerative Diseases: The Role of DNAJB6b in Huntington's Disease
4	MSc Student:	Dimitris Tantis Tapeinos
	Supervisor(s):	HH Kampinga, MS Hipp & DS Vonk
	Thesis title:	Plasticity-Related Gene 5 (PRG5): Possible Endoplasmic Reticulum (ER) Stress Inductor
5	MSc Student:	Mark Kalfsbeek
	Supervisor(s):	HH Kampinga & OCM Sibon
	Thesis title:	Autophagy regulation by Fcp1 phosphatase
6	MSc Student:	Luz Almudena Medina Samame
	Supervisor(s):	HH Kampinga & A Dolba
	Thesis title:	Is the Cajal Body a good therapeutic target in proteinopathies?
7	MSc Student:	Baukje van der Ben
	Supervisor(s):	Ben NG Giepmans, N Faraj & Willem H Hoogaars
	Thesis title:	Raman microscopy as a label free imaging model for the pancreas
8	MSc Student:	Asmara van den Steen
	Supervisor(s):	HJM Harmsen & SCD van IJzendoorn
	Thesis title:	Functional Microbiota of de dept. of Medical Microbiology and Infection prevention
9	MSc Student:	Sigrid Baas
	Supervisor(s):	OCM Sibon & SCD van IJzendoorn
	Thesis title:	Changes in the gut microbiome composition of frail older adults
10	MSc Student:	Daniek Versloot
	Supervisor(s):	L. Ustyantseva & Harrie Kampinga
	Thesis title:	Impacts of Limb-Girdle Muscular Dystrophy-linked DNAJB6 mutation on DNAJB6b function and intrinsic property's

MSc Theses

11	MSc Student:	William Suelmann
	Supervisor(s):	RP Coppes & AA Soto Gamez
	Thesis title:	Impacts of Limb-Girdle Muscular Dystrophy-linked DNAJB6 mutation on DNAJB6b function and intrinsic property's
12	MSc Student:	Saskia Gooijer
	Supervisor(s):	L Barazzuol & RP Coppes
	Thesis title:	Cognitive impairments in brain tumor patients: impact of tumors and their treatment
13	MSc Student:	Biel Balcells de Pablo
	Supervisor(s):	JW Beekman (Organization Supervisor), RP Coppes (Science Supervisor) & MK van Genne and S Groters (SBP supervisors)
	Thesis title:	Impacts of Limb-Girdle Muscular Dystrophy-linked DNAJB6 mutation on DNAJB6b function and intrinsic property's
14	MSc Student:	Luz Almudena Medina Samame
	Supervisor(s):	HH Kampinga & MS Hipp
	Thesis title:	Is the Cajal Body a good therapeutic target in proteinopathies?
15	MSc Student:	Brazão de CarvalhoSimões Abade, M
	Supervisor(s):	Bart Eggen
16	MSc Student:	LeMaoult,C
	Supervisor(s):	Bart Eggen
17	MSc Student:	Voulgaroglou, A
	Supervisor(s):	Bart Eggen
18	MSc Student:	Leanne Postma
	Supervisor(s):	Wia Baron
	Thesis title:	Insights into oligodendrocyte progenitor cells and their remyelination potential after spinal cord injury
19	MSc Student:	Marco Venema
	Supervisor(s):	Wia Baron
	Thesis title:	Targeting B cells as a possible therapeutic strategy to promote remyelination in multiple sclerosis
20	MSc Student:	Liza Beurze
	Supervisor(s):	Inge Zijdewind
	Thesis title:	Onderzoek naar de invloed van spiegelscondities op fijnmotorische prestaties en mentale vermoeidheid
21	MSc Student:	Marieke Habing
	Supervisor(s):	Inge Zijdewind
	Thesis title:	Thesis title: Houding van tandartsen en huisartsen ten opzichte van het screenen op diabetes in de tandartspraktijk
22	MSc Student:	Bram Boon
	Supervisor(s):	Inge Zijdewind
	Thesis title:	Thesis title: Restoring urodynamic function after Spinal cord injury

