



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.

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