

## **Scientific Program**

Tuesday, February 8

**Educational Session: Fundamentals in Proteomics**Chairs: *Dr. Alberto Paradela, Dra. Lucía Monteoliva, Dr. Miguel Marcilla***Session I: Basics in proteomics analysis**

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09:45-10:00	<b>Introduction.</b> <i>Dr. Juan Pablo Albar (CNB-CSIC)</i>
10:00-10:45	<b>Proteomics: basic concepts.</b> <i>Dr. Joaquin Abian (IIBB-CSIC)</i>
10:45-11:30	<b>Differential Proteomics: advantages and disadvantages of gel-based strategies.</b> <i>Dr. Montserrat Martínez-Gomariz (PCM-UCM)</i>
11:30-12:00	<b>Coffee break</b>
12:00-12:45	<b>Differential Proteomics: advantages and disadvantages of LC-MS-based strategies.</b> <i>Dr. Miguel Marcilla (CNB-CSIC)</i>
12:45-13:30	<b>Protein Databases: a useful guideline.</b> <i>Dr. José Ramón Valverde (CNB-CSIC)</i>
13:30-14:15	<b>Statistical analysis of proteomics data.</b> <i>Antonio Ramos (CNB-CSIC)</i>
14:15-15:30	<b>Lunch time</b>

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## Session II: Sample preparation

15:30-16:00	<b>Subcellular fractionation and membrane proteomics.</b> <i>Dr. Lucia Monteoliva (UCM)</i>
16:00-16:30	<b>Phosphoproteomics.</b> <i>Dr. M<sup>a</sup> Luisa Hernaez (Parque Científico de Madrid – UCM)</i>
16:30-17:00	<b>Coffee break</b>
17:00-17:30	<b>Plasma Proteomics.</b> <i>Sergio Ciordia (CNB)</i>
17:30-18:00	<b>Peptidomics: Proteomic Analysis of MHC peptides.</b> <i>Dr. Iñaki Alvarez (UAB)</i>

### Abbreviatures:

- *CNB-CSIC (Centro Nacional de Biotecnología-Consejo Superior de Investigaciones Científicas)*
- *IIBB-CSIC (Instituto de Investigaciones Biomédicas de Barcelona-Consejo Superior de Investigaciones Científicas)*
- *PCM (Parque Científico de Madrid)*
- *UCM (Universidad Complutense de Madrid)*
- *UAB (Universidad Autónoma de Barcelona)*

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Tuesday, February 8

## Opening Lectures

Chairs: *Dr. Juan Pablo Albar and Dr. Concha Gil*

18:00-18:30 **Registration**

18:30-19:00 **Welcome**

*Chair: Dr. Fernando Corrales, SEProt President.*

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### *Opening Lectures*

19:00-19:30 **A life with gels: from ultrathin gels to IPG-Dalt**

*Dr. Angelika Görg (Technische Universität München, Fachgebiet Proteomik, Freising-Weihenstephan, Germany)*

19:30-20:00 **Deep Proteomics provides New Insights in Fundamental Cellular Mechanisms**

*Dr. Joel Vandekerckhove (Department of Medical Protein Research, Ghent University, Ghent, Belgium)*

21:00 **Welcome reception**

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Wednesday, February 9

**Session 1: Quantitative Proteomics**Chairs: *Dr. Gloria Molero and Dr. Manuel Sánchez del Pino***Plenary Lectures**

08:30-09:00	<b>Mapping and measuring complete proteomes</b> <i>Dr. Ruedi Aebersold (Institute of Molecular Systems Biology-ETH, Zurich, Switzerland)</i>
09:00-09:30	<b>Advances in quantitative proteomics: applications to cardiovascular research</b> <i>Dr. Jesús Vázquez (Centro de Biología Molecular Severo Ochoa-CSIC, Madrid, Spain)</i>
09:30-10:00	<b>Physiological proteomics of Gram-positive bacteria</b> <i>Dr. Jörg Bernhardt (Institut für Mikrobiologie, E.-M.-Arndt-Universität Greifswald, Greifswald, Germany)</i>

