



# Proteomics for Biomedical Research

CANVAS Project Workshop

Gdańsk, 19-21 March 2024

## Organizers:

- Interdisciplinary Research Institute Grenoble, French Alternative Energies and Atomic Energy Commission (CEA)
- International Centre for Cancer Vaccine Science, University of Gdańsk

## Location:

International Centre for Cancer Vaccine Science (ICCVS), University of Gdańsk,  
address: ul. Kładki 24, 80-822 Gdańsk

Day 1 - 19 March 2024	
Lecture session	
08:30-09:00	Registration & coffee
09:00-09:20	<b>Prof. Natalia Marek-Trzonkowska</b> , Opening Word: Introduction to the CANVAS and (ICCVS) International Centre for Cancer Vaccine Science, <i>International Centre for Cancer Vaccine Science, University of Gdańsk</i>
09:20-09:50	<b>Prof. Paulina Czaplewska</b> , Introduction to Proteomics, <i>Head of MS laboratory, IFB, University of Gdańsk</i>
09:50-10:20	<b>Dr. Delphine Pflieger</b> , Practical work on interpreting MS/MS spectra, <i>Team Studying the Dynamics of Proteomes (EDyP), Lab Biosciences and Bioengineering for Health CEA Grenoble, France</i>
10:20-10:40	Coffee break
10:40-11:20	<b>Dr. Jakub Faktor</b> , Protocol and principles of proteomics sample preparation, <i>International Centre for Cancer Vaccine Science, University of Gdańsk</i>
Experimental program at MS laboratory	
11:20-12:20	Cell lysis and extraction of proteins from cellular model
12:20-13:20	Lunch break
13:20- 16:20	Protein quantification
16:20-16:40	Coffee break
16:40-17:40	Reduction and alkylation
17:40-18:30	Launching overnight tryptic digestion



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The event is organized in the frame of the project *Enhancing Cancer Vaccine Science for New Therapy Pathways (CANVAS)* funded within the Horizon Europe Programme of the EU under grant agreement no. 10107951

Day 2 – 20 March 2024	
Lecture session	
08:30-09:00	Morning coffee
9:00-9:30	<b>Dr. Delphine Pflieger</b> , About the proteomic analysis of signaling cascades and multiply modified histones, <i>Team Studying the Dynamics of Proteomes (EDyP)</i> , Lab Biosciences and Bioengineering for Health CEA Grenoble, France
9:30-10:30	<b>Professor Anne Gonzalez de Peredo</b> , Deciphering the signaling pathways and response phenotype of immune cells with proteomic methods, <i>IPBS (Institute of Pharmacology and Structural Biology)</i> , France
10:30-10:50	Coffee break
10:50-11:20	<b>Dr. Artur Pirog</b> , Global proteomics data analysis (MQ and Perseus), <i>International Centre for Cancer Vaccine Science, University of Gdańsk</i>
Experimental program at MS laboratory	
11:20-12:20	LC-MS method preparation and analysis
12:20-13:20	Lunch break
13:20-16:20	Desalting and purification of peptides
16:20-16:40	Coffee break
16:40-17:40	Remaining steps from desalting and SpeedVac vacuum concentrators for drying the peptides
17:40-18:30	LC-MS analysis, Q&A in proteomics samples preparations
Day 3 - 21 March 2024	
Lecture session	
08:30-09:00	Morning coffee
9:00-10:00	<b>Professor Tiziana Bonaldi</b> , Histone PTM analysis by proteomics, and their rewiring in cancer tissues, <i>Senior Group Leader – Nuclear Systems Proteomics, Assistant Professor- Department of Oncology and Haematology-Oncology (DIPO), University of Milan, European Institute of Oncology, Milan, Italy</i>
10:00-11:00	<b>Professor Monika Pietrowska</b> , The versatility of proteomics: enabling immuno-monitoring and personalized medicine, <i>National Institute of Oncology - National Research Institute, Gliwice, Poland</i>
11:00-11:20	Coffee break
11:20-12:20	<b>Dr. Ahmed Abdeen Hamed</b> , The challenges and promise of AI for modern drug discovery, <i>Head of Clinical Data Science, Centre for Computational Personalised Medicine International Research Foundation (SANO), Kraków, Poland</i>
Experimental/Data analysis program	
12:20-14:20	<b>Dr. Artur Pirog</b> , Live demonstration of data analysis with MQ + Perseus software platform, <i>International Centre for Cancer Vaccine Science, University of Gdańsk</i>
14:20-15:20	Lunch break
15:20-16:00	Wrap-up
17:00-18:30	Social programme: Gdańsk old town guided tour (for pre-registered participants)



**Organising Committee**

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