

Fostering international proteomic initiatives to better understand human disease

HUMAN PROTEOME PROJECT WORKING GROUP SECOND MEETING



The second meeting of the working group took place on May 10 in Montreal. Strong emphasis was placed on the definition of terms with respect to HPP, the need for standards and references for protein identification and characterization; different aspects pertaining to database systems; and, finally, the link between HPP, on-going large scale scientific initiatives and coordination of national efforts.

It was suggested to combine MS and Ab approaches. The HPP group will commit to standardized protocols. It was agreed on the need for coordination of all initiatives in the frame of HPP to avoid any duplication of efforts. Ideally HPP should start with the “normal-ome”, ie an accurate description of human proteins in their normal production and localisation profile. ProteomExchange was proposed as a very good starting point, with connection with biology oriented databases. The aim for HPP is to create a portal, not a whole HPP database. This portal should provide the scientific community with a standardized “minimal knowledge” on all proteins. This would define the needs and provide criteria on deliverables.

HPP cannot be envisioned without taking into account environment (microbiomes) or medical issues. Proteomics has a better entry point for clinics, compared with other large scale approaches. HPP could have specific programmes to deal with relatively abundant proteins. Three countries have committed on chromosome-based HPP. In those cases, linkage to disease or specific biological issues will be critical. The challenge for HPP is to identify specific “anchor projects” that go across diseases and that are feasible. The HPP might be closer to medical applications than other “omics”, which might turn out to be more challenging because explicit deliverables will be required. HPP and HUPO initiatives should be thought carefully alongside each other.

It is crucial to first issue the HPP report to scientific stakeholders before trying to connect with other worldwide or international initiatives. Industry will be relied upon to bring the push for technology advancement and possible breakthroughs. At some point in the near future a meeting between funders will be needed, once a good scientific case can be presented.

At the present stage, HPP is envisioned as a coordinated effort which will be implemented as smaller focused projects that can go to research funding agencies to get support and expand on specific areas.

The next step for the working group is to prepare the report due for the HUPO2010 Congress in Sydney.

INSIDE THIS ISSUE:

<i>Report on HPP</i>	1
<i>President's Message</i>	2
<i>Announcements</i>	3
<i>Recent Events</i>	4-6
<i>E&T</i>	6
<i>2010 Congress</i>	7
<i>Calendar of Events</i>	5
<i>Acknowledgements</i>	6

PRESIDENT'S MESSAGE



Young-Ki Paik
HUPU President

ON THE MOVE WITH HUPU INNOVATION

Dear Colleagues,

This month, I am glad to report that the HUPU Executive Committee (EC) has recently hosted its second annual face-to-face workshop in Montreal, in conjunction with the Human Proteome Project (HPP) Working Group workshop, during the week of May 10-13 (please see article on page 1 of the newsletter)

For the EC workshop, we had invited Ralph Bradshaw, chair of an *ad hoc* committee tasked with reviewing HUPU operations. The discussion focused on innovative ideas touching on many aspects of HUPU and its activities. His committee (Ralph Bradshaw, Naoyuki Taniguchi and Albert Heck) had been working for over a year reviewing HUPU matters in various angles with emphasis on its performance, efficiency and cost structure as an international scientific non-profit organization.

The EC proceeded with implementation steps in line with the *ad hoc* committee's constructive suggestions and recommendations. This process is timely and it fully supports the continuing growth of HUPU as a mature organization.

The *ad hoc* committee's recommendations included activities relating to HUPU's own committees and their activities, its Council, headquarters operations, and HUPU's relationship with its industrial partners as well as the regional, national and local proteomic societies around the world.

A short term plan (6-8 months) and long term vision (4-5 years) will be devised by a special task force. The long-term term plan would include ideas on the governance of HUPU as a federation of national societies.

During the EC workshop, several other important issues were also extensively reviewed and steps implemented, including the creation of a Public Relation Committee to enhance communications with the international community,

review and improvement of HUPU membership, and the planning of the 10th Anniversary of HUPU Foundation in conjunction with HUPU 10th Annual world congress, Geneva 2011.

Towards the development of a tight relationship between HUPU and local societies, Bill Hancock and his colleagues have recently started discussions to organize the first "PanAmericas" scientific meeting. This will be an excellent step forward for the formation of a 'HUPU America' that would fulfill the three regional societies in a similar way to EuPA, which includes national societies in Europe/Africa and AOHUPO, with local societies in the Asia/and Oceania region.

I am personally keen to see the continuation of this movement and allow HUPU to grow towards a federation of national society, thereby strengthening our organization on the long run.

