

Tenure-track Assistant to Associate Professor in Structural Biology – Electron Microscopy (1.0 fte) Vacancy and appointment details – July 2022

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## 1.0 – The University of Groningen

The University of Groningen is highly internationally oriented research university, which attracts staff and students from all around the world. The 35,000 students (~24% from outside The Netherlands) and 6,400 staff members currently cover 120 nationalities. Over 39% of staff and 51% of all PhD students are non-Dutch. In the past decade the University has steadily climbed in international rankings over the last years and scores high on the most influential lists, positioned 64<sup>th</sup> in the 2021 Academic Ranking of World Universities, 80<sup>th</sup> on the 2021 Times Higher Education list, 88<sup>th</sup> in the 2022 US News Best Global Universities Rankings, and 145<sup>th</sup> in the 2023 QS World University Rankings.

Geographically, the University is rooted in the north of the Netherlands and can be reached from Amsterdam and other main cities in 2 hours by regular train service or car. We actively scout young talent for independent early career positions, and nurture talent in a highly successful tenure track system. The University is committed to actively collaborating with public and private partners outside academia, with a special focus on the societal research priorities Healthy Ageing, Energy and Sustainable Society. For more information visit <u>http://www.rug.nl</u>

#### Structure and Governance

The University of Groningen consists of eleven Faculties, namely:

- Campus Fryslân;
- Faculty of Arts;
- Faculty of Behavioural and Social Sciences;
- Faculty of Economics and Business;
- Faculty of Law;
- Faculty of Medical Sciences;
- Faculty of Philosophy;
- Faculty of Science and Engineering;
- Faculty of Spatial Sciences;
- Faculty of Theology and Religious Studies;
- University College Groningen;

The Executive Board is accountable to the Minister of Education, Culture and Science. The Committee of Deans, consisting of the Chairs of all Faculty Boards, has an advisory function across a variety of fields. The University Supervisory Board is responsible for supervising the Executive Board and the management of the entire University.

For more information on the structure and governance of the University, please visit: <u>http://www.rug.nl/about-us/organization/administrative/</u>





#### **Teaching and Research**

The University is fosters close integration of high-quality research and teaching in a broad and varied range of fields of study to educate future scientists, and at the same time conduct leading edge research. The University of Groningen is among the top European universities in academic research and it is successful both in pure fundamental research as in applying basic findings in creative and innovative ways when dealing with challenging scientific and societal problems. Staff engaged in teaching at the University actively involve their students in their research, so that both parties are stimulated to continue to push boundaries.

Developments in academia often emerge at the interface of several different disciplines, which is why many research teams at the University of Groningen are multidisciplinary. In addition, the University participates in national and international research programs, and numerous Groningen-based researchers collaborate with colleagues from all over the world on a daily basis.

Research and teaching at the University of Groningen is highly internationally oriented. Students from every continent can prepare themselves at Groningen for their global careers. Internationalization, gender equality, and inclusiveness are among the main focus points on the strategic policy agenda of the University, an important instrument in the improvement of quality, innovation and diversity.

Further information on research at the University of Groningen may be found at: <u>http://www.rug.nl/research/</u>

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### 2.0 – The Faculty of Science and Engineering

The Faculty of Science and Engineering is a world-leading multidisciplinary Faculty harboring a kaleidoscope of disciplines and research strengths. The Faculty offers programs in research and education ranging from nanomaterials and bio-machinery to astronomy, from mathematics to pharmacy, from neurosciences to computer science, and from molecular and evolutionary biology to marine biology. The Faculty consists of 10 research institutes and has an annual budget of over M€130. It currently has just over 7,000 students and close to 1,500 staff (~67% international), including 143 professors and 1280 PhD students. In 1953 and 2016, Professors Frits Zernike and Ben Feringa of the Faculty of Science and Engineering were awarded the Nobel Prize in Physics and Chemistry, respectively.

#### Research

The Faculty of Science and Engineering has a track record of research excellence in many of its fields. This is reflected in the large amount of externally acquired funding, such as repeated success in the European ERC and national NWO grant programs. Researchers at the Faculty address fundamental key questions often collaborating with partners from industry, the medical Faculty and other societal partners. Frontline research groups explore new fields such as synthetic biology, advanced materials, artificial intelligence, and sustainable energy use.

