# **AOHU**O Newsletter

An Official Newsletter of Asia Oceania Human Proteome Organisation

# The Seventh Annual Conference of China HUPO

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Asian Oceania Human Proteome Organization www.aohupo.org

### Young-Ki Paik: President of AOHUPO (2008-2010)



As Professor Young-Ki Paik three-years term as President of AOHUPO (2008-2010) comes to a close, the editorial of AOHUPO Newsletter, on behalf of all council members, would like to thank him for his valuable contribution and leadership as President of AOHUPO.

Paik is a biochemist and molecular biologist by training and has worked in the discipline of proteomics with emphasis on cancer and metabolic diseases for many years. He has a track record of outstanding achievements in both science and administration. He earned his Ph.D. from the University of Missouri-Columbia in Biochemistry with studies on cholesterol metabolism. In his post-doctoral training period (1983 to 1986) and as staff research investigator (1986-1989) at UCSF, USA, he continued to expand his expertise in cholesterol metabolism using molecular biology techniques. While in Yonsei University, Paik continued his work on disease metabolism and has accomplished several landmark works including his outstanding contributions to the elucidation of the later stage of the cholesterol pathway from lanosterol (cited in Biochemistry Textbooks, Voet & Voet, 3rd Ed. 2004) and identification of ferritin light chain as a biomarker of hepatocellular carcinoma using proteomics and genomics tools. He was also responsible for the discovery of daumone (dauer-inducing pheromone), which regulates the aging of C. elegans (Jeong et al., 2005, Nature, 433, 451-455). In addition, Paik has been the coof numerous United States and Korean Patents that are related with many innovative and new technologies for drug development.

As director of the Yonsei Proteome Research Center (YPRC) (www.proteomix.org), the first proteome research institute established in Asia in 1999, he has demonstrated an outstanding leadership in managing diverse teams of research scientists on an international

scale in handling many complex problems ranging from research projects to the daily operation and administrative works of the Centre. During his presidency for **HUPO** (2009-2010),Paik demonstrated his leadership which the launching of Human Proteome Project where he also serves as co-leader for Chromosome-based HPP (C-HPP). He also has a strong network of industrial and academic connections to develop global communication programs, educational/training programs, and world congresses (co-chair of HUPO 2007 Congress in Seoul). It is well documented that Paik has already been able to provide a foundation for continuity and structure as leadership and objectives evolve and change within the organization. Paik has also been working actively as a key member for promotion of proteomics in Asian-Oceania region. In particular, Paik, along with Asian-Oceanian colleagues, has initiated the creation of AOHUPO in 2001, which now has 14-country members and is working closely together for the regional HUPO activities and common research interests. During his tenure as president of AOHUPO (2008cooperation among 2010). strong member countries started with activities related to AOHUPO MPI, biannual conferences and workshops. It is noted here that he and KHUPO may have lit a fire for the creation of regional HUPO societies in Asia-Oceania. He has also served as the inaugural President of the Korean Human Proteome Organization (KHUPO, >900 members), which was established in July, 2001 as the first HUPO national society. He integrated proteome research groups international organizations, and to engage in scientific and educational activities, which spread proteomics technologies, and to disseminate knowledge pertaining to human diseases per the HUPO mission statement. In addition to his key role in foundation of YPRC, Paik has also been instrumental in establishing proteome research groups or institutes in Korea. We all wish him well in his future undertakings.





## AOHUPO Council Meeting, 22<sup>nd</sup> September 2010, Sydney, Australia

During HUPO2010 conference in Sydney, AOHUPO council meeting was held on 22nd September 2010. After president welcome, Kazuyuki Nakamura (President-Elect) announced the new AOHUPO EC members including Young-Ki Paik (past president), Fuchu He (vice president), Bill Jordan (vice president), and Maxey Chung (secretary General).

During meeting, each council member was asked by the President to give a brief update on the activities of their societies in the past year. It was quite obvious from these reports that each society had been very active in promoting proteomics in the different countries.

Following the success of the 5th AOHUPO Conference held in Hyderabad, India in February, Fuchu He announced that Beijing would host the meeting in 2012. The time of the conference would most likely be at the end of April or early part of May, 2012.

An AOHUPO human embryonic stem cell membrane proteome initiative (AOHUPO hESC-MPI) workshop was proposed by Hosseini to be held in 2011 in Tehran, Iran. A possible date would most likely be in September 2011, either before after the HUPO2011 meeting in Geneva, Switzerland.

At the nd of meeting, Young-Ki thanked all council members for their support for the past 3 years, and wished the new President and EC to continue the good work. Max, on behalf of all council members, thanked Young-Ki for his valuable contribution and leadership as President of AOHUPO, and wished him well in his future undertakings.