12. Appendix 3: BSc graduations

BSc Theses

1	BSc Student:	Laurens Sillje
	Supervisor(s):	HH Kampinga & M Kolbe Musskopf
2	BSc Student:	Davide Silvani
	Supervisor(s):	BNG Giepmans & J Kuipers
	Thesis title:	Arsenic Dyes as a Tool for Correlative LM and EM Microscopy
3	BSc Student:	Isa vd Meer
	Supervisor(s):	OCM Sibon & MS Hipp
4	BSc Student:	Dimitris Tantis Tapeinos
	Supervisor(s):	HH Kampinga & M Kolbe Musskopf
5	BSc Student:	Mare Veeger
	Supervisor(s):	OCM Sibon & H Schepers
	Thesis title:	Understanding neurodegeneration with brain iron accumulation: a literature study of PKAN.
6	BSc Student:	Viona Biblekaj
	Supervisor(s):	OCM Sibon & S Kooistra
7	BSc Student:	Fiona de Vries
	Supervisor(s):	OCM Sibon & JA Gorter
	Thesis title:	Fine-tuning the treatment protocol of progressive myoclonus epilepsy by linking clinical presenations to drug mechanisms.
8	BSc Student:	Arlinde Brander
	Supervisor(s):	OCM Sibon & NA Grzeschik
9	BSc Student:	Ibtisam Ouhida (HBO student)
	Supervisor(s):	Mario Mauthe
	Thesis title:	Unveiling the Role of Proteasome in Autophagic Clearance of Aggregates
10	BSc Student:	Melvin Behrends (HBO student)
	Supervisor(s):	Mario Mauthe
	Thesis title:	The role of WDR45 in mitochondria and Beta-Propeller Protein-Associated Neurodegeneration
11	BSc Student:	Nora Totsche
	Supervisor(s):	Mario Mauthe
	Thesis title:	Autophagy: A Therapeutic Promise Unfulfilled – The Clinical Trial Conundrum

BSc Theses

12	BSc Student:	MSc Student: Emma Johnson
	Supervisor(s):	Supervisor(s): BNG Giepmans
13	BSc Student:	MSc Student: Isabelle van Schaik
	Supervisor(s):	Supervisor(s): BNG Giepmans
14	BSc Student:	MSc Student: Justin Ruiter
	Supervisor(s):	Supervisor(s): BNG Giepmans
15	BSc Student:	MSc Student: Bart van Lingen
	Supervisor(s):	Supervisor(s): OCM Sibon
16	BSc Student:	MSc Student: Marta Vela Martinez
	Supervisor(s):	Supervisor(s): M Mauthe
17	BSc Student:	MSc Student: Nesrin Jendboui
	Supervisor(s):	Supervisor(s): SCD van Ijzendoorn
18	BSc Student:	Thies Molenaar
	Supervisor(s):	L Barazzuol & RP Coppes
	Thesis title:	Towards a nuanced approach in leveraging the cGAS-STING pathway through radiotherapy
19	BSc Student:	Leanne Speelman
	Supervisor(s):	RP Coppes & L Barazzuol
	Thesis title:	Thesis title: Patient-Derived Organoids for Personalized Medicine in Cystic Fibrosis
20	BSc Student:	Carriane Webers
	Supervisor(s):	RP Coppes & L Barazzuol
	Thesis title:	The Influence of Radiotherapy on the Immune System in Cervical Cance
21	BSc Student:	Carriane Webers
	Supervisor(s):	Supervisor(s):RP Coppes & L Barazzuol
	Thesis title:	Thesis title: The Influence of Radiotherapy on the Immune System in Cervical Cancer
22	BSc Student:	Ellen Drenth
	Supervisor(s):	Susanne Kooistra
	Thesis title:	Fixing the Friendship: Microglia-Astrocyte Interactions as Novel Therapeutic Approach in MS
23	BSc Student:	Robin Buitenhuis
	Supervisor(s):	Susanne Kooistra
	Thesis title:	Microglia heterogeneity in MS lesions
24	BSc Student:	Femke Bootsma (van Hall Larenstein student)
	Supervisor(s):	Susanne Kooistra
	Thesis title:	Effect of pharmacologically-induced microglia repopulation on remyelination and oligodendrocyte cell stress
25	BSc Student:	Eline Zuidema
	Supervisor(s):	Wia Baron
	Thesis title:	Eppstein-Barr Virus and multiple sclerosis: The role of molecular mimicry in disease development

13. Appendix 4: Publications

Section Anatomy and Medical Physiology

More details about these publications can be found on the university research portal

1 Expertise, brain plasticity, and resting state. Wu, J., Wang, J., Georgiadis, J. R., Cera, N., Liang, J., Shi, G., Chen, C. & Dong, M., 18-Oct-2024, In: Psychoradiology. 4, 4 p., kkae020.

