



PhD student in Biology with specialization in Molecular Biophysics

Uppsala University is a comprehensive research-intensive university with a strong international standing. Our mission is to pursue top-quality research and education and to interact constructively with society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden's most exciting workplaces. Uppsala University has 44.000 students, 7.100 employees and a turnover of SEK 7 billion.

The Department of Cell and Molecular Biology is one of the most international, broad and distinguished molecular bioscience departments in Europe. The department comprises six research programs with about 130 employees. Our research group is located at the Biomedical Center (BMC) in Uppsala in the immediate vicinity of the Uppsala node of Science for Life Laboratory (SciLifeLab) a national infrastructure that provides service in genomics, bioinformatics and related areas in life science. Please read more at (<http://www.icm.uu.se>).

This PhD position will be within the Biophysics program and is multidisciplinary, focused on structural and functional aspects of viruses and macromolecular complexes using X-ray scattering methods, cryo-EM, MD simulations and other imaging techniques. Understanding biological mechanisms in atomic detail will give rise to new scientific hypotheses to explain the fine details of the macromolecular machinery. Please read more on Molecular Biophysics web page, <https://lmb.icm.uu.se/research/viruses/>.

Project description

The goal of this project is to study double stranded (ds)RNA viruses using molecular and structural methods. Non-enveloped icosahedral dsRNA viruses that infect unicellular hosts are transmitted intracellularly. However, phylogenetically closely related viruses of multicellular hosts like metazoa, have acquired structural traits that permit them to be transmitted extracellularly. Recently, we have discovered newly acquired structural traits in the metazoan dsRNA viruses, which facilitate cell

attachment and cell entry. Based on the findings, we proposed new hypotheses regarding the function of the newly acquired traits in extracellular transmission.

Work tasks

The Ph.D. student shall primarily focus on postgraduate studies, and will test the hypotheses using infectious cloning, mutagenesis, biochemical assays, and other cellular and molecular assays like flow cytometry. The structural part of the work will be performed using the latest cryo-EM techniques to understand the effects of these traits on the functions of the virus. Other duties related to teaching and administrative work may be involved, up to a maximum of 20 % of the time.

More information about doctoral education, eligibility requirements and admission rules can be found at the faculty website,

<http://www.teknat.uu.se/utbildning/utbildning-pa-forskarniva/>.

Qualifications

We are looking for a motivated candidate with a Master of Science in natural/life sciences. You need to have an academic background in cell and molecular biology, biophysics or basic medical/pharmaceutical sciences, however, other academic background with appropriate experiences will also be considered as equivalent. The candidate should be able to work well as part of a team but also independently, and be proficient in both written and spoken English.

Merits

Previous experience in molecular biology techniques are desirable. Any experience in viral research such as infectious cloning or protein structural biology is considered an advantage.

The application

Your application should include the following:

1. A cover letter describing your research interests, relevant experiences and a motivation why you should get this service. (maximum one page)
2. Your CV,

3. Copies of diplomas, certificates and grades, 4. A copy of your Master's thesis (or a summary) and additional documents (such as documentation of previous experience in the field of virology, molecular and structural biology).

4. Contact information to two reference persons or recommendation letters from prior research supervisors.

Rules governing Ph.D. candidates are set out in the Higher Education Ordinance Chapter 5, §§ 1-7 and in Uppsala university's rules and guidelines http://regler.uu.se/search/?hits=30&languageId=1&search-language_en=English.

Uppsala University strives to be an inclusive workplace that promotes equal opportunities and attracts qualified candidates who can contribute to the University's excellence and diversity. We welcome applications from all sections of the community and from people of all backgrounds

Salary: According to the local agreement for PhD students.

Starting date: As soon as possible, or as otherwise agreed on

Type of position: Full time position (100 %)

For more information about the position please contact Kenta Okamoto
e-mail: kenta.okamoto@icm.uu.se, tel +46(0)18-471 66 91

You are welcome to submit your application to UFV-PA 2019/606 no later than May 1st, 2019.

Are you considering moving to Sweden to work at Uppsala University? If so, you will find a lot of information about working and living in Sweden at www.uu.se/joinus. You are also welcome to contact International Faculty and Staff Services at ifss@uadm.uu.se.

Placement: Department of Cell and Molecular Biology

Type of employment: Full time , Temporary position longer than 6 months

Pay: Fixed salary

Number of positions: 1

Working hours: 100 %

Town: Uppsala

County: Uppsala län

Country: Sweden

Union representative: Seko Universitetsklubben seko@uadm.uu.se

ST/TCO tco@fackorg.uu.se

Saco-rådet sacco@uadm.uu.se

Number of reference: UFV-PA 2019/606

Last application date: 2019-05-01

Login and apply