AOHUPO council members attending Sydney meeting:

Standing (from right): Bill Jordan (Director, MPI, New Zealand), Stuart Cordwell (Australia), Pengyuan Yang (China), Fuchu He (Vice-President, China), Visith Thongboonkerd (representing J. Svasti, Thailand), YuJu Chen (Taiwan), Ho Jeong Kwon (Korea), and Hisashi Hirano (Japan).

Sitting (from right): Maxey Chung (Secretary-General, Singapore), Kazuyuki Nakamura (Vice-President, Japan), Young-Ki Paik (President, S. Korea), Richard Simpson (Past President, Australia), Ghasem Hosseini Salekdeh (Editor, AOHUPO Newsletter, Iran)

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# Academic Festival on Proteome: Fifth Anniversary Celebration for Beijing Proteome Research Center

A celebration of the 5<sup>th</sup> anniversary for the Beijing Proteome Research Center (BPRC) was held at the (HLPP headquarters) in Beijing on Oct 14, 2010. In attendance were such notables as Young-Ki Paik (Professor of Yonsei University, Korea, President of HUPO), Yan Shen (Vice Director of the National Natural Science Foundation of China), and six other academicians of Chinese Academy of Science or Chinese Academy of Engineering, as well as other fifty distinguished scientists both at home and abroad.

There are 12 research teams headed by independent principle investigators in BPRC, they carry out research in liver function, liver disease, proteomics based systems biology, and methodology development for proteomics. In five years BPRC has already become top proteomics institute in China, and it is also a major component of the China State Key Laboratory of Proteomics and the National Engineering Research Center for Protein Drugs. BPRC led Human Liver Proteome Project and made significant advance in describing liver proteome and understanding of liver physiology and pathology. The largest proteome dataset (liver proteome expression profiling, modification profiling) has been acquired from one human organ (liver), and the first human liver protein-protein interaction linkage and localization map has been sketched as well. Several databases have been constructed and are available for public use\*.

In the ceremony, Professor Fuchu He, director of the center, gave an overview of the development at BPRC in the first five years and discussed an ambitious plan for the Human Proteome Project, which is backed by the Chinese government. In the days leading up to the celebration, a series of academic events were held. Including Xiangshan meeting, the 2<sup>nd</sup> Joint Young Scientists Colloquium between BPRC and Yonsei Proteome Research Center (YRPC), and the 10<sup>th</sup> Forum on Biochemistry and Molecular Biology.

The Xiangshan meeting was held on October 12-13, co-chaired by Professors Fuchu He, Yukui Zhang, and Jun Qin. Topic of this meeting was opportunities and challenges of proteomics. Plans of proteomics for the next five years were discussed. About fifty scientists from US, Canada, UK and other countries were in attendance and exchanged their opinions. Usually Xiangshan meeting provides a forum for scientists both domestic and abroad to brainstorm critical issues in science, and the meeting may impact scientific development in China for the next five to ten years.

The 2<sup>nd</sup> Joint Young Scientists Colloquium between BPRC and Yonsei Proteome Research Center (YRPC) was held on October 14. The colloquium provided an informal atmosphere for young scientists to discuss and promote further collaboration between BPRC and YPRC. Theme of this colloquium was "Quantitative Proteomics and Posttranslational Modification of Proteins". Nineteen young scientists gave presentations during this day-long colloquium and six scientists were awarded for excellence in research.

The 10<sup>th</sup> Forum on Biochemistry and Molecular Biology was held on October 13<sup>th</sup>-15<sup>th</sup> in Zhongguancun Life Science Park Beijing. Organized jointly by Beijing Institute of Radiation Medicine and BPRC, it was another important event for 5th Anniversary celebration. The main forum featured nineteen invited lecturers and fifteen other selective lecturers. Eminent international scientists made speeches on the forum including Professors Young-Ki Paik of Yousei University in Korea, Wei Gu of the Columbia University, Yingming Zhao of the University of Chicago, Bing Su of the Yale School of Medicine, Pumin Zhang and Jun Qin of Baylor College of Medicine. All one-hundred sixty participants enjoyed this nationwide forum and were updated with the newest achievements in field of Biochemistry and Molecular Biology.

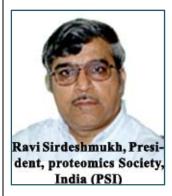
The 5<sup>th</sup> anniversary celebration also marked an important transition for BPRC. During the ceremony, Prof. Jun Qin was officially appointed as the new director of BPRC for the next five years. "I believe that BPRC will enter a second phase of development. The management will be more professional and effective, and the science will reach another level under the administration of Professor Qin", said Professor He.