For information on Research Institutes please visit: https://www.rug.nl/research/fse/institutes-and-centres

To fully harness the opportunities for interdisciplinary research, research is profiled in five themes:

- Adaptive Life;
- Advanced Materials;
- Data Science and Systems Complexity.
- Fundamentals of the Universe
- Molecular Life and Health;

For more information on the Faculty's research themes please visit: https://www.rug.nl/research/fse/themes/

#### Women in Science and Engineering (WISE)

The WISE networking group provides an informal forum for female early career researchers working in STEM (PhDs, postdocs, and tenure track staff) to communicate about topics of mutual interest and to discuss issues and challenges related to their career. The networking group advises the board of the Faculty on policy decisions.



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#### Education

The Faculty of Science and Engineering offers 14 Bachelor's and 26 (selective) Master's programs, which all are English-taught allowing foreign students to fully integrate. Important features of the teaching at the faculty are the intertwining with frontier research, inspiring open science, and integrating science and engineer programs.

The Faculty's teaching covers the following broad areas:

- Chemistry, Physics, Mathematics, Astronomy
- Biology, Pharmacy, Life Sciences, Neurosciences, Environmental Sciences
- Computing Science, Artificial Intelligence
- Industrial, Chemical, Mechanical and Biomedical Engineering, Applied Physics, Applied Mathematics



For a full list of Bachelor's programs, please visit: https://www.rug.nl/bachelors/faculty-of-science-and-engineering

For a full list of Master's programs, please visit: <u>http://www.rug.nl/masters/faculty-of-mathematics-and-natural-sciences</u>

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## 3.0 – The Groningen Biomolecular Sciences and Biotechnology Institute (GBB)

The Groningen Biomolecular Sciences and Biotechnology Institute unites research and teaching in biomolecular sciences, focusing on curiosity-driven and creative science, and connections to (industrial) biotechnology. GBB hosts 26 independent group leaders organized in 13 vibrant research units in the subdisciplines biochemistry, biophysical chemistry, cell biology, chemical biology, computational



biology, enzymology, genetics, microbiology, synthetic biology, and systems biology.

#### **Research foci**

The Institute currently centers around the two focal areas: 'Molecular Mechanisms of Biological Processes' aims for deep molecular mechanistic understanding of processes involving cellular RNA, DNA and proteins machineries; 'Physiology and Systems Biology' aims at attaining understanding at the systems-level of prokaryotic and eukaryotic cells. Together they lay the foundation for the (re)design and engineering of complex molecular and cellular systems, such as engineered, or even synthetic, cells.

The overarching research goals of the GBB research institute are:

- to establish the minimal working principles of molecular systems driving specific biological functions in living cells;
- to understand the conditions and constraints under which these different biological systems (can) work together, including the quinary structure of the cell and the basic principles of spatio- and temporal control;
- to (re)design and engineer molecular systems for biotechnological or biomedical applications;
- to understand the physiology of microorganisms (bacteria, lower eukaryotes, mammalian cells) at the systems level, including cellular homeostasis, biogenesis of proteins and organelles and host-microbe interactions.



#### **Educational programs**

GBB contributes to challenging educational programs for bachelor students in the fields of Biology (major Molecular Life Sciences), Life Science and Technology, and Chemistry (Chemistry of Life), At the master level it coordinates the selective Research Master Biomolecular Sciences and contributes to the MSc programs in Biology and Chemistry (track Chemical Biology). All are English-taught programs that attract students from the Netherlands and abroad (about 65% foreign students).



Approximately half of the master students continue on a PhD trajectory, either within or outside GBB. GBB currently hosts about 110 PhD students registered at the Graduate School of Science and Engineering, and who each are embedded in one of the research units plus an individual training and supervision plan.



For more information on GBB's educational program, please visit: <a href="https://www.rug.nl/research/gbb/education/">https://www.rug.nl/research/gbb/education/</a>

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## 4.0 – Appointment of Tenure-Track Assistant to Associate Professor in Structural Biology – Electron Microscopy

The Faculty of Science and Engineering is looking for a Tenure-track Assistant or Associate Professor in Structural Biology – Electron Microscopy in the Groningen Biomolecular Sciences and Biotechnology Institute (GBB), who will develop an exciting world-leading fundamental research line to study the structure-function relationships of proteins, biomolecular complexes, and/or the analysis of (sub)cellular structures. The candidate is



DOI: 10.1073/pnas.2105014118)

encouraged to use and develop high-resolution cryo-Electron Microscopy (cryo-EM) tools, such as single particle analysis or tomography, for structure determination.

