

MEDICAL PHYSICS WORLD

Bulletin of the International Organization for Medical Physics

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President's Message — (Ms.) Azam Niroomand-Rad, PhD, President IOMP



Ms. Azam Niroomand-Rad
President of IOMP

Dear Fellow Members of IOMP,
I would like to thank you for entrusting me with the position of Vice-Presidency for the past three years and Presidency for the next three years. It has been an honor and privilege to serve such a fine organization. A little over three years ago, when I was asked to be a candidate, I was told by the members of the Nominating Committee and one of my mentors, Professor John Cameron, that if elected the experience would be rewarding.

I have NOT yet been disappointed despite long hours required to overcome many unforeseen obstacles on the road from Chicago to Sydney. In continuing on this road to Seoul, I am sure, we will need to overcome a few more barriers.

Let me start, on your behalf, to express our sincere thanks to Professors Oskar Chomicki and Gary Fullerton for their untiring efforts on our behalf in serving as President and Secretary-General for the past three years. Congratulations to both of them for a

job well done! I would also like to express our appreciation to Dr. Marilyn Stovall, Curator of the Libraries, for her outstanding work over the past six years in managing the library programs in developing countries. The Chairs and members of the committees should certainly be acknowledged for their tireless efforts over the past three years as well. I know how many hours of voluntary work they have devoted to the IOMP programs. They all deserve our thanks and our support. Congratulations also to our three newly elected Officers: Prof. Barry Allen from Australia (Vice President), Prof. Peter Smith from Ireland (Secretary General) and Prof. George Mawko from Canada (Treasurer). I look forward to working with the new as well as the old Officers to serve your Organization to the best of my ability.

How am I going to do this? Certainly NOT without your support and your help. We need you to become active in IOMP affairs. Thanks to Prof. Gary Fullerton, all the IOMP activities are now posted at the IOMP Home Page (www.iomp.org). Visit this site and send us your ideas and get involved with the tasks at hand.

(continued on page 2)

Vice-President Report

Barry Allen, Ph.D., VP - IOMP

Dear Colleagues,

I think the general consensus was that WC2003 was a great success. Both the science and the environment were very good. There were of course a number of defects, but hopefully most people were unaware of these. "No shows" were only a minor problem in some tracks, but caused serious inconvenience in others. Generally staff support was excellent.

Some statistics follow. Of the 2200 delegates, there were 1000 full, 200 day, 250 student, developing countries and retirees, and 100 complimentary registrations. The budget was a tad shy of \$2,000,000. There were 1000 oral and 1200 poster papers, although quite a few posters did not make it to the boards.

New innovations were the poster kraals, a new Physics track for Hadron Therapy, the Micro-Mini-dosimetry workshop and the Clinical Day. The Hadron Therapy track provided the first opportunity for BNCT, TAT, FNT, PT, HIT to be discussed. In view of their many overlapping aspects, this was

considered to be an advance. The few poster kraals worked well, but the facilitator really needs to know the topic very well. On the other hand, the posters were not so successful, as many did not make it to the boards.

Other Physics features were the point-counterpoint sessions on chemotherapy dose, targeted screening, protons vs imrt, and radiotherapy modalities for glioblastoma. The inclusion of clinical specialists points to the further integration of different disciplines. The keynote speaker, Lord May of Oxford, suggested that the future of such Congresses lies in their broadening to be more inclusive than exclusive.

The Congress has returned the seed funds and an initial payment of \$US30K to the International Societies. The final payment and profit sharing awaits the closing of the books. However, I can announce that the Congress was financially successful.

The single biggest threat to the financial success of the Congress was the poor turnout by Americans. Next was the high number of day registrations, which in a way defeats the primary purpose of the Congress, to broaden and educate delegates about the big picture.

The Organizing Committee did a great job over the years, and received valuable assistance from the Conference Organizers. Such a broad spectrum of science and technology requires extensive delegation by the Organizing Committee to the Track Chairs, who in turn must rely on their Topic Chairs. In the main, this structure worked well, and when it didn't, changes were made.

My sincere thanks to all those who contributed to the success of the Congress.

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President's Message *(continued from page 1)*

Several items were discussed during the Council meetings in Sydney. Some were (conditionally) approved but need more work to be completed and some need to get started. I encourage you to look at the minutes of the Council meetings on the IOMP Web page to see how you can help and contribute to make your wishes for your Organization come true. Here is a partial list of the tasks that need our attention:

- Members of the committees (Science, Education & Training, Professional Relation, Publication, Honors and Awards, and Finance) for 2003 – 2006 are now being finalized. If interested in serving on any of these committees, please contact the corresponding Chairs.
- Chair and members of a newly established "Rule Committee" are being appointed. The main task for the time being will be a review of the revised By-Laws and Statutes that were approved in Sydney. If interested, please contact me.
- An Ad-Hoc Committee is being formed to examine the feasibility of having IOMP meetings with its Chapters - similar to the one being planned (on a trial basis) with EFOMP for their meeting in Germany in 2005. Please inform us of your ideas on this topic.
- A new Curator for the International Library Program needs to be appointed. (See the announcement on page — of this issue). If interested, please contact

Chair of the Professional Relation Committee (PRC).

