Lund University is one of Europe's leading universities. Here, history and tradition lay the ground for the study and research environments of tomorrow. We offer education and research within engineering, science, law, social sciences, economics and management, humanities, theology, fine art, music and theatre. Through interaction with business and the community we ensure that knowledge and innovations benefit society. The University has 47 000 students and 7 200 staff from all over the world, based mainly in Lund, Malmö and Helsingborg. We work with 680 partner universities in more than 50 countries.

Lund University invites applications for the following position:

**Post-doctoral scholarship**

**Placement:** Department of Experimental Medical Science  
**Ref No:** V2020/1207  
**Duration:** 6 months. The scholarship can be drawn for a total of two years.  
**Starting time:** August 15, 2020  
**Last day for applying:** July 19, 2020

**Description:**

The Virus Biophysics group conducts research in physical and structural virology with focus on human herpesviruses. Our research has been at the forefront in this area for several years. The group is led by Professor Alex Evilevitch and consists of both research and technical staff. The laboratory is located at the Biomedical Center in Lund. Here you can read more about our exciting research [https://portal.research.lu.se/portal/en/persons/alex-evilevitch(189df093-a9ea-48c8-a2fc-38ba129d8713)/publications.html#0](https://portal.research.lu.se/portal/en/persons/alex-evilevitch(189df093-a9ea-48c8-a2fc-38ba129d8713)/publications.html#0)

Within the research group we foster a work environment that is developing and stimulating for all employees. We are now seeking a postdoctoral scholar in small angle x-ray and / or small angle neutron scattering (SAXS / SANS).

Primary herpes infections are mostly dormant, periodically becoming active infections that can cause debilitating—and sometimes lethal—diseases over the course of a person’s lifetime. This dormant/active (latent/lytic) cycle in herpesviruses and several other virus families is poorly understood and has challenged scientists for decades. What is the fundamental mechanism that determines if a viral infection is destined to a latent or a lytic fate? That is the central question at the heart of this postdoctoral project, and the answer is key
to understanding viral infection in close to 60% of all infection cases worldwide. Our research group has recently found that viral DNA inside a herpesvirus protein shell is packaged at a pressure of 20 atm. This pressure is responsible for injection of viral DNA from herpes virion into a cell nucleus during infection, where pressure and structure of the packaged viral DNA strongly influence the dynamics of its release. Both structure and release dynamics of viral genome impact the decision of a cell between latent and lytic infection cycle. In this project we aim to investigate and demonstrate the link between packaged viral DNA structure, its release dynamics and cell’s latency decision during infection. As a primary tool we use small angle X-ray and neutron scattering (SAXS and SANS). Thus, you are expected to have good experience in SAXS and/or SANS data acquisition, modeling and analysis. Knowledge and experience in cell biology/virology research is preferable. This project benefits from unique in the world newly built infrastructure in Lund – MAX IV, which is the world’s brightest X-ray synchrotron, and soon to be completed European Spallation Source (ESS) for neutron scattering studies.

**Qualifications**

As a postdoctoral fellow you will be responsible for the structural virology project in the research group. Your responsibilities mainly include SAXS and/or SANS measurements, data collection and analysis, beamline applications as well as virus and cell preparation. Other tasks within the research group may also be relevant, such as imaging analysis using fluorescence microscopy and atomic force microscopy. You will also be required to participate in conferences, business trips and student training and supervision.

A postdoc has to have completed a doctoral degree (PhD or an equivalent degree) and have the following requirements fulfilled for employment:

- PhD in physics / chemistry / biophysics / structure biology / cell biology / virology
- experience in X-ray and / or neutron scattering analysis
- experience in SANS/SAXS modeling of experimental systems
- knowledge and research experience in cell biology / virology
- Great emphasis will be placed on personal qualities.

Other merits include:

- research experience at a synchrotron facility
- research in virology

Eligible candidates must have obtained their PhD within the last three years. Moreover, eligible candidates must not have held positions at Lund University within the last two years.

**The application should contain:**

Please submit your application with curriculum vitae and PhD Diploma.

**Information:**

Associate Professor, Alex Evilevitch
Tel: +46 (0) 46-222 09 47
E-mail: Alex.Evilevitch@med.lu.se
Appointment procedure:
Applications with CV is to be sent to HR Coordinator Maria Palmkron via e-mail: maria.palmkron@med.lu.se

Dnr V2020/1207 shall be indicated on the application.

Information regarding post doc scholarships at Lund University
• The scholarship amounts are paid quarterly.
• The scholarship follows the regulations laid down by the University Vice-Chancellor (LS 2010/68, A13).
• The scholarship is intended for the holder’s own education/professional development and does not constitute remuneration for work or other service that has been carried out or will be carried out on behalf of the University.
• The scholarship does not give any entitlement to sickness benefit, parental allowance, holiday pay or pension.
• The host faculty/department and the scholarship holder shall draw up in writing an agreed plan for the studies/development.
• The Scholarship holder is to be informed about the length of the stay, assured social conditions, and continual review of the scholarship holder’s development.
• The Scholarship holder is to be informed about insurance covering the scholarship holder and the need to check his/her own insurance requirements.
• The scholarship holder is to be treated equally to students/researchers in the same situation but with different sources of funding.
• The scholarship holder is to be assured and to contribute to a good working environment.
• The Scholarship holder is to be informed about the risk of possible retrospective taxation in Sweden in cases where the scholarships are administered and paid out by LU and the scholarship holder gains employment at LU shortly after the period of the scholarship.
• There may be a risk of the scholarship holder being taxed in his/her home country; the scholarship holder should investigate this before the period of the scholarship.