



BioTechMed-Graz is a cooperative initiative between the University of Graz, the Medical University of Graz and the Graz University of Technology at the interface of basic biomedical research, technological developments and medical applications with the goal of conducting joint health research.

Within the cooperative project BioTechMed-Graz, the three partner universities are pursuing the goal of joining the forces of their existing competences within the four major research areas of 'Molecular Biomedicine', 'Neurosciences', 'Pharmaceutical and Medical Technologies' and 'Quantitative Biomedicine and Modelling' through the establishment of a joint cooperative platform.

BioTechMed-Graz is – besides other projects – focusing on the Postdoc-Pool, which aims at promoting young scientists with international background and integrating them in the framework of BioTechMed-Graz in order to support innovative research in Graz.

For the project

„From Structure to Function – Metagenomics for Functional Analyses and Modeling of Microbiome Data“ the [Institute of Pathology](#) at the Medical University of Graz is seeking to appoint a

Postdoc

(fixed-term employment for the period of 2 years; position to be filled as of now)

Contact person

Ass.Prof. PD Dr.Gregor Gorkiewicz, Institute of Pathology, Medical University of Graz, E-mail: gregor.gorkiewicz@medunigraz.at, Phone: +43 (0)316 380-7655

Research partners

Dr. Gerhard G. Thallinger, Bioinformatics Group, Institute for Knowledge Discovery, Graz University of Technology

Ao. Univ.-Prof. Dr. Christoph Högenauer, Division of Gastroenterology and Hepatology
Department of Internal Medicine, Medical University of Graz

Research topics

The human gut microbiota is a complex community of microbes with enormous implications for health and disease. Up to now microbiota analysis has mainly focused on the analysis of the phylogenetic composition of the microbiota and their alteration during disease conditions (e.g. by means of 16S rDNA analysis). To gain insights into the functional consequences of microbial community shifts it is necessary to expand microbiome analysis to a functional, i.e. metagenomic level, by the analysis of whole genome shotgun sequencing data. This allows for the assessment of the genetic coding potential of the microbial community, which gene products or metabolites are produced or not produced under certain (disease) conditions. Moreover, correlation of metagenomic to (host) metabolomics data (e.g. generated by high resolution MS techniques) allows for the direct assessment of the influence of the microbiota to the host, at all levels of functional interaction.

Professional qualifications

A successful candidate will have a strong background in bioinformatics and biostatistics with special emphasis on microbiota analysis. The candidate will be proficient in handling the large scale "OMICS" data generated by microbiota research projects. Extensive experience with next-generation sequencing for whole microbial genome sequencing, functional and comparative genomics and proficiency with bioinformatics tools for analysis of metagenomics and meta-transcriptomics data is sought. Knowledge in the analysis of metabolomics data is appreciated. Candidates will ideally have a prior record of independence demonstrated in the publication record. English competence and experience in university instruction is desirable as the candidate will co-supervise doctoral students in related research projects and participate in PhD training courses for microbiota research and next generation sequencing technologies.

Personal profile

- Communicative and organizational skills
- Ability and interest to work in an interdisciplinary team
- High level of motivation and goal orientation

The minimum salary as stated in the collective agreement for universities and according to the classification scheme (B1) is EUR 3,483.30 gross/month (Postdoc).

Application Deadline: **October 21, 2014**

Applicants should send a CV and publication list, copy of doctoral graduation record as well as names and contact details of two referees to gregor.gorkiewicz@medunigraz.at.

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If you have any questions, please contact Ass.Prof. PD Dr.Gregor Gorkiewicz, Institute of Pathology, Medical University of Graz, E-mail: gregor.gorkiewicz@medunigraz.at, Phone: +43 (0)316 380-7655.

Further information can be found at www.biotechmedgraz.at