- Definitions of "medical physics" and "medical physicist" as stated by Prof. Oskar Chomicki, were approved in Sydney, but they need some fine-tuning. If you have any comments, please contact PRC Chair.

Lastly, I would like to point out that IOMP continues to be strong scientifically and professionally but NOT financially. We try to meet the needs of our members to the best of our abilities, again mostly on volunteer basis. But to strive, we have to grow. The IOMP's livelihood depends on your support - both in terms of time/effort and membership dues paid by your national organization – as well as support from our Corporate members. IOMP Corporate members have been declining in the past few years. We need to strengthen our financial state by:

- (a) Improving on Membership Dues collection using the new Due Scheme approved in Sydney,
- (b) Establishing closer ties with vendors and attracting more Corporate members,
- (c) Fostering closer ties / interactions among medical physicists by participating and Co-Sponsoring international meetings on medical physics with Chapter collaboration on regular basis,
- (d) Exploring avenues for receiving grants / donations from private entities.

To achieve these goals effectively, I personally believe that IOMP should consider having a "permanent" Headquarter – independent of the Secretary General's Office – with a "permanent" hired staff/secretary who can pursue on these stated avenues (a)-(d). Clearly, this may be a costly proposition that requires some initial investment. However, I think that in the long term, the return on this investment will benefit us all and will enable the Organization to grow.

As always, the IOMP Officers and Chairs will be available to the members for correspondence on any issues as we all work together to improve our Organization.

Officers and Council of IOMP - 2003

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Advertizing requests should be addressed to **Drs. Parsai and Narayana.**

Event information should be addressed to **Dr. Carter Schroy.**

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Secretary General's Report –

Peter H S Smith BA, Ph.D.

I was delighted and honoured to be elected Secretary-General of IOMP at the Council Meeting in Sydney in August. It is with trepidation that I take over the post from Dr Gary Fullerton and I am most grateful to him for his support for the transition period whilst I organise the move of the IOMP office from Texas to York, UK.

Dr Fullerton was Secretary-General for two periods, taking over in 1998. During that time he has devoted an enormous amount of time and effort for taking IOMP forward and the organisation has made many advances. It owes him a debt of gratitude for his achievements

Perhaps, as a new name on the IOMP stage, I should briefly give some details of myself. By the time this edition of Medical Physics World is published I will be semi-retired, having been Chief Executive and Professional Head of the Northern Ireland Medical Physics Agency, which provides a comprehensive medical physics and clinical engineering service for the whole of Northern Ireland, which has a population of 1.6 million. It is an unusual and unique organisational arrangement, being a separate corporate body within the UK National Health Service and now I may return to the general subject of organisational arrangements for medical physics services. I started in medical physics at the Royal Marsden Hospital, London, a specialist cancer hospital, and then moved to North Wales to establish the North Wales Medical Physics and Clinical Engineering Service in 1987, staying there until 1994 when I moved to Belfast to join the Agency. I am married to Ann who works as a Senior Research Fellow in Statistics and Epidemiology at Queens University of Belfast. My visiting professorship at the University of Ulster finished with my retirement. I have been involved with various professional organisations for many years, both at the UK and European level, and I will be drawing on examples from and experience of these in future editions when I explore the role and the organisational arrangements of IOMP.

The World Congress was a great scientific meeting in a magnificent setting and is reported on elsewhere in this issue. Here I want to focus on the two IOMP Council meetings and the General Assembly. The first Council, held on a Sunday morning at the start of the Congress, did not attract a large attendance, probably due to its timing and this may be an issue that needs to be considered.

Two new members, Mongolia and Uganda were elected to full membership, and reports were received. A new set of Officers and Chairs were elected (see separate box).

At the General Assembly, the following Tuesday, the Presidential Service Awards were presented by the Vice-President Niroomand-Rad and Chairman of the Awards Committee, Prof Fridtjof Nüsslin, to thank individuals for their services. There was also a presentation by Prof.Olaf Doessel highlighting the main features of the proposal by Germany to hold the 2009 World Congress in Munich. The proposal was subsequently endorsed by Council and, following the vote from IFMBE, the WC 2009 will be held at Munich.

The Second Council followed immediately on from the General Assembly and various reports and updates were received. Change recommended by EXCOM to the IOMP Statutes and Bylaws were agreed and a motion for the formation of a Rules Committee was accepted.

There was agreement that the World Congress meetings with the Biomedical Engineers (IUPESM triennial) should continue as scheduled, however there was much discussion on the proposal for a series of World Congresses of Medical Physics. A motion that a meeting in 2005 in Germany should not be called a World Congress but designated as an International Conference of Medical Physics (ICMP) was overwhelmingly supported. It was also agreed through a motion & also overwhelmingly approved, that the EXCOM should prepare a discussion paper for Council on future ICMP meetings within 6 months with a ballot containing firm proposals by the end of June 2004.

A non-contentious issue was the unanimous nomination of Dr Inger-Lena Lamm and Prof Kwan Hoong-Ng to the IUPESM Administrative Council.

The move of IOMP office to York, England, will be completed by the end of the year. I am most grateful to the President, Officers and General-Secretary of the UK Institute of Physics and Engineering in Medicine for agreeing for their offices to be used for the IOMP office and facilitating the move.

