

PhD student (m/f/d)

Online seit 29.01.2025 | 2025-01-29-922951 | Wissenschaftliche Stellen

Stellenbeschreibung

start:

01.05.2025

application deadline:

02.03.2025

salary group:

EG 13

time limit:

30.04.2028

scope:

65% part time (25,16h)

As part of the NIH Grant 1R01GM148075-01A1 ("Gatekeeping glycan metabolism in the human gut microbiome", <https://reporter.nih.gov/project-details/10737225>), the Institute of Chemistry and Metabolomics of the University of Lübeck (Director: Prof. Dr. Ulrich Günther) is searching for a PhD candidate to drive a research project investigating the Molecular Mechanisms of Glycan Metabolism by Human Gut Bacteria within the research group of Dr. Alvaro Mallagaray (<https://www.chemie.uni-luebeck.de/institut/mitarbeiter/alvaro-mallagaray>)

PhD student (m/f/d)

Institute for Chemistry and Metabolomics

Glycan metabolism in the gut is crucial for defining the composition of the microbiota, as these carbohydrates are key energy sources derived from diet and host mucosal secretions. Disruptions in normal gut microbial communities (dysbiosis) have been linked to numerous diseases, underscoring the need to understand how gut bacteria degrade and import a broad range of glycans. The project is embedded in an international cooperation with the

Emory University School of Medicine (Atlanta, USA) combining expertise in nuclear magnetic resonance, crystallography, and mass spectrometry, offering a unique opportunity for interdisciplinary training and impactful scientific discoveries. Ultimately, this research will provide insights into novel therapeutic strategies for manipulating the gut microbiota to improve human health.

Tasks:

The successful candidate will use biochemical, biophysical, and genetic techniques to elucidate the pathways and key enzymes involved in glycan breakdown, define how these enzymes interact and cooperate to capture released glycans, and explore how these processes can be harnessed to favour beneficial microbes over pathogenic or inflammatory species.

Anforderungsprofil & Qualifikationen

Requirements:

- MSc degree or equivalent with focus on Structural Biology, Cell Biology, Human Biology or related disciplines
- Enthusiasm for basic research, talent and strong self-motivation
- Ability to independently plan experiments, develop methods, perform complex analyses and accurately document the results
- Eagerness to work in a team and very good communication skills
- Very good English skills
- Prior experience in nuclear magnetic resonance, enzymology and/or programming will be considered an asset

What we offer:

- A three-year PhD position, starting in 2025 (starting date can be discussed)
- A diverse spectrum of techniques (cell and molecular biology, virology, high resolution fluorescence microscopy)
- Excellent and state-of-the-art interdisciplinary research environment
- Support for your scientific career and the opportunity to pursue a doctoral degree
- Operational pension scheme
- Flexible working hours

- Mobile working
- Compatibility of family and work
- NAH-SH/ Deutschland public transport ticket, access to university sports facilities, discounts at the canteen on campus and many other perks
- Health management programme “Healthy University”
- Training opportunities
- Pay in accordance with the current tariff if the tariff requirements are met, up to pay grade E13 TV-L. Subject to a final job evaluation.
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Classification will be in accordance with the automatic pay scale if the requirements of the pay scale are met up to the pay group listed above. A final job evaluation remains reserved.

The University of Lübeck is a modern and cosmopolitan employer. We welcome your application regardless of your age, gender, cultural and social background, religion, worldview, disability or sexual identity. We promote gender equality. In case of equal suitability, qualifications and professional performance, female applicants will be given preference. If you are an applicant with a severe disability, your application will be given preference in case of equal suitability.

Your contact for further questions:

Dr. Alvaro Mallagaray

+49 451 / 3101 3315

Detailed information about job vacancies and benefits at the University of Lübeck can be found online at <https://stellenangebote.uni-luebeck.de>.

Have we aroused your interest?

Then send us your application until **02.03.2025** using our online application form **Online-Bewerbungsformular**.

Stellenmerkmale

Beschäftigungsart

Wissenschaftliche Stellen

Beschäftigungsumfang

Teilzeit (befristet)

Home Office

Nein

Bewerbungslink

<https://stellenangebote.uni-luebeck.de/en/jobposting/f28e66867d51ee40f36f01c9f49cc3576ea2c3ad0/apply?ref=stellenwerk>

Kontaktdaten

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