



At the Institute of Microbiology in the faculty of Mathematics and Natural Sciences of Heinrich Heine University Düsseldorf a post as a

Scientific Employee (m/f/d)

(100,00 %, pay grade 13 TV-L)

is to be occupied at the earliest possible date. The employment is limited until 31.05.2025. It is a qualification position in the sense of the Act of Academic Fixed-Term Contract (Wissenschaftsvertragsgesetz - WissZeitVG), which is to promote the scientific qualification of the employee.

The advertised PostDoctoral position is integrated into the Boost Fund NextVegOil of the NRW strategy project Bioeconomy Science Center (<https://www.biosc.de/nextVegOil>). In the project consortium experts from the Universities of Aachen, Bonn and Düsseldorf combine their expertise to establish the conversion of corn biomass residuals to a microbial oil using the fungal chassis *Ustilago maydis*. This fungus is a yet underexplored microbe for oil production and initial results indicate that it produces oil that has a promising composition closely resembling palm oil. Research in the Institute of Microbiology focusses on the optimization of the fungal metabolism in order to increase the yields of microbial oil and to fine-tune the oil components to match the composition of palm oil.

Your tasks:

As part of NextVegOil your task will be to develop regulatory tools and genetic strategies to engineer *Ustilago maydis* for increased oil production and fine-tuned oil composition. A wide spectrum of methods ranging from fungal cultivation techniques including microscale cultivation and bench-scale fermentation to molecular biology and lipid analytics will be applied. The results will be presented regularly at scientific conferences and BioSC meetings in English language. In addition to a strong motivation to carry out the research project and integrate into the BioSC project, we also expect a willingness to participate in the teaching obligations of the Institute of Microbiology.

Our requirements:

- A completed scientific university education (M.Sc. / M.A. / Diploma / Magister) in the field of Biology, Microbiology, Biotechnology or equivalent fields
- Doctoral/PhD degree in Biology, Microbiology, Biotechnology or equivalent fields
- Experimental experience in fungal biology, molecular biology, biotechnology and/or microbiology

- Knowledge in eukaryotic fatty acid metabolism is beneficial
- Very high motivation to perform experimental work as well as an ability for independent literature search and scientific writing in English
- Excellent knowledge of English and an affinity to work in an interdisciplinary team

The pay scale grouping will be, depending on the personal qualification of the applicant, up to pay grade 13 TV-L.

In principle, the employment can also take place part-time, if no compelling official reasons are opposed in an individual case.

Heinrich Heine University Düsseldorf aims at increasing the percentage of employed women. Applications from women will therefore be given preference in cases of equal aptitude, ability and professional achievements unless there are exceptional reasons for choosing another applicant. Applications from suitably qualified severely disabled persons or disabled persons regarded as being of equal status according to Book IX of the German Social Code (SGB – Soziales Gesetzbuch) are encouraged.

Your contact person in case of questions is Kerstin Schipper; email: kerstin.schipper@hhu.de; phone number: (+49) 0211 / 81 - 10451

Please submit your application documents (cover letter, CV and certificates, additional references or resp. contact details) citing **reference no. 117.23 – 3.1** until **05.04.2023**

preferably by email to:
kerstin.schipper@hhu.de

or in writing to:

Heinrich Heine University Düsseldorf
Faculty of Mathematics and Natural Sciences
Institute of Microbiology
Attn. Kerstin Schipper
Universitätsstr. 1
40225 Düsseldorf
Germany



Please do not submit application materials in folders and be sure to send copies only, as documents will not be returned (they will be destroyed after the selection procedure has been completed).