I look forward to working with colleagues in IOMP to advance the objectives of the organisation and help develop medical physics to the benefit of the healthcare for all.

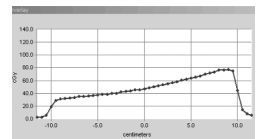
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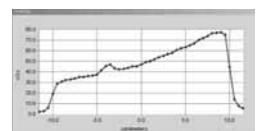
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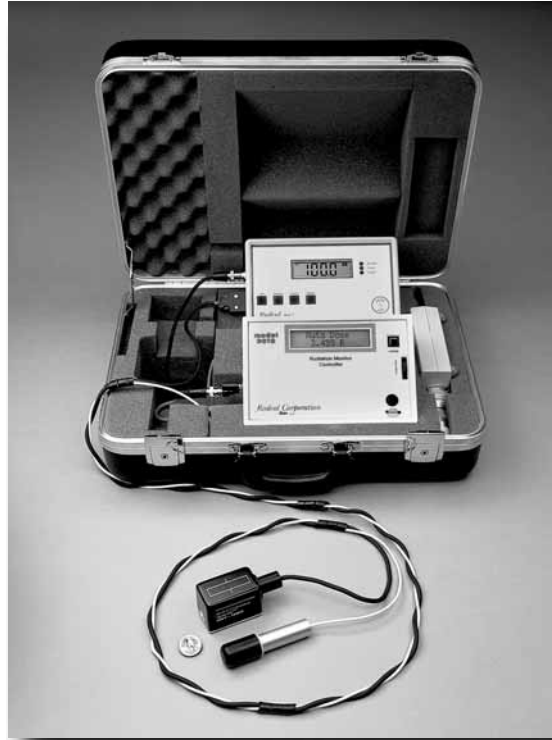
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Editor's Corner—

E. Ishmael Parsai, Ph.D., Editor, MPW

Last year we initiated the Editor's Corner for the purpose of listing of various sources of information and related news topics in the fields of Medical and Health physics. The listings could include reference to review articles, useful websites, and current innovative advances in the field mostly for the benefit of our readers located at remote sites around the world. Any suggestion you may have to enhance this column is welcomed. If you have ideas on issues that you believe should be brought to the attention of MPW readers, please contact the MPW Editor, Dr. Parsai, at: eparsai@mco.edu.

Virtual Radiation Museum: The first wing of the SCIENCE MEUSEUM is now available for viewing at

<http://www.sciencemuseum.us>. *This site has been put together by Prof. John Cameron who will welcome any comment or suggestions that you may have. To contact him please send an email to: jrcamero@facstaff.wisc.edu.*

Some Recent News of Current Innovations In Medical/Health Physics.

Compiled by: **Mohammed K. Zaidi**, Member, IOMP Professional Relations Committee.



A PROSTATE CANCER VACCINE:

Physicians at the Kimmel Cancer Center, Johns Hopkins University, Baltimore, USA now use a computer to define prostate cancer cells mathematically under the microscope and identify the cancerous shapes at a much earlier stage of diagnosis, ensuring the best outcomes. This augments standard diagnostic tests including prostate specific antigen (PSA) measured in the blood, the Gleason score (a scale used to describe the aggressiveness of the tumor cell) and physical examination by a urologist. A prostate **cancer vaccine** that uses genetically engineered cancer cells to supercharge the immune system, causing it to seek out and destroy prostate cancer cells has been studied in two clinical trials. In these early studies, the vaccine safely and successfully activated the immune system against the cancer, though none of the patients treated were cured of the disease. Our researchers believe the most beneficial use of the prostate cancer vaccine may be in conjunction with other therapies. The smallpox vaccine may reborn as a cancer treatment as it might help to create immune harnessing. These promising

early vaccine studies have prompted a new trial that uses the vaccine in combination with chemotherapy.



SILENCING CANCER WITH DNA:

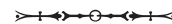
The project could potentially allow physicians to administer less toxic dosages of cancer-fighting drugs to patients while ensuring effective treatments. A seventeen-year old high school student, Anila Madiraju's from Brossard, Quebec, Canada, wins top award at INTEL International Science and Engineering Fair (INTEL ISEF) held in Cleveland, Ohio beating out more than 1300 students from 35 countries to win the \$50,000 scholarship. She also won a first-place Intel Foundation Achievement award worth \$5000, and INTEL ISEF Best of Category award – Medicine and Health worth \$3000 and Glen T. Seaborg Nobel Trip Prize of a trip to the Nobel ceremony in Stockholm, Sweden. Her research will search for a way to make cancer drugs more effective as the project she developed involve the use of a type of RNA to target and kill cancerous cells is effective without the toxic side effects typically associated with anticancer drugs. Seeing teenagers contributing are not new - according to Guinness World Records, a 17-year-old graduated from medical school in New York in 1995 and this year a 12-years-old has graduated in three years from Chicago's Loyola University, summa cum laude in the United States of America.



