13th FAOBMB Congress in Bangkok

The Young Scientist Program and the 13th FAOBMB Congress was organized by Biochemistry and Molecular Biology Section, Science Society of Thailand under the Patronage of His Majesty the King in Bangkok International Trade and Exhibition Center (BITEC), Bangna, Bangkok from 23-29 November 2012. The conference was organized by Professor Piamsook Pongsawadi and other committee members.

This event was aimed for bringing young scientists from FAOBMB regions to discuss and exchange the knowledge and ideas in relation to their research in the field of Biochemistry and Molecular Biology. The goal of this FAOBMB event was to increase academic experience of the participants and to promote future networking in the region and beyond.

The program started on 23rd November, 2012 in the afternoon with a program introduction by coordinator followed by Institute labs visits. The opening ceremony was held on the 24th November started with the inaugural lecture of Prof Andrew H.J. Wang (President of FAOBMB). In his lecture he pointed out FAOBMB efforts to promote and strengthen research in biochemistry and molecular biology via mutual cooperation and exchange of information. Importantly, it encouraged young scientists to engage in international activities. He added that the rapid elevation of research activities in the FAOBMB region has been extremely impressive as evident in the many important and high quality scientific publications and in the growing economic strength. However, many problems still exist which require continuous effort in finding solutions to mitigate those problems, including diseases, poverty, pollution, food shortage, etc.

Professor Ada Yonath (awarded Nobel Prize in Chemistry for her work in mapping the structure of ribosome) delivered her plenary lecture on the first day of the symposium highlighting her research on ribosome cell signaling. In her lecture she described that ribosomes possess elongated tunnel through which nascent proteins progress until they emerge into the cell. The nascent protein while traveling along the tunnel can interact with specific tunnel wall components. Furthermore, the tunnel, internal architecture and flexibility allow response to cellular signals and provide a mechanism for gene regulation. She also discussed the processing of different micro RNAs.

The second plenary lecture of conference was delivered by Professor Wong who talked about recent advances in glycoscience: from discovery to innovation. The lecture included the recent advances in carbohydrate chemistry and biology with emphasis on a scientific research path from discovery research to innovative development to illustrate the important contribution of this field.

The conference had 5 sessions per day. The oral talks discussed structural basis of chaperone histone interactions, the role of the binding modules on the activities of glycoside hydrolases, the forms of loops VI including reactive Cys111 of human copper-zinc superoxide dismutase, role of the binding modules on the activities of glycoside hydrolases, extremely stereospecific enzyme-catalyzed reactions as illustrated by hand-held household objects etc.

Poster sessions were also equally interesting particularly one by Dr. Lee who discussed about the use of photosynthetic algae for biofuel production. He showed that Microalgae can store upto 75% oil of that biomass and represent a most promising means for biofuel production. Some posters were focussed on protein protein interactions as targets for selective chemotherapy.

The main topics covered in the conference included Genes and Genomes, Biological Catalysis and Recognition, Signaling and Cell Regulation, Bionanotechnology, Systems Biology and Bioinformatics, Food Biochemistry and Biotechnology, Biological Catalysis and Recognition, Signaling, Cell Regulation and Stem Cell, Biochemical Education, Plant Biochemistry and Biotechnology, Molecular Biology of Diseases, Signaling and Cell Regulation, Stem Cell and Developmental Biology.

I presented a paper (oral and poster both) on the “Serum Levels and Polymorphism Investigation in CFH Loci in Age Related Macular Degeneration”. This work showed that the genotype frequency and serum CFH levels varied between the AMD patients and normal controls. Our data showed that the CFH Y402H polymorphism is a risk factor for AMD in the North Indian population with a higher frequency of the Y402H allele in AMD patients.

doi : 10.5214/ans.0972.7531.200110

Neel K. Sharma
Neuroscience Research Lab, Department of Neurology, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, INDIA.