# **AOHU**O Newsletter

An Official Newsletter of Asia Oceania Human Proteome Organisation

# 8th Japan Human Proteome Organization Conference (JHUPO)

July 26-27, 2010

Tokyo Bay Hotel Tokyo, Urayasu, Japan

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Asian Oceania Human Proteome Organization www.aohupo.org

# Professor Kazuyuki Nakamura, next president-elected of AOHUPO president



On April 1<sup>st</sup>, it was announced officially that Kazuyuki Nakamura was elected as President – Elect of AOHUPO. His tenure will be for the period of Jan 1<sup>st</sup> 2011 – Dec 31<sup>st</sup> 2013.

The election was supervised by a nomination committee composed of Young-Ki Paik (Korea and Chair), Toshiaki Isobe (Japan), Andrew Wang (Taiwan), Rong Zeng (China), and Richard Simpson (Australia).

In his message upon election, Professor Nakamura extended his thank to all AOHUPO council members for their support. He also expressed his wish to promote AOHUPO activities by AOHUPO council members' strong support and collaborations.

Professor Kazuyuki Nakamura, chair of Department of Biochemistry and Functional Proteomics, Yamaguchi University Graduate School of Medicine, is serving for the promotion of human proteomics as a HUPO Council member, a member

of Education & Training (E&T) Committee, a co-chair of Human Disease Glycomics Proteome Initiative (HGPI), an advisory member of Human Kidney and Urine Proteome Project (HKUPP), AOHUPO Vice President and (2009-2010),a member AOHUPO, Membrane Proteomics and Initiative (MPI), a Past President of Japan HUPO. Professor Nakamura is active in E&T of young scientists in Asia not only as a Member of HUPO E&T Committee but also President of Japanese Electrophoresis Society (JES). His field of research is the discovery of biomarkers and therapeutic for **HCV-related** targets Hepatocellular Carcinoma Pancreatic Cancer using twodimensional gel electrophoresis combined with tandem mass spectrometry, and in the development of Cys-tag-Protein through-put for high Chips of protein-protein analyses interactions. He is currently serving for the promotion of proteomics as an Associate Editor of Proteome Science. and Editorial Board Member of Proteomics, Expert Review of Proteomics.

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## 5th AOHUIPO Congress, 14th ADNAT Convention & 1st PSI Conference

Feb 21-25, 2010 Hyderabad, India Centre for Cellular and Molecular Biology (CCMB)

The 5th AOHUPO Congress was successfully held at Hyderabad, India, from February 21 to 25, 2010. The Congress was organized as a joint event overlapping with the 14<sup>th</sup> ADNAT (Association of Promotion of DNA Finger Printing and other DNA Technologies) Convention and the 1st International Conference of the Proteomics Society, India. It was held on the beautiful campus of the Centre for Cellular and Molecular Biology - a premier research institute in India, which provided a very subtle mix of academic ambiance and quiet friendly environs.

The Congress was attended by over 350 registrants and presented an elaborate scientific program under the theme, "New Perspectives in Proteome Research". Spread over five days, starting with the Education Day followed by a day devoted to the Vendor Company Workshops and then three days of scientific symposia, the conference provided a learning opportunity for beginner students, a platform for young investigators to present their ideas and another occasion to the seasoned Proteomics experts to share their experience and expertise. A Two Week, post conference Hands-on Training Course in Quantitative Proteomics was an additional, valuable integration to help a small and select group of scientists who are at the initial stage of their Proteomics endeavors.

The Education Day (21stFeb) was attended by over one hundred students and young faculty scientists. The resource faculty was drawn from various disciplines with the aim to cover various aspects of the Proteomics Technology.

On 22<sup>nd</sup> February, six vendor companies (Agilent Tech., Bio-Rad, GE Life Sci, Pall Life Sci., Thermo Fisher Scientific and Waters) who were also major sponsors of the Congress conducted workshops aided by their R& D scientists as well as external collaborators and unraveled their respective portfolios of hardware, software and reagent tools.



