

International Organization for Medical Physics Activities related to Radiological Protection of Patients



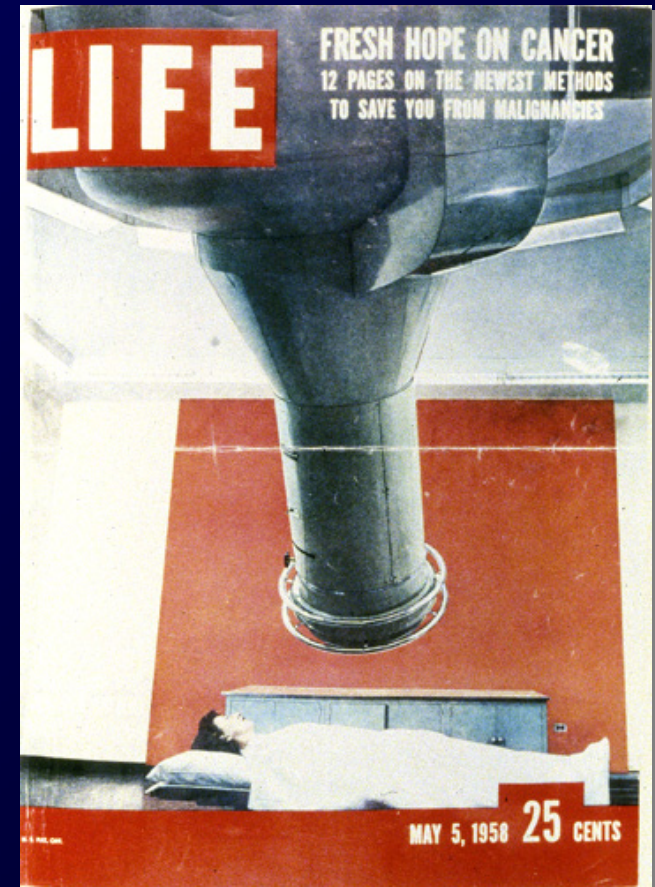
Cari Borrás
Science Committee Chair

<http://iomp.org/index.html>

Medical Physics Societies

The First Steps

- **HPA founded in 1919**
- **AAPM founded in 1958**
- **IOMP began in 1963 with 4 member countries (UK, Sweden, Canada and USA)**
- **First International Congress in UK 1965**



IOMP Constituency

- 76** Adhering National Member Organizations
- >16,000** Individual Members
- 2** Corporate Members
- 4** International Regional Organizations

- **EFOMP**
- **ALFIM**
- **AFOMP**
- **SEAFOMP**



ALFIM, 1er. Asamblea, Chicago, 1984

IOMP Purpose

The objectives of the IOMP are to organize international cooperation in medical physics and allied subjects; 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 which lack such organizations.

IOMP Membership

- **Founding member of the International Union for Physical and Engineering Sciences in Medicine (IUPESM)**
- **Through IUPESM is one of 26 union members of the International Council of Scientific Unions (ICSU)**

IOMP Governance

- **Council (Delegates)**
- **EXCOM**
 - **President**
 - **Vice President**
 - **Secretary-General**
 - **Treasurer**
 - **Past President**



**Barry Allen, IOMP President
October 2007**

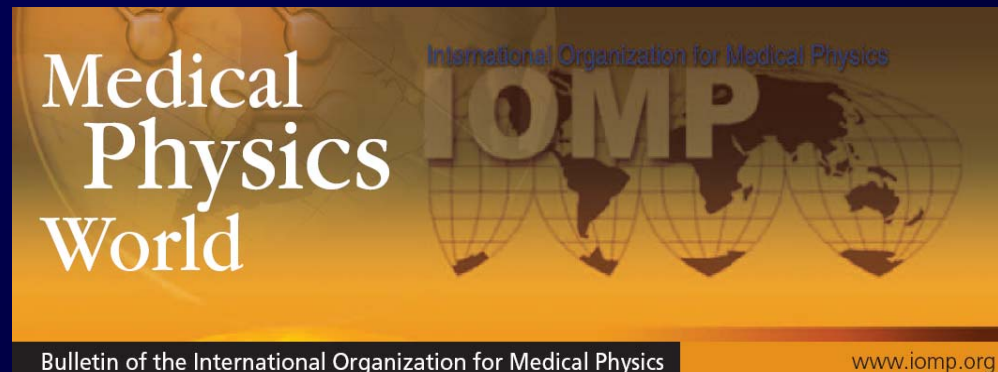
IOMP Committees

- **Education and Training**
- **Professional Relations**
- **Science**
- **Publications**
- **Awards and Honors**
- **Finance**