2 Early Bird or Night Owl: Insights into Dutch Students' Study Patterns using the Medical Faculty's E-learning Registrations. Ebeling, U. S., de Leeuw, R. A., Georgiadis, J. R., Scheele, F. & Wietasch, J. K. G., 8-Apr-2024, (E-pub ahead of print) In: Teaching and Learning in Medicine.

Section Cognitive Neuroscience

More details about these publications can be found on the university research portal

1 TAPER international research consortium, Koops, S., Allott, K., De Haan, L., Chen, E., Hui, C., Killackey, E., Long, M., Moncrieff, J., Sommer, I., Stürup, A. E., Wunderink, L., & Begemann, M. (2024). Addressing the Evidence to Practice Gap: What to Expect from International Antipsychotic Dose Reduction Studies in the Tapering Anti-Psychotics and Evaluating Recovery Consortium. Schizophrenia Bulletin, 50(1), 5-8. https://doi.org/10.1093/schbul/sbad112

2 King, B., Kempton, M. J., Broberg, B. V., Merritt, K., Barker, G. J., Lythgoe, D. J., Perez-Iglesias, R., Baandrup, L., Düring, S. W., Stone, J. M., Rostrup, E., Sommer, I. E., Glenthøj, B., Kahn, R. S., Dazzan, P., McGuire, P. K., & Egerton, A. (2024). A letter to the editor: The effects of alcohol use on brain glutamate in first episode psychosis. Schizophrenia Research, 266, 234-236. https://doi.org/10.1016/j.schres.2024.02.013

3 van Zonneveld, S. M., van den Oever, E. J., Haarman, B. C. M., Grandjean, E. L., Nuninga, J. O., van de Rest, O., & Sommer, I. E. C. (2024). An Anti-Inflammatory Diet and Its Potential Benefit for Individuals with Mental Disorders and Neurodegenerative Diseases—A Narrative Review. Nutrients, 16(16), Artikel 2646. https://doi.org/10.3390/nu16162646

4 de Haan, L., Gangadin, S. S., de Beer, F., Djordjevic, M., Begemann, M. J. H., & Sommer, I. E. C. (2024). Antipsychotica na een eerste psychose. Nederlands Tijdschrift voor Geneeskunde, 168, Artikel D7594. https://www.ntvg.nl/artikelen/antipsychotica-na-een-eerste-psychose

5 HAMLETT OPHELIA Consortium, de Beer, F., Wijnen, B., Wouda, L., Koops, S., Gangadin, S., Veling, W., van Beveren, N., de Haan, L., Begemann, M. J. H., Sommer, I. E. C., & Djordjevic, M. (2024). Antipsychotic dopamine D2 affinity and negative symptoms in remitted first episode psychosis patients. Schizophrenia Research, 274, 299-306. https://doi.org/10.1016/j.schres.2024.09.030

6 Brand, B. A., de Boer, J. N., Willemse, E. J. M., Weickert, C. S., Sommer, I. E., & Weickert, T. W. (2024). Antipsychotic-induced prolactin elevation in premenopausal women with schizophrenia: associations with estrogen, disease severity and cognition. Archives of Women's Mental Health, 27, 931-941. https://doi.org/10.1007/s00737-024-01491-9

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More details about these publications can be found on the university research portal

7 Palominos, C., He, R., Fröhlich, K., Mülfarth, R. R., Seuffert, S., Sommer, I. E., Homan, P., Kircher, T., Stein, F., & Hinzen, W. (2024). Approximating the semantic space: word embedding techniques in psychiatric speech analysis. Schizophrenia, 10, Artikel 114. https://doi.org/10.1038/s41537-024-00524-7