The evening of 22<sup>nd</sup> Feb, when most of the delegates had already arrived in Hyderabad, was highlighted by a Public Lecture by Sam Hanash on the Prospects and Challenges in Molecular Diagnostics and the traditional music by the folk group of the Indian desert land - Rajasthan. While Sam Hanash set the tone for the symposium to start on the following day, the folk music was a mesmerizing experience for the delegates. The Scientific symposium which started on the 23<sup>rd</sup> Feb included key note lectures by some of the proteomics scientists who laid the foundation of current proteomics, invited talks from a range countries

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Including India, selected oral presentations, a major Poster Session and two open discussions in the context of international initiatives in Proteomics.

The topics covered were very varied and encompassed methods and experimental approaches, bioinformatics, clinical proteomics, proteomics of infectious organisms, proteomics in the study of development and differentiation in plants and animals and protein interactions.

To encourage young research students doing high-quality work, a total of four student abstracts were selected for oral presentations. A large number of abstracts were received and were presented in the Poster session organized as an evening session in the open environment, with natural tree surroundings. It offered a very lively environment for a free, informal discussion among the delegates.

There were also two open discussions about large initiatives including AOHUPO membrane proteomics initiative in Human Embryonic Stem cells and Human Proteome Project.

At the end, there was award ceremony for winner of Poster awards. The Poster award committee found it difficult to restrict to the original number of awards. In all, there were five awards given, one from ADNAT and four on behalf of AOHUPO.

The conference ended with cheer and profuse acknowledgements to all involved.



March 31 (Wednesday) - April 2(Friday), 2010, Cultural Center, Seoul Nat'l University, Seoul, Korea

The Korean Human Proteome Organization (KHUPO) held the 10th Annual KHUPO International Meeting at Cultural Center, Seoul National University in Seoul, Korea from the 31st of March to the 2nd of April 2010. The theme of this meeting was "Proteomics: From Proteomics Technology to Proteome Biology. The 10th KHUPO2010 in Seoul hosted about 450 attendees including about 50 speakers from USA, Japan, Germany, UK, Netherlands, Taiwan, Sweden, Brazil etc. and 115 participants from the 23 different company exhibitioners. This Conference provided beyond proteomics viewpoint including clinical and biological application of proteomics as well as updated development of proteomics technology.

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Four outstanding plenary lecturers presented cancer biomarker development pipeline (Dr. Daniel Liebler), proteomic approaches for histone modifications (Dr. Benjamin Garcia), autoimmune antibodies in Parkinson patients (Dr. Helmut Meyer) and proteome biology studies related to lifespan extension in *C. elegans* (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, outstanding 148 posters were presented by students and researchers, which are 50% increase more than last years. Among them, 10 of the poster presenters were awarded as outstanding Young Scientist Awards. Also, we had educational session for the beginners of proteomics in the topics of quantitative proteomics technologies and its basic applications at the first day of conferences.

This 10<sup>th</sup> KHUPO international meeting in Seoul also provided liaison between two HUPO initiatives, HUPO-PSI (Proteome Standard Initiatives 2010 Spring Meeting held in Seoul from the 28<sup>th</sup> to 30<sup>th</sup> of March 2010), and HUPO-BPP (Brain Proteome Project 2010 Workshop held in Ohchang, Korea, from the 30<sup>th</sup> to the 31<sup>st</sup> of March 2010). 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 10<sup>th</sup> KHUPO international meeting are available at http://www.khupo.org/meeting.





# The 3<sup>rd</sup> Iranian Proteomics Congress Report

The third Iranian proteomics Congress took place in Tehran at Pasteur Institute of Iran from the 26<sup>th</sup> to the 27<sup>th</sup> of May 2010. The scope of this year's conference included human proteome project, human Y chromosome proteome project, clinical proteomics, stem cell proteomics, plant and animal proteomics and bioinformatics. The format of this congress was based on the theme featuring lectures from national and international leaders in the proteomics field.

During two days conference, Thirty-two lectures were presented by Iranian scientists as well as invited speakers including Young-Ki Paik, Juan. J. Calvete, Kazuyuki Nakamura, Christoph Borchers, Christine Finnie, and Reiner Westermier.

Also fifty-five posters were presented in the congress and companies supported and attended the exhibition. The dense scientific program consisted of four oral presentation sessions and poster reading and exhibition sessions, per day.

A special session was dedicated to Human Proteome Project. After a comprehensive talk of Dr. Young-Ki Paik about SNP centric human proteome project, Dr. Ghasem Hosseini Salekdeh, the president of Iranian proteomics society, overviewed the Iranian human Y chromosome proteome project followed by a very positive open discussion session.



