

Doctoral Candidate/Postdoctoral Researcher in solid-state photosynthetic bioproduction

The Photosynthetic Microbes research group based in the Biochemistry Department of the University of Turku is looking for a PhD student or Postdoc to join our international and dynamic team. The University of Turku is Finland's second largest multidisciplinary university, with an active academic community of around 25,000 students and employees working within 7 faculties and 5 independent units. The Photosynthetic Microbes group is a part of a Nordic Center of Excellence (NordAqua, www.nordaquafi.fi). The team focuses on both fundamental aspects of photosynthesis, studying alternative electron transport pathways, and also applied photosynthesis, studying water remediation, biofuels and chemical production from cyanobacteria and microalgae.

Project description

The goal of the project is to design and construct solid-state cell factories consisting of photosynthetic microorganisms (cyanobacteria and microalgae) and lignocellulosic building blocks. Such assemblies will facilitate improved production yields of valuable solar fuels and chemicals. The applicant will: (i) develop strategies for cell immobilization; (ii) apply the state-of-the-art techniques to analyze the interactions between cells and the polymeric matrix; (iii) construct photosynthetic production strains using synthetic biology tools; (iv) perform detailed studies of the photosynthetic machinery. The available position is part of an Academy of Finland funded consortium project which will be conducted in close collaboration with Graz University (Austria) and material scientists from Aalto University, VTT Oy.

A Doctoral Candidate (or Postdoctoral Researcher) position is available from 1.5.2020 (starting date can be negotiated) until 31.08.2023. The doctoral candidate will need to enroll in the PhD program at the University of Turku (<https://www.utu.fi/en/research/utugs>).

Requirements

The applicant should hold an MSc (or PhD for the postdoc position) in biochemistry, molecular biology, microbiology, biotechnology or related field. Excellent academic performance and a demonstrated knowledge of written and spoken English are required (PhD candidates should provide a language certificate). Prior experience working with cyanobacteria or algae is desired for PhD applicants. For postdocs, this is an obligatory requirement. The applicant is expected to work independently and to have excellent interpersonal skills.

There will be a trial period of 6 months for this position. The qualification requirements of the position are described in the rules of procedure of the University of Turku.

Please submit your application using the online application system by **10.4.2020 at the latest**.

The link to the online application system is <https://www.utu.fi/en/university/come-work-with-us>.

For further information, please do not hesitate to contact Professor Yagut Allahverdiyeva-Rinne, allahve@utu.fi.

For practical matters concerning the application process please contact HR Specialist Paula Luoma, paula.luoma@utu.fi.