



## 10 Years History of KHUPO

**AHUPO 6<sup>th</sup> Congress**  
**“Proteomics: Better for Life”**  
**May 5-7, 2012**  
**Beijing, China**

**AOHUPO**  
**6th Congress**  
**Beijing, China**

### INSIDE THIS ISSUE

History of KHUPO	1
PST 6 <sup>th</sup> Symposium	2
Proteomics Activities in Vietnam	3
3 <sup>rd</sup> Frontiers Symposium	4
6 <sup>th</sup> AOHUPO Congress	5
Upcoming Events	6
Greeting Message	7

The Korean Human Proteome Organization (KHUPO) was founded on July 24, 2001 as the first national organization under the auspices of HUPPO ([www.hupo.org](http://www.hupo.org)) to integrate proteome research groups into international organizations, to engage in scientific and educational activities that spread proteomics technologies, and to disseminate knowledge pertaining to human diseases. The logos of HUPPO and KHUPO were designed by KHUPO and acknowledged at this inaugural meeting. Dr. Young-Ki Paik served the first and second term of KHUPO president. In addition, following his service as the Secretary General of HUPPO (2001-2006)/AOHUPO(2001-2007), he took a leadership as 4th president of HUPPO (2009/2010) and 2<sup>nd</sup> president of AOHUPO (2008-2010). The 2<sup>nd</sup> KHUPO International meeting was held in conjunction with the inaugural meeting of AOHUPO in which about 800 members were attended. During the years of 2003-2006, three special issues of ‘Proteomics’ where most of the contributing authors are KHUPO members have been published by the guidance of Y.-K. Paik (senior editor of the journal). Thus, it would be fair to say that the KHUPO can be regarded as a flagship proteome society with respect to history, member size and dynamic participation in HUPPO activities.

KHUPO successfully hosted the HUPPO 6<sup>th</sup> Annual World Congress at COEX Seoul, Korea in 2007. This Congress has been marked as one of the most successful HUPPO congresses with the highest number of registrants. KHUPO has contributed to all facets of HUPPO activities including its leading roles in numerous HUPPO activities. For example, KHUPO members have served co-chair or chair of various HUPPO initiatives: Chromosome-Centric Human Proteome Project (Y.-K. Paik), Human Brain Proteome Project (YM Park) and Stem Cell Proteomics (BH Lee). In addition, KHUPO published a technical textbook, ‘Methods in Proteomics’ in 2008 as part of her commitment to education and training.

For the last 10 years, KHUPO has been led by four presidents; Y-K Paik (2001-2005), Y-M Park (2005-2007), Jong Shin Yoo (2008-2009), and Ho Jeong Kwon (2010-2011). With 1150 member strong, KHUPO has recently hosted the 11<sup>th</sup> Annual Meeting in Busan, March 31-April 1, in commemoration with her 10<sup>th</sup> year birthday where about 400 members attended. In celebration with this event, KHUPO also published the KHUPO 10 Years history book.

KHUPO, along with her regional organizations of AOHUPO, has also been dedicated to promoting understanding of the proteomics, by hosting proteomics workshops and conferences during the past years. Thus, KHUPO will serve as a key part of world proteome societies and will continue to function in her unique role, under the auspices of HUPPO.

Detailed information about the KHUPO is available at <http://www.khupo.org/>.

**AOHUPO**

Human Asian Oceania  
Proteome Organization  
[www.aohupo.org](http://www.aohupo.org)

KHUPO inaugural meeting and 1st international symposium on proteomics at Korea Science and Technology Building on July 24th 2001



KHUPO hosted HUPPO 6th Annual World Congress at COEX Seoul, Korea in 2007



## 6<sup>th</sup> International Symposium of the Protein Society of Thailand

The Protein Society of Thailand (PST) organized the its 6<sup>th</sup> International Symposium at the Chulabhorn Convention Center, Bangkok on 31<sup>st</sup> August to 2<sup>nd</sup> September 2011. This year's meeting was jointly hosted by PST, Mahidol University, and Chulabhorn Research Institute. PST was honored to have Young-Ki Paik (Past President, Human Proteome Organization, HUPO), Kazuyuki Nakamura (President, Asia-Oceania Human Proteome Organization, AOHUPO), and Yuji Goto (Past President, Asia Pacific Protein Association, APPA) present as Invited Speakers, helping to link PST with regional and international organizations in protein research.