8 d'Angremont, E., van der Zee, S., Slingerland, S., Slomp, A. C., de Vries, E. F. J., van Laar, T., & Sommer, I. E. (2024). Cholinergic deficiency in Parkinson's disease patients with visual hallucinations. Brain : a Journal of Neurology, 147(10), 3370–3378. https://doi.org/10.1093/brain/awae186

9 Marschall, T. M., Brederoo, S. G., Koops, S., Ćurčić-Blake, B., & Sommer, I. E. C. (2024). Content-based clustering of hallucinations across sensory modalities in a large online survey. Scientific Reports, 14, Artikel 23108. https://doi.org/10.1038/s41598-024-69798-2

10 Brand, B. A., Willemse, E. J. M., Hamers, I. M. H., & Sommer, I. E. (2024). Correction to: Evidence-Based Recommendations for the Pharmacological Treatment of Women with Schizophrenia Spectrum Disorders (Current Psychiatry Reports, (2023), 25, 11, (723-733), 10.1007/s11920-023-01460-6). Current Psychiatry Reports, 26(10), 550-551. https://doi.org/10.1007/s11920-024-01520-5

11 EANM Neuroimaging Committee, Rogeau, A., Boer, A. J., Guedj, E., Sala, A., Sommer, I. E., Veronese, M., & van der Weijden-Germann, M. (2024). EANM perspective on clinical PET and SPECT imaging in schizophrenia-spectrum disorders: a systematic review of longitudinal studies. European Journal of Nuclear Medicine and Molecular Imaging. Online publicatie vooraf. https://doi.org/10.1007/s00259-024-06987-1

12 Zaki, J. K., Lago, S. G., Spadaro, B., Rustogi, N., Gangadin, S. S., Benacek, J., Drexhage, H. A., de Witte, L. D., Kahn, R. S., Sommer, I. E. C., Bahn, S., & Tomasik, J. (2024). Exploring peripheral biomarkers of response to simvastatin supplementation in schizophrenia. Schizophrenia Research, 266, 66-74. https://doi.org/10.1016/j.schres.2024.02.011

13 Solmi, M., Thompson, T., Estradé, A., Agorastos, A., Radua, J., Cortese, S., Dragioti, E., Vancampfort, D., Thygesen, L. C., Aschauer, H., Schlögelhofer, M., Aschauer, E., Schneeberger, A., Huber, C. G., Hasler, G., Conus, P., Cuénod, K. Q. D., von Känel, R., Arrondo, G., ... Correll, C. U. (2024). Global and risk-group stratified well-being and mental health during the COVID-19 pandemic in adults: Results from the international COH-FIT Study. Psychiatry Research, 342, Artikel 115972. https://doi.org/10.1016/j.psychres.2024.115972

14 Gangadin, S. S., Enthoven, A. D., van Beveren, N. J. M., Laman, J. D., & Sommer, I. E. C. (2024). Immune Dysfunction in Schizophrenia Spectrum Disorders. Annual Review of Clinical Psychology, 20(1), 229-257. https://doi.org/10.1146/annurev-clinpsy-081122-013201

15 Gangadin, S. S., Mandl, R. C. W., de Witte, L. D., van Haren, N. E. M., Schutte, M. J. L., Begemann, M. J. H., Kahn, R. S., & Sommer, I. E. C. (2024). Lower fractional anisotropy without evidence for neuro-inflammation in patients with early-phase schizophrenia spectrum disorders. Schizophrenia Research, 264, 557-566. https://doi.org/10.1016/j.schres.2022.12.009

16 Li, Y., Yolland, C. O. B., Rossell, S. L., Sommer, I. E. C., & Toh, W. L. (2024). Multisensory hallucinations and other unusual sensory experiences in the context of migraine: a systematic review. Journal of Neurology, 271, 1717–1746. https://doi.org/10.1007/s00415-023-12144-9

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More details about these publications can be found on the university research portal

17 Toh, W. L., Yolland, C. O., Li, Y., Sommer, I. E., & Rossell, S. (2024). Multisensory Hallucinatory Experiences in Migraine: A Preliminary Basis for Olfactory, Somatic-Tactile, and Gustatory Auras. Neurology: Clinical Practice, 14(1), Artikel e200217. https://doi.org/10.1212/CPJ.0000000000200217