## 8th Japan Human Proteome Organization Conference (JHUPO) and 6th Annual Meeting of Japan Society for Clinical Proteomics (JSCP) Joint Conference July 26-27, 2010, Tokyo

The 8th JHUPO Conference will be held as a joint conference with the Japan Society for Clinical Proteomics (JSCP).

The conference will bring together researchers throughout Japan who are involved in proteome research from the basics of protein science to various applications, as well as participants from related corporations. Participants will have the opportunity to engage in presentations and discussions on the latest technology and research findings. In addition, symposiums and educational lectures are scheduled to be held by prominent researchers from Japan and abroad such as Korea, Taiwan, Sweden, Canada, and U.S.

## **AOHUPO Takes on Human Embryonic Stem Cell Membrane Proteome Initiative**

AOHUPO plans to continue its interest in membrane proteomic by launching human embryonic stem cell membrane proteomics initiative (AOHUPO hESC-MPI).

The identification and characterization of membrane proteins has been the focus of AOHUPO since it initiated the phase I of MPI (2007-2009) directed by Dr. Bill Jordan. During Phase 1, which was focused on

self-renewal and differentiation induction. In addition, for all applications of hESCs, pure populations of selected cell types (and therefore the availability of reliable cell surface markers) will be a likely prerequisite. Therefore, AOHUPO is launching hESC-MPI with the goal of systematic comparing strategies for analysis of PM proteins and discovery of novel membrane proteins and cell surface markers. This

### AOHUPO hESC-MPI steering committee members











Hosseini Salekdeh (Chair, Iran)

Yu-Ju Chen Young-Ki Paik (Co-Chair, Taiwan) (AOHUPO President, Korea)

Mark Baker (Australia)

Shinichi Nishikawa (Japan)

technology development, participants applied a range of proteomics methods to identify proteins in the MPI sample (the microsomal membrane fraction of mouse livers) prepared in Jordan's lab. While AOHUPO members are finishing the analyses and writing papers, AOHUPO takes on hESC-MPI.

Human embryonic stem cells (hESCs) are pluripotent cell lines with the potential to form any human cell type and can be propagated in vitro in an undifferentiated stage. Because of their exceptional properties, hESCs have tremendous potential to be us ed for developmental biology study, drug screening, functional genomics applications, and regenerative medicine. Despite progress in stem cell biology, the genetic mechanisms responsible for maintaining the undifferentiated and pluripotent nature of hESC are still largely unknown and more studies are needed. The behavior of hESCs is tightly regulated by extrinsic and intrinsic factors.

Further characterization of the plasma membranes (PMs) of hESC can therefore shed light on pathways that translate external factors into internal signals for

initiative will be a multi-laboratory project to analyze hESC and its differentiated derivates that are enriched specifically for PMs. To supervise the AOHUPO hESC-MPI activities, a steering committee has been established. This committee is a decision making body and will have the authority to decide on behalf of the AOHUPO EC. The committee will submit the report of its activities to the AOHUPO EC on each AOHUPO EC meeting. Members of AOHUPO hESC-MPI steering committee include:

- Ghasem Hosseini Salekdeh (Chair of Steering Committee, Iran)
- 2. Yu-Ju Chen (Co-chair of Steering Committee, Taiwan)
- 3. Young-KI Paik (President of AOHUPO, Korea)
- 4. Mark Baker (member, Australia)
- 5. Shinichi Nishikawa (member, Japan)

The first AOHUPO hESC-MPI steering committee meeting will be held on 22<sup>nd</sup> September during HUPO2010 in Sydney.





July 2010

Joint Conference of the 8th Japan Human Proteome Organization Conference (JHUPO) and the 6th Annual Meeting of Japan Society for Clinical Proteomics (JSCP) New technologies of large-scale protein analysis

July 26 (Mon) -27 (Tue), 2010 Tokyo Bay Hotel Tokyo (1-7 Maihama, Urayasu-shi, Chiba, Japan) http://www.tokyuhotelsjapan.com/en/TH/TH TKBAY/index.html

September 2010

9<sup>th</sup> Annual World Congress of The Human Proteome **Organisation** (19-23 September 2010, Sydney – Australia)





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

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