The main symposium program was attended by 269 registered participants, and included 10 Invited Lectures, 8 Oral Presentations selected from submitted Abstracts, plus 83 Posters presentations, competing for awards. Topics covered a broad spectrum of protein research, including structure and function relationships not only in enzymes but also in fibrous proteins, as well as the roles of proteins in various diseases, studied by various techniques, such as x-ray crystallography, protein NMR, stop-flow kinetics, microscopy and bioinformatics. The Protein Society (USA) also offered 3 Honorary Memberships to award-winning students. In addition, a Pre-Symposium workshop on "Disease Proteomics" was held one day before the symposium.

The Annual PST meetings have now developed a special character of their own, unlike any other meeting in Thailand. Special emphasis is placed on young scientists, at both young Ph.D. staff and graduate student level, since these young people will develop into future leaders of protein research. Efforts are also made to involve companies, both as Company Members and Exhibitors, because their involvement will help research develop in the country, which in the end will also benefit them. Most of all, meetings are arranged with the aim of being not only excellent academically but also enjoyable, through having a scientific program of international quality, accompanied by fun and games, arranged with the help of companies, so as to engage the young people.

PST is steadily growing in strength and would welcome the opportunity to host a regional protein meeting of APPA or AOHUPO in the near future.

*Professor Jisnuson Svasti,  
President, Protein Society of Thailand*





## Proteomics Activities in Vietnam

In Vietnam, proteomics started actually just after the funding and setting up the number of key laboratories, being considered as one of the most important national activities for life science and biotechnology development in the period 2001-2005. The most related and advanced are the Laboratories for Gene and Protein Technologies at the Institute of Biotechnology (IBT), Vietnamese Academy of Science & Technology (VAST, Hanoi), the Laboratories for Protein and Enzyme Technology, Vietnam National University (VNU, Hanoi), Laboratories of Biochemistry and Molecular Biology at Hanoi University of Technology (HUT, Hanoi), Hanoi Medical University (HMU, Hanoi), Laboratories of Cell and Molecular Biology at the Institute of Tropical Biology (ITB, VAST, HoChiMinh City), Vietnam Military Medical University (VMMU, Hadong). Some newly modern well-equipped laboratories are located in different research institutions belonging to Ministry of Health, National/Regional Universities, Ministry of Agriculture and Rural Development... (Hanoi, Hue, Danang, Cantho, HoChiMinh City...). The research involves mostly traditional approach based on two-dimensional electrophoresis (2DE)/differential gel electrophoresis (DIGE) followed by mass spectrometric identification of proteins. Matrix-Assisted Laser Desorption Mass Spectrometry (MALDI-MS) has become a widely used for determination of biomolecules including peptides, proteins (IBT, VNU, VMMU...). Use of bioinformatics is essential for analyzing the massive amount of data generated from both genomics and proteomics. For the protein and proteome characterization, a new proteomic workflow that begins with an automated Nano-Multidimensional Liquid Chromatography (MDnanoLC Packing, Dionex, Netherland) system coupled online with a QSTAR<sup>®</sup> XL MS/MS System (MDS SCIEX/Applied Biosystems) with a NanoSpray<sup>™</sup> ion source has been established (IBT, VAST). Much of the work focus now on the human serum/urine proteome profiling, the identification of novel genes/proteins that might be related to the different kind of cancers, cardiovascular, neurodegenerative and infection diseases (IBT, VNU, HUT, HMU...).



Vietnam Proteomics Society (VNProteomics, VPS) established as a Cooperate Member/Sub-society under Vietnam Med-Biochemistry Association, intends to consolidate and promote scientific, innovative research and educational activities related to proteomics in Vietnam, and to facilitate the exchange of scientific information between scientists worldwide. The first VNProteomics Meeting was held on April 1-2, 2009, in Hai Phong with the participation of more than 90 scientists. The VNProteomics Council Members for the period 2009-2014 were elected as the representatives from different universities and research institutions all over the country: Phan Van Chi (Chairman, IBT, VAST, Hanoi), Trinh Hong Thai (VNU, Hanoi), Nguyen Bich Nhi (General Secretary, IBT, VAST, Hanoi), Hoang Van Son (Trang An Hospital, Vietnam Medical Association, Hanoi), Trung Quoc Phong (HUT, Hanoi), Nguyen Thanh Phuong (Can Tho University, CTU, Can Tho City), Phung Vo Cam Hong (Nong Lam University, HoChiMinh City), Pham Quang Chinh (Hue University, HU, Hue City), Dao Van Tan, (Hanoi National University of Education, HNUE, Hanoi), Le Van Dong (Vietnam Military Medical University, VMMU, Hadong). Proteomics education and training are the main focus of the most cited universities and research institutions. These activities include courses (basic and advanced courses), workshops, laboratory networking and tutorials. As proved by the recent meeting of the VNProteomics Council Members, some workshops will be organized during 2011-2012 and the second VNProteomics Meeting is planned on the March, 2013.

