Joint BSPR/EBI Conference 2011
From the Visible to the Hidden Proteome
Wellcome Trust Conference Centre, Cambridge UK, 12th – 14th July 2011

Programme

Tuesday 12th July 2011

08:30-10:00  Registration / Poster Setup / Coffee

10:00-10:15  Welcome on behalf of BSPR (David O'Connor, President, BSPR)
Welcome on behalf of EBI (Henning Hermjakob, EMBL-EBI)

Keynote Lecture 1
Chaired by David O’Connor

10:15-11:00  Mike Taussig, Babraham Institute, Cambridge
Affinity Reagents and Protein Arrays for Proteome Analysis

11:00-11:30  Tea / Trade Exhibition

Session 1: The Dynamic Proteome
Chaired by David O’Connor

11:30-12:00  Anthony Whetton, University of Manchester, Manchester
A proteomic approach to study the biology of normal and leukaemic stem cells

12:00-12:15  Amy Claydon, University of Liverpool, Liverpool*
Proteome dynamics in ejaculate composition

12:15-12:30  Cliff Rowe, University of Manchester, Manchester
Defining and quantifying the proteomes of in vitro liver models

12:30-14:30  Buffet Lunch / Trade Exhibition

Poster Session I

12:30-14:30  Authors of even-numbered posters in attendance
Poster judges: Peter Jungblut, Stephen Pennington, Paola Picotti, Robert Tonge, Anthony Whetton

BSPR AGM

13:30-14:00  BSPR Annual General Meeting
Session 2: Quantitative proteomics: To label or not to label

**Chair by Rob Beynon**

14:30-15:00  Paola Picotti, ETH, Zürich, Switzerland
Targeted proteomics from proteins to proteome maps: potential and bottlenecks

15:00-15:30  Claus Jorgensen, Institute of Cancer Research, London
Quantitative analysis of cell-specific signaling from co-cultured cells

15:30-15:45  Richard Kay, Quotient Bioresearch Ltd, Fordham
Challenges of validating LC-MS/MS methods for quantifying proteins in biological matrices

15:45-16:00  Simon Hubbard, University of Manchester, Manchester
Comparing quantitative proteomics approaches for yeast chaperones

16:00-16:30  Tea / Trade Exhibition

Session 3: The Deep Proteome: Discovery and Quantification

**Chair by Chris Sutton**

16:30-17:00  Jesús Vázquez, CBMSO, Madrid, Spain
A general statistical framework for the analysis and integration of quantitative proteomics data obtained by stable isotope labeling

17:00-17:30  Eric Schirmer, Wellcome Trust Centre for Cell Biology, Edinburgh
Extensive Tissue Variation in the Nuclear Envelope Proteome

17:30-17:45  Sara Zanivan, Beatson Institute for Cancer Research, Glasgow
In vivo SILAC-based quantitative proteomics and phosphoproteomics of skin cancer development

17:45-18:00  Ritesh Krishna, University of Liverpool, Liverpool
Automated integration of Mass Spectrometry based Proteomics evidence for improvement of gene annotations

Plenary Lecture

**Chair by Steve Pennington**

18:00-18:45  Tim Hunt, CRUK, London
Switches and Latches in the Control of Cell Division

18:45-20:15  Drinks Reception / Trade Exhibition
*(Sponsored by BSPR)*

20:15  Dinner (Residential delegates only)
Wednesday 13th July 2011

Keynote Lecture 2
Chaired by John Timms

09:00-09:45 Tommy Nilsson, McGill University Health Centre, Montreal, Canada
TBA

Session 4: Tackling the Serum/Plasma Proteome
Chaired by John Timms

09:45-10:15 Gil Omenn, University of Michigan, USA
Tackling the serum/plasma proteome: The human plasma peptide atlas and the relationship to the HUPO Human Proteome Project

10:15-10:30 Martin Sost, ETH, Zürich, Switzerland
A mass spectrometric map of cancer-associated proteins and its applications to human plasma and urine

10:30-10:45 Stephane Camuzeaux, UCL, London*
Biliary tract cancer serum profiling using magnetic bead-based peptide extraction and MALDI-TOF mass spectrometry

10:45-11:30 Coffee / Trade Exhibition

Session 5: Plant, Fungal and Microbial Proteomics
Chaired by Kathryn Lilley

11:30-12:00 Peter Jungblut, MPI for Infection Biology, Berlin, Germany
The Protein species concept: Consequences for peptide and protein-centric investigations

12:00-12:30 Laurence Bindschedler, University of Reading, Reading
Delving into the in planta proteome of the barley powdery mildew reveals novel key players in infection

12:30-12:45 Myriam Ferro, CEA, Grenoble, France
AT_CHLORO, a comprehensive chloroplast proteome database with subplastidial localization

12:45-13:00 Annemarie Matthes, MPI of Molecular Plant Physiology, Potsdam-Golm, Germany*
SIPSEC nucleoproteomics: a method for the contamination-free identification of DNA-associated proteomes in plants

