

PhD/Post-doc in Biomolecular Simulation of Photosynthetic Membranes

Groningen Biomolecular Sciences and Biotechnology Institute (GBB), <https://www.rug.nl/research/gbb/?lang=en>, invites applications for a fully-funded, four-year PhD position in its Molecular Dynamics Research group (<https://www.rug.nl/research/molecular-dynamics/?lang=en>). The position is also available as a three-year post-doc position.

University of Groningen (RUG)

Founded in 1614, the University of Groningen enjoys an international reputation as a dynamic and innovative center of higher education offering high-quality teaching and research. Flexible study programme and academic career opportunities in a wide variety of disciplines encourage the 32,000 students and researchers alike to develop their own individual talents. Quality has been our top priority for over four hundred years, and with success: the University is currently in or around the top 100 on several influential ranking lists.

GBB, Faculty of Science & Engineering

GBB is a centre for top noted research and teaching in biomolecular sciences, hosting the subdisciplines biochemistry, bioinformatics, biophysical chemistry, cell biology, chemical biology, enzymology, genetics, microbiology, computational modeling, and systems biology. The focus is on curiosity-driven science, with application outlets into (industrial) biotechnology and biomedicine.

Job description

The student will conduct multiscale molecular dynamics simulations of light harvesting complexes, in collaboration with a national team of experimentalist working in the field of photosynthesis. Supervision is by Professor Siewert-Jan Marrink.

In addition to conducting research, there will be some teaching duties (~10% of your time).

Project

Using state-of-the-art multiscale modeling, including all-atom and coarse-grain molecular dynamics as well as mesoscale methods, we aim to resolve the molecular driving forces behind the switching behavior of light harvesting complexes. Together with experimental colleagues, in particular we would like to unravel the role of PsbS, an important protein that is involved in the switching (which occurs under high light conditions). If you are not afraid of teaming up with experimentalists (these are nice ones, I promise) and running large scale simulations, this is your chance. We might even end up modeling a whole chloroplast !

Qualifications

The candidate is expected to have a (research) master degree in Chemistry or Life Sciences, or another quantitative discipline, and to have experience with Computational Modeling, a strong interest in Biomolecular Mechanisms and excellent communication skills in English.

Conditions of employment

The conditions of employment are available at the University of Groningen website under Human Resources: <http://www.rug.nl/about-ug/work-with-us/information-for-new-staff?lang=eng>

The preferred starting date is as soon as possible, Sept. 2021 the latest.

Application

Do you want to become a member of our team? Please send your application to us, by submitting the following requested documents:

1. a motivation letter
2. a complete curriculum vitae
3. names and email addresses of two referees
4. if available, an example research paper

You can submit your application until Feb 28th 2021, by sending an email to Siewert-Jan Marrink (s.j.marrink@rug.nl).

We are an equal opportunity employer that values diversity. We have adopted an active policy to increase the number of female scientists across all disciplines of the university. Therefore, women are encouraged to apply.