\*.Liverbase (http://liverbase.hupo.org.cn), dbLEP (http://dblep.hupo.org.cn) and LiveMap (http://livermap.hupo.org.cn)



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### **Proteomics Activities in India**



Use of proteomics approaches to address biological and clinical questions and thus the relevant expertise has grown considerably in India over the last some years and show an increasing trend. One Primary mandate of the Proteomics Society, India (PSI) is to nurture Education and Training Programs in Proteomics for a wide spectrum of the biologists and clinicians community. The agenda includes specialized lecture series, brain Storming discussions, demo workshops and Hands-on-Training courses on specific aspects of the Technology and the target group would be post graduate students, university faculty, research students and scientists. The activities will be implemented in different locations in the country to maximize easy participation of the target grpoups. After the successful AOHUPO conference in Feb 2010 in Hyderabad (south India) which included an Education Day, the PSI conducted a Lecture series in

Kolkatta, the Eastern Centre of the India and a Workshop in Mumbai, Central India.

PSI Seminar Series on "Indian Proteomics – Users Perspective" was held in Kolkata in July 2010. The meeting was organized by PSI council members Abhijit Chakrabarti of Saha Institute of Nuclear Physics and Rukhsana Chowdhury of the Indian Institute of Chemical Biology, Kolkatta. There were 75 participants comprising of post graduate students (a few select), PhD students, post doctoral associates, young faculty from national biology research Institutes, medical colleges and universities in Kolkata.

The lectures covered Gel based and LC MS based technologies and interesting applications in tissue and fluid proteomics including plant sciences. Experimental challenges in DIGE were particularly discussed in depth. The lectures were followed by further panel discussion. The feedback from the participants was excellent with most of them feeling motivated with the interaction.

The workshop on Clinical Proteomics "Technology and Beyond", held at the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Mumbai in Nov, 2010 was jointly hosted by ACTREC, Proteomics Society- India and the Lady Tata Memorial Trust, Mumbai and organized by the Council member Surekha Zingde and her associate Rukmini Govekar from ACTREC.

The main focus was to update college teachers and graduate students from in and around Mumbai with the latest Proteomic tools and applications in biomedicine. The program included lectures and demonstrations. The workshop was attended by college teachers, graduate students from Mumbai region and the students and faculty of ACTREC. The lectures covered both gel based and gel-free technology aspects, protein peptide separation methods, MS imaging, antibody-based screening methods and their applications in clinical problems such as cancer, hematological disorders, endometrial receptivity, diabetes related disorders due to protein glycations and malaria. Some of the participating students also presented their work as posters/short orals. The panel discussion gave the participants an opportunity to address their difficulties with experts in the field. The demonstration given to a small number of participants covered gel based methods, Mass spectrometry and liquid Chromatography.

The participants greatly appreciated the opportunity to attend this meeting as they learnt about the latest from the experts in the field.

PSI plans to continue this activity at other regional centres and around specific subject themes and in future would like to involve participation and expertise from other countries in the AO region.

Another event which was not sponsored by PSI but organized by PSI Council member Sunita Saxena and involved PSI faculty was the Work Shop on Tissue Micro Arrays in June 2010, at the Institute of pathology, New Delhi. This included lectures on Proteomics Approaches and Experimental Demonstration of TMA and had participation of pathologists from the host Institute as well as other medical centers.

Report by Ravi Sirdeshmukh (President PSI)

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Dr. Bill Jordan MPI Director

### **Update on the AOHUPO Membrane Proteomics Initiative**

As reported in a previous AOHUPO Newsletter "The AOHUPO Membrane Proteomics Initiative (MPI) was established to provide an integrated focus for research among groups from the fifteen countries in the Asia-Oceania region. Membrane proteins were chosen as this AOHUPO research theme because of the importance of these proteins widely in biology and for a number of proteomics projects in the region."

Collaborative research is based on analysis on a mouse liver membrane standard that has been analysed by the AOHUPO participants using a range of proteomic strategies. The MPI data is the **PRoteomics IDEntifications** http://www.ebi.ac.uk/pride/. The initial dataset for publication in *Proteomics* as *The Asia* Oceania Human Proteome Organisation Membrane Proteomics Initiative. Preparation and characterisation of the carbonate-washed membrane standard was reported by the Global Machine Dataset of week: Proteome the

http://www.thegpm.org/dsotw.html#201009191with the description that "Many groups still seem to believe that membrane proteins are difficult to observe using proteomics methods, so a straightforward study such as this one demonstrating the contrary is a welcome addition to the field". The bioinformatics analysis that is in progress of combined data from participating laboratories represents probably the most complete proteomics description of a membrane sample and should provide a "Gold Standard" for membrane proteomics.