We envisage that your research will provide fundamental understanding of the molecular mechanisms of processes involving (membrane) proteins, enzymes and larger biomolecular complexes, and may lead to applications in biotechnology or drug development. You will bring expertise that complements current research at GBB (e.g. Albert Guskov, Dirk Slotboom, Marco Fraaije, Siewert-Jan Marrink, Giovanni Maglia, Kasia Tych, and Tessa Quax), the Stratingh Institute for Chemistry (e.g. Marthe Walvoort, Adri Minnaard, and Gerard Roelfes), the Zernike Institute for Advanced Materials (e.g. Patrick van der Wel), the Groningen Research Institute for Pharmacy (e.g. Gerrit Poelarends, Alexander Dömling, Mathew Groves, and Frank Dekker) and the University Medical Centre Groningen.

The GBB EM facility includes a recently installed and excellently performing FEI Talos Arctica TEM equipped with a K2-summit camera, an energy filter and a phase plate; a new full-service contract has just been acquired. In addition, several other electron microscopes for screening and lower resolution analyses, as well as modern infrastructures for sample preparation and image processing



(Semchonok et al. (2022) Plant Commun 3 (1); DOI: <u>10.1016/j.xplc.2021.100248</u>)

are available. Whenever required, there is access to the EM facility NeCEN in Leiden, where two FEI Titan Krios TEMs are operational. The facility also includes a powerful local CPU/GPU cluster with generous storage capacity set-up for image processing entirely dedicated to the new group.



#### Job description

As Assistant to Associate Professor you will:

- establish a viable and internationally leading research line and research group;
- supervise PhD students;
- acquire external funding;
- promote the societal relevance of your research;
- teach in and contribute to the development of the BSc and MSc degree programs in biology, life sciences and technology and chemistry;
- contribute to the organization of the faculty, for example by participating in working groups and committees, in the domains of teaching, research and management;
- appropriate to the level of appointment you will spend up to 40-60% of your time for research, up to 30-40% for teaching activities and 10-20% for organizational and managerial tasks.

#### Qualifications

We encourage you to apply if you have:

- a PhD degree in a relevant subject area;
- at least two years of postdoctoral experience outside of the Netherlands, (can be compensated for after the appointment via extended research visits abroad);
- a relevant international and/or industrial network;
- excellent research qualities that demonstrate originality in addressing important fundamental questions in biomolecular sciences published in influential peer-reviewed journals;
- > a very good track record in university teaching appropriate to the career stage;
- successfully (co-)supervised PhD students appropriate to the career stage;
- received meaningful research grants from external sources appropriate to the career stage;
- organizational competences;
- > the ability to work well in an international, culturally diverse, environment;
- > excellent command of spoken and written English.

And you are:

- a visible professional in the field of structural biology, using high-resolution single particle or tomography cryo-EM;
- > an inspiring leader who stimulates his or her group members to get the best out of themselves;
- > a team player with good communication skills;
- willing to acquire a University Teaching Qualification (Dutch: BKO) within three years;
- willing to learn the Dutch language.



#### Conditions of employment

We offer you a full-time (1.0 fte; 38 hrs/week) position as Tenure-track Assistant or Associate Professor with remuneration depending on the qualifications and work experience. The salary is according to the University standards and is extended with:

- > a holiday allowance and end-of-year bonus of respectively 8% and 8.3% of your gross yearly salary;
- a pension scheme;
- support for maternity and parental leave;
- the possibility to work part-time (0,9 fte or 0,8 fte);
- a broad range of opportunities for personal development and mentoring;
- dual career support for partners of new faculty members moving to Groningen.
- international candidates, who are hired for working in the Netherlands, may be eligible for a temporary tax reduction

For more information on the dual career services, please visit: <u>https://www.rug.nl/about-ug/work-with-us/dual-career-support/</u>

The University of Groningen has adopted an active policy to increase the number of female scientists across all disciplines of the University. Therefore, female candidates are especially encouraged to apply.