USE OF ASPIRIN MAY REDUCE ADENOMAS:

A daily baby aspirin reduces the risk of precancerous polyps (adenomas) in the colon in patients who had a previous adenoma surgically removed. Adenomas are early signs of abnormal colon growth that can progress to colorectal cancer. In patients with advanced adenomas or colorectal cancer, the same daily low-dose aspirin – 80 mg – reduced the risk of advanced adenoma recurrence by 40 %. A daily aspirin dose of 325 mg had a lesser preventive effect, according to the researchers, reducing the overall risk of adenoma recurrence by 4% and the risk of recurrence of advanced adenomas and colorectal cancers by 19%. Aspirin, Celebrex, ibuprofen and other non-steroidal anti-inflammatory drugs all block production of prostaglandin, which cause inflammation and appear to fuel the growth of colon polyps. They may be involved in

other tumors as well, including cancer of the prostate, intestines, breast, skin, lungs, bladder and tongue (Am. Assoc. C. Res. April 2003 and NATURE August 2003)



WEST NILE FEVER:

Mosquitoes spread the West Nile virus, but they may also harbor the vaccine. The scientist have unraveled West Nile's genetic code, they learned that its sequence strongly resembles that of Australian Kunjin virus, which is no lethal and less debilitating causing mostly fever and aches. Some scientist had injected mice with varying levels of Kunjin DNA. They found that even 0.1 microgram of Kunjin DNA triggered antibodies against both Kunjin and West Nile and protected mice injected with lethal dose of West Nile (Scientific American, Oct. 2003).



DEVICE USED IN CASE OF SEVERE STROKE:

MERCI Retriever, it is still experimental, was invented by University of California scientists and licensed to Concentric Medical of Mountain View, CA. USA. It seems to restore blood flow in almost half of the patients who had suffered stroke. About 700000 Americans suffer stroke each year. It is nation's number 3 killer and the top cause of disability. Some strokes are caused by bleeding in the brain but the vast majority are ischemic strokes, caused when the arteries feeding the brain are blocked. For those, the clot-busting drug TPA can mean the difference between permanent brain injury or recovery – but only if given within three hours of the first symptoms. MERCI will work as late as eight hours after a stroke hits and pull out bigger clots (Deseret News, 10/21/2003).



FIRST VALIDATED BREAST CANCER GENE ASSAY

Dec. 5, 2003 (San Antonio) – A new 21-gene diagnostic assay has been shown to predict 10-year risk of breast cancer recurrence with unprecedented accuracy for newly diagnosed node-negative, estrogen receptor (ER) - positive tumors in women who will be treated with tamoxifen.

The assay far surpassed standard measures such as age and tumor size in predicting distant recurrence for 668 women in a validation study conducted by the National Surgical Adjuvant Breast and Bowel Project (NSABP) and Genomic Health, Inc., the

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A Short Report of the IOMP Professional Relations Committee (Term 2000-2003)

Stelios Christofides, Ph.D., Chairman, PRC

A brief account is given below of the various projects that the PRC has carried out during its current term of office (2000 to 2003).

1 IOMP Libraries Programme

The number of libraries increased from 83 in 49 countries to 90 in 58 countries. Apart from the donations given by individual scientists, the IOPP (Institute of Physics Publications) donated at least five new books to each IOMP/AAPM Library. The AAPM donated free Medical Physics Journal subscriptions as well as other publications. Apart from hardcopy literature, a number of conference proceedings and other relevant material on CDs have been donated to the programme.

2 Equipment Donation Programme

The IOMP Equipment Donations Programme has facilitated some 13 donations to needed institutions around the world.

3 Recognition of the Medical Physicist as a Profession by the International Labour Organization

The PRC was actively involved in collecting the necessary data and information required for the international recognition for the medical physics profession by the International Labour Office (ILO).

Another effort was to produce a definition of the Medical Physics Profession which will be used uniformly by IOMP National Member Organisations in order to request inclusion of the "Medical Physics" profession by their National Labour Organizations in their National Occupations Classification. A number of suggestions were put forward. A final decision made at the IOMP Council Meeting during WC2003. A simple suggestion may be:

Medical Physics is the application of Physics in the field of Medicine with the ultimate goal to improve the level of healthcare delivery and the quality of human life.

Medical Physicist is a qualified expert who applies Medical Physics.

4 Safety of the Patient Task Force

The conclusions of the study carried out by the task force on the safety of the patient pointed out that the spectrum of activities covered by Medical Physics varies from country to country. There is also a large variation within the same activity from one medical centre to the other, not alone between countries with different levels of medical infrastructure. This makes it very difficult to develop and apply universal procedures, guidance, rules and regulations that can be adopted by the IOMP in a policy statement or in a universal guideline cookbook for use by its NMOs throughout the world. Therefore the IOMP can promote and develop guidelines for best practice in the various Medical Physics Disciplines imbedding in them principles of Quality Systems Management.

5 Recommendation for By-Law changes for Fee Waiver by National Member Organizations

The PRC has studied the existing fee waiver By-Laws and has prepared a detailed report on the issue, which was submitted to

(continued on page 8)

Libraries Report

Marylin Stoval, Ph.D., IOMP Curator of Libraries

Three-Year Report AAPM/IOMP Libraries (August 1, 2000-July 31, 2003)

The IOMP Library Program reached its highest number of active libraries in August 2001, with 88 libraries in 52 countries. New libraries have been established each year. Each year libraries are asked to update their contact information to maintain active status. Because some libraries did not respond to the most recent questionnaire, we now have 65 active libraries in 44 countries.

