

## Praktikum/Werkstudent/Hiwi position for data analyst

Proteomics, the field that studies the total set of proteins expressed in cells, tissues, liquid biopsies and other biological samples, is carried out with high-throughput technologies and methods based on liquid chromatography and mass spectrometry (LC-MS).

MS proteomics provides ways of identifying and quantifying the proteins present in a sample. These days, many proteomic workflows focused on the identification and/or quantitation of a set of proteins from biological samples (where a subset of proteins are purified in some way). In the protein epigenetics subfield, the focus is on histone proteins and their epigenetic modifications.

At EpiQMAx, we offer a service to pharmaceutical companies and research institutes for the measurement of epigenetic modifications on histones and for general protein analysis using mass spectrometry. An important component of our service is our data reports, which provide summarized and correctly analyzed data, with easy-to-understand visualizations and text explanations.

As a data scientist within EpiQMAx, your role will be to aid in the creation of such data reports (junior data scientist) or even write them once you've acquired enough experience.

### What you will learn

- Processing of raw mass spectrometry (MS) proteomic data
- Validation of extracted MS peaks
- Extracting the right information from MS proteomic matrices
- Transforming MS proteomic data properly: normalization and summarization
- Performing statistical analyses and tests between conditions
- Visualization of proteomic data and derived results.
- Writing of Rmd documents in Rstudio to create reports in HTML, Docx and PDF formats
- Acquiring biological knowledge (and vocabulary) from the epigenetic field

At the end of your training (6-8 weeks) you should be well trained on the analysis of proteomic and histone epigenetic data acquired with mass spectrometry.

### Candidate requirements

- Good to very good command of the R statistical language and its standard libraries.
- Bachelor degree (or Master student) in bioinformatics, statistics or data analysis.

If you are interested, send us your CV via [info@epiqmax.de](mailto:info@epiqmax.de)