

19th P4EU Meeting



Monday, May 22, 2023 - Tuesday, May 23, 2023

Trieste, Italy

Scientific Program

19th P4EU Meeting Final Programme

Monday, 22nd May: Workshop on biophysical methods for protein characterization (AREA Conference Center)

9:20 Welcome and Workshop opening

9:30 Perla Vega Dominguez - Understanding biomolecular behaviour with mass photometry (Refeyn, sponsor presentation)

10:10 Sonia Covaceuszach - A closer insight into intermolecular interactions characterization: Hands-on Creoptix Wave (IC-CNR)

10:34 - 11:00 **Coffe Break**

Methods applied at Elettra for protein structure and binding analysis (FTIR, AFM, Raman, XRD)

- 11:00 Lisa Vaccari - Infrared spectroscopy and nanoscopy: new frontiers in protein studies (SISSI beamline @ Elettra)
- 11:20 Barbara Rossi - UV Resonance Raman for characterization of proteins (IUVIS beamline @ Elettra)
- 11:40 Loredana Casalis - AFM nanotechnology (NanoLab @ Elettra)
- 12:00 Annie Heroux - One step further on the protein characterization process: XRD2 dedicated MX beamline at Elettra (XRD2 beamline @ Elettra)
- 12:20 Roberto Santoliquido - Triple detector Size Exclusion Chromatography for biomolecules characterization (Alfatest, sponsor presentation)
- 12:50 All - Q&A and Closing discussion

12:30 - 14:00 **Lunch Buffet** (served outside the congress room)

P4EU Annual Meeting (AREA Congress center)**14:00 - P4EU openings - Welcome from Organizers (ICGEB and Elettra)**

- o Caterina Petrillo - President Area Science Park
- o Natasa Skoko - ICGEB
- o Paola Storici - Elettra

Protein for integrated structural biology (focus on cryo-EM)

- 14:30 Robbert Kim - GridFit: improving protein cryoEM before it hits the grid (Leiden University Medical Centre)
- 15:00 Fabio Lapenta - Understanding the structure and function of the human Vault particle (University of Nova Gorica)
- 15:30 Frank Bernhard - Cryo-EM structure of a cell-free synthesized GPCR/G-protein complex in nanodiscs (Goethe University Frankfurt)

16:00 - 16:20 Coffee break

Methods developments, examples of new ligands, nanobodies, and membrane proteins

- 16:20 Johannes van den Heuvel - The value of Transient Gene Expression in High Five insect cells for fast screening and production of eukaryotic membrane proteins (Helmholtz Centre for Infection Research)
- 16:50 Ario de Marco - Smaller and smaller: new scaffolds for next generation ligands (University of Nova Gorica)
- 17:20 Svend Kjaer - llama-based nanobody set-up and experiences and a few recent examples of measuring affinities of Nbs to MP in the Fida1 (The Francis Crick Institute)

New facilities

- 17:50 Alessandro Scardua - HT Facility
- 18:00 Luigi Angelo Scietti - IEO Facility

18:30 Bus to Barcola (Social Dinner restaurant)

19:30 **Social Dinner** (Ristorante al Tramonto - Società Velica di Barcola e Grignano)

22:00 Bus from Social Dinner to Trieste (Piazza Libertà/Train Station)

Tuesday, 23rd of May (AREA Congress center)**Morning Session**

- 9:20 Lara Dipace - Presentation of Enterprise Europe Network and case studies

Non-conventional expression systems

- 09:40 Kim Remans - STAR protocols (EMBL Heidelberg)
- 10:10 Sara Raccovelli - Plant molecular farming for the production of biopharmaceuticals: Transactiva's experience, opportunities and challenges (Transactiva)
- 10:40 Johannes Buyel* - Yes, you can - protein expression screening in plants and plant cells (BOKU University)

11:00 - 11:15 Coffee break

- 11:15 Kerstin Böhm - parallel protein purification at midscale and how to use it for industrial drug discovery (AstraZeneca)
- 11:45 Elena Garcia-Fruitós - Lactococcus lactis: a bacterial expression system alternative to E. coli (IRTA)
- 12:15 Bjorn Voldborg - The National Biologics Facility, research and development in the interspace between academia and industry (Technical University of Denmark)
- 12:40 Ronen Tchelet* - C1 protein production platform (Dyadic International, Inc.)

13:00 14:00 **Lunch Buffet** (served outside the congress room)

Closing Section

14.00 Nick Berrow - General discussion P4EU projects: benchmarking activities, COST action

15:00 Closing remarks and greetings

15:30: Bus to Basovizza-Elettra Sincrotrone Laboratories

15:30-18:00: Visit to partner laboratories

18:00: Bus from Basovizza-Elettra Sincrotrone to Trieste (Piazza Libertà/Train Station)

*talks in virtual mode

Link to Teams event on 22 May

Link to Teams event on 23 May