Review and Way Forward: 2006-2012

IOMP Publications

- **Medical Physics World (MPW)**
- **Physics in Medicine and Biology**
- **Physiological Measurement**
- **Medical Physics**
- **Journal of Applied Clinical Medical Physics (JACMP)**



IAEA Publications

Cosponsored by the IOMP

- **Applying Radiation Safety Standards in Radiotherapy [Safety Report 38]**
- **Applying Radiation Safety Standards in Diagnostic Radiology and Interventional Procedures Using X Rays [Safety Report 39]**
- **Applying Radiation Safety Standards in Nuclear Medicine [Safety Report 40]**
- **Comprehensive Audits of Radiotherapy Practices: A Tool for Quality Improvement / Quality Assurance Team for Radiation Oncology (QUATRO) [STI/PUB/1297]**

Programs for Developing Countries

- **IOMP/AAPM Library Program**

68 active libraries in 41 countries

– **Curator: Alan Wilkinson**

- **IOMP Equipment Donation Program**

Used Equipment Donation Program Managers:

– **Mohammed Zaidi, USA**

– **Ajai Kumar Shukla, India**

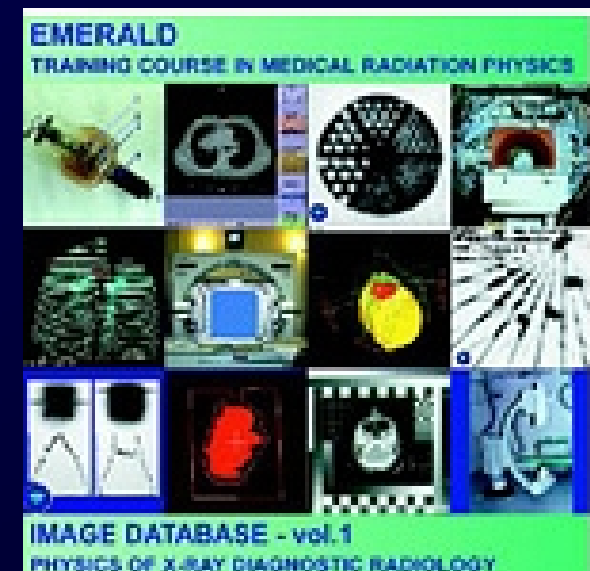
- **IUPESM Health Technology and Training Task Group**

- **Chair: Barry Allen, President IOMP**

- **Co-Chair: Joachim Nagel, President IUPESM**

IOMP Educational Activities

- Keeps Global Listing of Graduate Programs in Medical Physics
- Participates in the *European Medical Imaging Technology e-Encyclopaedia for Lifelong Learning (EMITEL)* project, an e-learning tool for specialists in medical physics and medical imaging technology
- Participates in IAEA Projects:
 - “Strengthening of Medical Physics through Education and Training”.
 - “Competency Training Program for Radiation Oncology for Medical Physicists (ROMP)” (Asia and Pacific Region)
- Organizes/co-sponsors/endorsees international training programs



Recent IOMP Co-sponsored or Endorsed Educational Events

- **‘Regional Meeting for National Trainers to Initiate Trialing of the Program for Radiotherapy Specialty’, Bangkok, Thailand, June 2007**
- **The Seventh Asia Oceania Congress of Medical Physics (AOCMP), Huangshan, China, June 2007**
- **The Third Beijing International Conference on Physics and Engineering of Medical Imaging, Beijing, China, June 2007**
- **AFOMP Symposium on Education and Training for Medical Physicists, August 2007**
- **Therapeutic and Diagnostic Physics: Current Practice, Recent and Future Advances, Manama, Bahrain, August 2007**
- **The Fifth South East Asia Congress for Medical Physics (SEACOMP), Manila, Philippines, November 2007**

