

# VLAG – Advanced Proteomics 2025

1 -4 July 2025, Wageningen, the Netherlands

DAY 1 – Tuesday 1 July 2025		
LOCATION: Room 5010 / Lab P5009 – Orion Building (Bronland 1, 6708 WH Wageningen)		
08.30-09.00	<i>Walk in – registration (room 5010)</i>	
09.00-09.15	<b>Introduction:</b> Proteomics at Biochemistry and overview course	Mark Roosjen
09.15-09.30	<b>Practical work I:</b> Sample preparation (protein disulfide bonds reduction with DTT)	
09.30-10.00	<b>Lecture 1:</b> Introduction to the Sample preparation protocols	Mark Roosjen
10.00-10.15	<b>Continuation of practical work I:</b> part 2 (Alkylation of reduced cysteines with Acrylamide)	
10.15-10.30	<i>Coffee/ tea break</i>	
10.30-11.30	<b>Lecture 2:</b> Introduction to Proteomics	Elwira Smakowska
11.30-11.45	<b>Continuation of practical work I:</b> part 3 (FASP cleanup step 1)	
11.45-13.00	<i>Lunch (first a group picture!)</i>	
13.00-13.15	<b>Continuation of practical work I:</b> part 4 (FASP cleanup step 2)	
13.15-14.15	<b>Continuation of practical work I:</b> part 5 (start fast Trypsin digestion: 2h at 45°C)	
14.15-16.00	<b>Lecture 3:</b> Proteomics basics: ionization methods, instrumentation, and general measurement methods used in Proteomics by MS.	Sjef Boeren
16.00	<i>Coffee/ tea break during practical</i>	
16.00-16.45	<b>Continuation of practical work I:</b> part 6 (Stop the digestion and filter the peptides by centrifugation)	

DAY 2 – Wednesday 2 July 2025		
LOCATION: Room 5010 – Orion Building (Bronland 1, 6708 WH Wageningen)		
09.00-10.30	<b>Lecture 4:</b> Sample prep techniques and results for phosphoproteomics and interactomics	Mark Roosjen
10.30-11.00	<i>Coffee/ tea break</i>	
11.00-12.00	<b>Lecture 5:</b> Post-translational modifications and quantitative proteomics techniques	Elwira Smakowska
12.00-13.00	<i>Lunch</i>	
13.00-15.00	<b>Lecture 6:</b> Nano liquid chromatography electrospray mass spectrometry in practice.	Sjef Boeren
15.00-15.15	<i>Coffee/ tea break</i>	
15.15-17.00	<b>Preparing spectral search engines</b>	Sjef Boeren & Mark Roosjen

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DAY 3 – Thursday 3 July 2025		
LOCATION: Room 5010 – Orion Building (Bronland 1, 6708 WH Wageningen)		
09.00-10.00	<b>Lecture 7:</b> Acquisition techniques, DDA, DIA and PASEF technology	Mark Roosjen
10.00-10.30	<i>Coffee/ tea break</i>	
10.30-12.30	<b>Lecture 8:</b> Computational proteomics	Mark Roosjen
12.30-13.30	<i>Lunch</i>	
13.30-15.00	<b>Continuation Lecture 8:</b> Computational proteomics	Mark Roosjen
15.00-15.15	<i>Coffee/ tea break</i>	
15.15-17.00	<b>Visit to the proteomics facility of the Laboratory of Biochemistry CANCELED</b>	
18.00	<i>Dinner with all course participants and lecturers, Restaurant XXX Wageningen</i>	

DAY 4 – Friday 4 July 2025		
LOCATION: Room 5010 – Orion Building (Bronland 1, 6708 WH Wageningen)		
10.00-11.00	<b>Guest lecture</b>	Geert de Jaeger, Center for Plant Systems Biology, Gent University
11.00-11.15	<i>Coffee/ tea break</i>	
11.15-12.30	<b>Guest lecture</b>	Tim Lambers, Friesland Campina
12.30-13.30	<i>Lunch</i>	
13.30-14.30	<b>Practical work II:</b> Preparation of a presentation by each participant of their own project including proteomic results obtained.	
14.30-14.45	<i>Coffee/ tea break</i>	
14.45-16.00	<b>Participant presentations of proteomics results and own projects</b>	
16.00-16.30	Evaluation of the course and closing session	