Education Council Symposium

AAPM and International Education: What, Why and How?

Is this the place?

Yakov Pipman, D.Sc.
Medical Physicist Emeritus
Chair - International Education Activities Committee
Education Council Symposium

AAPM and International Education: What, Why and How?

Brought to you by the IEAC

Yakov Pipman, D.Sc.
Medical Physicist Emeritus
Chair - International Education Activities Committee
Why do we get involved?
Lila Downs, a Mexican-American singer-songwriter.

- Native Spanish speaker, speaks fluent English and Mixtec.
- She performs her own compositions, Mexican traditional and popular music, and songs in indigenous languages: Mixtec, Zapotec, Mayan, Nahuatl and P’urhépecha.
Fela Kuti – Nigerian musician

• **Beginning in the 1960s, Fela pioneered his own unique style of music called "Afrobeat."**

• **Singed in English, Yoruba and Pidgin English**
Manu Chao, a Spanish/French singer.

- Sings in French, Spanish, English, Italian, Galician, Arabic, and Portuguese and occasionally in other languages.
Manu Chao
...all over the map...
Medical Physics - is it the same?

\[ E_2 - E_1 = \Delta E = h\nu \]
Is Medical Physics without Borders?
A gamut of cases.

- Bend, Oregon, 1980’s: incorrect T/P correction. 13% overdose
- Spain, 1990: Linac ‘repair’ led to 36MeV e- beam no matter what was programmed. No dosimetry check. 27 patients, 15 deaths
- Costa Rica, 1996: Incorrect Co-60 source calibration. Confusion between 0.30 min and 30 seconds. About 115 patients received 60% higher doses, 17 deaths among them.
- Panama, 2000-01: Unverified change of a procedural detail in Treatment planning. 28 patients received “double their doses”. Eight deaths and many major complications.
- France, 2004: Incorrect MU for dynamic wedge. 23 patients overdosed 20%, 4 deaths
- Glasgow, 2006: Incorrect calculation of MU’s. Planner thought TPS calculated MU/Gy and not MU/fraction. It didn’t! 67% overdose results in death
- UK, 1982-90: incorrect SSD correction (did not know how TPS worked). 1045 patients, 30% underdose, >492 RT failures
- France, 2006-7: large ion chamber used for SRS. 145 overdoses.
We need to talk...
Communication is key!
We also did things together...
We ate together...
Where are our members?

<table>
<thead>
<tr>
<th>Country</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>11</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>6</td>
</tr>
<tr>
<td>Brazil</td>
<td>30</td>
</tr>
<tr>
<td>Canada</td>
<td>449</td>
</tr>
<tr>
<td>China</td>
<td>48</td>
</tr>
<tr>
<td>Cuba</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>64</td>
</tr>
<tr>
<td>Ghana</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>34</td>
</tr>
<tr>
<td>Iran</td>
<td>0</td>
</tr>
<tr>
<td>Iraq</td>
<td>3</td>
</tr>
<tr>
<td>Morocco</td>
<td>1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>5</td>
</tr>
<tr>
<td>Poland</td>
<td>9</td>
</tr>
<tr>
<td>Russia</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>36</td>
</tr>
<tr>
<td>UK</td>
<td>59</td>
</tr>
<tr>
<td>USA</td>
<td>6000+</td>
</tr>
</tbody>
</table>

Just a sample!
There are about 420 AAPM fellows
...among them...

Suresh K. Agarwal - India
Muthana Al-Ghazi - Iraq
Caridad Borras - Spain
Chen-Shou Chui - Taiwan
Joanna Cygler - Poland
Carlos E. de Almeida - Brazil
Doracy Fontenla - Brazil
Michael Goitein - UK
John Laurence Humm - UK
M. Saiful Huq - Bangladesh
Willi A. Kalender - Germany
and...

Renate Muller-Runkel - Germany
Adel A. Mustafa - Palestine
Orhan Nalcioglu - Turkey
Ravinder Nath - India
Azam Niroomand-Rad - Iran
Colin G. Orton - UK
Nikos Papanikolaou - Greece
E. Ishmael Parsai - Iran
Yakov M. Pipman - Argentina
Ervin B. Podgorsak - Slovenia
Ulf F. Rosenow - Germany
What do we get out of it?

- geography
- colleagues
- Surprises and challenges
- Food
- Teach and learn
- Helping
- culture
- friends

Work in a very different environment
Education Council Symposium

AAPM and International Education: What, Why and How?

Yes, this is the place!

Yakov Pipman, D.Sc.
Medical Physicist Emeritus
Chair - International Education Activities Committee
So, here we go!

Medical Physics Education and Training in the Global Village
Issues, Strategies, and Experiences

Hearts in International Education: Rewards and Benefits

International educational programs for the future: challenges and opportunities

Transforming Teachers into Learners and Learners into Teachers; the Sui Generis Opportunities in Cross-Border Collaboration