Date of count	Number of Libraries	Number of Countries	Countries of New Libraries added since count
August 1, 2000	87	52	Kazakhstan, Zambia
August 1, 2001	88	52	Sudan
August 1, 2002	88	52	Georgia, Pakistan, Brunei Darussalam
August 1, 2003	65	44	-

We receive an average of 2 inquiries about the program every month and approximately one-third of these result in donations. A library must have active status to be considered for receipt of a donation. Twenty-six donations of texts and/or journals were made by individuals in the past 3 years. Every year there have been 2-3 large donations containing a complete set of one or more journals. For one of these large donations, the shipping cost, nearly \$600, was donated by the Department of Radiation Oncology at Emory University in conjunction with a generous journal donation from Dr. Pat McGinley. In December 2002, a large donation from Dr. Tony Heywood of the United Kingdom was successfully coordinated by the library program.

IOPP continues to donate five books to new libraries. AAPM coordinates the donations of Medical Physics Journal subscriptions, donated by members of AAPM. Each quarter, The Society for Radiological Protection mails their quarterly publication, *The Journal of Radiological Protection*, to all active libraries.

During the past 3 years we have enhanced the libraries' access to information by means of the Internet and CD-ROMs. Eight CDs have been distributed to the libraries. While supplies last each new library receives an immediate donation of 5 CDs (3 from ASTRO, 1 from Chicago 2000, and 1 *Medical Physics*-text & abstracts). The library in Cyprus donated 50 CDs (6 arrived damaged) from the *Medicon '98* regional meetings. The CDs from Cypress were mailed to the first responders to the 2002 Information Update request.. Libraries have also been notified about temporary and permanent free access to websites and online journals relating to medical physics, such as the Journal of the American College of Medical Physics.

Anyone wishing to make a donation or establish a new library should contact the curator.

A Short Report of the IOMP Professional Relations Committee (Term 2000-2003)

(continued from page 7)

EXCOM and was subsequently discussed openly via emails between the EXCOM and the members of the various IOMP Committees. The final outcome of this discussion was the formulation of the draft by-laws put to the next IOMP Council during WC2003, for final discussion and approval.

6 Setting up of Regional Chapters

Assistance has been provided by PRC towards the establishment of the following regional chapters:

- a) Euro Asia Federation of Organizations of Medical Physics
- b) African Chapter of Medical Physics

7 Medical Physicist Registration

The difficulty faced by Medical Physicists from countries with a small number of Medical Physicists, is the setting up of their own National Accreditation Body. The PRC has investigated this issue and has concluded that for the present situation, there is interest for a basic level accreditation, which will be universally acceptable, and be awarded by an international accreditation body. The requirements for such a basic level accreditation need to include only the basic academic qualifications that a Medical Physicist must achieve in order to be allowed to exercise the profession. Therefore, before the mechanisms for accreditation are put in place, an appropriate syllabus for such a basic level of academic qualifications must be formulated. The appropriate Committee for this task is the IOMP Education and Training Committee, which is actually working in this direction. Once such a syllabus is formulated and implemented then the PRC will resume the task of setting up the mechanisms of a basic Accreditation Scheme for Medical Physicists that will be internationally accepted.

8 List of conferences Assisted by PRC

a) First Euro Asian Congress during the V Russian Conference on Medical Physics and Engineering "Medical Physics 2001", 18-22 June 2001. Moscow, Russia.

b) 1st Asia Oceania Congress of Medical Physics, 14-16 November 2001, Bangkok, Thailand

c) Symposium on Education, Training and Professional Matters, 13 September 2001, during the European Congress of Medical Physics and Clinical Engineering, 11-15 September 2001, Belfast, U.K.

d) 2nd Asia Oceania Congress of Medical Physics, 26-28 September 2002, Gyeongju, Korea. Reports from the above meetings were submitted by the organizers and have been published in the Medical Physics World.

9 Other projects undertaken by the PRC

A number of smaller projects undertaken by the PRC are:

- Reduced Registration Fees at Conferences
- WC2000 CD distribution
- AAPM free access to publications
- WC2003 Travel Award

10. Future PRC Programme Priorities

As it is evident from the above report a number of issues remain unresolved, these will be continued during the next term of office of the PRC together with a number of other issues, which have materialised in the meantime. The main objectives of PRC for its next term of office are:

- Recognition of the Medical Physicist as a Profession by the International Labour Organization
- Close collaboration with the International Atomic Energy Agency (IAEA)
- Development of guidelines for the creation of National Member Organizations
- Development/Adaptation of Medical Physics Standards and Guidelines for the establishment of National Accreditation/Registration of Medical Physicists

Details of the above projects are given in the full PRC report.