**Oral Communications**

10:00-10:15	<b>Qualitative and quantitative characterization of exosomes secreted by rat hepatocytes</b> <i>Dr. Eva Rodríguez-Suárez (CICbioGUNE, Derio, Spain)</i>
10:15-10:30	<b>SWATH-MS: a new data independent acquisition lc-ms methodology for quantitative complete proteome analysis</b> <i>Dr. Pedro Navarro (Institute of Molecular Systems Biology, ETH Zürich, Switzerland)</i>
10:30-10:45	<b>High resolution targeted proteomics: biomarker discovery in a mouse transgenic model of myopathy.</b> <i>Dr. Claire Dauly (Thermo Scientific)</i>

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10:45-11:15 **Coffee Break**

Wednesday, February 9

**Session 2: Microbial Proteomics**Chairs: *Dr. Jesús Jorrín and Dr. Lucía Monteoliva***Plenary Lectures**

11:15-11:45	<b>Analysis of genome expression of <i>Rhizobium etli</i> in free living and plant-associated symbiotic state</b> <i>Dr. Sergio Encarnación (Centro de Ciencias Genómicas, Universidad Nacional Autónoma de México, Cuernavaca, Mexico)</i>
11:45-12:15	<b>The Crc protein, a translational repressor that coordinates carbon metabolism in <i>Pseudomonas</i></b> <i>Dr. Fernando Rojo (Centro Nacional de Biotecnología-CSIC, Madrid, Spain)</i>
12:15-12:45	<b>Quantitative phosphoproteomics by SILAC-2-DE/MALDI-MS in <i>Helicobacter pylori</i> infected AGS cells</b> <i>Dr. Peter Jungblut (Core Facility Protein Analysis, Max-Planck Institute for Infection Biology, Berlin, Germany)</i>

**Oral Communications**

12:45-13:00	<b>Proteomics applications to tick research</b> <i>Dr. Margarita Villar (Instituto de Investigación en Recursos Cinegéticos IREC (CSIC-UCLM-JCCM), Ciudad Real, Spain)</i>
13:00-13:15	<b>Proteomic and phosphoproteomic study of the macrophage response to <i>Candida albicans</i> using silac and simac</b> <i>Dr. Jose A. Reales-Calderón (Facultad de Farmacia, Universidad Complutense de Madrid, Madrid, Spain)</i>
13:15-13:30	<b>ProteOn XPR36: Powerful and flexible protein-to-protein interaction analysis</b> <i>Dr. Marc Martin (Biorad Laboratories)</i>

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Wednesday, February 9

## Quality Control and Standardization in Proteomics Session

Chairs: *Dr. Monserrat Martínez and Dr. Alberto Paradela*

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### *Plenary Lectures*

15:15-15:35	<b>QC in proteomics: lessons from Proteored multicentric experiments</b> <i>Dr. Francesc Canals (Laboratori de Proteomica, Institut de Recerca-Hospital Universitari Vall d'Hebron, Barcelona, Spain)</i>
15:35-15:55	<b>Quality Control of Proteomics Data: performing local as well as global analyses</b> <i>Dr. Lennart Martens (Department of Medical Protein Research, VIB, Gent, Belgium)</i>
15:55-16:15	<b>Quality control and standardization efforts at the PRoteomics IDentifications (PRIDE) database</b> <i>Dr. Juan Antonio Vizcaino (European Bioinformatics Institute, Hinxton Cambridge, England)</i>

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Wednesday, February 9

## HUPO and EuPA Initiatives Session

Chairs: *Dr. Fernando Corrales and Dr. César Nombela*

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### *Plenary Lectures*

**The gene-centric Human Proteome Project: organisation, scope and limitations**

16:15-16:45

*Dr. Thierry Rabilloud (Biochemistry and Biophysics of Integrated Systems, CEA Grenoble, iRTSV/BSBBSI, Grenoble, Francia)*

**Differential Protein Expression Analysis in Patients within Lung Cancer Studies**

16:45-17:15

*Dr. Gyorgy Marko-Varga (Clinical Protein Science and Imaging, Dpt. Measurement Technology and industrial Electrical Engineering, University of Lund, Lund, Sweden)*

