



## In this issue

President's Message .....	1
HUPO Awards.....	2
HUPO Executive Committee .....	3
HUPO Council Election .....	3
HUPO Industrial Advisory Board....	3
HUPO 2014 Madrid.....	4
HPP Post Congress Day in Segovia.....	5

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## President's Message



The 13th HUPO World Congress is coming! After Geneva (2011), Boston (2012) and Yokohama (2013), we return to Europe and convene next month in Madrid. Leading -omics scientists from around the world will gather to discuss exciting developments and share the latest advances in proteomics research. I congratulate the organizers of the 13th HUPO Congress (Fernando Corrales, **Juan Pablo Albar**, Juan Calvete, and Concha Gil) for organizing an outstanding and diverse program. As most of you know, one of the primary forces behind the Madrid Congress, Juan Pablo Albar, passed away suddenly in July. The shock and grief among our Madrid colleagues has affirmed their resolve to make this an unforgettable meeting in his memory.

There are a number of issues that we must consider while preparing to attend the Madrid meeting as our responses will influence the ultimate future directions of HUPO.

This year, we shall continue to hear much about the Human Proteome Project. It is well structured, with many ongoing projects across the C-HPP, the B/D HPP, and the resource pillars. We still seek a broadly accepted definition for the term “missing proteins” – from which will be derived the experimental objectives for functional characterization of newly identified proteins. We also need to exemplify the importance of proteomics’ findings to all life sciences, including -omics and medical applications. **It may be time for the integration of the HPP in broader large scale programs gathering industry and academics for long term goals.**

HUPO membership options were restructured this year. Individuals may now join/renew for three (3) years, with the benefit of a one-year fee discount. This guarantees members will stay connected with HUPO even though they may not attend the Congress every year. In addition, **HUPO now offers national proteomics societies the status of HUPO associate memberships.** Their members for the small sum of ≤\$1 per individual will receive HUPO newsletters and information sent to regular members about workshops, training courses, etc. Their national society will be posted on the HUPO website along with links to their individual proteomics society websites, ensuring all information of interest is disseminated to all HUPO members.

Very soon you will receive information regarding the renewal of the HUPO Council. An outstanding slate of candidates appears on page 3. I urge you to participate in the HUPO Council vote.

I am pleased to now announce that HUPO Executive Committee has unanimously selected the city of Dublin to host the HUPO2017 Congress. Indeed, the bid presented by the British Society of Proteome Research was very impressive and we look forward to our first visit to Ireland.

Lastly, let me address the financial sustainability of HUPO which remains a difficult but important issue. HUPO must secure its business model and several options will be discussed in Madrid. For example, HUPO may opt for a model involving a preferred Congress management company to achieve better financial accountability, continuity and multiannual visibility for the annual Congress organization, while the scientific program remains under the responsibility of the local organizers with the national proteomics society. We will also seek a new administrative body to support HUPO. Finally, due to the present development and future growth of activities related to our flagship Human Proteome Project, we might also consider administrative support for this worldwide program. Your thoughts or suggestions are most welcome.

I wish you a very good start to the Northern Hemisphere academic year and look forward to seeing you all in Madrid in October.

Pierre Legrain  
HUPO President

## 2014 HUPO AWARDS

HUPO Awards will be presented at the Congress in Madrid on Wednesday 8 Oct at 16:50. Join us to honor the achievements of these scientists.

### Award for Distinguished Achievement in Proteomic Sciences Sponsored by the Journal for Proteomics Research



**Professor Pier Giorgio Righetti**  
Politecnico di Milano

is awarded for seminal contributions in the pre-proteomic field of Separation Science and for his combinatorial peptide ligand library (CPLL) technology, a methodology that has proven the ability to explore the low- to very-low abundance proteome in biological fluids, tissue extracts, plant, food and beverage samples.

### Award for Translational Proteomics Sponsored by Elsevier Science



**Professor Daniel W. Chan**  
Johns Hopkins University

is awarded for research focused on the translation of proteomics discovery into clinical diagnostics. He is the inventor of OVA1 test for ovarian cancer, the 1<sup>st</sup> FDA cleared proteomic IVDMA and his work in clinical studies leading to the clinical study and FDA approval of two prostate cancer tests – proPSA (*phi*) and PCA3 (*PROGENSA*).