TREASURERS and FINANCE COMMITTEE REPORT 2003

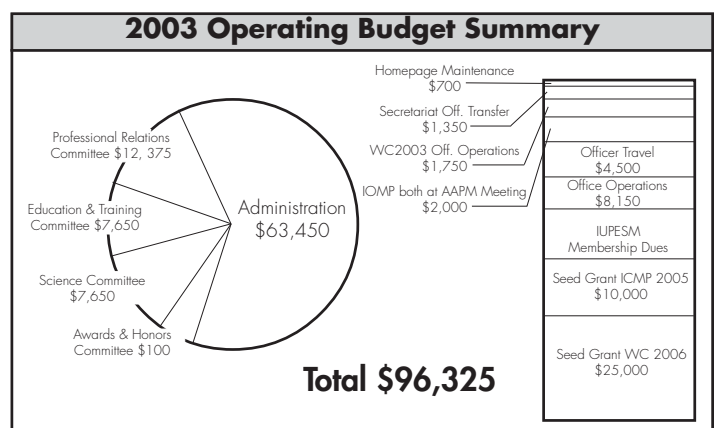
George Mawko, Ph.D., Chair of Finance Committee and IOMP Treasurer

The IOMP treasury started 2003 with a balance of US\$139,439 and expects to complete the year with approximately US\$121,114. The projected operating expenses in US dollars for 2003 are provided below.

These finances are administered by a newly formed Finance Committee, which is chaired by the IOMP Treasurer. This committee has more than 20 years of treasurer experience in national and international medical physics organizations. Details of the roles and responsibilities of both the Treasurer and Finance Committee have been recently documented and can be found in the revised By-laws. Of the 5 present members, 4 will be staying on the committee for the 2003-2006 term.

The Finance Committee had been actively involved in planning the 2002 and 2003 budgets as well as the financial analysis of such Executive Committee initiatives as the revised national membership dues scheme; the 2005 International Conference on Medical Physics; and the 2006 World Congress on Medical Physics and Biomedical Engineering.

As reported above, a deficit of approximately US\$18,000 is expected for 2003 as income from national membership and dwindling corporate membership is not sufficient to balance the budget. Additional streams of revenue are being sought in order to provide a stable long-term source of funds for IOMP programs and activities. Two potential revenue-generating initiatives underway are mid-term International Conference on Medical Physics and a more effective corporate membership recruitment program.



Realtime Dosimetry (RTD) Update

What's new in beam scanning & quality assurance from Multidata

RTD Data Analysis Version 4.0

Early user response to the Realtime Dosimetry v4.0 Data Analysis software update provided useful feedback - and confirmed that the new user interface is easy to learn and easy to use. Some of our beta test participants' favorite new features included:

Clipboard Cut, Copy and Paste

The copy-to-modified-study capability of RTD v3.0 has been replaced in RTD v4.0 with copying and pasting through the familiar Windows Clipboard. Individual scans or sets of scans may be copied to another study or into a new study.

Easy Data Export to Microsoft Excel[®]

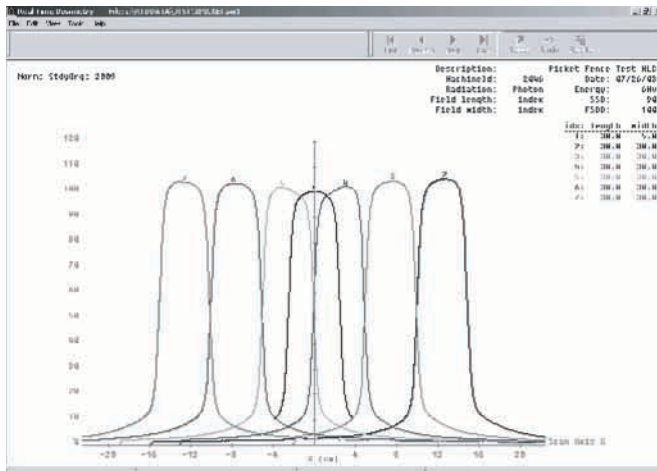
RTD v4.0 makes it easier than ever to work with third-party spreadsheet and data processing programs, like Microsoft Excel and MatLab, using the semi-automatic Import/Export Wizard.

Printer Support

RTD v4.0 allows graphic and text reports to be printed with any Windows-compatible printer. You can even print your reports to Adobe Acrobat[®] PDF files for paperless filing.

Updated Datalinks to Treatment Planning Systems

New datalinks have been created and several existing datalinks updated to better support the beam library requirements of current treatment planning systems.



This "Picket Fence" test, which employs abutting MLC fields to determine the degree of dose uniformity along match lines, is especially sensitive to hot and cold spots due to leaf positioning. (AAPM Report #72, p. 31)

USB Scanning Interface

Multidata's new USB Scanning Interface allows you to use any USB-enabled laptop or desktop PC with the RTD v4.0 Scanning software. The USB Scanning Interface replaces the currently required internal RTD Interface Card, connecting to your computer with a standard USB cable and to your electrometer or film densitometer with the traditional RTD communications cable.

Some products and features are not yet commercially available in the U.S. Please contact your local sales representative for information about the availability of specific products or capabilities. All information Copyright © 2003 Multidata Systems Intl. Corp.

New 3D Portable Waterphantom

Multidata's most recent 3D waterphantom, Model 9740-T, is small enough to sit directly on the Tomotherapy Hi-Art[®] treatment machine patient support couch, while its scanning mechanism has been optimized to allow unobstructed sensor exposure during Tomotherapy treatment delivery.

