

AAPM educational endeavors and resources

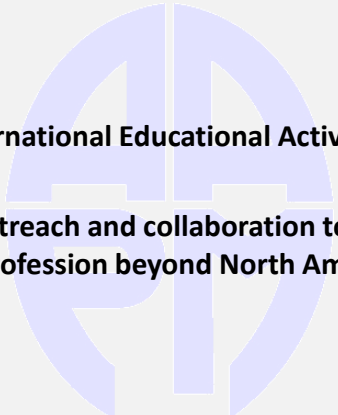
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tools for mutual collaboration and growth**



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AAPM**

International Educational Activities

An outreach and collaboration tool for the profession beyond North America.



International Scientific Exchange Programs

- Two each year: Imaging (1) + Therapy (1)
- 4-5 full days
- Local Director and institutional commitments
- Program matched to the local needs
- 2 Program directors: Local (1) + AAPM-ISEP (1)
- Numerous lectures by 4-5 AAPM faculty
- Some practical demonstrations and exercises
- Language
- Regional - Geographic balance





ISEP Characteristics



- **Tool to enhance status and visibility of MP at various levels**
 - Clinical Institution
 - Academic
 - Regulatory
 - National Education and Health authorities
- **Boost to the formation, and/or to advance, the organization of the local MP organization**
- **Focused discrete event**
- **Seed to longer term collaboration and relations**

36 ISEP courses since 1992

- 1992 Islamabad, Pakistan
- 1993 Warsaw, Poland
- 1994 Tehran, Iran
- 1995 Istanbul, Turkey
- 1996 Rabat, Morocco
- 1997 Moscow, Russia
- 1998 Cairo, Egypt
- 1999 Sao Paulo, Brazil
- 1999 Cluj Napoca, Romania
- 2000 Bangkok, Thailand
- 2001 Dhaka, Bangladesh
- 2002 Riyadh, Saudi Arabia
- 2002 Sao Paulo, Brazil
- 2003 Cairo, Egypt
- 2004 Chengdu, China
- 2004 Abu Dhabi, UAE
- 2005 Manila, Philippines
- 2005 Yaoundé, Cameroon



International Educational Activities Committee - IEAC

WG on Cooperative Agreements between the AAPM and other National and International Medical Physics Organizations - WGNIMP

- **SEFM and AMPR**
- **Individual student and faculty visits**
International Learning - A two way street
- **Joint Scientific or Education Symposia**
International learning
- **Chair: Cari Borrás (cariborras@starpower.net)**



Example: In Latin America

- ALFIM - founded at the AAPM annual meeting in Chicago, 1984
- Steady support of ALFIM workshops and congresses and courses:
 - 1988-Austin
 - 1994-Rio de Janeiro
 - 2000-Chicago
 - 2001-Caracas
 - 2004-Rio de Janeiro
 - 2007-Cartagena
 - 2010-Cuzco
 - 2013-Costa Rica
- Numerous national meetings and workshops





Example: 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.
- Not enough!



Example: In 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.

Dakar, Senegal: ISEP course

Nigeria: Several hands-on training visits to support a National MP training program. (2010, 2012, 2013)

Far from enough!

Endorsed and Co-Sponsored meetings



2014	August 24 -30, 2014	International Workshop on Modern Clinical Radiography
2014	January 28 - 31, 2014	The Physics of Advanced Radiotherapy Techniques: The Role of Medical Images
2014	18-May-14	XII Argentinean Meeting of Medical Physics/ I Meeting of Medical Physics of the Americas/ I AATMN Meeting of Nuclear Medicine and Diagnostic Imaging
2014	6/16/2014	AAPM/IOMP - ISEP Radiotherapy course on: "QA and Dosimetry of Emerging Radiotherapy Techniques"
2014	17-Jun-14	International Workshop on Monte Carlo Techniques in Medical Physics
2014	4/ 4 - 8, 2014	ESTRO 33 Vienna, Austria
2014	January 28 - 31, 2014	The Physics of Advanced Radiotherapy Techniques: The Role of Medical Images Santiago, Chile
2013	8/ 24 - 27, 2013	VI Congress of the Latin American Medical Physics Association (ALFIM) Guanacaste, Costa Rica
2013	June 12 - 15, 2013	4th Biannual Congress of Radio-Chemotherapy and the 7th Medical Physics Meeting Córdoba, Argentina
2013	November 29 - 30, 2013	School on Medical Physics Montevideo, Uruguay
2012	3/26/2012	16th International Leiksell Gamma Knife Society Meeting
2012	8/ 22-25, 2012	International Workshop: New Technologies in Modern Radiotherapy-Bangkok, Thailand

Some of the Challenges encountered

- Unreliable or limited communication channels limit access to external resources needed for advise and technical support
- Underutilization of resources available.
- Advanced equipment purchased without the proper human resources preparation instead of gradual but steady addition of equipment to assure its proper utilization.
- Poor equipment maintenance hinders operations and training projects
- Strong need for mentoring and training in problem solving
- Disconnect between responsibility and authority
- Hierarchical structure at the workplace that is not conducive to taking initiative
- Need for very practical training in addition to didactic lectures.

Characteristics of 'longer stay' activities:

Better chance for establishing a long term relationship between the parties.

Opportunity to learn the issues and solutions specific to the locality

More of the learning can be combined with practical doing.

The "learning while solving", even if the problems are incidental to the declared purpose of the training, is a very effective teaching and learning method.

Requires a broad approach to problem solving
Experience is valuable. But, 'open mind' and flexibility is as important.

Bring home the lessons learned from the experience

There is a need to expand these longer term and more hands-on collaborations.

They are far from enough!

So what is in it for us?

- As individuals
- As an organization



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