

Expanding Responsibilities for Medical Physics in Asia-Oceania and its Essential International Links: The Twin Role of AFOMP and IOMP

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ABSTRACT

The objectives of the International Organization for Medical Physics (IOMP) are to organize international cooperation in medical physics, to contribute to the advancement of medical physics in all its aspects, especially in developing countries; and to encourage and advise on the formation of national organizations of medical physics in those countries that lack such organizations. The objectives of the Asian-Oceania Federation of Medical Physics (AFOMP) are to advance medical physics in our geographic region, especially in those countries that do not yet have national organizations of medical physics. We must focus on the development of AFOMP in science, professional relations, education and training in our geographic areas and to seek funding and support from the IOMP for these activities. Since its formation in 2000, the Asian-Oceania Federation of Medical Physics (AFOMP) has been participating actively in IOMP. Our goal now should be to gain more influence by placing members on various committees of IOMP as well as preparing members for leadership roles at the upper levels. AFOMP is already on the world map of medical physics with the upcoming two world congresses – Sydney and Seoul.

Keywords: Medical physics organizations, professional development, education and training

1. The International Organization for Medical Physics (IOMP)

IOMP Objectives

The goal of the IOMP is spelled out in the opening section of the Statutes:

“ 1. The objectives of the International Organization for Medical Physics are:

- (a) To organize international cooperation in medical physics and to promote communication between the various branches of medical physics and allied subjects.
- (b) To contribute to the advancement of medical physics in all its aspects.
- (c) To advise on the formation of national organizations of medical physics in those countries which lack such organizations, and also the possible formation of national committees in those countries where there is more than one medical physics organization.”

To achieve these goals the IOMP uses a wide variety of tools and organizations. The most important of these are the triennial World Congress on Medical Physics and Biomedical Engineering and the publications *Medical Physics World* and *Electronic Medical Physics World* (<http://www.medphysics.wisc.edu/~empw/>). More recently, IOMP has added an Awards Committee, Publications Committee, Science Committee, Education and Training Committee and a Professional Relations Committee. Each of these Committees has a budget to support and sponsor regional conferences and meetings such as the meeting held in Kuala Lumpur (South East Asian Medical Physics Workshop 2001).

The IOMP also initiated a program at Chicago2000 to promote regional collaboration on medical physics meetings and projects. The IOMP is promoting this cooperation by forming the International Advisory Council with representatives from all regional chapters of the association as well as representatives of international organizations with similar

interests such as the International Atomic Energy Agency (IAEA), World Health Organization (WHO), Pan American Health Organization (PAHO) and United Nations (UN). The purpose of this council is to promote improved distribution of educational resources and improved scheduling of events.

The past few years witnessed greatly improved international cooperation on IOMP projects due to the decision to focus on electronic distribution of information and documents using e-mail and the Internet. All information concerning the IOMP is available at the home page <http://www.iomp.org>. In addition to receiving information concerning the organization, there are now connections to all the web pages of the national members and chapter members of the organization. In any given year, the IOMP will sponsor from 8 to 12 medical physics meetings around the world. These meetings as well as reports of past meetings are listed to give all medical physicists access to improved education as well as the ability to improve the practice of the medical physics profession in their region.

Below is a brief description of some of the IOMP committees:

Science Committee

The charge to the IOMP Science Committee is to improve medical physics worldwide by providing systematized knowledge derived from observation, study and experimentation. The Committee promotes research to determine the nature or principles of physics in medicine and put such information in a useful form for all countries but especially in developing countries.

Professional Relations (formerly Developing Countries) Committee

The charge to the IOMP Professional Relations Committee is to improve medical physics worldwide by providing systematized knowledge concerning clinical training, standards of practice, personnel resources and physical resources necessary to provide quality services in the areas of clinical medical physics. The Committee promotes research and documentation to determine the nature and principles of professional conduct necessary to assure quality patient care and put such information in a useful form for all countries but especially in developing countries.

Publication Committee

The charge to the IOMP Publications Committee is to improve medical physics worldwide by providing appropriate publication vehicles for knowledge generated because of research, education and professional programs of the Organization. The focus of the Committee includes both printed and electronic documents prepared with the intent to put information in a useful form for all countries but especially in developing countries.

Education and Training Committee

The objectives of the IOMP are to organize international cooperation in medical physics and allied subjects. The Education and Training Committee addresses these objectives by assisting with the promotion of internationally sponsored Education and Training Programs cosponsored by IOMP National Member Societies and/or Regional Organizations as well as other countries (non-member) that seek our assistance.

International Advisory Council (Regional Chapters and International Organizations)

The charge to the International Advisory Council is to improve the global practice of medical physics by providing advice to the IOMP Governing Council concerning international initiatives, collaborations and programs that will enhance science, education and professional achievements worldwide.

