

Postdoctoral fellowship (2 years): Assembly mechanisms of an algal bloom-regulating virus by cryo-EM/ET

Uppsala University is an international research university focused on the development of science and education. Our most important assets are all the individuals who, with their curiosity and dedication, make Uppsala University one of Sweden's most exciting workplaces. Uppsala University has 40,000 students, 7,000 employees and a turnover of SEK 6,5 billion. The Department of Cell and Molecular Biology is one of Europe's most international, broad and distinguished biomolecular departments. Research interests range from genetics to the biophysics of single molecules.

The advertised position is available in the Program of Molecular Biophysics (<https://www.icm.uu.se/molecular-biophysics>), Department of Cell and Molecular Biology. Our research program is multidisciplinary, focused on structural and functional aspects of viruses and macromolecular complexes using X-ray methods, cryo-EM, MD simulations and mass spectrometry. The program also has a strong interest in methods development.

Project description

The postdoc will work on a project aiming to understand the capsid assembly and genome packaging mechanisms of an algal bloom-regulating virus and builds upon previously published work (Munke et al. mBio 13:e00156-22). The candidate will use cryo-EM and single-particle analysis to structurally characterise individual viral components and FIB-SEM and cryo-ET to study virus-infected diatom cells. Biochemical and biophysical techniques will be used to support the structural work.

Qualifications

The candidate preferably has an academic background in structural biology, particularly cryo-EM/ET microscopy. However, highly motivated candidates from relevant educational backgrounds are also encouraged to apply. Practical experience in protein expression, purification and characterisation is a requirement, and experience in cell culturing (such as insect cells and/or algae) is considered an advantage. The candidate should be able to work well as part of a team and independently and be proficient in written and spoken English.

Eligibility

The research fellow should have a doctoral degree from an institution other than the host institute. Unless there are particular circumstances (for example, leave of absence due to sickness, parental leave, serving on commissions of trust, military service, etc.), the doctoral degree cannot be older than six years at the time of admission.

Application

Applications are processed on a rolling basis. The application should include:

1. Letter of motivation with a short description of your research interests and why you feel you are a good match for the project (One page).
2. CV, including a description of relevant skills and experiences and a complete publication list.
3. Copy of degree diploma and other official transcripts.
4. Names, e-mail addresses and telephone numbers to 2-3 reference persons.

Scholarship: Carl Trygger Foundation

Starting: As soon as possible or as otherwise agreed.

Type of employment: 2 years

Working hours: Fulltime 100 %

For further information and to apply, please contact

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