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PhD student in evolutionary biology

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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.

A PhD student position is available in the laboratory of Vaishali Katju in the Evolutionary Biology program at the Department of Ecology and Genetics, Uppsala University (Sweden).

The Department of Ecology and Genetics is an international environment with staff and students from all over the world. Our research spans from evolutionary ecology and genetics to studies of ecosystems. For more information, see www.ieg.uu.se.

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

Project description

We are seeking a Ph.D. student interested in combining the power of experimental evolution using *Caenorhabditis elegans* with genetic and high-throughput genomic approaches to investigate fundamental questions in evolution. Our research program is diverse and includes multiple ongoing projects investigating (but not restricted to) (i) the fitness effects and evolutionary dynamics of spontaneous mutations, especially copy-number variants, (ii) the fitness consequences of selfish mitochondria and the genetic basis of mitonuclear adaptation, (iii) genomic conflict and compensatory

evolution, and (iv) the genetic basis of adaptation following fitness decline and recovery. The successful candidate will be involved in analyzing both whole-genome sequence and transcriptome datasets of experimentally evolved *C. elegans* populations but will also have opportunities to design and initiate novel projects of choice that fall within the umbrella theme of our expertise (<https://scholar.google.com/citations?user=xXF3A58AAAAJ&hl=en>).

Duties

The position will both involve both wet-lab and computational components. The wet-lab component will involve experimental evolution projects with *C. elegans* and standard molecular procedures (DNA and RNA extraction, PCR, sequencing, gel electrophoresis, genomic library preparation, among others). Additionally, there is scope for incorporating genome editing using CRISPR/Cas9 approaches and employing standard genetic backcrossing techniques. All projects are expected to involve a strong bioinformatic component involving analyses of DNA-Seq and/or RNA-Seq datasets. Training will be provided when necessary.

Qualifications required

To be eligible for a PhD-student position the applicant must hold a Master's degree in evolutionary biology and well-versed with fundamental principles/theory of population genetics, quantitative genetics, and molecular evolution. Great emphasis is placed on personal qualities such as planning and organizational skills, strong motivation and ability to problem-solve, strong interpersonal communication skills and an ability to work collectively with other group members while fostering a collaborative work atmosphere. The candidate must possess documented experience and proficiency in both spoken as well as written English.

Qualifications desired

Candidates are expected to have a Master's degree in evolutionary biology and well-versed with fundamental principles/theory of population genetics, quantitative genetics, and molecular evolution. Candidates having experience with evolutionary evolution, *C. elegans* husbandry, molecular biology and bioinformatic/statistical analyses of large data sets will be given preference.

About the employment: The employment is a temporary position according to the Higher Education Ordinance chapter 5 § 7. Scope of employment 100 %. Starting date October 1, 2022 or as agreed. Placement: Uppsala.

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

For further information about the position please contact: Dr. Vaishali Katju, telephone: +46 18 471 6468, Vaishali.Katju@ebc.uu.se.

Application: The application should include 1) a letter of intent describing yourself, your research interests and motivation of why you want to do a PhD, and why you are suitable for the position, 2) your CV, 3) a short description of your education, 4) a copy of your master degree, your course grades and a copy of your master thesis and course grades, 5) the names and contact information to at least two reference persons (e-mail address and phone no.), and 6) relevant publications (including the Master's thesis). The application should be written in English.

You are welcome to submit your application no later than 21 July 2022, UFV-PA 2022/2521.

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 Ecology and Genetics

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 saco@uadm.uu.se

Number of reference: UFV-PA 2022/2521

Last application date: 2022-07-21

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