### Award for Discovery in Proteomics Sciences



**Professor Neil L. Kelleher**  
Northwestern University

is awarded for top-down proteomics and his role in the development of the fragmentation technique of electron-capture dissociation and for his use of top-down proteomics in a quantitative fashion for discovery and validation of protein-based biomarkers in organ transplantation and cancers of the blood.

### Award for Science and Technology Sponsored by the HUPO Industrial Advisory Board

This team of four is nominated for their contributions in the commercialization of isobaric labeling compounds for use in quantitative proteomics. Both programs, ITRAQ (AB SCIEX) and TMT (Thermo Fisher Scientific and Proteome Sciences) are recognized.



**Subhasish "Babu" Purkayastha**  
AB SCIEX



**John Rogers**  
Thermo Fisher Scientific



**Andrew Thompson**  
Proteome Sciences plc



**Rosa Viner**  
Thermo Fisher Scientific

## HUPO Executive Committee

Pierre Legrain, President (France)  
 Mark Baker, President-Elect (Australia)  
 Catherine Costello, Past President (U.S.A.)  
 Maxey C.M. Chung, Secretary General (Singapore)  
 Bruno Dumon, Treasurer (Luxembourg)  
 William Hancock, Vice President, (U.S.A.)  
 Gilbert S. Omenn, Member at Large (U.S.A.)  
 Michael Snyder, Member at Large (U.S.A.)

## HUPO Council Election

HUPO Council consists of an equal number of representatives from each world region: Eastern (Asia/Oceania), Central (Europe/Africa), and Western (the Americas). The election of Council members opens on 22 September and closes 6 October. Results will be announced at the General Assembly of Members in Madrid. Watch for an email with the link to cast your votes.

Three Council positions were to be decided by general election; however, one additional opening has occurred in the Eastern and Central regions to fill vacancies of terms not completed.

HUPO is fortunate to announce this slate of outstanding candidates and appreciates their willingness to run for election.

### Eastern (3 openings for 3-year terms, plus one 1-year term to fill vacancy)

Fuchu He, National Core Facility for Protein Sciences PHOENIX (China)  
 Peter Hoffmann, University of Adelaide (Australia)  
 Bonghee Lee, Gachon University (Korea)  
 Siqi Liu, Beijing Institute of Genomics (China)  
 Hisashi Narimatsu, Natl Institute of Advanced Industrial Science & Technology (Japan)  
 Xiaohong Qian, Beijing Inst of Technology (China)  
 Marc Wilkins, Macquarie University (Australia)

### Central (3 openings for 3-year terms, plus one 2-year term to fill vacancy)

Rainier Bischoff, University of Groningen (Germany)  
 Bruno Domon, CRP-Santé Luxembourg  
 Albert Heck, Utrecht University (Netherlands)  
 Matthias Mann, Max Planck Institute of Biochemistry (Germany)  
 Charles Pineau, Biogenouest Proteomics Core Facility (France)  
 Bettina Warscheid, University of Freiburg (Germany)

### Western (3 openings for 3-year terms)

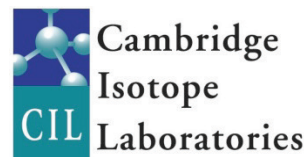
Paulo Costa Carvalho, Carlos Chagas Institute (Brazil)  
 Ileana Cristea, Princeton University (USA)  
 Gilberto Domont, Federal Univ of Rio de Janeiro (Brazil)  
 Ying Ge, Univ of Wisconsin-Madison (USA)  
 Fabio Cesar Gozzo, University of Campinas (Brazil)  
 Joshua LaBaer, Biodesign Inst at Arizona State University (USA)  
 Chris Overall, University of British Columbia (Canada)  
 Adriana Paes Leme, Centro Nacional de Pesquisa em Energia e Materiais (Brazil)  
 Mike Snyder, Stanford University (USA)  
 Pierre Thibault, University of Montreal (Canada)  
 Cathy Wu, University of Delaware (USA)

## Industrial Advisory Board

The HUPO Industrial Advisory Board (IAB) facilitates communication and input from industry partners to support the proteomics community and to recognize these partners as HUPO affiliates. To provide HUPO leadership (the Executive Committee) valuable input on technology and product innovation for the benefit of members and to identify industry trends that will position HUPO to meet the future challenges of its partners and organization. Please contact [office@hupo.org](mailto:office@hupo.org) for details on IAB membership.



