Report on the 20th IUBMB - 12th FAOBMB Congress 2009

This report, written by Phillip Nagley and Denis Crane, was published in the December 2009 issue of the Australian Biochemist and is reproduced with their permission.

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General Aspects of the Congress

The 21st IUBMB Congress was held in conjunction with the 12th FAOBMB Congress, in Shanghai, 2-7 August 2009.

Shanghai International Convention Center

The meeting was held in the very well appointed Shanghai International Convention Center in the Pudong area east of the Huangpu River. This part of Shanghai is in a newly developed area with modern high rise buildings, contrasting with some of the older parts of this vast city of 19 million people. The Convention Center looks over the river to the famous Bund area on the west side, to which it is connected by road bridges, rail subway tunnels and a quirky pedestrian tramway that runs under the river through a colourful show of light and sound, called the Bund Tourist Tunnel.

The theme of the congress was 'Biomolecules for Quality of Life'. The congress comprised more than 170 invited speakers, of which the majority were from the USA, followed by China, with strong representations also from Japan and the UK. Despite early concerns that the registrations would not meet expectations, the congress finally attracted more than 2,800 registrants, of which almost 2,100 were from China. All scientific sessions were well attended, with Chinese scientists and students very keen to absorb the latest in research findings. This was therefore a successful congress, although the numbers were not as prolific as for the previous Kyoto Congress that attracted 9,000 registrations.

A very notable feature of the congress was the high quality of Chinese biochemistry and molecular biology research. Clearly, the Chinese Society for Biochemistry and Molecular Biology is very active and many of its members provided excellent administrative leadership and support for this major international event.

There were about 120 booths at the Trade Exhibition, most of these aimed squarely at the Chinese registrants, with little evidence of English in the displays or the printed material. The exhibition areas were very lively and the booths, together with the wide range of products, were professionally and attractively displayed. These were mostly on the 1st floor of the Convention Center away from the main lecture rooms and poster areas. Another set of booths on the 7th floor, including the OzBio2010 booth (see below), were near both the posters and the rooms for the plenary lectures, and were dedicated mostly to various scientific organisations and publishers. One of the few commercial sponsors on that floor had the foresight to provide free coffee (a commodity sorely missed elsewhere at the Congress site!) so that there were always many visitors to that booth.

Plenary Speakers

The plenary speakers in Shanghai maintained the superlative standards that one expects to find at an International Congress of Biochemistry and Molecular Biology. The quality of the speakers, including four Nobel laureates, and the breadth of the topic areas that they covered in biology and biomedicine at molecular levels can be seen in the list in the box.

Plenary lectures at IUBMB Congress 2009 in Shanghai

IUBMB Life Lecture: Kurt Wüthrich (Switzerland) - *Nobel Prize in Chemistry 2002*
NMR with proteins - from structural biology to structural genomics

EMBO Lecture: Aaron Ciechanover (Israel) - *Nobel Prize in Chemistry 2004*
The ubiquitin proteolytic system - from bench to the bedside

IUBMB Ochoa Lecture: Sidney Altman (USA) - *Nobel Prize in Chemistry 1989*
The central role of RNA in biology and as a general therapeutic agent

Ying-Lai Wang Lecture: Yi-Gong Shi (China)
Mechanisms of programmed cell death through structural biology

IUBMB Beatty Lecture: Victor Ambros (USA)
MicroRNA regulatory pathways in development and disease

IUBMB Slater Lecture: Robert Roeder (USA)
Transcriptional regulatory mechanisms in animal cells

IUBMB Yagi Lecture: Gregory Hannon (USA)
Conserved roles of small RNAs in genome defense

FAOBMB Svasti Lecture: Gang Pei (China)
To arrest or not: a question of health or disease

European Federation of Biotechnology Lecture: Mathias Uhlén (Sweden)
A Human Protein Atlas for profiling cells, tissues and organs

FEBS Lecture: Wolfgang Baumeister (Germany)
Cryoelectron microscopy: from molecules to systems

IUBMB Lynen Lecture: Luc Montagnier (France) - *Nobel Prize in Physiology or Medicine 2008*
Electromagnetic signalling from DNA: a new biomarker of chronic infections

FAOBMB Hayaishi Lecture: Shinya Yamanaka (Japan)
Induction of pluripotency by defined factors

Symposia and Posters

There were 36 Symposia, evenly distributed across four themes: genome dynamics and gene regulation; protein structure: dynamics and proteomics; cell signalling and networks; and molecular basis of diseases. This made choice relatively easy but some of the rooms for the more popular topics were very crowded, with standing room only! There were also a number of other specialised symposia, some associated with special events or organisations, including Glycobiology, Lipid Biology, Women in Science, History and Education of Biochemistry, Biotechnology and Technique Transfer, and the FAOBMB Young Investigator Award.

