

Internship opportunity – Quantitative proteomics & Bleeding Disorders of Unknown Cause

Bleeding Disorders of Unknown Cause (BDUC) are hemostatic abnormalities that can profoundly affect quality of life (Mussert & Monard et al., Haemophilia, 2025). In BDUC, the molecular mechanisms underlying the bleeding tendency remain poorly defined at the individual level, despite extensive and sequential laboratory testing in diagnostic settings.

Our research team aims to identify combinations of protein deficiencies or abnormalities that may contribute to the increased bleeding tendency observed in these patients. High-resolution, mass spectrometry-based protein quantification offers a promising approach to investigate imbalances in proteins involved in coagulation and fibrinolysis, and to potentially identify (rare) bleeding disorders (Kreft, van Duijl et al., JTH, 2024).

This project provides an opportunity to develop and optimize liquid chromatography–tandem mass spectrometry (LC-MS/MS; PRM and DIA) workflows for the absolute quantification of plasma proteins, thereby empowering translational research. As part of this internship, you will gain hands-on experience in bottom-up proteomics, mass spectrometry method development, data analysis, and follow-up experimental design. Within our dynamic research team, you will play an active role in interpreting results that advance our understanding of hemostatic processes.

Requirements:

- Currently pursuing a Master's in biomolecular/medical sciences, analytical chemistry, or a related field (within the Netherlands).
- Strong knowledge of analytical chemistry, preferably LC-MS/MS
- (Optional but advantageous) Experience with data analysis in R.
- Enthusiasm for working in a research-driven environment and an interest in proteomics and mass spectrometry.

Please send your motivation letter outlining your relevant experience and interest in the project, along with your CV, to the contact persons listed below.

Apply by 31st of August. Starting date is preferably mid-September/early October, for a minimum of 6 months.

Contact information:

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