

# Half Day Short Course

## A08. Liquid Chromatography/Mass Spectrometry Analysis of Proteins: Fundamentals and Applications

### Content

Liquid chromatography/mass spectrometry (LC/MS) analysis of proteins is a technique used to separate, identify, and quantify proteins in complex mixtures. In the course on LC/MS analysis of proteins, participants may learn about the fundamentals of LC/MS, as well as the various types of LC/MS instrumentation systems used for protein analysis. The course will also cover the interpretation and analysis of LC/MS data, and the use of software for data processing and analysis.

In the second section of the course selected examples on proteomics applications in life sciences research will be presented. All aspects of a LC/MS research project will be covered, starting from the biological/medical question, through sample-type and -OMICS technology selection, method development and implementation, data analysis and finally interpretation of the obtained results. The section will focus on instruments utilized, quantitative approaches and computational tools, as to provide the participant with a comprehensive view of how proteomics is integrated in life science industry research.

### Details

Instructors	Prof. Saša M. Miladinović HES-SO Valais-Wallis Dr. Jovan Simićević PMI Life Sciences
Date	27 August 2023
Time	13:30–16:30 h
Duration	3 h plus coffee break
Location	CICG Geneva
Fees	130 CHF (delegate) 80 CHF (student)
Included	Coffee break If booking 2 courses: lunch

### Instructors



Prof. S. Miladinović

*Saša M. Miladinović* is Associate professor of Bioanalytical Chemistry at the University of Applied Sciences Western Switzerland (HES-SO Valais/Wallis). He received his PhD in Analytical Chemistry from the University of Arkansas followed by two post-doctoral positions at EPFL and ETH Zurich. His research interest is the development of qualitative and quantitative methods to improve the utility of analytical mass spectrometry. His experience includes protein and poly-

mer structure elucidation by high resolution mass spectrometry, qualitative protein analysis, quantitative protein analysis using DIA, MRM, PRM. Before joining HES-SO, he worked in pharmaceutical industry as a lab head and was responsible for small molecule LC/MS bioanalysis.



Dr. J. Simićević

*Jovan Simićević* holds a Ph.D. in Bioengineering from the École Polytechnique Fédérale de Lausanne (EPFL), Switzerland. He is a senior scientist at PMI Life Sciences in Neuchâtel, Switzerland. He is an expert in disease biology, -OMICS molecular and cellular biology techniques and their application. His experience covers protein and glycan identification and structural characterization, absolute and relative quantification of proteins in human and mammalian tissue,

in-vitro models, algae, and plants. He has 15+ years experience in mass spectrometry-based proteomics and method development, both in academia and industry. His research interests span from vaccine and therapeutic protein development to immunology and systems toxicology.