

Proteomics Workshop – Hands-on 14-18 February 2011

Program

Monday 14th

9:00 – 10:45 (Seminar Room III – Orfanoudakis)

Introduction to proteomics

- Brief history (Proteomics and MS-based proteomics)
- State-of-the-art proteomics
- Gel-based (2DE, Native-PAGE, SDS-PAGE)
- Gel-free (OFFGEL, microrotofor etc)

11:00-12:45 (Seminar Room III – Orfanoudakis)

Overview of workshop experiments

12:45 – 13:45 - Lunch Break

14:00 – 17:00 (ProFI Lab)

- Casting gels (SDS-PAGE, Native-PAGE, 2DE)
- 2DE-IEF (re-hydration, overnight)

Tuesday 15th (ProFI Lab)

9:00 – 9:30

Briefing of the day

9:30 – 11:00

- SDS-PAGE (duration ~4 hrs)
- 2DE-IEF (duration ~24 hrs)

11:15 – 12:45

Bioinformatics I - *In-silico* analysis

- Expasy Tools
- Protein/Peptide properties (Gravy score, pI, MW etc.)
- Prediction tools (PTMs, function, structure etc.)

12:45 – 13:45 - Lunch Break

14:00 – 17:00

- SDS-PAGE (staining, duration ~2 hrs)
- Native-PAGE (overnight)
- SDS-PAGE (excise gel bands)

Wednesday 16th (ProFI Lab)

9:00 – 9:30

Briefing of the day

9:30 – 12:45

- Native-PAGE (staining, duration ~2 hrs)
- 2DE-SDS-PAGE (duration ~7 hrs)
- In-gel protein tryptic Digestion (Day 1)

12:45 – 13:45 - Lunch Break

14:00 - 17:00

- In-gel protein tryptic Digestion (Day 1)

Thursday 17th (ProFI Lab)

9:00 – 9:30

Briefing of the day

9:30 – 12:45

- 2DE-SDS-PAGE (staining, duration ~2 hrs)
- In-gel protein tryptic Digestion (Day 2)

12:45 – 13:45 - Lunch Break

14:00 – 17:00

- Bioinformatics II – Data processing I
- Delta 2DE

Friday 18th (ProFI Lab)

9:00 – 9:30

Briefing of the day

9:30 – 12:45

- Bioinformatics III – Data processing II
- Proteome Discoverer (Sequest, Mascot)
- GO annotations
- PTMs

12:45 – 13:45 - Lunch Break

14:00 – 17:00

Round table Discussion – Concluding Remarks