

Postdoctoral Research Fellow in Microbial Ecology

Postdoctoral position to investigate the response of soil microbial communities to climate change in Arctic tundra is available in the Institute of Microbiology, Czech Academy of Sciences in Prague, Czechia. The position is funded by a prestigious 5-year project (JUNIOR STAR) from the Czech Science Foundation. Postdoctoral fellow will be member of a junior group of Jana Voriskova within the Laboratory of Environmental Microbiology headed by Petr Baldrian.

Project description

Climate models predict substantial changes in temperature and precipitation patterns across the Arctic regions in future decades. Microbes are known to play key roles in determining the stability of soil carbon and its possible release into the atmosphere as carbon dioxide and methane. Carbon-rich Arctic soil ecosystems are particularly vulnerable to carbon losses due to warming and subsequent ecosystem disturbances as wildfires. On the other hand, the release of C from soil to the atmosphere could be mitigated due to increased plant growth. The project aims to comprehensively explore the response of soil microbes to the conditions caused by future climate change (increased winter precipitation, summer warming and wildfires); and to identify microbial processes affecting shrub expansion in Greenland. Project is based on close collaboration with the University of Copenhagen in Denmark. More information about the project and research group can be found at www.janavoriskova.com.

Key responsibilities

- Perform bioinformatic analysis of microbiome sequencing data from tundra soil
- Perform data analysis using advanced statistical approaches
- Train and mentor other team members in performing microbiome analyses
- Publish in scientific journals

Qualification requirements

- Ph.D. degree in Bioinformatics, Microbiology, Environmental Sciences, Molecular Biology or related fields preferably obtained within the last four years. Candidates without Ph.D. degree with submitted thesis are also encouraged to apply.
- Experience with high-throughput sequencing data analysis
- Ability to design and implement scripts/algorithms/workflows for analysis of amplicons, metagenomes and metatranscriptomes of microbial populations
- Knowledge of multivariate analysis and statistical approaches used in microbial ecology
- Proficiency in R
- Fluency in English
- Strong analytical, organizational, and interpersonal skills
- Knowledge of machine learning techniques, microbial ecosystem modeling, microbial metabolic modeling or network analysis is an advantage
- Wet lab experience with high-throughput sequencing techniques, DNA stable-isotope probing or cell sorting is an advantage

What we offer

- Salary is dependent on experience and qualifications, minimum gross salary is 45,000 CZK/month (ca. 1,700 EUR), note that cost of living in Czechia is considerably lower compared to Western Europe
- Fully covered health insurance and contribution to social security system (sickness insurance, paid parental leave, sick leave for family care and pension contribution)
- 30 days of paid vacation per year, meal vouchers, vouchers for leisure time activities
- Flexible working hours, family-friendly work place, good work-life balance
- Resources for travel to conferences and workshops abroad
- Support of career development and mentoring
- Administration support with relocation to Czechia
- Language courses
- On campus dining services, child-care center, temporary housing and sport facilities (indoor gym, squash court, outdoor sport court)

Appointment

This is a temporary position, initially with 1-year contract with possibility of extension up to 5 years in total, given the satisfactory performance within the first year. It is a full-time position however part-time work e.g. due to child care is possible. The position is available starting April 2021 but the start date is flexible.

Application

To apply for the position, send a motivation letter (1-2 pages) and detailed CV including education, previous employments, list of publications and contact details of two references to Jana Voriskova, jana.voriskova@biomed.cas.cz, email subject: Postdoc Microbial Ecology. Review of applications will start **March 1, 2021** and will continue until the position is filled. Informal inquiries are welcome.

About the Institute of Microbiology, Czech Academy of Sciences

Czech Academy of Sciences is the leading non-university public research institution in Czechia. Institute of Microbiology with more than five hundred employees and two hundred students represents a key national institution conducting research in different fields of microbiology. The research infrastructure of the institute includes sequencing facilities and bioinformatics core facility equipped with several large computing clusters on site. The institute is located in spacious green campus in the outskirts of Prague, 30 min from the city center by public transportation. Research community in the campus is fully international, working language is English.