#### Application

We invite you to submit a complete application (as individual PDF files) including:

- > a cover letter in which you describe your motivation and qualifications for the position;
- a curriculum vitae, including a description of your major research foci, teaching experience, a list of your publications, and a list with names of at least two references;
- a concise description of your scientific interests and research plans, and how this connects to current research at GBB (max. 2 pages A4);
- a statement on your vision on teaching, in particular pertaining to developments in your field, and what you would like to accomplish in our degree programs (max 2 pages A4).

The application must be submitted online using the apply button at the bottom of the advertisement of this position on the University website. The deadline is Monday September 26, 2022 at 11.59 hrs Dutch local time (CET).

For the online advertisement of this position: <u>https://www.rug.nl/about-ug/work-with-us/job-opportunities/?details=00347-02S0009FOP</u>



Applications will be considered by the recruitment committee and preliminarily shortlisted candidates will subsequently be invited for a two-days campus visit, including an interview with the recruitment committee and informal conversations with staff and representatives from the research institute GBB and other research institutes with adjoining research activities in structural biology. The selection interviews will take place in October-November 2022.

Offering the position to and negotiations with the preferred candidate will take place thereafter.

For information about the position you can contact: Prof. dr. Dirk Slotboom (Scientific Director of GBB and for this position executive chair of the recruitment committee); by elephone: +31 50 363 4209 (secretariat) or 363 4187; by email: <u>d.j.slotboom@rug.nl</u>.

The University of Groningen is an equal opportunity employer, and we value diversity at our organization. We do not discriminate on the basis of ethnicity, religion, national origin, gender, sexual orientation, age, marital status or disability status. Our selection procedure follows the guidelines of the NVP Recruitment Code and the European Code of Conduct for recruitment of researchers from the European Commission.





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## 5.0 – Groningen: Small City, Full of Life

#### Groningen

As the economic and cultural capital of the region, the city enjoys a bustling atmosphere, while retaining a safe community character. As a lively university city, with a population of around 200,000 citizens, Groningen has the youngest average population in the Netherlands thanks to a large population of students at the University of Groningen and the Hanze University of Applied Sciences.

It has a long and turbulent history, which is evident through its historic warehouses, courts and buildings. Groningen is also a city with character, with numerous examples of innovative architecture. The University has a visible presence: the historic buildings in the inner-city tell the tale of a rich academic tradition, while the University Medical Centre Groningen, the Zernike Campus and Groninger Museum are examples of the city's contemporary architecture.

In 2007, the European Commission carried out research among the residents of 75 larger and mediumsized cities, one of which was Groningen. The result was striking: the residents of Groningen are Europe's most contented citizens. Since then, a whole new stream of visitors has come to at the city; all intent on discovering the 'Groningen Secret'.

#### The Netherlands

The Kingdom of the Netherlands consists of twelve provinces in Western Europe (commonly known as the Netherlands) and three islands in the Caribbean. The Netherlands, with a population of over 18 million, is a constitutional monarchy with a parliamentary system. It is a geographically low-lying country, with about 20% of its area and 21% of its population located below sea level, and 50% of its land lying less than one meter above sea level. This small nation boasts a wealth of cultural heritage and is famous for its painters, windmills, tulips, cheese, clogs and notoriously flat lands. Today international trade is still the main driver of economic growth.

As a modern European country, it preserves its highly international character and is known for its liberal and constructive mentality. As a founding member of the EU and NATO, and host to the International Court of Justice and European Medicine Agency, the Netherlands is at the heart of international cooperation. Its small size, welcoming attitude to travelers, and many sights make it a unique and easy to discover destination.

The Dutch are known for their acceptance of diversity and their command of foreign languages, English in particular. English is more widely spoken in the Netherlands than in any other country on the continent, making life for foreigners particularly easy. The Netherlands has some of the highest-quality health care and schools globally. Standard health insurance typically costs about €110 per adult per month, whereas children below 18 are insured without charge. Primary and secondary education in the Netherlands is of world-class quality and offered for free (in government-subsidized schools). Tuition fees in the 13 research intensive universities, all of which are listed in the top-200 of the THE World University ranking, range at around €2,200 per year for EU students (for non-EU students' tuition fees start from €9,500/year).