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Thursday, February 10

## Session 3: Post-Translational Proteomics

Chairs: *Dr. Montserrat Carrascal and Dr. Juan José Calvete*

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### Plenary Lectures

08:30-09:00	<p><b>Modification specific proteomics; Identification and quantitation of phosphorylated proteins and sialylated glycoproteins derived from primary biological material.</b>  <i>Dr. Martin Larsen (Department of Biochemistry and Molecular Biology, University of Southern Denmark, Odense, Denmark)</i></p>
09:00-09:30	<p><b>Quantitative characterization of p-sites from the human T-lymphocyte phosphoproteome using isotopic labeling and mass spectrometry</b>  <i>Dr. Joaquin Abian (Laboratori de Proteómica-CSIC-Universitat Autònoma de Barcelona, Barcelona, Spain)</i></p>
09:30-10:00	<p><b>Unraveling cancer signaling pathways using global phosphoproteomic approaches</b>  <i>Dr. Akhilesh Pandey (McKusick-Nathans Institute of Genetic Medicine, Departments of Biological Chemistry, Oncology, Pathology, Johns-Hopkins University School of Medicine, Baltimore, Maryland, USA)</i></p>

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### Oral Communications

10:00-10:15	<p><b>Differential redox proteomics allows identification of proteins reversibly oxidized in cysteines in endothelial cells in response to acute</b>  <i>Dr. Antonio Martínez-Ruiz (Hospital Universitario de La Princesa, Instituto de Investigación Sanitaria Princesa (IP), Madrid, Spain)</i></p>
10:15-10:30	<p><b>New clues to metabolic regulation through changes in the thiol redox proteome</b>  <i>Dr. Jose A. Bárcena (University of Córdoba, Córdoba, Spain)</i></p>
10:30-10:45	<p><b>The implementation and characterization of electron transfer dissociation (ETD) on an ion mobility enabled Q-TOF mass spectrometer.</b>  <i>Dr. Keith Compson. (Waters Corporation)</i></p>

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 10:45-11:15 **Coffee Break**


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Thursday, February 10

## Session 4: Structural Proteomics: Interactions Networks and Complexes

Chairs: *Dr. Severine Gharbi and Dr. Fernando Vivanco*


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### Plenary Lectures

11:15-11:45	<b>Combining 3D structures with protein quantification to understand cell type specific epidermal growth factor receptor signal processing</b> <i>Dr. Christina Kiel (EMBL-CRG Systems Biology Unit, Design of Biological Systems, Centre de Regulació Genòmica, Barcelona, Spain).</i>
11:45-12:15	<b>Determination and analysis of protein interaction networks</b> <i>Dr. Florencio Pazos (Centro Nacional de Biotecnología-CSIC, Madrid, Spain)</i>

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### Oral Communications

12:15-12:30	<b>Phosphorylation-based signaling networks mediate the effect of ligand affinity on the activation of naive primary t-cells</b> <i>Dr. Mónica Carrera (Institute of Molecular Systems Biology, ETH, Zürich, Switzerland)</i>
12:30-12:45	<b>Intensity-fading and other ms approaches to analyze proteases and protease inhibitors and their interactions in biological samples</b> <i>Dr. Francesc X. Aviles (Institut de Biotecnologia i de Biomedicina (IBB) &amp; Dept. Bioquímica, Universitat Autònoma de Barcelona, Barcelona, Spain)</i>
12:45-13:00	<b>Helping resolve the interactome by means of label free interaction analysis.</b> <i>Dr. Silvia Pileri. (GE Healthcare).</i>

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13:15-14:15 **Lunch**14:15-15:00 **Poster Session**