Prepared by Phan Van Chi ([chi@ibt.ac.vn](mailto:chi@ibt.ac.vn))



### **3<sup>rd</sup> International Symposium on Frontiers in Agriculture Proteome Research: Contribution of proteomics technology in agricultural sciences**

The 3rd International Symposium on “Frontiers in Agriculture Proteome Research: Contribution of proteomics technology in agricultural sciences” was held on November 8-10, 2011. The venue was Tsukuba International Congress Center (EPOCHAL) in Tsukuba Science City, about 50 km north of Tokyo. The symposium was attended by 152(38 from overseas and 114 in Japan) participants, and included 26 Invited Lectures. In the rapidly growing economics of world, food security has become a priority concern. With a rising population and climate change, efforts at enhancing agricultural productivity will be a key factor in alleviating this major concern. Proteomics is a powerful approach to identify a broad spectrum of proteins in living systems. This capability is especially useful for agriculture because it may give clues not only about nutritional value but also about yield production and how these factors are affected by adverse environmental conditions. In recent years, technical improvements in the extraction, separation, quantification, and identification of plant proteins have made the high-throughput analysis of crop proteins feasible, and the reproducibility of the technology has reduced errors in assaying protein levels. The application of mass spectrometry-based quantification methods have become mainstream, although gel-based quantification methods are still useful for proteomics analyses.

The symposium covered a vast area of plant proteomics related to growth and development of major crop plants and their response to various biotic and abiotic stresses. Furthermore insect, animal, microbes, and food proteomics were discussed in detail. Several talks about cutting-edge technologies for studying crop proteomics were presented. The contribution of proteomics in elucidating signaling mechanisms in plants was also highlighted. Integration of proteomics data with genomics and application of bioinformatics tools was emphasized. Finally, the application of proteomics in agriculture and molecular breeding programs was also presented and discussed. Questions from the budding researchers after each lecture made it an interactive and fruitful symposium.

Presented talks showed the breadth of proteome studies related to agriculture, despite the nascent stage of the field. While power of proteomics approach in studying important agricultural traits were presented, challenges remain to be addressed before proteomics research can be fully interpreted and applied in agriculture. It was agreed that continued improvement in reproducibility, sensitivity and accuracy of analytical tools, availability of advanced breeding materials and mutants, appropriate phenotypic measurements and field studies, combining different “omics” technologies, and development of new bioinformatics remain critical for fruitful agricultural proteomics studies in near future.

The symposium provided unique opportunities for scientists in agricultural proteomics field to interact with each other, share views and knowledge and develop collaborative research projects to further enhance the application of proteomics in agriculture and food production. Agricultural proteome research community should support for holding symposium in this field.

Setsuko Komatsu, National Institute of Crop Science, Tsukuba, Japan ([skomatsu@affrc.go.jp](mailto:skomatsu@affrc.go.jp))





### Important Dates:

Abstracts submission deadline	2012.02.25
Pre-registration deadline	2012.01.01
On-site registration	2012.05.05-06



#### Host:

Asia Oceania Human Proteome Organization (AOHUPO)  
Chinese Human Proteome Organization (CNHUPO)

#### Organizers:

Beijing Institute of Radiation Medicine (BIRM)  
Beijing Proteome Research Center (BPRC)

#### Presidents:



Prof. Kazuyuki Nakamura,  
President, AOHUPO



Prof. Fuchu He,  
Vice President, AOHUPO;  
Honorary President, CNHUPO



Prof. Pengyuan Yang,  
Council Member, AOHUPO;  
President, CNHUPO

#### Language:

English

#### Venue:

China National Convention Center, Beijing, China

#### Scientific Topics:

- Disease Signatures / Biomarkers of Disease and Personalized Medicine
- Proteomics of Plants and Microorganisms
- Post-translational Modifications
- Glycoproteins and Glycans: Structure, Function and Applications
- Characterization of Protein Therapeutics: Structure and Metabolism *in vivo*
- Chemical Proteomics and Drug Discovery
- Quantitative and Targeted Proteomics and Systems Biology
- Proteomics: New Approaches and Novel Techniques
- Bioinformatics: Databases, Post-translational Modifications, Quantification and Validation

#### Contact:

CNHUPO Office:  
33 Life Science Park Road, Changping District, Beijing 102206, China  
Scientific Program: +8610-80705188, Exhibition: +8610-80705888  
Registration: +8610-84351699, Fax: +8610-80705155  
Email: aohupo2012@vip.163.com, aohupo2012@pharmatable.com