**Agilent Technologies**



**Genentech**



**Waters**

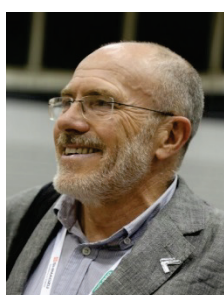
THE SCIENCE OF WHAT'S POSSIBLE.™



## Organizers



**Fernando D. Corrales**  
University of Navarra



**Juan Pablo Albar**  
Natl Biotechnology Center (CSIC)



**Juan Calvete**  
Spanish Research Council (CSIC)



**Concha Gil**  
Complutense University of Madrid

**HUPO**  
2014 MADRID  
13th Human Proteome Organization World Congress

**The proteome quest to understand biology and disease**

October 5 - 8, 2014  
Centro de Convenciones Norte IFEMA



## HUPO Calendar of Congress Events

- **Sunday, 5 Oct, 07:00-09:00:** Meeting of the HUPO Executive Committee, *Pullman Hotel*
- **Sunday, 5 Oct, 10:00-17:00:** HPP Investigators Meeting, *Room D*
- **Sunday, 5 Oct 13:30-16:00:** Meeting of the HUPO Council, *Room F*
- **Monday, 6 Oct 13:00:** Meeting of national and regional HUPO organization leaders
- **Monday, 6 Oct 18:35-19:05:** General Assembly of Members  
General Assembly Agenda
  - Review of HUPO financials
  - Announcement of Council election results
  - Announcement of HUPO2017 location
- **Tuesday 7 Oct:** Congress Dinner
- **Wednesday 8 Oct 16:50-18:15:** HUPO Awards
- **Thursday, 9 Oct:** Efforts to Accelerate the Human Proteome Project, Segovia

## HPP ACTIVITY IN MADRID

The Human Proteome Project (HPP) has grown to become a strong focus of HUPO activities. Most existing HUPO initiatives have found a focus within the HPP and a wide range of new initiatives and projects have also been started by the HPP. All congress attendees are invited to participate in the early morning HPP sessions (see table below). These lively, smaller sessions are an invaluable opportunity to connect with colleagues and contribute to the HPP.

**Go to the comprehensive HPP Activity Guide:** <http://www.hupo.org/initiatives/human-proteome-project/>  
Includes early morning session descriptions, pre- and post-congress meeting details.

MONDAY, OCTOBER 6 08:00 – 09:20	TUESDAY, OCTOBER 7 08:00 – 09:20	WEDNESDAY, OCTOBER 8 08:00 – 09:20
<b>HPPP (Plasma)</b> <i>Room B</i>	<b>Diabetes</b> <i>Room B</i>	<b>Respiratory Diseases</b> <i>Room B</i>
<b>C-HPP, Part I: New Technology</b> <i>Room C</i>	<b>C-HPP, Part II: Poster Session</b> <i>Inside Poster Hall</i>	<b>C-HPP, Part III: PIC</b> <i>Room C</i>
<b>Cancers I</b> <i>Room D</i>	<b>PSI / ProteomeXchange</b> <i>Room C</i>	<b>Cardiovascular</b> <i>Room D</i>
<b>iMOP</b> <i>Room E</i>	<b>Antibody Proteomics</b> <i>Room D</i>	<b>Computational Mass Spec.</b> <i>Room E</i>
<b>Liver</b> <i>Room F</i>	<b>Cancers II</b> <i>Room E</i>	Mitochondria <i>Room G</i>
<b>Extreme Conditions</b> <i>Room G</i>	<b>Glycoproteomics</b> <i>Room F</i>	<b>Protein Aggregation Diseases</b> <i>Room H</i>
<b>Infectious Diseases</b> <i>Room H</i>	<b>Brain Project</b> <i>Room G</i>	<b>PediOme</b> <i>Room I</i>
<b>EyeOme</b> <i>Room I</i>	<b>Stem Cells</b> <i>Room H</i>	
	<b>Biobanking &amp; Pre-Analytical Sample Assessment</b> <i>Room I</i>	



