

Newsletter of the HUPO - Human Proteome Organization



www.HUPO.org

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Thank you Yokohama Congress PLATINUM Sponsors







## President's Message

## Welcome to HUPO2013 Yokohama Congress



The 12<sup>th</sup> HUPO World Congress is coming! After Beijing, Seoul, Sydney - this year HUPO Congress is hosted by an additional country in the Asia-Oceania part of the world. Japan is the center of a large and active proteomics community. The leading scientists from Japan have been active participants in HUPO since its inception.

I congratulate the organizers of the 12th HUPO (Hisashi Hirano, Kazuyuki Nakamura, Naoyuki Taniguchi, and Tadashi Yamamoto) for organizing an outstanding and diverse program. This year, we shall hear a lot about the first results obtained in the frame of the Human Proteome Project. New technologies and methodologies will be presented, as well as new findings dealing with proteins from many different organisms.

As usual, the HUPO Congress will be one of the key events, if not THE event of the year for the proteomics community. It will be the occasion to share our views for future developments in the search for function of proteins, combining large scale biology and the most expert research on specific topics including medical applications.

This HUPO Congress is also an occasion for all HUPO members to gather and discuss together further development of the HUPO organization and potential novel actions.

Looking forward to meeting all of you in Yokohama!

Pierre Legrain HUPO President



Pay HUPO dues and save on registration www.hupo.org

#### **HUPO 2013**

Advance registration closes August 30. After August 30, you may register onsite at the Congress

www.hupo2013.com

Newsletter of the HUPO - Human Proteome Organization

## **HUPO** Executive Committee

Pierre Legrain, President (France)
Catherine Costello, Past President (U.S.A.)
Maxey C.M. Chung, Secretary General (Singapore)
Roman Zubarev, Treasurer (Sweden)
William Hancock, Vice President, (U.S.A.)
Gilbert S. Omenn, Member at Large (U.S.A)
Mark Baker, Member at Large (Australia)

## **HUPO Calendar of Congress Events**

- Saturday, Sept 14, 07:00-09:00: Meeting of the HUPO Executive Committee, Aegean Room, 3rd Floor, InterContinental Hotel
- Saturday, Sept. 14, 14:00-16:00: Meeting of the HUPO Council, *Room 313-314*
- Sunday, Sept 15, 13:00-14:30: Meeting of the leaders of national and regional HUPO organizations
- Sunday, Sept 15, 18:00-20:30: Symposium on New Technologies & Standardization in Proteomics, Part 1, refreshments will be offered, Exhibition Hall
- Tuesday, Sept 17, 19:00-21:00: Symposium on New Technologies & Standardization in Proteomics, Part 2, refreshments will be offered, Exhibition Hall
- Wednesday, Sept 18, 13:00-13:45: General Assembly of Members, Room 303-304, dessert service will be offered General Assembly Agenda:
  - Review of HUPO financials
  - Announcement of Council election results
  - Discussion of proposed HUPO initiatives
- Wednesday, Sept 18, 15:15-17:15: HUPO Awards Session, *Room 303-304*

## **Congress Details**

Oral Program opens on Saturday evening September 14 and includes over 150 talks scheduled through Wednesday September 18. Poster Program will be posted shortly

**Travel.** For attendees flying into Narita or Haneda Airports there are trains or limousine buses to complete your trip to Yokohama.

## If you fly into Narita International Airport:

- Airport Limousine Bus service to Yokoham City Air Terminal (YCAT) is a 110-min trip. Fare is 3,500 JPY one-way. Then take a 7 min taxi ride to your hotel or Pacifico Convention Center.
- <u>Train Narita Express</u> operated by JR East (East Japan Railway) to Yokohama Station is a 110-min trip. Fare is 3,500 - 4,180 JPY.
   Then a 10 minute taxi ride to your hotel or Pacifico Convention Center.

## If you fly into Haneda International Airport:

- <u>Airport Limousine Bus</u> service to Yokohama City Air Terminal (YCAT) is a 35-min trip. Fare is 560 JPY. Then take a 7 min taxi ride to your hotel or Pacifico Convention Center.
- Train Keikyu Line to Yokohama Station is a 30-min trip. Fare is 470 JPY. Then take a 5-10 minute taxi ride to your hotel.

