

Postdoctoral position

Umeå University, Medicinska fakulteten

Umeå University is dedicated to providing creative environments for learning and work. We offer a wide variety of courses and programmes, world leading research, and excellent innovation and collaboration opportunities. More than 4 300 employees and 33 000 students have already chosen Umeå University. We welcome your application!

The Faculty of Medicine, which consists of 13 departments, is responsible for biomedical research and courses in the field of nursing and health care and has an extensive research and graduate education in more than 80 subjects.

Postdoctoral position

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Postdoctoral position in Virology

The Department of Clinical Microbiology, Umeå University, is looking for a research associate (postdoc) on a 2 year position. The associate will be active in a research project aiming at elucidating the contribution of endothelial glycocalyx degradation to hemorrhagic fever with renal syndrome (HFRS) disease and pathogenesis caused by Puumala virus infection. The long term goal is to identify novel targets for intervention.

Research Topic

Puumala virus is an orthohantavirus, and endemic in Northern Sweden and Eurasia. The virus is transmitted to humans by inhalation of contaminated bank vole excreta. Puumala virus causes a mild viral hemorrhagic fever and the disease is characterized by fever, renal dysfunction, and capillary leakage with increased risk for thromboembolic complications. Endothelial cells constitute a major target for infection and are believed to be central to disease pathogenesis. In particular, we are interested in the contribution of the endothelial glycocalyx to cardiovascular complications during HFRS.

In this project, we will use both *in vitro* endothelial cell models and protein-protein interaction studies to identify factors that degrade the endothelial glycocalyx during HFRS. Furthermore, the role of the endothelial glycocalyx in vascular leakage and thrombosis will be studied using *in vitro* cell models.

Responsibilities

You will be responsible for carrying out research as part of the Fors Connolly laboratory.

You will:

- Cultivate endothelial cells and perform infection assays with Puumala virus.
- Study the effect of patient plasma on *in vitro* endothelial glycocalyx and identify factors that cause degradation.
- Identify specific factors causing endothelial glycocalyx degradation during HFRS using surface plasmon resonance.
- Participate and contribute to scientific group meetings involving the groups and their collaborators.
- Contribute as appropriate to the publication of research findings.

- Participate in training and supervision of scientists and research students.

Selection criteria

In the first place applicants who have completed a doctoral degree no more than three years before the application deadline are considered. If there are special reasons, an earlier doctoral degree could be considered. Special reasons refer to leave due to illness, parental leave or clinical service, trust assignments within trade union organizations or other similar circumstances”.

The successful candidate should have a PhD in medical or natural sciences with focus on infection biology, cell biology, or related disciplines.

Expertise both in virology and in cell biology with particular focus on the endothelial glycocalyx would be a strong asset. Experience with transwell permeability assays, immunofluorescence, isolating PBMCs, handling platelets, endothelial cell culture, handling viruses in a BSL-2 environment, and ELISAs are necessary requirements for this postdoc.

Ability to independently plan experiments, develop methods and carry out analyzes, and summarize results in English is a requirement.

It is expected that the candidate can conduct research in a highly independent manner. In addition, the candidate should have documented good ability to work in an interdisciplinary environment at the interface between medicine and biology and to cooperate with other research groups.

Research environment

This postdoc project will be carried out in a highly interdisciplinary environment. The fellow will be active in the young group of Anne-Marie Fors Connolly at the Department of Clinical Microbiology. Her group focuses on cardiovascular complications following HFRS from molecular interactions to population-based epidemiological studies. In particular, a main focus is on the contribution of endothelial cells to HFRS pathogenesis. The fellow will further work in close collaboration with the groups of Marta Bally (Department of Clinical Microbiology, Virology) and Clas Ahlm (Department of Clinical Microbiology, Infectious Diseases).

Position summary

Full time position, two years – start according to agreement.

Application

The application should contain:

- In one A4 page highlight your specific qualifications and motivation for the position
- Attested copy of PhD certificate
- Curriculum Vitae include full list of publications
- Letters of recommendation and name of at least 2 reference persons

The application is made electronically (via the system Varbi).

Last day to apply is: 2019-12-02

For questions, please contact:

Anne-Marie Fors Connolly, Department of Clinical Microbiology,

E-mail: anne-marie.fors.connolly@umu.se

We welcome your application!

Umeå University wants to offer an equal environment where open dialogue between people with different backgrounds and perspectives lay the foundation for learning, creativity and development. We welcome people with different backgrounds and experiences to apply for the current employment.

We kindly decline offers of recruitment and advertising help.

Type of employment	Temporary position longer than 6 months
Contract type	Full time
First day of employment	Enligt överenskommelse
Salary	Månadslön
Number of positions	1
Working hours	100 %
City	Umeå
County	Västerbottens län
Country	Sweden
Reference number	AN 2.2.1-1733-19
Union representative	SACO 090-786 53 65 SEKO 090-786 52 96 ST 090-786 54 31
Published	2019-11-11
Last application date	2019-12-02
Link to ad	http://umu.varbi.com/what:job/jobID:299475/