HUPU Headquarters have recently been relocated to a new place within the McGill University Health Center (MUHC), in Montreal Canada. Thanks to Dr. V. Papadopoulos and his colleagues for providing HUPU with this very nice and stimulatory environment, and for welcoming us by hosting a warm cocktail party on May 10. At this particular juncture, we would like to give very special thanks to Dr. John Bergeron, 2nd president of HUPU, who provided HUPU its very first home back in 2004.

The 2010 HUPU elections for seats becoming available on the board of directors will be upon us in September. As always, I strongly encourage our members to actively participate in this election by casting their electronic votes for their choice of candidates to HUPU Council. Each region is very well represented.

Finally, as the Sydney congress approaches, I am confident that it will build a great landmark in the development of HUPU. This congress is prepared by Mark Baker and his colleagues who have been working very hard to make your journey to Sydney scientifically fulfilling and enriching, and a memorable experience that fills your heart with warm joy by visiting this wonderful place.

See you all in Sydney in September 19-23!
Thank you.

What would you like to see in HUPOST?

We want to make sure our newsletters are as relevant and as informative to you as possible. So please let us know what type of information you would like to see included by sending us an email at sylvie.ouellette@mcgill.ca

ANNOUNCEMENTS

2010 HUPO Elections - Board of Directors (Term 2011-2013)

The 2010 elections for HUPO Board of Directors (Council) will be taking place **online**, for the first time. The Elections web site will be open from September 1 until 3:00PM on September 22, 2010 (**Sydney, Australia Local time**)

The number of seats to become available starting January 1, 2011 per region is as follows:
Americas: 4 seats,
Europe/Africa: 5 seats,
Asia/Oceania : 3 seats.

All HUPO members with paid 2010 HUPO membership dues will have a membership status "Active" and are eligible to vote for candidates in all three regions.

Closer to the election period, reminder emails will be sent to all members. In the meantime we urge you to log in now to the HUPO membership web site

www.HUPO.org/membership/ to check your membership status or to renew your membership.

Please note that you will need to know your HUPO Username and Password to be able to log in to the elections website in September.

Equivalent election period in other parts of the world

	Elections Start	Elections close
Sydney	Aug 31/Sep 1 midnight	Sept 22 @ 3:00 PM
New York	Aug 31 @ 10:00 AM	Sept 22 @ 1:00 AM
London	Aug 31 @ 3:00 PM	Sept 22 @ 6:00 AM
Tokyo	Aug 31 @ 11:00 PM	Sept 22 @ 2:00 PM
Beijing	Aug 31 @ 10:00 PM	Sept 22 @ 1:00 PM
Paris	Aug 31 @ 4:00 PM	Sept 22 @ 7:00 AM
Los Angeles	Aug 31 @ 7:00 AM	Sept 21 @ 10:00 PM

Notice of General Assembly/Meeting of the Members

The 2010 General Assembly/Meeting of the Members will take place in Sydney, Australia at the Sydney Convention & Exhibition Centre:
on September 23rd, 2010 at 3:00PM
in conjunction with HUPO 9th Annual World Congress, Sydney 2010 www.HUPO2010.com

The address is the following:

Sydney Convention & Exhibition Centre
Darling Dr, Darling Harbour NSW 2000, Australia
To be environmentally friendly, all necessary documents pertaining to this meeting will soon be available to members on www.hupo.org in pdf format and will **NOT** be provided on paper at the General Assembly.

HUPO 2010 Conference Student Bursaries

The HUPO2010 Local Organising Committee is pleased to announce that it will be awarding a number of HUPO2010 student conference bursaries for costs incurred registering and attending the HUPO 2010 World Congress in Sydney..

More details can be found on www.hupo2010.com/Bursaries.htm

RECENT EVENTS

REPORT ON THE HBPP INITIATIVE 2010 WORKSHOP

Most neurodegenerative diseases are clinically detected when the disease has already proceeded to an incurable stage. Therefore, biomarkers are needed to detect those diseases earlier and to enhance therapy as well as more expertise of clinicians to learn how the destruction of brain tissues proceeds.

The 13th (and latest) workshop of the initiative took place in Ochang (Korea) at the Korean Basic Science Institute (KBSI) from March 30-31, 2010. Since the spring workshops focus more on clinical aspects, both various clinicians as well as proteomic researchers participated in the workshop to discuss further needs to understand and cure neurodegenerative diseases.

The participants discussed the role of brain banks and the importance of high tissue sample quality to obtain valid results. The focus also lies on identifying the first affected sites of diseases like Alzheimer and Parkinson. They also addressed the problem of the high rate of false-positive diagnoses and how to possibly evade this problem. If the focus lies on early diagnosis, it needs to be investigated how blood- and CSF-diagnosis relates to different Brodmann areas, which need to be implemented in the initiative. The technologies applied should aim at a relative quantitative analysis. The participants are free to decide whether they use



label-free proteomics, labeling techniques or MRM. The focus lies on the entorhinal cortex as a pilot phase. One of the actual milestones is to prepare a strategy for defining post-mortem delay time for the brain tissue used.

