

Feature

ASBMB and FAOBMB Inc.: Present Status and Future Opportunities

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Summary

Past and present relationships of three biochemistry and molecular biology organizations: the Australian Society for Biochemistry and Molecular Biology; the Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB); and the International Union for Biochemistry and Molecular Biology are discussed. The future of these organizations, particularly FAOBMB, is then considered in the light of factors behind their current status and likely future effects of globalization, growth in Asia, changes in disciplinary focus and contribution to global issues. © 2010 IUBMB

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Given the leadership role taken by the ASBMB in ComBio and that OzBio2010 is co-sponsored by ComBio, IUBMB, and FAOBMB, it is timely to consider the relationship of ASBMB to FAOBMB. The Australian Biochemical Society (now ASBMB) was formed in 1955 and soon established a popular annual conference and a sound administrative and financial structure. The Federation of Asian and Oceanian Biochemists (FAOB, now FAOBMB) was established in 1972 by the Australian Biochemical Society, the Society of Biological Chemists of India and the Japanese Biochemical Society to promote biochemistry in the Asia-Pacific region. Both the ASBMB and the FAOBMB have prospered and both have contributed significantly to the development of biochemistry and molecular biology research and education in their spheres of influence.

Today, 19 national societies or groups of biochemists and molecular biologists are members of FAOBMB. Each is represented by a delegate on the Council of FAOBMB. The geographical area covered by our members runs from Iran to

Hawaii and from China to New Zealand. Informative recent articles in *IUBMB Life* by former FAOBMB Presidents Anraku 1 and Svasti and Sawyer 2 have summarized the formation and development of FAOBMB and its major activities.

The ASBMB has contributed to the development of the FAOBMB as an effective organization by

- providing leaders for FAOBMB, including three Presidents (Edwin Webb, 1972–1974; Tony Linnane, 1975–1977; and Bill Sawyer, 1999–2001) and two Secretaries General (Fife Bygrave, 1980–1987 and John de Jersey, 2006–present);
- nominating delegates to FAOBMB Council who were active and knowledgeable about ASBMB programs and policies and prepared to work on behalf of the organization. Frequently, the delegate has been a Past President or Secretary of ASBMB;
- organizing the very successful 7th FAOBMB Congress in Sydney in 1995 and OzBio2010, and financing the ASBMB Lectureship at FAOBMB Congresses.

ASBMB grew into a strong organization in part because of the spectacular growth of biochemistry and molecular biology since its formation in 1955. It has maintained a strong position because of the dedication of many members but also because of several key decisions made along the way. In my opinion, these were

- the change in name to include molecular biology (from ABS to ASBMB) which happened in 1990, thereby rendering superfluous any attempt to form an Australian Society for Molecular Biology;
- the decision in 1988 to run the annual conference in purpose-built convention centres rather than in the then makeshift facilities within universities;
- the decision in 1991 to appoint a professional organization to undertake administration of the Society and the annual Conference;
- the decision in 1999 to broaden the annual conference of the ASBMB to include Societies with overlapping interests. The resulting ComBio conferences are now regarded very highly,

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Figure 1. Group photograph taken at the presentation of FAOBMB Young Scientist Awards and Travel Fellowships at the Shanghai Congress in August, 2009. Award winners from seven countries (Australia, Bangladesh, India, Japan, Nepal, Singapore, and Thailand) are shown, together with four members of Council (photograph courtesy of Phillip Nagley).

attract large numbers of eminent international and national speakers, and have helped the ASBMB maintain a strong financial position;

- the establishment and maintenance of excellent tools for communication with members, notably “The Australian Biochemist” and the web page.

The sound position of ASBMB within Australia has facilitated the contributions made by ASBMB and its members to the FAOBMB. FAOBMB activities include sponsorship of an annual symposium, conference or congress in the region, provision of Travel Fellowships and other opportunities for early career researchers, and support for Education workshops. Generous financial contributions from several former Presidents of FAOBMB have allowed the establishment of the Osamu Hayashi, Takashi Murachi, Jisnuson Svasti and Kunio Yagi Lectureships, providing funds for plenary lectures delivered at FAOBMB-sponsored Congresses (every 3 years) and the Yasuhiro Anraku Young Scientist Awards for outstanding early career researchers, which are also associated with Congresses. Figure 1 shows award recipients and members of the FAOBMB Council at the Shanghai Congress in August, 2009. More detailed information can be found on the FAOBMB website.

Having provided some background on ASBMB and FAOBMB, it now seems appropriate to consider current and future opportunities for further development of biochemistry and molecular biology in the Asia-Pacific region; and to discuss

how FAOBMB and its constituent societies can contribute to this development. This discussion is based on four major topics: globalization; growth in Asia; future directions of biochemistry and molecular biology; and relevance of biochemistry and molecular biology to global issues.

