Master Training/Internship in Capillary Electrophoresis – Mass Spectrometry

“I want a direction to follow and challenges to stretch me”

Location: Lausanne, Switzerland
Company: Nestlé Research, Nestlé Institute of Food Safety and Analytical Sciences
Activity Rate: 100%
Type of contract: Internship, 6 months
Flexible start date: February-July 2023

Position Summary

Proteomics analyses are typically done by Ultra-High Performance Liquid Chromatography coupled to Mass Spectrometry (UHPLC-MS), and while this approach allows robust and in-depth coverage of the proteome, faster separation techniques might be useful for rapid identification, characterization, and quantification of biomolecules in food and biological samples. Capillary Electrophoresis (CE) is an orthogonal chromatography technique with the potential for such rapid separation.

As a Master Trainee in our Bioanalytics department, your main activity will be to implement, develop, and evaluate capillary electrophoresis separation workflows coupled to MS detection for the analysis of amino acids, peptides, and proteins in food and biological samples.

Key responsibilities

- Develop analytical methods to analyze proteins, peptides, and amino acids by CE-MS.
- Compare CE-MS method performances with UHPLC-MS methods.
- Define when CE-MS should be preferred over UHPLC-MS analyses.
- Summarize your key findings in a final report.
- Present research findings to the scientific community at Nestlé Research.

Education and experience

- Master student in chemistry, biochemistry, or biology.
- Working knowledge in sample preparation and/or analytical instrumentation.
- Experience with mass spectrometry and/or liquid chromatography is highly desirable.
- Experience with capillary electrophoresis is a plus.
- French and/or English (spoken and written).

Show us that you can work independently and that you are able to propose creative solutions. Your strong communication skills and willingness to learn is what will set you apart from the other candidates. If you are an excellent team player and you are passionate about making a difference to our performance, then apply in English by sending your application by e-mail to christophe.fuerer@rdls.nestle.com.

Nestlé Research combines fundamental science at the highest level, high-end analytical platforms leveraged by all research teams, and strong prototyping capabilities to accelerate the translation of science into innovation. At Nestlé, we want to help shape a better and healthier world, inspire people to live healthier lives and deliver impact at a scale and pace that makes a difference. We do this by fostering a diverse, friendly, supportive, and collaborative environment, that creates positive disruption, embraces innovation, and empowers people and teams to win.

We aim to hire friendly, respectful, inspiring people who care about the people’s lives that we touch every single day.

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