The upcoming 14th workshop will take place as Symposium 13 "Neurological Biomarkers [HBPP]" during the HUPRO IX World Congress in Sydney, Australia. Within this session, current milestones will be evaluated and possibly new ones will be added. Like all fall workshops, the focus will lie on technical aspects of

HUPRO 2010 PRESTIGIOUS AWARDS RECIPIENTS ANNOUNCED.

The HUPRO Awards committee announced the recipients of the HUPRO distinguished awards for 2010. The recipients will receive their awards at a special award ceremony during the HUPRO 9th Annual World Congress, Sydney 2010.

Richard Caprioli - HUPRO Distinguished Achievement Award in Proteomic Sciences - Note 1

John Bergeron - HUPRO Discovery Award in Proteomics Sciences

Michael Dunn, Ralph A. Bradshaw and Bill Hancock - HUPRO Distinguished Service Award

RECENT EVENTS (CONT'D)

REPORT ON THE 2010 KHUPO MEETING

The Korean Human Proteome Organization (KHUPO) held the 10th Annual KHUPO International Meeting at Cultural Center, Seoul National University in Seoul, from March 31 to April 2 under the theme "Proteomics: From Proteomics Technology to Proteome Biology."

About 450 attendees including about 50 speakers from USA, Japan, Germany, UK, Netherlands, Taiwan, Sweden, Brazil etc. participated, along with representatives from the company exhibitors. This Conference provided viewpoints including clinical and biological application of proteomics as well as updated development of proteomics technology.

Plenary lecturers included: Dr.s Daniel Liebler, Benjamin Garcia, Helmut Meyer Dr. Young-Ki Paik. This meeting provided the exchange of new scientific information with 9 symposia in the areas of biomarker discovery and validation, posttranslational modification and proteome biology, new technology and industrial applications, quantitative proteomics for clinical applications, stem cell and developmental biology, proteomics in drug discovery etc.

This year, 148 posters were presented by students and researchers, which represented a 50% increase from last year. Among them, 10 of the poster presenters were awarded as outstanding Young Scientist Awards. Also, educational session for beginners in proteomics on the topics of quantitative proteomics technologies and its basic applications were offered on the first day of the conference.



Speakers and Committee members who attended 10th KHUPO

This 10th KHUPO international meeting in Seoul also provided liaison between two HUIPO initiatives, HUIPO-PSI (Proteome Standard Initiatives) and HUIPO-BPP (Brain Proteome Project) Reports on these can be found elsewhere in this newsletter. These two satellite meetings were very fruitful in providing great opportunities to communicate in-depth knowledge in the specific areas of proteome standardization and brain proteomics.

Detailed information and programs of the 10th KHUPO international meeting are available at <http://www.khupo.org/meeting>.



2010 PROTEOMICS PHOTO & GRAPHIC ARTS CONTEST

The Portuguese Proteomics Association (REDE-PROCURA) and 'Associação Viver a Ciência' together with The European Proteomics Association (EuPA) promote a contest of "PROTEOMICS PHOTOGRAPHY & GRAPHIC ARTS" to distinguish the best image associated with scientific research or technology in the field of Proteomics.

The objective is to explore the artistic value produced during the process of proteomics research providing the general community an original perspective on what/why/how proteomics is crucial for health and disease understanding (from microorganisms to plants and man), in this post-genomic era.

By combining the photography or graphic art showcase with a short context explanation, we expect to catch and consolidate general public interest in Proteomics Science.

The author of the winning entry will be awarded 1000€ and the work published in the cover of a special issue of the Journal of Proteomics.

Please see <http://eupa2010.fc.ul.pt/photocontest.html> for rules of competition and online submission.

Deadline for submissions:

31st of July 2010, 1 pm (GMT).

RECENT EVENTS (CONT'D)

REPORT ON THE PSI INITIATIVE 2010 WORKSHOP

Advancing Data Standardization

Western delegates received a warm welcome on a recent trip to Seoul to attend the latest HUPO-Proteomics Standards Initiative (HUPO-PSI) Spring workshop - a regular meeting of researchers interested in pushing forward reporting requirements, common interchange standards and controlled vocabularies in the field of proteomics. Over a number of busy sessions, a number of significant advances were made.