GLOBALIZATION

The IUBMB recognizes four regional Federations covering the world of biochemistry and molecular biology (FAOBMB, Federation of European Biochemical Societies (FEBS), Pan-American Association for Biochemistry and Molecular Biology (PABMB), and Federation of African Societies of Biochemistry and Molecular Biology (FASBMB)) and undertakes many of its activities in association with one or more of them. OzBio2010 is a good example as it is jointly sponsored by the ComBio group of Australasian societies (ASBMB, ANZCDB, and ASPs), IUBMB and FAOBMB and also supported by FEBS. The very successful 2006 and 2009 Congresses in Kyoto and Shanghai sponsored jointly by IUBMB and FAOBMB and by the national societies of Japan and China respectively are further examples of the value of cooperation. Links between the four regional bodies and with IUBMB should prove increasingly valuable as globalization of the world’s activities continues.

Hence, it is logical that FAOBMB should aim to work more closely with its member societies, with IUBMB and with the

other three Federations in a world where problems and solutions are increasingly global in nature.

GROWTH IN ASIA

Recent trends and future predictions indicate ongoing strong economic growth and development in the Asia-Pacific region. Along with economic growth, the number of biochemistry and molecular biology manuscripts generated in the region and submitted to international research journals is expanding rapidly. In line with its charter, FAOBMB should seek to expand its activities in support of its members. Several mechanisms are under consideration, including

- encouragement of international research exchanges of PhD students and early career researchers within the region, similar to the Wood-Whelan Fellowships offered by IUBMB. Such exchanges should prove particularly beneficial as they provide a mechanism whereby the more highly developed members of FAOBMB can support development of research in countries where biochemistry and molecular biology are less developed. This program will also provide opportunities for co-sponsorship by FAOBMB and individual national societies;
- sponsorship of a Journal showcasing high quality biochemistry and molecular biology publications from the region and globally. In this context, FAOBMB has much to learn from IUBMB and FEBS and also from its constituent societies, some of which sponsor research publications.
- Provision of additional support (financial and expertise) for education workshops, new education programs and national symposia and workshops within the region.
- Establishment of awards highlighting major contributions to research and education in biochemistry and molecular biology made within our region.

Hence, FAOBMB should seek to become a partner in the rapid growth in our region.

FUTURE DIRECTIONS OF THE DISCIPLINES OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

Just as the world is tending to become a “global village,” the science of biochemistry and molecular biology increasingly overlaps with related science disciplines. On the one hand, chemistry, physics, and mathematics are having a major influence on our science, notably the development of powerful analytical methods underpinning genomics, proteomics, and metabolomics, and the central role of computational science in systems biology. On the other hand, biochemistry and molecular biology have become central elements of cell biology, physiology, microbiology, and plant science. In addition, applications of biochemistry and molecular biology are expanding in industry (biotechnology), medicine and agriculture. The annual ComBio conferences in Australia (of which OzBio2010 is a special

example) bring together the ASBMB, the Australian and New Zealand Society for Cell and Developmental Biology and the Australian Society of Plant Scientists. Commencing in 1999, this format has proven to be very successful. The Federation of American Societies for Experimental Biology is a broader and a more substantial example of the benefits of collaboration.

IUBMB, FAOBMB, its constituent societies and individual biochemists and molecular biologists need to be aware of these developments and seek to maintain (and expand) their relevance by, for example:

- Encouraging amalgamation of, or at least close cooperation among, federations or societies which have overlapping research and educational interests.
- Holding joint symposia, conferences and workshops with cognate societies wherever possible;
- Contributing to the development and modernization of University degree programs that recognize the importance of biochemistry and molecular biology in diverse disciplines and applications.

RELEVANCE OF BIOCHEMISTRY AND MOLECULAR BIOLOGY TO GLOBAL ISSUES

The human population continues to grow, leading to predictions of a population of about 9 billion by 2050 compared with 6 billion today. By contributing to improved medical treatments, biochemists and molecular biologists are helping to increase life expectancy and hence contributing to population growth. While very few would argue that improving human health and quality of life are bad things, we nonetheless have to consider the stresses that the rapidly increasing human population is having on the earth and its limited resources. Biochemistry and molecular biology are relevant to many of the major issues we are facing (including sustainable agriculture, food quality and quantity, bio-energy, biodiversity).

Application of biochemistry and molecular biology to emerging global problems is likely to be of vital interest to FAOBMB and our member societies in future years.

In summary, a case has been made for the continuing and expanding relevance of FAOBMB and its members to the development of biochemistry and molecular biology in the Asia-Pacific region. To expand its operations, FAOBMB needs to obtain additional finances (e.g., from company sponsorship and endowments) and by sharing programs with IUBMB, other Federations and our member societies.

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