Traditional Chinese Musical Ensemble at Congress Reception

A couple of other Symposia were noted for their building of bridges using the universal language and culture of science; these included the Cross-strait Symposium on Biomedical and Bioengineering Research, involving presentations from scientists from both sides of the Taiwan Strait (mainland China and Taiwan), and a Mini-symposium on Cell Biology and Biomedicine, involving presentations from scientists from Israel, Egypt and Saudi Arabia, as well as India, Greece and Australia. This is what international congresses should be all about!

Poster sessions were also very active, successful events. There were about 1,000 posters presented, in a single well laid out room on the 7th floor. The posters were organised under the four main themes of the symposia, with a fifth category broadly inclusive of the other symposia or special scientific events.

Young Scientist Program

The main congress was preceded by a Young Scientist Program, comprising about 100 selected international scientists from many different countries (including three from Australia) and 20 additional Chinese early career scientists. The overseas participants in this program all received assistance to attend in the form of Travel Fellowships (after review of their competitive applications). The participants, 81 PhD students and 35 postdocs, held a three-day meeting before the main congress, at the Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences.

FAOBMB Young Scientist Award winners Travis Beddoe (Australia) and Reiko Nagasaka (Japan)

Social Events and Official Functions

Highlights of the meeting were the Opening Ceremony and Congress Reception. The latter was a great opportunity to meet old friends and new colleagues in a relaxed atmosphere. We also were privileged to attend a specially sponsored dinner put on by ASBMB (USA) and the Journal of Biological Chemistry. This and other social functions provided excellent networking opportunities with people with strong professional engagement from all over the world.

The Closing Ceremony included presentations on the 12th IUBMB Conference to be held in Melbourne, 26 September to 1 October 2010 (OzBio2010, see below) with a

video on Melbourne and the region of Victoria; the 13th IUBMB Conference to be held in Merida, Yucatan, Mexico, 22-27 Oct 2011; and the 22nd IUBMB Congress to be held in Seville, Spain, 4-9 September 2012, with a video on Seville and the region of Andalusia.

Biochemical Education Stalwarts at Congress Reception (from left): Judith Voet and Donald Voet (Co-editors of BAMBED), Graham Parslow (ASBMB Invitrogen Education Award winner 2009)

OzBio2010 Booth

The Organising Committee of the OzBio2010 Conference arranged a display booth in Shanghai to promote this next Conference in the IUBMB series (12th IUBMB Conference-21st FAOBMB Conference-ComBio2010). The OzBio2010 booth was generously sponsored by the Melbourne Convention and Visitors Bureau and included posters, literature and handouts of clip-on koalas to attract people to come to Melbourne next year. A highlight was the Lucky Draw for ten large koalas wearing OzBio2010 jackets of various colours. These were keenly sought after and a huge crowd gathered for the final draw of these prizes just before the end of the congress. Thanks go to Heling Ng and Gavin Higgins who helped Phillip organise the booth, display and circulate the various offerings, and run the Lucky Draw (for which we were ably assisted by a Mandarin-speaking interpreter).

OzBio2010 Booth in Shanghai (from left): Heling Ng, Phillip Nagley, Gavin Higgins

IUBMB General Assembly

The 20th Ordinary General Assembly of IUBMB took place on 7 August, in the afternoon immediately after the Closing Ceremony of the congress itself. Phillip and Denis were appointed by the Australian Academy of Science as Adhering Body to IUBMB, on the recommendation of ASBMB Council, to represent Australia at this formal triennial business meeting of IUBMB.

Happy winner of Lucky Draw for large koala at OzBio2010 Booth