## Congress Details, cont'd

Corporate Luncheon Seminars are offered by exhibitors Sunday through Wednesday. Please make a reservation by selecting a link below or visiting company exhibit booth onsite. Additional links will be provided --stay tuned to <a href="https://www.hupo.org">www.hupo.org</a> and <a href="https://wwww.hupo.org">www.hupo.org</a> and <

## 13:00-14:00, Sunday, September 15

- Bruker Daltonics Room 303+304 Register / More Info
- GE Healthcare Japan Corp. Room 301 Visit booth to RSVP. Check online for more info soon.
- Thermo Fisher Scientific Room 302
   Visit booth to RSVP. Check online for more info soon.
- KIKO Tech Co. Ltd / Protein Simple Room 311-312
   Visit booth to RSVP. Check online for more info soon.

## 13:00-14:00, Monday, September 16

- AB SCIEX Room 303+304 Register / More Info
- Bruker Daltonics Room 301 Register / More Info
- Shimadzu Corporation Room 302 Register / More Info
- Bio-Rad Laboratories Room 311+312
   Visit booth to RSVP. Check online for more info soon.

### 13:00-14:00, Tuesday, September 17

- Thermo Fisher Scientific Room 303+304
   Visit booth to RSVP. Check online for more info soon.
- GlycoTechnica Ltd./ Sysmex Corporation Room 301 Register / More Info
- Waters Corporation Room 302 Register / More Info
- Funakoshi Co. Ltd Room 311+312 Register / More Info

## 12:00-13:00, Wednesday, September 18

- Wako Pure Chemical Industries, Ltd.
   Room 301 Visit booth to RSVP. Check online for more info soon.
- Nihon Pall Ltd. Room 302
   Visit booth to RSVP. Check online for more info soon.
- Agilent Technologies Room 311+312 Register / More Info

**Evening Sessions and Events** are also sponsored by exhibitors. Some require advance registration, most do not.

## Sunday, September 15

- Agilent Meeting of the Minds 18:15 - 20:00, Room 315 - Register / More Info
- Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST) Tanaka ms3d Project 18:00 - 19:30, Exhibition Hall
- Standardization In Proteomics and Industry Presentations 18:00 - 20:30, Exhibition Hall - <u>View Program</u> (snacks will be served)

#### Tuesday, September 17

- Matrix Science
  - 19:00 20:30, Exhibition Hall
- Standardization In Proteomics and Industry Presentations
  19:00 21:00, Exhibition Hall View Program (snacks will be served)

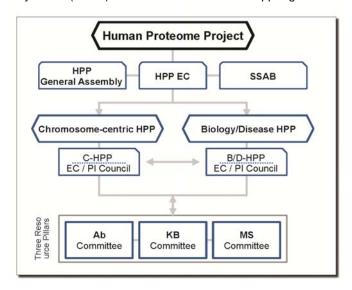
## **Human Proteome Project at the Congress**

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 morning initiative sessions. These lively, smaller sessions are an invaluable opportunity to connect with colleagues and contribute to the HPP.

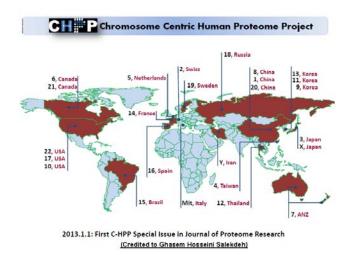
At the conclusion of the congress two HPP-related sessions are scheduled where, in addition to invited speakers, the HPP Executive Committee will report on progress and updates from the Sunday, Monday and Tuesday morning sessions.

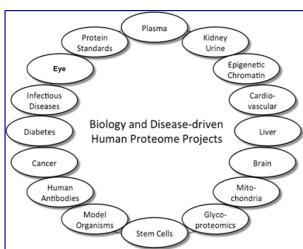
## MORE ABOUT THE HPP

An organizational chart for the Human Proteome Project showing the C-HPP, B/D-HPP, resource pillars, the HPP Executive Committee (EC) and HPP Senior Scientific Advisory Board (SSAB). Please also visit www.thehpp.org and www.c-hpp.org for more information.



The teams for the chromosome-centric C-HPP and the biology and disease-driven B/D-HPP are shown here. Details about the members of the teams and the activities of each can be found at <a href="https://www.thehpp.org">www.thehpp.org</a> and <a href="https://www.c-hpp.org">www.c-hpp.org</a>.





The *Journal of Proteome Research* published progress updates from both the C-HPP and B/D HPP leadership in a special January 2013 issue. To-date a total of 48 C-HPP related articles have been published in *JPR* (January 2013 and June 2013).

