

Eurac Research is looking for

Master Student in Computational Metabolomics

The position is open for master students in Biotechnology, Bioinformatics, Chemistry or related disciplines in the biomedical field. The duration of the project will be 12 months. An internship compensation is foreseen. The planned project start is January 2021.

Mass spectrometry (MS) is a key technology in modern proteomics and metabolomics experiments. Large scale metabolomics employ liquid-chromatography (LC)-MS to quantify ions generated by electro spray ionization (ESI) from all metabolites and other small compounds in a sample. Annotation of "LC-MS features" detected by such a setup to the originating compounds is a major bottleneck in today's LC-MS data analysis.

The aim of this project is to establish workflows to determine retention times and possible ions for specific compounds from experimental LC-MS data and to develop software solutions to combine laboratory-specific and public domain LC-MS data annotation resources. The developed tools should base on functionality from other R software packages developed at the Institute [1,2] and should be seamlessly integrated into R software packages from the "R for Mass spectrometry" initiative [3].

[1] <https://doi.org/10.1021/acs.jproteome.0c00313>

[2] <https://github.com/EuracBiomedicalResearch/CompoundDb>

[3] <https://RforMassSpectrometry.org>

Tasks

- Establish a (semi-automatic) workflow to determine retention times and ions for selected compounds in experimental LC-MS data.
- Implement a flexible database system to integrate the above data with public available resources.
- Implement software tools to facilitate usage of these annotations in the process of LC-MS data analysis.

Requirements

- Interest to learn and use the R statistical programming language and environment.
- Programming skills are an advantage.
- Good knowledge of the English language.



How to apply

Interested candidates should submit their application (CV, cover letter and further relevant documents) within **30.11.2020** via email to jobs.biomedicine@eurac.edu stating "Student in Computational Metabolomics" as subject:

Eurac Research
Institute for Biomedicine
Via Galvani 31 – 39100 Bolzano
Email: jobs.biomedicine@eurac.edu- www.eurac.edu
Tel: +39 0471 055 500 / Fax: + 39 0471 055 599

Information about the Institute is available at: <http://www.eurac.edu/en/research/health/biomed>

For further information please contact Johannes Rainer (johannes.rainer@eurac.edu).

Please attach, after reading the privacy policy in compliance with the EU Regulation No. 2016/679 (GDPR) and the national legislation, the following consent to your personal record: 'I have read the privacy policy under <http://www.eurac.edu/en/aboutus/Jobs/Pages/default.aspx> and hereby authorize Eurac Research to use my personal data in accordance to EU Regulation No. 2016/679 and national legislation.' **We inform you that we will not be allowed to consider any application without this compliancy declaration.**

Please add the following consent if it is of interest to you: "I hereby explicitly authorize Eurac Research to store my personal data for the purpose of being contacted for potential future job openings".