Enthusiasm, good will and a structure to make them more valuable

Yakov Pipman, D Sc

DISCLOSURE

Common Interests

- AAPM - Board of Directors member, Education Council, International Educational Activities African Affairs, Latin American Affairs
- IOMP - Professional Relations Committee
- “MPWB” - Co-founder and VP

AAPM Membership (total = 8349)
Enthusiasm and Good Will

What is needed in Medical Physics to address Global Cancer?

- By 2035: Will need an additional 22,000 Medical Physicists for LMICs alone to provide equal access to radiation therapy globally (Lancet Oncology Commission report)
- By 2025: We should train 6,000 MPs for LMIC’s. (The Lancet report - Calls for Actions)
  -- This is more than 600/year!

Compare with:
- IOMP membership - about 20,000
  - Many in High Income Countries (about 10,000 in the US and Canada alone)

Atun et al, Lancet Oncol 16: 1153-1186; Sept 2015

Great Challenges

- Many LMICs have little in the way of training programs or experienced medical physicists
- Great need for outside support
- Great need for equipment to train on/ train with.
- Training time is by and large not ‘compressible’
What is being done?

AAPM INTERNATIONAL OUTREACH PROGRAMS

AAPM INTERNATIONAL EFFORTS

Consolidated into two major committees

- International Educational Activities Committee
- International Affairs Committee
INTERNATIONAL EDUCATIONAL ACTIVITIES COMMITTEE

- Ensure that AAPM provides medical physics educational programs and educational resources to medical physicists working outside of the USA and Canada.
- Ensure coordination between these international educational activities of the AAPM and those of related organizations.

IEAC (ACTIVITIES)

- Assess, periodically, the need for international educational activities and AAPM’s associated activities.
- Develop and maintain policies for allocation of the AAPM’s international educational resources.
- Develop and maintain policies for the conduct of AAPM’s international education activities.
- Plan, develop, and direct the international educational programs and activities of the AAPM, including the International Scientific Exchange Program.

IEAC (ACTIVITIES)

- Endorse and Co-sponsor non-AAPM international education activities.
- Recommend to the AAPM Board sponsorship of non-AAPM international education activities.
- Provide advice to international organizations about educational needs in medical physics.
- Recommend to the AAPM Board advice intended for international agencies and foreign governments about the educational needs in medical physics.
- Develop budgets for the international educational activities of the AAPM.
The AAPM International Affairs Committee shall advise the AAPM Board of Directors through Administrative Council on matters related to activities of an international nature conducted either by individuals or committees on behalf of the Association.

INTERNATIONAL AFFAIRS COMMITTEE

- Make recommendations to the President-Elect and/or the President for appointments of delegates and alternate delegates to international organizations such as the International Organization for Medical Physics (IOMP).
- Prepare reports on the international activities of the Association for the Board of Directors through Administrative Council.

IAC (ACTIVITIES)

- Promote the application of physics to medicine and biology internationally.
- Disseminate scientific, technical, professional, and historical information concerning medical physics internationally.
- Serve as a clearinghouse for activities of an international nature of members, councils, and committees in order to provide coordination.
AAPM PROGRAMS ARE OFTEN COLLABORATIVE EFFORTS

- IOMP
- COMP
- ESTRO
- EFOMP
- IAEA
- ICTP
- MPWB
- Other National and Regional Societies
Examples: South East Asia

• Asian Oceanic Affairs Subcommittee (AOA-SC) works with North American Chinese Medical Physicists Association (NACMPA), participate in a variety of Regional courses and meetings in China.
• Advise to Chinese Health Department on guidelines and polices. Dialogue with China Medical Devices officials on setting up QC standards.
• Advanced Radiation Therapy Workshop - Cho Ray Hospital, Ho Chi Minh City – June 2016

Examples: Africa

• Dakar, Senegal: ‘Radiating Hope’ Physicists helped with training for an HDR and External beam program at Institut Curie to improve treatment techniques and to assist with department-wide issues.
• Nigeria: Several hands-on training visits to support a National MP training program (2010, 2012, 2013).
• AFROBIOMEDIC : Pan African Medical Physics, BioMedical Engineers and Medical Scientists Conference in Nigeria – October 2016.

Examples: Middle East

Liaison to Iraq - External advisor to the Iraqi Cancer Board (ICB).
Assistance with equipment specifications for RT facilities undergoing upgrade.
Host to Iraqi radiation oncologist on SBRT.
Co-sponsored King Fahed Medical City Conference on Physics and Engineering In Medicine, Saudi Arabia, 2015.
Endorsed and Co-Sponsored meetings

<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>2014</td>
<td>August 24 - 30, 2014</td>
<td>International Workshop on Modern Clinical Radiography</td>
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<tr>
<td>2014</td>
<td>May 18</td>
<td>ISMIP Meeting of Medical Physics/ Meeting of Medical Physics of the Americas/ IAC/MBM Meeting of Nuclear Medicine and Diagnostic Imaging</td>
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<tr>
<td>2014</td>
<td>8/24/14</td>
<td>AAPM/ISMR - IARP Radiotherapy course on &quot;QA and Dosimetry of Emerging Radiotherapy Techniques&quot;</td>
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<tr>
<td>2014</td>
<td>17 June - 18</td>
<td>International Workshop on Nuclear Techniques in Medical Physics</td>
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<td>2014</td>
<td>4/6-8, 2014</td>
<td>ESTRO III Vienna, Austria</td>
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<td>2013</td>
<td>8/24-27, 2013</td>
<td>VI Congress of the Latin American Medical Physics Association (ALFIM) Guanacaste, Costa Rica</td>
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<tr>
<td>2013</td>
<td>November 29-30, 2013</td>
<td>School on Medical Physics and Radiotherapy Montevideo, Uruguay</td>
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<tr>
<td>2012</td>
<td>3/26/2012</td>
<td>5th International Conference on Medical Physics and Radiation Protection</td>
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Who else is doing what?

- Teaching resources
  - Regional Courses
  - Training fellowships
- Regional and National projects
  - Multiyear budgeted
  - Requested by National Authorities
  - Equipment
  - Expert missions/scientific visits
- Dosimetry and program audits (TLD, QUATRO)
- Surveys and data
  - Equipment (OECD-A)
  - Safety (SAFIR, SAFety in Radiation Oncology)
  - Accidents
- International Standards, Guidelines and Protocols
- International and national radiation policies
Collaborations with ICTP-IAEA programs

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Are there gaps?

Need for more...

- Support for individual clinics / universities
- Grassroots activities
- Individualized education/training/mentoring
- Longer term support
- Prompt assistance and consultation
- Development of longer term relationships

www.MPWB.org
• Why a structure to volunteer?

Coordination
Leverage
Sustainability
Your thoughts...

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