1 PostDoc in Bioinformatics/Imaging Mass Spectrometry

Developing novel analytical tools to map the tumour microenvironment

The Professorship for Analytical Chemistry of the TUM School of Natural Sciences is looking for a Postdoc (full time/part time) to start Q2/Q3 2025 to support our metabolomics and spatial metabolomics work, focusing on integration of different data modalities and supporting our general MS pipelines. The position is currently limited to 2 years.

Your tasks:

Development of algorithms that allow integration of MS imaging data with other imaging modalities, perform tissue and cell segmentation, imaging-based single cell metabolomics

- Optimise imaging data preprocessing methods for instrumental platforms

- Work on integration of LC-MS/MS derived metabolite annotation into MS imaging workflows

- Multivariate statistics (including machine learning, neural networks etc) to analyse metabolomics data

Your Profile:

We are looking for a dedicated, reliable, proactive and motivated candidate with a high degree of organisational skills and attention to detail, who enjoys independent, interdisciplinary work. You are expected to actively participate in our group (meetings) and exchange ideas within the projects you work on and beyond. You will be part of an international group of 6 PhD students and 1 postdoc working on their own projects as well as collaborative projects. You will also encounter additional, shorter term undergraduate student members in the group. You will be expected to participate in teaching activities MSc level lab practicals organised by our group as well as supervision of BSc and MSc students and lab internships. It is expected to train PhD students in the group on statistics and good bioinformatic practice. Good English skills (writing, speaking and listening) are required.

Profile

- MSc or equivalent in a Natural Sciences or related background (Computer Science, Medicine, immunology)
- Completed PhD studies in bioinformatics
- Experience with multivariant statistical methods, neural networks, coding
- Experience with imaging based data (Ideally mass spectrometry imaging) and/or metabolomics data
- Basic understanding of chemistry and physics, desire to learn about biomedical applications of MS

We offer:

- Integration into a dynamic, international and multidisciplinary working environment with various national and international co-operations focussing on ambient mass spectrometry and its applications in the life sciences
- A constructive, lively working atmosphere

- Employment with appropriate remuneration: 100% TV-L E13 for postdoc for a duration of 2 years; part time employment is possible, with respective elongation of the contract
- Opportunities to present your results at national and international meetings
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How to apply:

Please send your application with a letter of motivation, a brief description of your research experience (pointing out your relevant experience), CV, and the contact details of two references as a single pdf file (surname_firstname.pdf) to Prof. Dr. Nicole Strittmatter (Nicole.strittmatter@tum.de). The application deadline is 28th February 2025. If you have any questions, please do not hesitate to contact Prof. Strittmatter.

If skills are comparable to other applicants, disabled candidates will be treated preferentially.

Contact:

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