18 van der Heijden-Hobus, I. M. W., Rosema, B. S., Vorstman, J. A. S., Kas, M. J. H., Franke, S. K., Boonstra, N., & Sommer, I. E. C. (2024). Personal preferences for treatment and care during and after a First Episode Psychosis: A qualitative study. Early intervention in psychiatry, 18(6), 415-424. https://doi.org/10.1111/eip.13477

19 Borkent, J., Ioannou, M., Neijzen, D., Haarman, B. C. M., & Sommer, I. E. C. (2024). Probiotic Formulation for Patients With Bipolar or Schizophrenia Spectrum Disorder: A Double-Blind, Randomized Placebo-Controlled Trial. Schizophrenia Bulletin, Artikel sbae188. Online publicatie vooraf. https://doi.org/10.1093/schbul/sbae188

20 HAMLETT OPHELIA Consortium, de Beer, F., Koops, S., Schoevers, R. A., Veling, W., van Beveren, N., de Haan, L., & Boonstra, N. (2024). Psychiatrists effect on positive symptom severity and daily functioning during pharmacotherapy for first-episode psychosis patients. Scientific Reports, 14(1), Artikel 22871. https://doi.org/10.1038/s41598-024-72678-4

21 van Opstal, D. P. J., Kia, S. M., Jakob, L., Somers, M., Sommer, I. E. C., Winter-van Rossum, I., Kahn, R. S., Cahn, W., & Schnack, H. G. (2024). Psychosis Prognosis Predictor: A continuous and uncertainty-aware prediction of treatment outcome in first-episode psychosis. Acta Psychiatrica Scandinavica. Online publicatie vooraf. https://doi.org/10.1111/acps.13754

22 Brand, B. A., Sommer, I. E., Gangadin, S. S., Tanskanen, A., Tiihonen, J., & Taipale, H. (2024). Real-World Effectiveness of Menopausal Hormone Therapy in Preventing Relapse in Women With Schizophrenia or Schizoaffective Disorder. The American journal of psychiatry, 181(10), 893-900. https://doi.org/10.1176/appi.ajp.20230850

23 Ioannou, M., Borkent, J., Andreu-Sánchez, S., Wu, J., Fu, J., Sommer, I. E. C., & Haarman, B. C. M. (2024). Reproducible gut microbial signatures in bipolar and schizophrenia spectrum disorders: A metagenome-wide study. Brain, Behavior, and Immunity, 121, 165-175. https://doi.org/10.1016/j.bbi.2024.07.009

24 Sommer, I. E., Brand, B. A., Stuijt, C. C. M., & Touw, D. J. (2024). Sex differences need to be considered when treating women with psychotropic drugs. World psychiatry, 23(1), 151-152. https://doi.org/10.1002/wps.21155

25 De jager, J. E., Boesjes, R., Roelandt, G. H. J., Koliaki, I., Sommer, I. E. C., Schoevers, R. A., & Nuninga, J. O. (2024). Shared effects of electroconvulsive shocks and ketamine on neuroplasticity: A Systematic Review of Animal Models of Depression. Neuroscience & Biobehavioral Reviews, 164, Artikel 105796. https://doi.org/10.1016/j.neubiorev.2024.105796

26 d'Angremont, E., Sommer, I. E. C., van der Zee, S., van Laar, T., de Vries, E. F. J., & Zijdewind, I. (2024). Short-latency afferent inhibition as a biomarker of cholinergic degeneration compared to PET imaging in Parkinson's disease. Parkinsonism & Related Disorders, 121, Artikel 106032. https://doi.org/10.1016/j.parkreldis.2024.106032

27 Hamers, I. M. H., Brand, B. A., Begemann, M. J. H., Weickert, C. S., Weickert, T. W., & Sommer, I. E. C. (2024). The association of prolactin and gonadal hormones with cognition and symptoms in men with schizophrenia spectrum disorder: Divergent effects of testosterone and estrogen. Schizophrenia Research, 270, 273-280. https://doi.org/10.1016/j.schres.2024.06.022

28 Brederoo, S. G., Alderson-Day, B., de Boer, J. N., Linszen, M. M. J., & Sommer, I. E. C. (2024). The experience of felt presence in a general population sample. British Journal of Psychiatry, 224(4), 119-121. https://doi.org/10.1192/bjp.2024.7