#### Plenary Speakers

\* not confirmed

- Koichi Tanaka, Shimadzu Corporation, Japan (Nobel Laureate) \*
- Zhu Chen, Shanghai Jiao Tong University School of Medicine; Minister of Health, China
- Kunliang Guan, Fudan University, China; University of Michigan, USA
- Leroy Hood, Institute for Systems Biology, USA\*
- Xiaodong Wang, National Institute of Biological Sciences, Beijing, China

#### Keynote Speakers

\* not confirmed

- N. Leigh Anderson, Plasma Proteome Institute, USA
- Lewis C. Cantley, Harvard Medical School, USA\*
- Steven A. Carr, Broad Institute of MIT and Harvard, USA\*
- Daniel W. Chan, The Johns Hopkins University School of Medicine, USA
- Maxey C.M. Chung, National University of Singapore, Singapore
- Catherine Costello, Boston University School of Medicine, USA
- Robert E. Gerszten, Massachusetts General Hospital and Harvard Medical School, USA\*
- Bill Jordan, Victoria University of Wellington, New Zealand
- Kazuyuki Nakamura, Yamaguchi University Graduate School of Medicine, Japan
- Pierre Legrain, Commissariat à l'Energie Atomique (CEA), France
- Young-Ki Paik, Yonsei Proteome Research Center, Korea
- Peipel Ping, University of California at Los Angeles (UCLA), USA\*
- Mike Snyder, Stanford University, USA\*
- John Craig Venter, J. Craig Venter Institute, USA\*
- John Yates, Scripps Research Institute, USA
- .....(to be added)

#### Exhibition:

An exhibition "Ex-AOHUPO 2012, Beijing" will be held concurrently with the congress at the same venue. All for-profits and non-profit organizations in relevant fields are welcome to the "Ex-AOHUPO 2012, Beijing". Please contact the CNHUPO Office for further information or consult the congress website <http://www.aohupo2012.cn>.



[www.aohupo2012.cn](http://www.aohupo2012.cn)



## UPCOMING EVENTS

February  
2012

**17th Lorne Proteomics Symposium**  
Welcome to the annual meeting of the **Australasian  
Proteomics Society**  
2nd – 5th February, 2012  
Mantra Erskine Beach Resort, Lorne, Australia



March  
2012

**KHUPO 12<sup>th</sup> Annual International Proteomics Conference**  
**“Proteomics for Functional Genomics”**  
March 29– 30, 2012  
New Millenium Building, Konkuk University, Seoul, Korea



September  
2012

**" HUPO 11<sup>th</sup> Annual World Congress, (HUPO2012)**  
**September 9-13, 2012**  
Boston, USA





To those of you who celebrate new year , HAPPY NEW YEAR on behalf of AOHUPO EC Members and Newsletter Editor. We hope all of you enjoy your break and have a fun time ringing in the New Year



## AOHU O

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

### AOHUPO EC members:

**President:** Kazuyuki Nakamura (Japan)([nakamura@yamaguchi-u.ac.jp](mailto:nakamura@yamaguchi-u.ac.jp))

**Past President :** Young-Ki Paik (South Korea)([paiky@yonsei.ac.kr](mailto:paiky@yonsei.ac.kr))

**Vice President:** Fuchu He (China)([hefc@bmi.ac.cn](mailto:hefc@bmi.ac.cn))

**Vice President:** Bill Jordan (New Zealand)([Bill.Jordan@vuw.ac.nz](mailto:Bill.Jordan@vuw.ac.nz))

**Secretary General:** Maxey C.M. Chung (Singapore)([bchcm@nus.edu.sg](mailto:bchcm@nus.edu.sg))

### Directors of Human Embryonic Stem Cell MPI:

Ghasem Hosseini Salekdeh (Iran)([h\\_salekdeh@abrii.ac.ir](mailto:h_salekdeh@abrii.ac.ir))

Yu-Ju Chen (Taiwan) ([yjchen@chem.sinica.edu.tw](mailto:yjchen@chem.sinica.edu.tw))

If you wish to contribute news, notices of events, or any other items, please feel free to forward it to AOHUPO Newsletter Office:

Iranian Proteomics Society  
P.O. Box (31535- 1897), Karaj, Iran.  
Telfax : +98-261-2702893  
Email: [h\\_salekdeh@abrii.ac.ir](mailto:h_salekdeh@abrii.ac.ir)

**Newsletter Editor :**  
Ghasem Hosseini Salekdeh (Iran)