Thursday, February 10

**Session 5: Computational Proteomics**Chairs: *Dr. Alex Campos and Dr. Eliandre de Oliveira***Plenary Lectures**

15:00-15:30	<b>Computational methods for exploring protein isoforms based on MS data</b> <i>Dr. Rhune Matthiesen (Instituto de Patologia e Imunologia Molecular da Universidade do Porto (IPATIMUP), Porto, Portugal)</i>
15:30-16:00	<b>Computer-aided identification of potential drug targets and vaccine candidates in bacterial proteomes</b> <i>Dr. Xabier Daura Ribera (Institut de Biotecnologia i Biomedicina (IBB), Universitat Autònoma de Barcelona, Barcelona, Spain)</i>
16:00-16:30	<b>neXtProt: the new human protein knowledge resource</b> <i>Dr. Amos Bairoch (Swiss Institute of Bioinformatics. Dpt. of Structural Biology and Bioinformatics, Genève, Switzerland)</i>
16:30-17:00	<b>Dedicated resources for PTM identification</b> <i>Dr. Patricia Palagi (Swiss Institute of Bioinformatics, Geneva, Switzerland)</i>

**Oral Communications**

17:00-17:15	<b>MIAPE web toolkit: a user-friendly work frame to connect and share proteomics standards in the lab</b> <i>Dr. J.Alberto Medina-Aunon (Centro Nacional de Biotecnología-CSIC/ProteoRed, Madrid, Spain)</i>
17:15-17:30	<b>A general statistical framework for the integration and ontological analysis of quantitative proteomics experiments by stable isotope</b> <i>Marco Trevisan-Herraz (Centro de Biología Molecular Severo Ochoa-CSIC-UAM, Madrid, Spain)</i>
17:45-18:15	<b>Coffee Break</b>
18:15-19:15	<b>SEProt Awards</b> <i>(Sponsored by Bruker Daltonics and Celta Ingenieros)</i>
19:15-20:15	<b>SEProt General Meeting</b>
21:00	<b>Congress Dinner</b>

Friday, February 11

## Session 6: Biomarker Discovery and Validation

Chairs: *Dr. Ignacio Casal and Dr. Ángel García*

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### Plenary Lectures

09:30-10:00	<b>Sleeping sickness biomarkers: the quest for a neglected disease holy grail</b> <i>Dr. Jean Charles Sanchez (Biomedical Proteomics Group, Department of Structural Biology and Bioinformatics, Faculty of Medicine, University of Geneva, Switzerland)</i>
10:00-10:30	<b>Biomarker Discovery for diagnostic, prognostic and therapeutic response in Rheumatic Diseases</b> <i>Dr. Francisco Blanco (Plataforma de Proteómica INIBIC-CHUAC, A Coruña, Spain)</i>
10:30-11:00	<b>Label-free quantitative proteomics targeted to sub-cellular compartments for candidate biomarker discovery in colorectal cancer</b> <i>Dr. Connie Jimenez (Department of Medical Oncology, OncoProteomics Laboratory, VU University Medical Center, Amsterdam, The Netherlands)</i>

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### Oral Communications

11:00-11:15	<b>Proteins involved in platelet activation by GPVI and alphaIIb beta3 receptors are differentially regulated in acute coronary syndrome: a platelet proteomics study</b> <i>Dr. Andrés F. Parguñá (Universidade de Santiago de Compostela, Santiago de Compostela, Spain)</i>
11:15-11:30	<b>Early diagnostic of B cell chronic leukemia by novel biomarkers.</b> <i>Dr. Manuel Fuentes (Centro de Investigación del Cáncer, Universidad de Salamanca-CSIC, Salamanca, Spain)</i>
11:30-11:45	<b>Simultaneous compound Quantification and Identification using High Resolution MS: The AB SCIEX TripleTOF™ 5600 System.</b> <i>Dr. Antonio Serna (ABSciex)</i>

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 11:45-12:15 Coffee Break
 

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Friday, February 11

## Closing Lecture

Chairs: *Dr. Juan Pablo Albar and Dr. Concha Gil*

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### *Closing Lecture*

12:15-13:15	<b>In taberna quando sumus: a drunkard's cakewalk through proteomics</b> <i>Dr. Pier Giorgio Righetti (Politecnico di Milano, Department of Chemistry, Milan, Italy)</i>
13:30	<b>Farewell</b>

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