Section Cognitive Neuroscience

More details about these publications can be found on the university research portal

29 Khaled, S. M., Brederoo, S. G., Alabdulla, M., Sommer, I. E. C., & Woodruff, P. W. (2024). The role of religiosity types in the phenomenology of hallucinations: A large cross-sectional community-based study in a predominantly Muslim society. Schizophrenia Research, 265, 30-38. https://doi.org/10.1016/j.schres.2022.11.003

30 Smith, K. A., Boyce, N., Chevance, A., Chiocchia, V., Correll, C. U., Donoghue, K., Ghodke, N., Kambeu, T., Malhi, G. S., Macleod, M., Milligan, L., Morgan, J., Potts, J., Robinson, E. S. J., Siafis, S., Sommer, I. E. C., Voelkl, B., Salanti, G., Cipriani, A., & Higgins, J. P. T. (2024). Triangulating evidence from the GALENOS living systematic review on trace amine-associated receptor 1 (TAAR1) agonists in psychosis. British Journal of Psychiatry. Online publicatie vooraf. https://doi.org/10.1192/bjp.2024.237

31 Balducci, T., Garza-Villarreal, E. A., Valencia, A., Aleman, A., & van Tol, M. J. (2024). Abnormal functional neurocircuitry underpinning emotional processing in fibromyalgia. European Archives of Psychiatry and Clinical Neuroscience, 274, 151–164. https://doi.org/10.1007/s00406-023-01578-x

32 Broeders, T. A. A., Linsen, F., Louter, T. S., Nawijn, L., Penninx, B. W. J. H., van Tol, M. J., van der Wee, N. J. A., Veltman, D. J., van der Werf, Y. D., Schoonheim, M. M., & Vinkers, C. H. (2024). Dynamic reconfigurations of brain networks in depressive and anxiety disorders: The influence of antidepressants. Psychiatry Research, 334, Artikel 115774. https://doi.org/10.1016/j.psychres.2024.115774

33 Kos, C., Bais, L., Klaasen, N., Opmeer, E., Lieburg, E., Wardenaar, K. J., van Tol, M. J., Knegtering, H., & Aleman, A. (2024). Effects of right prefrontal theta-burst transcranial magnetic stimulation or transcranial direct current stimulation on apathy in patients with schizophrenia: A multicenter RCT. Psychiatry Research, 333, Artikel 115743. https://doi.org/10.1016/j.psychres.2024.115743

34 Poppe, A., Ritter, F. D. E., Bais, L., Pustejovsky, J. E., van Tol, M.-J., Ćurčić-Blake, B., Pijnenborg, G. H. M., & van der Meer, L. (2024). The efficacy of combining cognitive training and noninvasive brain stimulation: A transdiagnostic systematic review and meta-analysis. Psychological Bulletin, 150(2), 192–213. https://doi.org/10.1037/bul0000406

35 Besten, M. E., van Vugt, M., Riese, H., Bockting, C. L. H., Ostafin, B. D., Aleman, A., & van Tol, M.-J. (2024). Understanding mechanisms of depression prevention: study protocol of a randomized cross-over trial to investigate mechanisms of mindfulness and positive fantasizing as intervention techniques for reducing perseverative cognition in remitted depressed individuals. BMC Psychiatry, 24(1), Artikel 141. https://doi.org/10.1186/s12888-024-05592-8

Section Molecular Cellbiology

More details about these publications can be found on the university research portal

1 Evaluating and reporting LET and RBE-weighted dose in proton therapy for glioma - The Dutch approach. Dirk Wagenaar, Steven J M Habraken, Ilaria Rinaldi, Daniëlle B P Eekers, Miranda Kramer, Jaap P M Jaspers, Dik van Gent , Lara Barazzuol, Yvonne L B Klaver, Jaap Zindler, Ida Coremans, Inge Compter , Daniel Scandurra, Hiska L van der Weide, Stefan Both, Mischa Hoogeman, Mirko Unipan, Alejandra Méndez Romero. Radiother. Oncol. 2024 Nov 25:110653.
DOI: https://doi.org/10.1016/j.radonc.2024.110653.

