

<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>	<b>Day 5</b>
<b>09: 00 -09:30</b> Welcome(Overview of the course)	<b>09.00-10.30</b> <b>Training:</b> isoelectrofocusing and SDS-PAGE /hands-on/ (Start with finishing isoelectrofocusing, prepare SDS-gels for the second dimension) (Mostek A., Stowinska M, Nynca J.)	<b>9:30 – 11:00</b> <b>Briefing.</b> <b>Training:</b> Finish electrophoresis, fixation of gels, staining. (Dietrich M., Stowinska M, Nynca J.) Discussion of results, Q&Answers session	<b>9:00 – 10:30</b> MS: prepare digests and load on target.  <b>10.30-12.15</b> Group I - Computer analysis of gel /hands-on/)(Mostek A., Westfalewicz B.) Group II MS identification. collecting spectra, searching (Dr. Souchelnytskyi)	<b>9:00 – 13:00</b> Finishing tasks from the day 4, preparing reports /hands-on/ (Dr. Souchelnytskyi)
<b>09:30- 10:15</b> Introduction to proteomics - proteomics technologies for research (Lecture #1, Serhiy Souchelnytskyi)	<b>10:45-12:00</b> 2D DIGE (Lecture Westfalewicz B.)	<b>11:15-13:00</b> Proteomic in Reproductive Science (Dr. Fröhlich)	<b>12:15-13:45</b> Quantitative proteomics Dr. Fröhlich	<b>13:00 14:30</b> Lunch
<b>10.15-11.45</b> Intact-protein proteomics by 2DE and MADLI mass spectrometry (Lecture #2, Serhiy Souchelnytskyi)	<b>12:00 13:30</b> Lunch	<b>13:00-14:30</b> Lunch	<b>13:45 15:15</b> Lunch	<b>14:30-17:30</b> Reporting results, presentations by the participants, seminar.
<b>12:00-12:45</b> Techniques of sample preparation for proteomic analysis (Lecture #3, Serhiy Souchelnytskyi)	<b>13:30-15:00</b> Proteomics in fish reproductive research (Prof. A. Ciereszko)	<b>14:30-15:30</b> Protein databases in general and how these databases are used by the software tools (e.g. search engines) to identify proteins.( Dr. Fröhlich)	<b>15:15-16:45</b> Linking genomics and proteomics, bioinformatics. (Lecture #4, Dr.Souchelnytskyi)	
<b>13:00- 14:30</b> Lunch	<b>15:15-17:00</b> <b>Training:</b> Start 2 <sup>nd</sup> dimension SDS-GE. (Dietrich M., Stowinska M, Nynca J.)	<b>15:30-17:30</b> <b>Briefing</b> on analysis and MS. <b>Training:</b> Staining of gels after 2DE. Prepare samples for MS analysis./hands-on/ Dietrich M., Stowinska M, Mostek A.)	<b>17:00- 18:30</b> Group II - Computer analysis of gel /hands-on/)(Mostek A., Westfalewicz B.) Group I - MS identification. collecting spectra, searching (Dr. Souchelnytskyi)	
<b>14:30-18:00</b>				

<b>Training:</b> Protein preparation (hands-on) (Review of the protocol and SOPs, practical works. Prepare samples and start isoelectrofocusing) (Dietrich M., Słowinska M, Nynca J.)				
---	--	--	--	--

## Program

This course provides an introduction to the field of proteomics and emphasizes hands-on experience with the 2DE and MALDI-TOF mass spectrometry, i.e. protein separation, selection of proteins for identification, identification by MALDI TOF mass spectrometry and systemic analysis of identified proteins.

Training samples will be provided, but participants are also encouraged to prepare their own samples for the training. For details, please contact Prof. Souchelnytskyi in advance.

## Trainees

Serhiy Souchelnytskyi  
 Professor, PhD  
 Head of Research  
 College of Medicine  
 Qatar University  
 Doha, Qatar

Cancer Proteomics and Systems Biology for Personalized Medicine

Email: [serhiy@qu.edu.qa](mailto:serhiy@qu.edu.qa)

Web: [qu.edu.qa](http://qu.edu.qa)

Private web: [www.serhiysouchelnytskyi.expert](http://www.serhiysouchelnytskyi.expert)

Dr Thomas Fröhlich  
[frohlich@genzentrum.lmu.de](mailto:frohlich@genzentrum.lmu.de)

Gene center: Laboratory for Functional Genome Analysis  
Feodor-Lynen-Strasse 25  
81377 Munich

Prof. Andrzej Cierieszko +48 89 5393136, mobile +501672500  
[a.cierieszko@pan.olsztyn.pl](mailto:a.cierieszko@pan.olsztyn.pl)

**Training team**

Dr Mariola Dietrich

Dr Joanna Nynca

Dr Mariola Słowińska

M.Sc. Adnieszka Mostek

M.Sc Błażej Westfalewicz

Institute of Animal Reproduction and Food Research of Polish Academy of Sciences

Tuwima 10 Str., 10-748 Olsztyn

Phone +48 89 539 3135