- Marko-Varga G, Omenn GS, Paik YK, Hancock WS. A first step toward completion of a genome-wide characterization of the human proteome. J Proteome Res. 2013;12:1-5.
- Aebersold R, Bader GD, Edwards AM, van Eyk JE, Kussmann M, Qin J, et al. **The biology/disease-driven human proteome** project (B/D-HPP): enabling protein research for the life sciences community. J Proteome Res. 2013;12:23-7.



## **HPP Congress Activity Guide Overview**

## PRE-CONGRESS HPP LEADERSHIP / COMMITTEE / PI MEETINGS

The following planning meetings for HPP leadership and PIs are scheduled in Yokohama.

## SATURDAY, SEPTEMBER 14

9:00 - 9:45 am

**HPP General Leadership Meeting** 

Room 311-312

HPP EC, SSAB, Pillar Chairs, B/D HPP and C-HPP Committees

9:45 - 11:45 am

Room 311-312

Room 313-314

11:45 am - 12:45 pm Lunch Break (lunch-on-your-own)

12:45 - 2:00 pm HPP General Leadership Meeting

Room 311-312

All re-group for an update on the break-out meetings.

2:00 - 4:00 pm

Consultations and Discussions for HPP Investigators with SSAB, HPP-EC, and Pillars Room 311-312

## OVERVIEW OF HPP CONGRESS SESSIONS - OPEN TO ALL CONGRESS ATTENDEES

Download the complete guide with detailed daily descriptions of all sessions.

SUNDAY, SEPTEMBER 15 8:15 - 9:30 am	MONDAY, SEPTEMBER 16 8:15 - 9:30 am	TUESDAY, SEPTEMBER 17 8:15 - 9:30 am	WEDNESDAY, SEPTEMBER 18 8:15 - 9:30 am
PSI / ProteomeXchange / KBpC + C-HPP (Part 1) Room 303-304	C-HPP (Part 2) - Poster Session Exhibition Hall	C-HPP (Part 3) - Bioinformatics Room 303-304	B/D-HPP PI Meeting Room 317
EyeOME Room 301	Liver (HLPP and B/D-HPP-Liver) Room 303-304	HGPI Glycoproteomics Room 301	C-HPP PI Meeting Room 318 Topics: Std Metrics; 2014
Proteome Biology of Stem Cells Room 311-312	Human Protein Atlas / ABpC Room 301	i <b>MOP</b> Room 302	workshop plan; MRM std, JPR special issue
Human Brain Proteome Project (HBPP) Room 313-314	Cancer Room 302	Proteome Analyzer: A New High Throughput Platform Room 311-312	
	HKUPP + HPPP Room 311-312	Cardiovascular Room 313-314	
	Human Diabetes Proteome Project Room 313-314		
			Wednesday, September 18 9:30 - 11:50 am
			HPP Special Parallel Session Room 303-304 Featuring invited speaker Melanie Y. White and HPP Progress Update from HPP Leadership, General Discussion
			Wednesday, September 18 1:45 - 2:45 pm
			HPP Plenary Session Room 303-304 Featuring invited speakers Jeremy
			Nicholson and Heui-Soo Kim

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## Congress Symposia on New Technologies and Standardization in Proteomics

As in past years the HUPO New Technologies and Standardization Committee has created a program in conjunction with the Annual World Congress. At HUPO 2013 in Yokohama the program will be featured in two sessions (Sunday evening and Tuesday evening). Each evening session will also feature industry presentations from member companies of the HUPO Industrial Advisory Board (IAB.)

The Sunday and Tuesday evening sessions will take place in the Exhibition Hall informal presentation area. This unique setting will be informal and encourage active discussion. All congress attendees are welcome to attend these sessions.

	Sunday, September 15, 6:00 - 8:30 pm STANDARDIZATION IN PROTEOMICS AND INDUSTRY PRESENTATIONS - PART I Exhibition Hall (snacks will be served)
6:00 - 6:15 pm	EU Initiatives on Standardization and Quality Control; Juan Pablo Albar, Centro Nacional de Biotecnologia
6:15 - 6:30 pm	Standards and Quality Control in CPTAC; Christopher Kinsinger, National Cancer Institute
6:30 - 6:45 pm	Proteomicum; Christoph Borchers, University of Victoria, and Bruno Domon, Luxembourg Clinical Proteomics
6:45 - 7:15 pm	Proteome Analyzer
7:15 - 7:30 pm	Generation of High-Affinity Recombinant Antibodies for Application in Immuno-MRM Christian Frisch, <i>Bio-Rad Laboratories</i> This presentation is sponsored by <b>Bio-Rad Laboratories</b>
7:30 - 7:45 pm	SILAM Methods and Applications in the Mouse Model Yetrib Hathout, Children's National Medical Center This presentation is sponsored by Cambridge Isotope Laboratories
7:45 - 8:00 pm	Building High Quality Spectral Libraries for Improved Targeted Assays Barbara Frewen, <i>Thermo Scientific</i> This presentation is sponsored by <b>Thermo Scientific</b>
8:00 - 8:15 pm	New LC/MS Data Acquisition and Processing Strategies for Quantitative Proteomics Jason Neo, AB SCIEX This presentation is sponsored by AB SCIEX
8:15 - 8:30 pm	A Unique Workflow for High-Sensitivity Targeted Quantification; Ion Mobility Enabled High-Resolution Lee Gethings, Waters Corporation  This presentation is sponsored by Waters Corporation