For further information, contact Bill Jordan at Victoria University of Wellington, New Zealand: bill.jordan@vuw.ac.nz

1- Peng, L.; Kapp, E. A.; Fenyö, D.; Kwon, M, Jiang, Pu.; Wu, S.; Jiang, Y.; Aguilar, M.; Ahmed, N.; Baker, M. S.; Cai, Z.; Chen, Y.; Chi, P. V.; Chung, M. C. M.; He, F.; Len, A. C. L.; Liao, P. C.; Nakamura, K.; Ngai, S. M.; Paik, Y-K.; Pan T. L.; Poon T. C. W.; Salekdeh, G. H.; Simpson, R. J.; Sirdeshmukh, R.; Srisomsap, C.; Svasti, J, Tyan, Y.; Dreyer, F. S.; McLauchlan, D.; Rawson, P.; Jordan, T. W. Proteomics 2010, in press. Article first published online: 2 JUL 2010 | DOI: 10.1002/pmic.201000126

### The first AOHUPO hESC-MPI Workshop

September 22, 2010, Sydney, Australia

The first AOHUPO human embryonic stem cell membrane proteome initiative (AOHUPO hESC-MPI) workshop was held during HUPO2010 conference in Sydney. During the workshop, Bill Jordan (New Zealand) presented the progress of Membrane Proteome Initiative (MPI) and YuJu Chen (Taiwan) reviewed the current status of hESC proteome studies. An overview of AOHUPO hESC MPI was also presented by Hosseini Salekdeh (Iran) and several major issues and concerns such as sample preparation and membrane enrichment, membrane enrichment methods, sample shipment, hESC regulation in different countries, proteomics technologies, funding, data management, publications and IP were discussed during workshop. Several groups from different countries including Australia (two groups), Korea (two groups), Japan, China, Taiwan, Thailand, and Iran agreed to analyze AOHUPO hESC-MPI samples.



Attendees in first AOHUPO hESC-MPI workshop (from left): Bonghee Lee (Korea), Richard Simpson (Past AOHUPO President, Australia), Yu-Ju Chen (Co-Chair, AOHUPO hESC-MPI committee, Taiwan), Ghasem Hosseini Salekdeh (Chair, AOHUPO hESC-MPI committee, Iran), Leon McQuade (Asutalia), Maxey Chung (AOHUPO Secretary-General, Singapore), Bill Jordan (Director, MPI, New Zealand), Young-Ki Paik (Member, hESC-MPI committee, Korea), Kazuyuki Nakamura (Vice-President, Japan), Visith Thongboonkerd (Thailand), Fuchu He (Vice-President, China), Mark Barker (Member, hESC-MPI committee, Australia; not in this photo).

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Dr. Kenneth P. Minneman

Dr. Kenneth P. Minneman is new member of AOHUPO council, representing Saudi Arabia.

He is Dean of the Chemical and Life Sciences and Engineering and Professor of Bioscience at King Abdullah University of Science and Technology in Thuwal Saudi Arabia since June 2009.

Dr. Minneman was the Charles Howard Candler Professor of Pharmacology at Emory University in the United States since 2000. He joined the university in 1980 and was appointed full Professor in 1990.

While at Emory, Dr. Minneman directed graduate programs and courses, and served on the university's Senate and Faculty Council. He served two terms on the National Institutes of Health study sections, edited three editions of a textbook, and served as Associate Editor or

on the editorial boards of numerous journals.

Dr. Minneman, who has published more than 170 scientific papers is a member of the American Association for the Advancement of Science and the American Society for Pharmacology and Experimental Therapeutics. He served as ASPET's president from 2007 to 2008—its centennial year.

His honors include several teaching awards, the John Jacob Abel Award for the most promising young scientist from ASPET (1989), and the Award for Career Excellence in Basic Science Research from the PhRMA Foundation (2000). The Institute for Scientific Information recognized Dr. Minneman in 2002 as one of the 100 most highly cited scientists in pharmacology between 1981 and 1999. He is listed in Marquis Who's Who, Who's Who in Medical Education, and Leading Scientists of the World. Dr. Minneman received his bachelor's degree in Life Sciences from Massachusetts

Institute of Technology in 1974. He earned a doctorate in Pharmacology from the University of Cambridge in 1977, and then conducted postdoctoral work at the University of Colorado Medical Center.

# **UPCOMING EVENTS**

**February** 2011

### The 16th Proteomics Symposium 3rd-6th February, 2011

Lorne, Australia

This exciting meeting is held each year in February at Lorne, a scenic beach resort 150 km from Melbourne, and attracts approximately 450 protein scientists.

http://www.australasianproteomics.org/

March 2011

11th Annual KHUPO conference. March 31 to April 1, 2011

Busan, Korea

**April** 2011

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Hangzhou City, Jiangsu Province, China

http://60.191.25.30/ICPTM.html, www.cnhupo-congress.cn Contact (email: Zhangxl85@yeah.net, Proteome sky@hupo.org.cn)



To those of you who celebrate new year, HAPPY NEW YEAR on behalf of **AOHUPO EC Members and Newsletter Editor**.



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

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