The Mass Spectrometry and Protein Separations groups joined together to build on the success of the existing standards, in particular the mzIdentML schema for reporting protein identifications, and tackled the issue of the collecting quantitative proteomics data generated by mass spectrometry based technologies. A schema mzQuantML, complementary to mzIdentML, was drafted which is appropriate for a range of quantitation types including the use of precursors (SILAC), reporters (iTRAQ), label-free methods such as extracted ion chromatograms and internal standards, for example the AQUA peptides. The format will also be able to encompass gel informatics data. A test schema is now being built and input is being actively sought from the user community – if you are willing to become involved in further development and/or testing of the schema please visit the PSI web pages (www.psidev.info) to volunteer your services.

The Molecular Interactions workgroup concentrated on the PSI Common Query InterfaCe (PSICQUIC) which has been created to allow users to simultaneously query across multiple participating resources (<http://code.google.com/>



p/psicquic/). A number of implementations already exist, including the IMEx molecular interaction exchange consortium webpage (<http://imex.sf.net>), which uses a PSICQUIC service to deliver a non-redundant set of highly annotated protein interactions to the user community.

The groups also revisited the MIAPE reporting requirements documents in the light of comments made by a group of domain-specific journal editors who met with the HUPO-PSI at the HUPO congress in Toronto, 2008, to discuss their incorporation into the publication process. A number of points requiring updated were identified and updated documents will be available for input very soon.

This was a very productive meeting, enjoyed by all attendees, not least because of the numerous opportunities given to sample Korean hospitality, cuisine and culture.

EDUCATION AND TRAINING

Proteomics Informatics Course

As part of the HUPO 9th Annual World Congress in Sydney, a satellite workshop will be hosted by the NSW Systems Biology Initiative at the University of New South Wales, September 14-17, 2010.

For more information, please see www.hupo2010.com/course.htm

Courses held in conjunction with the 4th EuPA Annual Scientific Meeting and 6th PROCURA meeting:
The EuPA-Course Day on "Experimental Design in Proteomics" (23rd October 2010, Hotel Estoril Éden)
Educational Workshop pre-meeting session (24th October, Estoril Congress Center):

"Pathway Analysis in Proteomics" and "Phospho- and ADP-ribo-Protein Sequencing"

For more information please see <http://eupa2010.fc.ul.pt/>

Mass Spectrometry in Protein Chemistry and Proteomics

University of Southern Denmark, November 8-12, 2010

For more information please see www.hupo.org/educational/courses



REGISTER ONLINE TODAY for the HUPO 9th Annual World Congress • 19-23 September 2010, Sydney, Australia

Check out one new HUPO2010 Congress event "Proteomics Idol" where 10 student finalists from the Poster Sessions compete for great prizes!

Additional scientific program details, confirmed invited speaker list and interactive exhibitor hall details are live now on www.HUPO2010.com

Email for further information: info@hupo2010.com



UPCOMING EVENTS

JULY



8th JHUPRO Conference
July 26-27, 2010
Tokyo, Japan
www.jhupo.org



AUGUST

4th Central and Eastern European Proteomic Conference

To include:

8th AuPA (Austrian Proteomic Association) Proteome Research Symposium

6th Czech Proteomic Conference

4th Annual Meeting of the Hungarian Proteomic Society

August 29 – September 1, 2010

Vienna, Austria

www.cta.tuwien.ac.at/ceepc-ima



Hungarian
Proteomics
Society

SEPTEMBER

Annual Meeting of the French Proteomics Society
(SFEAP)

September 6-8, 2010

Marseille, France

<http://map.univmed.fr/sfeap2010/>



OCTOBER

4th EuPA Annual Scientific Meeting and

6th PROCURA meeting

“2010 – A Proteomic Odyssey Towards Next Decades”

October 23-27, 2010

Estoril, Portugal

<http://eupa2010.fc.ul.pt/>



2010
PROTEOMICS
ODYSSEY
TOWARDS NEXT DECADES

4th EuPA MEETING
6th ProCura MEETING
23 - 27 OCTOBER 2010
ESTORIL - PORTUGAL

DECEMBER

6th annual symposium of the The Danish Proteomics Society

‘Spatio-Temporal Proteomics’

Tuesday Dec. 7, 2010

University of Southern Denmark

www.DAPSOC.org



HUPRO 10th Annual World Congress, Geneva 2011

Congress Chairs: Jean-Charles Sanchez, Luca Bini and Denis Hochstrasser

Dates 3-7 September 2011

www.hupro2011.com

HUPO ACKNOWLEDGES THE GENEROUS SUPPORT OF ITS PARTNERS



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CONTRIBUTIONS WELCOME

The HUPO Newsletter aims to disseminate information throughout the proteomics community.

If you wish to contribute news, notices of events, or any other item, please feel free to forward it to HUPO Headquarters, using the link on the www.hupo.org website.

Any material submitted will be subject to approval by the HUPO Executive Committee and the Publications Committee.