IOMP Scientific Activities (1)

- IOMP is represented on the WHO's 'Harm to Patients Caused by Radiotherapy' initiative, London, UK
- IOMP is producing a list of medical physicists who are willing to serve as consultants for specific medical physics assignments.
- Participated in Consultative Committee for Ionizing Radiation CCRI (1) at BIPM, Paris, France, May 2007



**Participants in CCRI (1)
in front of the
conference building at
the BIPM**

**Hans Svensson, IOMP
1st row, 2nd from the right**

IOMP Scientific Activities (2)

- **Provided input to *BSS* under revision and participated in 1st Technical Review Meeting, Vienna, Austria, July 2007**
- **Has started collecting information for Scientific Database**
- **Endorses/cosponsors international scientific events**
- **Organizes IOMP Symposia at major scientific venues**
 - ***“Cellular and Tissue Imaging: challenges for modern radiation therapy”***, 6th International Conference on Biological Physics Icbp-2007, Montevideo, Uruguay, August 2007
 - ***“Radiobiología: avances y aplicaciones en radioterapia y radioprotección”***, Asociación Latinoamericana de Físicos en Medicina (ALFIM) Congress, Cartagena de Indias, Colombia, October 2007
 - ***“New Technologies for Radiation Treatment”***, 16th International Conference on Medical Physics (ICMP08), Dubai, United Arab Emirates, April 2008

IOMP Professional Activities

- Pursues with ILO classification of Medical Physicist as a Health Professional
- Organizes symposia on professional development of medical physicists , i.e. [Huangshan, China, 2007]
- Contributed definition of Medical Physicist to the *BSS* currently under revision

BSS 1st Revision Technical Committee Meeting at IAEA



Left to Right: Kin Yin Cheung (AFOMP), Pablo Jimenez (PAHO), Cari Borrás (WHO), Stelios Christofides (EFOMP) and Hans Svensson (Head of IOMP Delegation)

Medical Physicist

- *A health professional**, with specialist education and training in the concepts and techniques of applying physics in medicine, and accredited as competent to practise independently in one or more of the subfields of medical physics.
- * *The International Labor Organization (ILO) classifies medical physicists as physicists. Unless the ILO recognizes them as health professionals, many countries cannot hire them as professional staff in public hospitals.*

The regulatory body shall ensure that the authorization that allows medical exposures to be performed at a particular medical radiation facility includes identifying the radiological medical practitioners, **the medical physicists, the medical radiation technologists, and any other qualified experts with specific duties in patient radiation protection who are to be permitted to take on the respective responsibilities in these Standards**

Proposed - BSS

For therapeutic uses of radiation, the calibration, dosimetry and quality assurance (including equipment acceptance and commissioning) requirements of these Standards, ... are conducted by or under the supervision of a **medical physicist with competence in the relevant field (for example, radiation oncology or nuclear medicine)**

For diagnostic and image-guided interventional uses of radiation, the imaging, calibration, dosimetry and quality assurance (including equipment acceptance and commissioning) requirements of these Standards ... are fulfilled by, or under the oversight of or with the advice of, a **medical physicist with competence in the relevant field, where the degree of involvement of the **medical physicist** is determined by the complexity of the particular use of radiation and the ensuing radiation risks**

Proposed - BSS

IOMP Commitment to Radiological Protection of Patients

- **International Atomic Energy Agency**
 - **Action Plan on Radiological Protection of Patients**
- **World Health Organization**
 - **Global Initiative on Patient Safety (London, UK)**
 - **Global Initiative on Radiation Safety in Health Care Settings (Geneva, Switzerland)**

Forthcoming IOMP Meetings

8th Asia-Oceania Congress and 6th South-East Asia Congress of Medical Physics

Ho Chi Minh City, Vietnam

29 October – 1 November 2008

www.choray.org.vn/8AOCMP/

World Congress on Medical Physics and Biomedical Engineering 2009

Munich, Germany, 7 – 12 September 2009

www.wc2009.org