## Efforts to Accelerate the HUPO Human Proteome Project Preliminary Program

(Draft Ver 4.3, 9/11/2014)

*To the memory of Juan Pablo Albar*

Bus departing Madrid for Segovia will be provided for all participants who register in advance. For details, go to <http://www.hupo2014.com/newtrends.html>

### 08:45-09:10 Coffee and Welcome

Fernando Corrales, Concha Gil  
Young-Ki Paik, Bill Hancock, Jennifer Van Eyk, Tadashi Yamamoto, Pierre Legrain, Gil Omenn

### 09:10-10:00 Common Reagents and Resources for HPP Networks

- 09:10-09:35 A tissue-based map of the Human Proteome- - Cross-validation of HPA antibody data with MS, RNA-seq and other publicly available data; **Ulrika Qundos**, SciLife Lab, Stockholm, Sweden
- 09:35-09:45 Develop effective antibody capture reagents for the missing or orphan proteins and for characterization of proteoforms of well-known proteins; Collaboration between ProteinAtlas and Monash Monoclonal Ab facility; **Ed Nice**, Monash University, Australia
- 09:45-10:00 Develop and Facilitate Utilization of Common Bio-Banking Samples; **Gyorgy Marko-Varga**, Lund Univ., Sweden and **Henry Rodriguez**, NCI, USA

### 10:00-11:45 Defining Highly Informative Sets of Proteins for Studies of Specific Diseases: Moving from HPP Focus on the Missing Proteins to the 80% Known Proteins

- 10:00-10:40 Priority Protein Lists with Ready-to-Use SRM Peptides and Spectral Libraries; **Peter Bergsten**, Uppsala University, Sweden (for Diabetes-HPP)  
The Proteome-wide SRM Resources: Peptides, Spectral Libraries, PASSEL Database; **Robert Moritz and Eric Deutsch**, ISB, USA  
Report on HPP Inter-Laboratory Performance with SRM/MRM Assays; **Christoph Borchers**, University of Victoria, Canada  
Extended SWATH Library that makes >10,000 Human Proteins Precisely Measurable; **George Rosenberger**, ETH Zurich, Switzerland
- 10:40-11:30 Popular Proteins, Quantitative Assays, Functional Networks and Pathways  
**Peipei Ping**, CV-HPP, heart and vascular diseases  
**Fuchu He and Pengyuan Yang**, CN-HLPP: liver diseases  
**Hui Zhang and Ruth Huttenhain** + others in Cancer-HPP: cancers  
**Tadashi Yamamoto**, HKUPP: Kidney diseases  
New Experimental Tools: organ-on-a-chip, non-natural amino acid-based assays
- 11:30-11:45 Bridging from the Proteomics Research Community to the Clinic  
The ProteomeAnalyzer Project of the B/D-HPP: robust, moderate cost, high throughput; **Bruno Domon**, Luxembourg

### 11:45-13:00 Combined C-HPP + B/D-HPP Studies of Proteome Biology and Disease

- 11:45-12:05 Demonstration of Joint Efforts on MS-based Automated PTM Analysis and Biological Characterization of Brain Proteins and Glioblastoma; **Jong Shin Yoo**, KBSI, Ochang Korea and **Young-Mok Park**, Korea (HBPP)
- 12:05-12:20 Demonstration of Utilizing Combined Resources and Technologies from B/D-HPP and C-HPP to Search for Cancer Biomarkers; **Gyorgy Marko-Varga**, Lund University (Chr 19), **Hui Zhang**, Johns Hopkins, Chair, Cancer-HPP
- 12:20-12:40 Management of RNA Seq Data for Mapping Isoforms (C-HPP) and Characterizing Biological Functions (with B/D-HPP); **Ravi Sirdeshmukh**, Bangalore, India
- 12:40-13:00 Combined Tools for Characterizing Membrane-Embedded Missing Proteins with Disease Implications (AO-HUPO Membrane Proteome Initiative); **Takeshi Tomonaga**, National Institute of Biomedical Innovation, Ibaraki, Osaka, Japan and **Yu-ju Chen**, Taipei, Taiwan (Chr 4)

