Basic course: Electrophoresis for Proteomics

Organisers: EuPA Education Committee with Porto Conte Ricerche

Course dates: October 1-5, 2012
One-week full time at Porto Conte Ricerche, Alghero, Sardinia (Italy)

Course objectives
In accordance with the HUPO/EuPA guidelines, we aim to:
• Provide a theoretical basis for understanding gel-based proteomics
• Illustrate how the techniques are being applied in modern proteomics studies
• Help students to design their own experiments
• Provide practical instruction in laboratory techniques
• Provide extensive tutorial/discussion sessions

Course description
The course is designed to give researchers a thorough basis to understand the new trends in protein expression analysis by means of gel-based proteomics, and to enable young scientists to evaluate how useful these techniques are to their own research and how to apply them effectively.

Course outline
Theoretical lectures
• Basic electrophoresis terms and theory
• Experimental design and sample preparation
• Multi-dimensional electrophoretic separations (2D-PAGE / 2D-DIGE)
• Gel image analysis
• Mass Spectrometry and database searching

Practical classes
• Sample preparation: protein extraction and labelling
• Evaluating and optimising separations
• Making 2D separations (2D-PAGE / 2D-DIGE)
• Image analysis
• Spot cutting, digestion, and protein identification by MS

Deadline for registrations: July 20, 2012
Minimum number of students: 5 (if not the course will be cancelled). Maximum 16
Fee: 500 € including meals and accommodation (but excluding travel) at Porto Conte Ricerche Guest House payable upon confirmation of participation.

Contact: Silvia Gaias, Porto Conte Ricerche
Email: summerschool@portocontericerche.it
Web: http://www.biotechsummer.com