The new 9740-T tank provides maximized 3D scanning capability in the most compact waterphantom configuration and works equally well with traditional linear accelerators, where it can be placed directly on the treatment couch. An optional low-profile leveling frame is available.

The probe positioning mechanisms of this 3D Portable Waterphantom have been optimized to provide additional scanning area while shrinking the overall tank dimensions (compared to the recent Model 9740 3D Portable).

The 9740-T was developed in collaboration with physicist Darrell Poole, PhD at MD Anderson Cancer Center in Orlando, Florida to provide a complementary alternative to film dosimetry for Tomotherapy commissioning.



The 9740-T 3D Portable waterphantom sits on the patient support couch for commissioning and quality assurance on the Tomotherapy Hi-Art[®] treatment system. The special probe positioning attachment allows unobstructed sensor exposure throughout the system's complete rotation.

9754 Electrometer Upgrades

An electronics upgrade package is now available for the 9754 Dual Channel Electrometer. The upgrades provide additional gain and sensitivity to accommodate Scanditronix diode detectors and other adjustments to support scanning with newer chambers for small fields, such as pinpoint and micro chambers. These upgrades require the unit to be shipped to the factory or local office for service.

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See your local distributor or www.multidata-systems.com

Report from the Education and Training Committee (ETC)

Slavik Tabakov, Ph.D., Chairman ETC

The IOMP Education and Training Committee (ETC) began its work immediately after the WC2000. The Committee followed the policies and rules accepted during the previous ETC term and planned new actions for period ahead. ETC members (per region) are:

Dr Slavik Tabakov (EU and Eastern Europe) – ETC Chair
Dr Amparo Marles (South America and Central America) – ETC Secretary
Dr Ye-Cho Huang, (China)
Dr Adel A. Mustafa (North America and Middle East)
Dr C.M. Pathak (India, Nepal, Pakistan, Bangladesh):
Dr Wynard J Styrdom (Africa)
Dr Kwan-Hoong Ng (Asia-Oceanic Region: Far East), replaced by Dr Anchali Krisanachinda during 2003

For this 3 years period ETC received a total of 21 applications for Education and Training activities (coming from all regions above). From these, 16 were approved (9 endorsed and 7 granted with financial support). All applications were processed by e-mail links and submitted timely to the IOMP EXCOM for final approval. 12 activities were successfully carried out, two are pending and two were cancelled due to external reasons. All activities included 3 or more countries, while three activities are very large, each covering more than 10 countries. A chronological list of the approved activities follows:

1. Conference (Topical Meeting) on Medical Radiation Physics and Engineering, Lisbon, Portugal, November 20-22, 2000
2. Conference on Radiation and its Role in Diagnosis and Treatment, Tehran, Iran, October 18-20, 2000
3. Course on Contemporary Magnetic Resonance and Diagnostic Radiology Imaging, Sofia, Bulgaria, October 9-14, 2000
4. Workshop on 3D Conformal Radiation Therapy and Intensity Modulated Radiation Therapy, Mumbai, India, Nov. 30-Dec. 1, 2001 (cancelled)
5. Course on Continuous Quality Improvement in Medical Imaging and Radiation Therapy, Kuala Lumpur, Malaysia, April 16-17, 2001
6. Seminar on Training and Education of medical physicists of Russia and neighbouring countries, Moscow, Russia, June 18-22, 2001
7. Short Course on Quality Assurance in Contemporary Imaging and Radiotherapy, Belfast, UK, September 11-12, 2001
8. Refresher Courses on Medical Physics and Diagnostic Imaging, Bangkok, Thailand, November 14-16, 2001
9. Radiation Therapy Physics Course and Workshop, Riyadh, Saudi Arabia, December 29, 2001 – January 03, 2002
10. Workshop on the Management of Radiation Accidents and Emergencies, Lucknow, Uttar Pradesh, India, 24th March 2002
11. Regional Radiotherapy Physics Course and Workshop, Khartoum, Sudan, Dec 12-18 2002 (cancelled)
12. Regional Course on Advances in Diagnostic Radiology and

- Nuclear Medicine, Cairo, Egypt, February 24-27, 2003
13. Workshop on Radiation Therapy Physics, Sichuan, China, May 26-30, 2003
14. Course on Radiation Protection in X-ray Diagnostic Radiology, Plovdiv, Bulgaria, 3-5 July 2003
15. Workshop on Education and Training of Medical Physicists in Asia–Oceania Region (Joint IOMP – AFOMP activity), Sydney, Australia, 26 August 2003 (satellite to WC2003)
16. Refresher Course on Medical Physics and Diagnostic Imaging, Bangkok, at the Second South East Asian Congress of Medical Physics, Thailand, November 13-14, 2003 (in preparation)

In Addition to the above ETC Chair held a meeting during the International Medical Physics College in ICTP, Trieste, Italy with colleagues from 11 African countries aiming to begin discussions for forming an IOMP Chapter in Africa. During this period the IOMP Directory of Graduate Education Programs continued to be filled and close links and collaboration was maintained with the other IOMP Committees, the IOMP chapters, the IAEA and various International projects.

At the end of this short report, I would like to thank all ETC members for their hard and dedicated work.

