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# PhD student in Eukaryotic Microbiology - RNA biology

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Published: 2022-04-29

**Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in 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 over 54,000 students, more than 7,500 employees and a turnover of around SEK 8 billion.**

The Department of Cell and Molecular Biology is organized into seven research programmes which all focus on different areas of cell and molecular biology: Computational Biology and Bioinformatics, Microbiology and Immunology, Molecular Biology, Molecular Biophysics, Molecular Evolution, Molecular Systems Biology and Structural Biology. The scientific basis of what we do lies in biology, but our research overlaps with other areas such as medicine, computer science, mathematics, chemistry, engineering sciences and physics. In total, we are over 200 staff and ~60 Ph.D. students. Please read more about the department's work at <https://icm.uu.se>.

The PhD position is placed in Fredrik Söderbom's research group at the Microbiology and Immunology program, please visit <https://www.icm.uu.se/mikrobiologi-immunologi/soderbom-labb/>.

[Read more about our benefits and what it is like to work at Uppsala University](#)

**PhD student in Microbiology - Evolution of non-coding RNAs and their role in the transition from uni- to multicellularity**

## **General description**

Small non-coding (nc)RNAs are involved in numerous biological processes, commonly by regulating gene expression. For example, it has been estimated that the majority of human genes is regulated by a particular class of ncRNAs - micro (mi)RNAs. Important questions in biology are how and when miRNAs and other ncRNAs evolved. The observation that organism complexity correlates with the number of genes for ncRNAs has led to the hypothesis that ncRNAs is a driving force for the evolution of multicellularity. Within the PhD project, we will study how miRNAs and other ncRNAs, and their associated proteins, influence the evolution of multicellularity. For these studies we will use organisms with facultative multicellularity, i.e. organisms that can alter between uni- and multicellular life styles. For functional studies, we will mainly use the social amoeba *Dictyostelium discoideum* as a model organism. The project will include different molecular, genetic, and bioinformatic methods such as large-scale sequencing of RNA, fluorescent microscopy, and gene knock-outs.

## **Duties**

The PhD student will mainly work on his/her postgraduate studies but also other duties will be included such as teaching, up to a maximum 20% of the time. 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/>.

## **Requirements**

At the start of the PhD position, the applicant must have a master´s degree in microbiology, molecular biology, biochemistry, biotechnology, or another subject which the employer considers to be equivalent. The applicant must have good ability to work independently as well as together in a group. A prerequisite is strong written and oral communication skills in English. Assessment of personal suitability will be an important aspect in the selection.

Rules governing PhD students are set out in the Higher Education Ordinance chapter 5, §§ 1-7 and in [Uppsala University's rules and guidelines](#).

## **Application**

Your application should include:

- A personal letter where you describe yourself, your research interest, relevant experience and why you are interested in the PhD position (max 2 pages).
- A CV describing your education and other qualifications/merits and certified copies of your diplomas and if applicable list of publications.
- Master thesis.
- One letter of recommendation and contact information to at least two references.

### **About the employment**

The employment is a temporary position according to the Higher Education Ordinance chapter 5 § 7. Scope of employment 100 %. Starting date as agreed. Placement: Uppsala.

**For further information about the position, please contact:** Fredrik Söderbom, [fredrik.soderbom@icm.uu.se](mailto:fredrik.soderbom@icm.uu.se).

**Please submit your application by May 25th, 2022, UFV-PA 2022/1617.**

Are you considering moving to Sweden to work at Uppsala University? [Find out more about what it's like to work and live in Sweden.](#)

Please do not send offers of recruitment or advertising services.

**Submit your application through Uppsala University's recruitment system.**

**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:** ST/TCO tco@fackorg.uu.se

Seko Universitetsklubben seko@uadm.uu.se

Saco-rådet sacco@uadm.uu.se

**Number of reference:** UFV-PA 2022/1617

**Last application date:** 2022-05-25

**[Apply for position](#)**