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Series in Medical Physics and Biomedical Engineering

THE PHYSICAL MEASUREMENT OF BONE

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The Series in Medical Physics and Biomedical Engineering is the official book series of the International Federation for Medical and Biological Engineering (IFMBE) and the International Organization for Medical Physics (IOMP)

IFMBE

The International Federation for Medical and Biological Engineering (IFMBE) was established in 1959 to provide medical and biological engineering with a vehicle for international collaboration in research and practice of the profession. The Federation has a long history of encouraging and promoting international cooperation and collaboration in the use of science and engineering for improving health and quality of life.

The IFMBE is an organization with membership of national and transnational societies and an International Academy. At present there are 48 national members and two transnational members representing a total membership in excess of 30 000 worldwide. An observer category is provided to give personal status to groups or organizations considering formal affiliation. The International Academy includes individuals who have been recognized by the IFMBE for their outstanding contributions to biomedical engineering.

Objectives

The objectives of the International Federation for Medical and Biological Engineering are scientific, technological, literary and educational. Within the field of medical, clinical and biological engineering its aims are to encourage research and the application of knowledge, and to disseminate information and promote collaboration.

In pursuit of these aims the Federation engages in the following activities: sponsorship of national and international meetings, publication of official journals, cooperation with other societies and organizations, appointment of commissions on special problems, awarding of prizes and distinctions, establishment of professional standards and ethics within the field, as well as other activities which in the opinion of the General Assembly or the Administrative Council would further the cause of medical, clinical or biological engineering. It promotes the formation of regional, national, international or specialized societies, groups or boards, the coordination of bibliographic or informational services and the improvement of standards in terminology, equipment, methods and safety practices, and the delivery of health care.

The Federation works to promote improved communication and understanding in the world community of engineering, medicine and biology.

Activities

The IFMBE publishes the journal *Medical and Biological Engineering and Computing*, which includes a special section on *Cellular Engineering*. The *IFMBE News*, published electronically, keeps the members informed of the developments in the Federation. In cooperation with its regional conferences, IFMBE issues a series of the IFMBE Proceedings. IFMBE's official book series, *Medical Physics and Biomedical Engineering* is published by the Institute

of Physics Publishing in cooperation with IOMP and represents another service to the Biomedical Engineering Community. The books in this series describe applications of science and engineering in medicine and biology and are intended for both graduate students and researchers. They cover many topics in the field of medical and biological engineering, as well as medical physics, radiology, radiotherapy and clinical research.

The Federation has two divisions: *Clinical Engineering* and *Technology Assessment in Health Care*. Additional special interest groups are the regional working groups: *Africa/ICHTM*, *Asian-Pacific*, *Coral*, *Developing Countries*, and the scientific working groups: *Cellular Engineering*, *Neuro-engineering*, and *Physiome*.

Every three years the IFMBE holds a World Congress on Medical Physics and Biomedical Engineering in cooperation with the IOMP and the IUPESM. In addition, annual, milestone and regional conferences are organized in different regions of the world, e.g. in the Asia-Pacific, Nordic-Baltic, Mediterranean, African and South American regions.

The Administrative Council of the IFMBE meets once a year and is the steering body for the IFMBE. The council is subject to the rulings of the General Assembly, which meets every three years at the occasion of the World Congress.

Information on the activities of the IFMBE are found on its website at <http://www.ifmbe.org>.

IOMP

The IOMP was founded in 1963. The membership includes 64 national societies, two international organizations and 12 000 individuals. Membership of IOMP consists of individual members of the Adhering National Organizations. Two other forms of membership are available, namely Affiliated Regional Organization and Corporate members. The IOMP is administered by a Council, which consists of delegates from each of the Adhering National Organizations; regular meetings of council are held every three years at the International Conference on Medical Physics (ICMP). The Officers of the Council are the President, the Vice-President and the Secretary-General. IOMP committees include: developing countries, education and training; nominating; and publications.

Objectives

- To organize international cooperation in medical physics in all its aspects, especially in developing countries.
- To encourage and advise on the formation of national organizations of medical physics in those countries which lack such organizations.

Activities

Official publications of the IOMP are *Physiological Measurement*, *Physics in Medicine and Biology* and the *Series in Medical Physics and Biomedical Engineering*, all published by the Institute of Physics Publishing. The IOMP publishes a bulletin *Medical Physics World* twice a year.

Two council meetings and one General Assembly are held every three years at the ICMP. The most recent ICMPs were held in Kyoto, Japan (1991), Rio de Janeiro, Brazil (1994), Nice, France (1997) and Chicago, USA (2000). These conferences are normally held in collaboration with the IFMBE to form the World Congress on Medical Physics and Biomedical Engineering. The IOMP also sponsors occasional international conferences, workshops and courses.

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