

# 1<sup>st</sup> Greek Orbitrap Users Workshop

9<sup>th</sup> October 2010

## Program

9:00 Welcome to ProFI, (*T. Economou*)  
9:10 ProFI presentation (part I)  
9:45 ProFI presentation (part II)  
10:25 ProFI presentation (part III)  
(*M. Papanastasiou, N. Kountourakis, M. Aivaliotis. See below for detailed description*)

11:00 Coffee break

11:30 E. Denisov, Thermo Scientific  
12:05 M. Filiou, Max Planck Institute of Psychiatry  
12:40 M. Samiotaki, BSRC "Al. Fleming"

13:15 Lunch break

14:00 M. Halabalaki, Univ. of Athens  
15:35 S. Garbis, BRF of Academy of Athens

15:40 Coffee break-Round table discussion

Tour in ProFI will follow.

**Presentations' duration: maximum 30 minutes plus discussion.**

ProFI presentation:

**5 minutes Intro:** Overview of ProFI setup (Experimental workflows, Bioinformatics)

**I. HIGH THROUGHPUT PROTEOMICS**

**1. Protein isolation/separation**

- Gel-based (2DE, Native PAGE, SDS-PAGE)
- Gel-free (Sucrose gradient, OFFGEL, SCX, Gel Filtration)

**2. Protein identification/characterization**

- nLC-ESI-MS/MS
- Data processing (Mascot, Sequest, Proteome Discoverer, X!tandem, Scaffold)
- Characterization of protein PTMs

**3. Protein annotation/curation**

- GO annotation (OBO)
- Data mining

**II. INTACT PROTEIN ANALYSIS**

- Mass determination (Ion trap, Orbitrap)
- Characterization of protein PTMs with Top-Down analysis (CID, ETD, HCD)
- Data processing/validation (Xcalibur-Xtract, ProMass, ProSight, manual validation)

**III. PROTEIN INTERACTIONS**

**1. Protein-protein interactions**

**2. Protein-DNA interactions**