13:00-14:30 Buffet Lunch / Trade Exhibition

Poster Session II

13:00-14:30 Authors of odd-numbered posters in attendance
Session 6: Advances in Bioinformatics  
*Chaired by Rolf Apweiler*

14:30-15:00  Jürgen Cox, MPI for Biochemistry, Martinsried, Germany  
TBA

15:00-15:30  Christian von Mering, University of Zürich, Switzerland  
Optimality and evolution of protein abundance levels in eukaryotes

15:30-15:45  Maria Martin, EBI, Cambridge  
UniProt complete proteomes for IPI species: a reference database for proteomics

15:45-16:00  Rui Wang, EBI, Cambridge  
PRIDE Inspector: a tool to visualize and validate MS proteomics data

16:00-16:15  Rafael Jimenez, EBI, Cambridge  
Clustering and scoring molecular interactions relying on community standards

16:15-16:30  Chenggong Zong, University of California, Los Angeles, USA  
A modular spectral library for cardiovascular proteomics and synergy

16:30-17:00  Tea / Trade Exhibition

Session 7: Exploring the Post-Translational Space  
*Chaired by Stephen Pennington*

17:00-17:30  Martin Larsen, University of Southern Denmark, Denmark  
New selective strategies for phosphopeptide and glycopeptide enrichment applied to neuronal signaling and development

17:30-17:45  Vincent Geoghegan, University of Oxford, Oxford  
Global analysis of arginine methylation

17:45-18:00  Agnieszka Kraj, Antec, Zouterwoude, The Netherlands  
Protein cleavage, disulfide bonds reduction, covalent DNA adduct formation and more using electrochemistry/MS

Panel Discussion  
*The next steps in Proteomics – What is needed and what can be achieved?*  
*Chaired/Moderated by David O’Connor*

18:00-18:45  Mike Taussig, Sam Hanash, Gil Omenn, David O’Connor

18:45-20:15  Drinks Reception / Trade Exhibition  
*(Sponsored by Matrix Science)*

20:15  Conference Dinner (By ticket only)
Thursday 14th July 2011

Keynote Lecture 3
Chaired by Rainer Cramer

08:45-09:30 Sam Hanash, Fred Hutchinson Cancer Research Center, Seattle, USA
Mouse to Human Search for Epithelial Tumor Markers

Session 8: Novel Methodologies and Techniques
Chaired by Rainer Cramer

09:30-10:00 Karl Mechtler, Institute of Molecular Pathology, Vienna, Austria
Accurate Quantification of 14,500 Arabidopsis thaliana phosphorylated peptides sites in response to DNA damage

10:00-10:15 Martin Barrios-Llerena, University of Edinburgh, Edinburgh*
The use of a novel quantitation strategy based on Reductive Isotopic Di-Ethylation (RIDE) to evaluate the Effect of Glufosinate on the unicellular algae Ostreococcus tauri

10:15-10:30 Claire Eyers, University of Manchester, Manchester
A QconCAT Standard for Calibration of Ion Mobility Mass Spectrometry

10:30-10:45 Anthonius Heemskerk, Leiden University Medical Center, Leiden, The Netherlands
Potential of Ultra-Low Flow CE-ESI-MS for Proteomic Studies

10:45-11:00 Andrew Dowsey, Imperial College London, London
A novel isotope distribution model, integrated chemical noise estimation and sparse restoration significantly improves deconvolution of raw mass spectra

11:00-11:30 Coffee / Trade Exhibition

Session 9: Clinical Proteomics
Chaired by Steve Pennington

11:30-12:00 Kai Stühler, Medical Proteome-Center, Bochum, Germany
Tissue-proteomics - A tool for the discovery of novel biomarkers

12:00-12:30 Marius Ueffing, University of Tübingen, Germany
Structural and functional protein network analysis predicts novel systemic functions for the G-protein coupled receptor rhodopsin

12:30-12:45 Johannes Griss, EMBL/EBI, Hinxton*
Building a proteome atlas of primary human cells for clinical proteomics research

12:45-13:00 Diane Munday, University of Leeds, Leeds
Quantitative proteomic analysis and validation of human respiratory syncytial virus-host cell interactions

13:00-14:30 Buffet Lunch / Trade Exhibition
Closing Session  
*Chaired by David O'Connor*

14:30-14:45 **Prize Awards**  
Presentation of Poster Prize  
*(Sponsored by Royal Society of Chemistry)*  
Presentation of Early Stage Investigator Award  
*(Sponsored by CRB Discovery)*  
Announcement of MJ Dunn Fellows and BSPR Fellowships  
*(Sponsored by BSPR)*

14:45-15:00 Closing remarks: David O’Connor

15:30 Buses depart to Stansted / Cambridge

**Note:** *Indicates oral communications entered for the Early Stage Career Investigator Award*