	Tuesday, September 17, 7:00 - 9:00 pm  NEW TECHNOLOGIES IN PROTEOMICS AND INDUSTRY PRESENTATIONS - PART II  Exhibition Hall (snacks will be served)
7:00 - 7:15 pm	High-Sensitivity Native Mass Analysis of Intact Macromolecular Assemblies and Protein Micro-Heterogeneity Using an Orbitrap Jumbo; Albert Heck, <i>Utrecht University</i>
7:15 - 7:30 pm	Accelerating FTMS-Based Proteomics by Advanced Signal Processing; Yury Tsybin, Ecole polytechnique fédérale de Lausanne
7:30 - 7:45 pm	Measured Long-Lived Proteins; John Yates, The Scripps Research Institute
7:45 - 8:00 pm	A Novel Phosphopeptide Standard to Evaluate Data Interpretation in a Realistic Phosphoproteomic Environment; Albert Sickmann, Leibniz-Institut für Analytische Wissenschaften
8:00 - 8:15 pm	<b>Analysis of Glycan Structures on Glycoproteins for Finding Cancer Biomarkers</b> ; Miyako Nakano, <i>Hiroshima University</i>
8:15 - 8:30 pm	Directing Proteomics Experiments Using Metabolomics-based Pathway Results Christine Miller, Agilent Technologies This presentation is sponsored by Agilent Technologies
8:30 - 8:45 pm	Enhanced nano-ESI MS Sensitivity for Top-Down and Bottom-Up Proteomics Pierre-Olivier Schmidt, <i>Bruker Daltonics</i> This presentation is sponsored by <b>Bruker Daltonics</b>
8:45 - 9:00 pm	LC-MS Identification of Proteins in Tumor Digests Using Stable-Isotope-Labeled Peptide Libraries Reid Townsend, Washington University in St. Louis - School of Medicine This presentation is sponsored by New England Peptide



September 14 - 18, 2013 www.HUPO2013.com

Hisashi Hirano



Naoyuki Taniguchi



Kazuyuki Nakamura



Tadashi Yamamoto

#### Saturday, September 14

- · Pre-Congress Education Day
- Pre-Congress Clinical Day
- Opening Ceremony and Openings Lectures
- Welcome Reception

## Sunday, September 15

Plenary Session

Parallel Session

- New Technology in Mass Spectrometry 1
- Antibody Proteomics and Protein Atlas
- Single Cell Proteomics
- New Tide of Biomarker Discovery

**Lunch Seminars** 

Poster Session

Parallel Sessions

- Top-down Proteomics
- Imaging Mass Spectrometry
- Membrane Proteomics
- Cancer Proteomics

Plenary Session

New Technologies & Standardization Seminar

## Monday, September 16

Initiative Sessions

Plenary Session

Parallel Sessions

- New Technology in Phosphoproteomics
- New Technology for Mass Spectrometry 2
- Proteomics of Protein Degradation
- Proteomics for Diseases other than Cancer

**Lunch Seminars** 

Poster Session

Parallel Sessions

- Proteomic Application of Multiple (Selected) Reaction Monitoring
- Structural Proteomics of Post-Translational Modification
- Drug Target Proteomics
- Systems Biology

Congress Concert

Gala Dinner

## Tuesday, September 17

Initiative Sessions Plenary Session Parallel Sessions

• Mass Spectrometry for Protein Complex

**Congress Co-Chairs** 

- Mass Spectrometry for Glycomics and Glycoproteomics
- Proteomics of Exosome and Other Organelles
- Disease Phosphoproteomics
- Proteome Informatics