# Efforts to Accelerate the HUPO Human Proteome Project, *continued*

13:00-14:00 Lunch

## 14:00-15:30 Data Resources, Data Standards, and Common Informatics Tools

14:00-15:00 Update on HPP Metrics for High-Confidence Protein Identifications and Missing Proteins combining PeptideAtlas, GPMdb, neXtProt, Human Protein Atlas and including major 2014 datasets

- Reinforcement of Policies on Dataset Deposition with ProteomeXchange, Stringent Protein FDR thresholds, and Reanalysis with Standardized PeptideAtlas and GPMdb Pipelines
- Recognition of Reasons Proteins can be Hard to Detect: restricted tissue expression, low abundance, high hydrophobicity or basicity, embedded in membranes, low MW, members of highly homologous protein families

**Lydie Lane & Amos Bairoch**, neXtProt, SIB, Geneva, Switzerland

**Eric Deutsch**, PeptideAtlas, ISB, Seattle, USA

**Ulrika Qundos**, Human Protein Atlas, SciLife Lab, Stockholm, Sweden

**Alberto Pascual-Montano and Fernando Corrales**, Spain

15:00-15:30 Focus on PTMs, ASVs, Protein Interactions, protein and glycan chemistry

**Bill Hancock**, Northeastern University, Boston, USA

**Naoyuki Taniguchi**, RIKEN Advanced Science Institute, Japan

**Cathy Costello**, Boston University, USA

**Gil Omenn**, Univ. of Michigan, Ann Arbor, MI, USA

## 15:30-17:00 Town Hall Meeting on Future Directions of the HPP

*Everyone in the proteomics community is warmly invited to actively participate. We welcome a broad discussion about the development, integration, and wide application of C-HPP, B/D-HPP and Technology Pillars.*

- How to make proteomics an essential component of “functional genomics” and integrated ‘omics research? 12
- How to connect with investigators not part of HPP, including clinical investigators, pathologists, geneticists, biologists?
- How to emphasize characterizing the biology of the many proteoforms of known proteins, while sustaining the effort to complete the parts list?
- How to assist and mobilize less active teams in both B/D-HPP and C-HPP consortium?
- How to accelerate HPP development through coordination between B//D-HPP, C-HPP, and Resource Pillars?
- What should be the focus of the next J Proteome Research C-HPP/HPP Special Issue for mid-2015?

## Conclusions and Perspectives

**Cathy Costello, Pierre Legrain, Mark Baker**, HUPO Presidents

**Gil Omenn**, Chair, HPP Consortium

## 17:30-19:30 Segovia City Tour

## 20:30-23:00 Dinner

### Organizers (2014 Post-Congress Workshop in Segovia)

Organizations: PROTEORED and HUPO HPP Consortium

Fernando Corrales, Pamplona, Spain

Concha Gil, Madrid, Spain

Gil Omenn, Chair, HUPO HPP Consortium

Tadashi Yamamoto, Chair, HUPO Initiative Committee

Young-Ki Paik and Bill Hancock, Chair and co-Chair, C-HPP Consortium

Ruedi Aebersold and Jennifer van Eyk, Co-Chairs, B/D-HPP Consortium

For more information, please contact Lola Segura [mdsegura@proteored.org](mailto:mdsegura@proteored.org)

Go to <http://www.hupo2014.com/newtrends.html> for information on the following:

- Registration
- Hotels in Segovia (You are responsible for booking your own hotel.)
- Return transportation to Madrid