2 Brain organoid models for studying the function of iPSC-derived microglia in neurodegeneration and brain tumours. Sabogal-Guaqueta AM, Mitchell-Garcia T, Hunneman J, Voshart D, Thiruvalluvan A, Foijer F, Kruyt F, Trombetta-Lima M, Eggen BJL, Boddeke E, Barazzuol L, Dolga AM. Neurobiol Dis. 2024 Nov 22:106742.
DOI: https://doi.org/10.1016/j.nbd.2024.106742.

3 Organoid-based personalized medicine: from tumor outcome prediction to autologous transplantation. Soto-Gamez A, Gunawan JP, Barazzuol L, Pringle S, Coppes RP. Stem Cells 2024 Mar 25:sxae023.
DOI: https://doi.org/10.1093/stmcls/sxae023.

4 Proton therapy induces a local microglial neuroimmune response. Voshart DC, Klaver M, Jiang Y, van Weering HRJ, van Buuren-Broek F, van der Linden GP, Cinat D, Kiewiet HH, Malimban J, Vazquez-Matias DA, Reali Nazario L, Scholma AC, Sewdihal J, van Goethem MJ, van Luijk P, Coppes RP, Barazzuol L. Radiotherapy & Oncology 2024 Mar 1:110117.
DOI: https://doi.org/10.1016/j.radonc.2024.110117.

5 Radiotherapy induces persistent innate immune reprogramming of microglia into a primed state. Voshart DC, Oshima T, Jiang Y, van der Linden GP, Ainslie AP, Reali Nazario L, van Buuren-Broek F, Scholma AC, van Weering HRJ, Brouwer N, Sewdihal J, Brouwer U, Coppes RP, Holtman IR, Eggen BJL, Kooistra SM, Barazzuol L. Cell reports 2024 Feb 14;43(2):113764.
DOI: https://doi.org/10.1016/j.celrep.2024.113764.

6 Effects of the adenosine A2A receptor antagonist KW6002 on the dopaminergic system, motor performance, and neuroinflammation in a rat model of Parkinson's disease. Prasad K, de Vries EFJ, van der Meiden E, Moraga-Amaro R, Vazquez-Matias DA, Barazzuol L, Dierckx RAJO, van Waarde A. Neuropharmacology 2024 Feb 5;247:109862.
DOI: https://doi.org/10.1016/j.neuropharm.2024.109862.

7 Glioblastoma and its treatment are associated with extensive accelerated brain aging. Anna P. Ainslie, Myrthe Klaver, Daniëlle C. Voshart, Emma Gerrits, Wilfred F. A. den Dunnen, Bart J. L. Eggen, Steven Bergink, Lara Barazzuol. Aging Cell 2024 17 January https://DOI.org/10.1111/acel.14066.

8 Mitophagy induction improves salivary gland stem/progenitor cell function by reducing senescence after irradiation. Cinat, D., Souza, A. L. D., Soto-Gamez, A., Jellema-de Bruin, A. L., Coppes, R. P. & Barazzuol, L., Jan-2024, In: Radiotherapy and Oncology. 190, 9 p., 110028.
DOI: https://doi.org/10.1016/j.radonc.2023.110028

9 Driving innovation in radiation oncology in a changing world: the Green Journal's roadmap for the next decade. Blanchard P, Georg D, Coppes RP, Vrou Offersen B. Radiation Oncology 2024 Oct 9:110586.
DOI: https://doi.org/10.1016/j.radonc.2024.110586.

10 Future of Team-based Basic and Translational Science in Radiation Oncology. Coppes RP, van Dijk LV. Semin. Radiat. Oncol. 2024 Oct;34(4):370-378.
DOI: https://doi.org/10.1016/j.semradonc.2024.07.007.

11 Pursuing New Horizons With New Collaborators: This Is the Future of Radiation Oncology. Jaffray DA, Coppes RP, McNair H, Viswanathan A. Semin. Radiat .Oncol. 2024 Oct;34(4):367-369.
DOI: https://doi.org/10.1016/j.semradonc.2024.08.002.

12 Sparing of the heart facilitates recovery from cardiopulmonary side effects after thoracic irradiation. Wiedemann J, Paruchuru SK, den Boef LE, Brouwer U, Silljé HHW, Schouten EM, Dickinson MG, van Goethem MJ, Coppes RP, van Luijk P. Int J Radiat Oncol Biol Phys. 2024 Aug 14:S0360-3016(24)03178-X.
DOI: https://doi.org/10.1016/j.ijrobp.2024.07.2330.