**Lunch Seminars** 

Poster Session

Parallel sessions

- Sample Preparation for Mass Spectrometry
- New Technology in Integrated Omics
- Disease Glycoproteomics
- Animal Models for Human Diseases
- High Quality Disease Proteomics

#### Parallel Sessions

- Nobel Prize Memorial Lecture
- Computational Proteomics
- Biology-oriented Glycoproteomics
- Chemical Proteomics and Proteomics for Drug Effects
- Frontiers in Agriculture Proteome Research

Vendor Evening programs

New Technologies & Standardization Seminar

Wednesday, September 18

Parallel Sessions

- Miscellaneous Post Translational Modifications
- Plant and Food Proteomics
- Human Proteome Project
- Young Investigator Sessions
- Proteomics of Plants, Animals & Agriculture 2
- JHUPO General Assembly and JHUPO Award Lectures

**Lunch Seminars** 

**HUPO** General Assembly

**HUPO Award Lectures** 

Closing Session





# "YOU GOT BRAINS?"

## ! Apply Now!

20th **HU** BPP Workshop

## **Aging Brains in Aging Bodies**

September 2013

Yokohama, Japan

This year's theme will be "thriving with a career in Neuroproteomics". The faculty will be composed by worldwide, multidisciplinary researchers who had been contributing to BPP success in the last year.

HUPO BPP is an open international project under the patronage of the Human Proteome Organization (HUPO). Currently, HUPO BPP congregate researchers from Americas, Asia and Europe who collaborate in several projects to elucidate the mysteries of brain aging and neurodegenerative diseases. Neurodegenerative diseases manifest clinically as dementia – Alzheimer's disease, Frontotemporal dementia -, and movement disorder – Parkinson's disease.

As of 2010, there were an estimated 35.6 million people with dementia worldwide. This number will nearly double every 20 years, to an estimated 65.7 million in 2030, and 115.4 million in 2050. Alzheimer's disease is the 6<sup>th</sup> leading cause of death in the USA, the only one among the first 10 that cannot be prevented, slowed or cured. It is estimated that each patient need about three caregivers, representing an immense social and economic cost worldwide. Despite years of research effort, treatment for neurodegenerative diseases remains elusive. Neurodegenerative diseases are characterized by abnormal protein deposition; therefore neuroproteomics represent one of the best tools to identify effective treatment options for these diseases

The workshop will include short talks on the broader literature on neurodegenerative diseases and research opportunities including neuroproteomics approaches. Then, the workshop will be organized around workgroups that will interact with faculty based on interest. Our goal is to present to the attendees what are the opportunities in working with neuroproteomics focused in aging-related conditions, to answer questions and to create a network for further interactions. Diversity in substantive and methodological expertise of participants will be emphasized so that the conference promotes learning for all participants and establishes an informal network that will enhance research on human neuroproteomics. Conference participants will have a common interest in practical application of neuroproteomics methods to research on aging related conditions, but will have varied backgrounds in terms of specific areas of expertise and level of training and experience. Attendees will include postdoctoral trainees and junior faculty. Undergraduates and graduate students and are encouraged to attend. Our selection process aims for a limited number of attendees.

We are now accepting applications for the 2013 meeting. We are particularly interested in individuals who will learn new skills that will be incorporated into their future research.

More information, application and due dates

http://hbpp.org Proteome Project

## **HUPO COUNCIL DIRECT ELECTION**

The online election opens August 26 and will close September 17.

HUPO expresses thanks to the candidates below who are standing for election.

PanAmerica

Europe-Africa



Catherine Fenselau University of Maryland USA



**Juan Pablo Albar** Spanish Council for Scientific Research Spain



Lea Grinberg
University of Sao Paulo &
University of California San Francisco
Brazil



Jonathan Blackburn University of Cape Town South Africa



**Scott Kuzdzal** Shimadzu Scientific Instruments USA



Martin Røssel Larsen University of Southern Denmark Denmark



**Christopher M. Overall** University of British Columbia Canada



**Helmut Meyer** Ruhr University Bochum Germany



Akhilesh Pandey Johns Hopkins Medical Institutions USA



**Jean Charles Sanchez** University of Geneva Switzerland



Richard D. Smith
Pacific Northwest National Laboratory
USA



**Albert Sickmann** Leibniz-Institut für Analytische Wissenschaften Germany



Yasushi Ishihama Kyoto University Japan



**Richard Simpson** La Trobe University Australia



**Bonghee Lee**Gachon University of Medicine and Science
Korea



Tadashi Yamamoto Niigata University Japan



**Nicolle Packer** Macquarie University Australia