



Leibniz
Universität
Hannover

The Institute of Microbiology invites applications for the position of a

Research Assistant (Ph.D. Student, m/f/d) in the field of Microbiology/Metagenomics (Salary Scale 13 TV-L, 65 %)

to be appointed May 15, 2022. The position is limited to 3 years. The extent of the position is equivalent to 65 % of the standard working time, and opportunity for dissertation will be given.

We offer the opportunity to work in an interdisciplinary team together with the Thuenen Institute Braunschweig (Climate-Smart Agriculture) within the DFG-funded project "Role of fungal denitrification for N₂O fluxes from soils".

Project description

Nitrous oxide (N₂O) is a potent greenhouse gas that is produced under microoxic conditions in soils during denitrification. Denitrification includes the sequential reduction of nitrite to N₂O, and is performed by bacteria and fungi. While many bacteria are capable of reducing N₂O further to N₂, fungi are not. Traditional methods to differentiate bacterial and fungal sources of N₂O are largely error-prone. Recently developed, along with established methods will thus be applied to more precisely determine the importance of fungal denitrification for N₂O production in soils and address the regulation of fungal denitrification. Results will provide a basis to develop N₂O mitigation measures for soils.

The work programme at the Institute of Microbiology includes gene expression of selected marker genes by quantitative PCR, quantitative (meta-)transcriptomics, as well as (meta-)genomics to identify parameters impacting regulation of fungal denitrification and key taxa in soil.

Responsibilities and duties

The successful candidate conducts research in the field of microbial ecology, molecular biology, and soil biogeochemistry, including application of hypothesis-driven experimental strategies as well as the application of molecular, physiological, and stable isotope-based methods. Data interpretation will include multivariate statistics and bioinformatics. Publications and presentation of results at conferences are expected. Tight collaborations with the research team will be established.

Employment conditions

Applicants must hold a university science degree or equivalent in Microbiology, Bioinformatics, Geoecology, Geosciences, Agricultural Sciences, or related disciplines. Eligible candidates should be able to work in a team, to be proactive, and to have excellent communication skills in both English and German. Background in microbial ecology, and experience with microbial physiology, sequencing techniques, and programming skills are advantageous.



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The university aims to promote equality between women and men. For this purpose, the university strives to reduce under-representation in areas where a certain gender is under-represented. Women/Men are under-represented in the salary scale of the advertised position. Therefore, qualified women/men are encouraged to apply. Moreover, we welcome applications from qualified women/men. Preference will be given to equally-qualified applicants with disabilities.

For further information, please contact Marcus A. Horn (Phone: +49 511 762-17980, Email: horn@ifmb.uni-hannover.de).

Please send your application with the usual documents (letter of motivation, CV including certificates, list of publications, and contact information of 2 reference persons) by May 6, 2022 with reference "DENIFUN" to

Email: horn@ifmb.uni-hannover.de

or alternatively via postal mail to:

Gottfried Wilhelm Leibniz Universität Hannover

Institut für Mikrobiologie

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<http://www.uni-hannover.de/jobs>

Information on the collection of personal data according to article 13 GDPR can be found at <https://www.uni-hannover.de/en/datenschutzhinweis-bewerbungen/>.