Section Molecular Cellbiology

More details about these publications can be found on the university research portal

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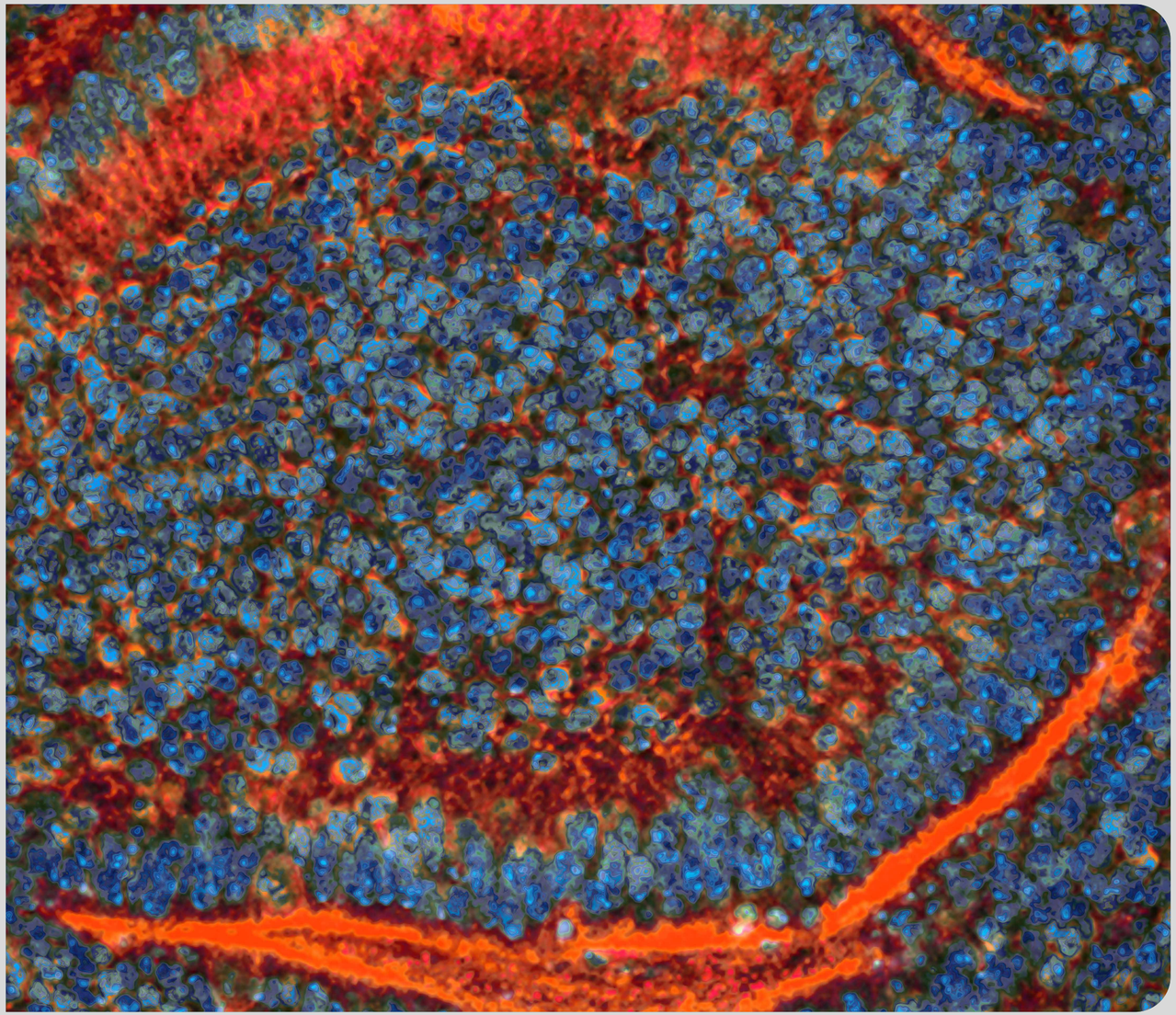

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