IOMP Membership in IUPESM and ICSU

In the mid 70s, the IOMP began to work with the International Federation for Medical and Biological Engineering (IFMBE) to promote improvement in medical physics and biomedical engineering as well as open the doors to broader recognition of our fields in the world science community. The IOMP and IFMBE formed a union called the International Union for Physical and Engineering Sciences in Medicine (IUPESM) to pursue these goals. The IUPESM initiated contact with the International Council for Science (ICSU) and applied for membership. ICSU first accepted IUPESM as an Associate Union Member and finally in 1999 as a full Union Member. Medical physicist membership in ICSU is an important step forward in the recognition of the contributions of medical physicists to world scientific achievement. The IUPESM has now formed an IUPESM ICSU Liaison Committee to promote scientific and educational interchange with the 26 Union Members and 76 National Academy members of ICSU. More details of these relationships are available at <http://www.iupesm.org> and <http://www.icsu.org>.

2. A BRIEF HISTORY OF AFOMP

Asian-Oceania Federation of Medical Physics (AFOMP) was born in July 2000 during the Chicago World Congress. Its formation is a most challenging mission as Asia has a diverse cultural, social, educational and economical background. Some 60% (3.7 billion) of the world population are in Asia who speak hundreds of languages and dialects. Tradition is a way of life in Asia.

The formation of AFOMP aims to provide a solid platform for closer collaboration and mutual support among its member organizations, particularly in the promotion of standard of practice and professional status and training of the medical physicists in the regions. AFOMP also aims to facilitate and encourage cross-regional collaboration and interaction on every aspect of medical physics. We believe, by working together with our colleagues in other regions we can create a bigger impact in shaping the future of this important profession.

AFOMP is charged with the important task of promoting medical physics in the Asia and Oceania regions. The Federation has been and will continue to working closely with its member organizations, IOMP and other national and international organizations on matters such as development of professional status and standard, medical physics service and service standard, education and training of physicists, and scientific meetings and exchanges. AFOMP has, at its second AFOMP Annual Council Meeting held in November 2001 in Bangkok during the first Asia-Oceania Congress of Medical Physics, established three committees namely Professional Development Committee, Education & Training Committee and Scientific Committee to work on these important tasks. Among their first tasks are the drafting of a set of common regional definitions and standards on the roles and responsibility of a medical physicist, professional and quality standards, manning scale and manpower requirements, and the organization and support of training events and training development. The functions and activities of AFOMP will be reviewed at its 2002 Annual Council Meeting to be held in Gyeongju, Korea during the 3rd KJMP & 2nd AOCMP.

3. THE TWIN ROLE OF AFOMP AND IOMP

The IOMP secretary-general had pointed out that the physics to medicine transfer rate is increasing. Simultaneously clinical medicine is becoming more elevated and homogeneous around the world. There is need for international cooperation to assure medical physics support is sufficient to assure successful implementation in all countries¹.

Generally, the development of medical physics in the region is not in proportion with the rapid advances in the field of radiology and radiation oncology. The lack of resources and expertise are the most common problems we are facing. The challenges facing medical physicists from developing countries within Asia differ greatly from those encountered by their counterparts in advanced countries, because the access to technology, socioeconomic landscape and other factors vary². Issues confronting most of us such as education and training, professional role, salary, funding, and recognition have always been keenly discussed at meetings³.

Although they share the same goals and objectives, the existing working relationship between IOMP and its regional

chapters should be strengthened in order to be more effective in promoting medical physics and professional status of the medical physicists in the region. One possibility is for IOMP and AFOMP to work together (e.g. by forming a working group) to devise a long term development plan to look at issues such as training, professional development, certification, financial resources, scientific meeting, publications, etc.

AFOMP and its member countries should consider drafting and agreeing to a long-term plan on meetings in the region with the aim to avoid clashes and encourage maximum participation. AFOMP organizations should also consider having more joint meetings and less costly small local meetings with the aim to improve participation and regional collaboration. Greater utilization of the Internet in conducting virtual meetings, research collaboration and online educational programs should be spearheaded. Though digital divide presents an obstacle to scientific progress in some countries, we must learn to share ideas and work closely with one another. It is important that all AFOMP medical physicists, especially the leaders to take more active role in promoting regional collaboration and mutual support. Furthermore, we should gain more influence by placing members on the various committees of IOMP as well as preparing members for possible leadership roles at the upper levels.

Asian-Oceania medical physicists have been active in the international scene. Our Japanese colleagues had successful hosted the 1991 World Congress held in Kyoto. We will soon visit the Land Down Under for the 2003 World Congress in Sydney. The international community will once again turn their attention to Asia when they convene in Seoul for the 2006 World Congress.

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