JOB OPENING: Curator of IOMP/AAPM Libraries

The curator manages a clearinghouse that accepts donations of medical physics books and journals. Donations are sent to libraries in developing countries where they are available to medical physicists and physicians in the region. The program is sponsored by the IOMP/AAPM. It works this way: We maintain a database in ACCESS of current holdings at each library and a list of publications they need the most. When we are offered a donation we search the database for the best library to receive the donation. Usually, the donor ships the donation directly to the library and sends us the receipt for shipping expenses, which we then process through the IOMP office for reimbursement.

Currently, there are 90 libraries in 58 countries. In addition to processing donations, we accept applications for new libraries. We send a questionnaire approximately semi-annually to update information on the library (name of person responsible, address, etc.) to insure that donations are shipped correctly.

We have tried to take advantage of electronic transmission of information. For example, many organizations have meeting procedures on CDs. After the meeting I ask the organizers for any remaining CDs, to send to the libraries. We notify libraries of resources on the Internet, such as the ACMP journal.

The time required of the curator is minimal if you have good support staff, although the curator should be able to attend most meetings of the International Affairs Committee of the AAPM, held twice per year at national meetings. I estimate that it requires about 5% of one secretarial staff person to maintain the database and handle mailings and queries.

Although this is a volunteer job, I have been rewarded by the pleasure of establishing contacts with colleagues in developing countries and helping them build libraries that further their careers.

Please contact me if you have any questions about the work of the curator.

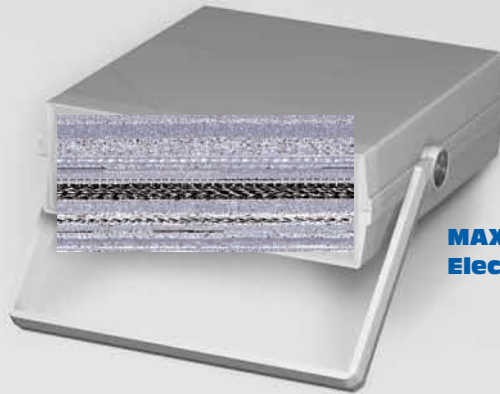
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Report of the Scientific Committee–

Cari Borrás, D.Sc., Chair, IOMP SC

The main achievement of the Science Committee (SC) for the period of July 2000–2003 was the scientific exchange between the IOMP and other international organizations, such as the International Commission of Radiological Protection (ICRP) and the International Society of Radiology (ISR). Both societies, but especially the ISR, plan to have joint scientific events in the future. A significant step forward in this regard was the IOMP Symposium: “The medical physicist in radiology” at the International Congress of Radiology in Cancun, Mexico, in July 2002. It was organized by the SC chairman and moderated by the IOMP Secretary-General, with the participation of international medical physicists, among them a SC member.

Equally important has been the strengthening of IOMP relations with international intergovernmental organizations such as the International Atomic Energy Agency (IAEA) and the Pan American Health Organization, Regional Office for the Americas of the World Health Organization (PAHO/WHO). The IOMP was represented by its Vice-President at two major scientific events organized by the IAEA, an

“International Conference on Radiological Protection of Patients: Diagnostic Radiology, Nuclear Medicine and Radiotherapy”, in Malaga, Spain, in March 2001, and an “International Symposium on Standards and Codes of Practice in Medical Radiation Dosimetry”, in Vienna, Austria, in November 2002. The SC, together with the Education and Training Committee (ETC), is now involved in collaborating with the IAEA in implementing the “Action Plans” that resulted from the recommendations of these two events, which include both scientific and educational components.

Regarding PAHO/WHO, the IOMP received a grant of US \$ 7,000 in 2001 to partially subsidize Latin American medical physicists to attend IOMP scientific events, and is planning to expand at a global level a research project initiated by PAHO and carried out by ALFIM on the use of imaging technologies in radiation oncology.

The IOMP SC has strengthened its relationships with the IOMP Chapters: EFOMP, ALFIM and AFOMP. It endorsed six medical physics congresses and co-sponsored two others. Several SC members were most active in the organization of the World Congress in Medical Physics and Biomedical Engineering in Sydney (WC 2003): B. Allen was the Congress President; C. Borrás, the Chair of the Radiation Protection and Safety Track; and C.E. de Almeida and K.H. Ng were Topic Chairs.

During the WC 2003, the SC was revamped and its membership expanded, under the same Chair. The name of the current SC members can be obtained from the IOMP web site. On 26th August 2003, the new SC committee met and resolved: 1) To accept the changes concerning the SC in the IOMP bylaws, to be voted upon during the 2nd IOMP Council on 27th August 2003, and to be governed by them. 2) The interaction of the SC with IOMP’s EXOM will be done by the SC Chair interacting with the IOMP’s Secretary-General. 3) To be involved in all IOMP Scientific Congresses and Conferences by having the SC member liaise with the organizers of each event. 4) To make a formal motion to the 2nd IOMP Council to request the change of the denomination of Medical Physics events from “World Congress to “International Conference” and to leave

the word “World Congress” for joint events of Medical Physics and Biomedical Engineering. 5) To expand the activities of the SC from the reactive to a pro-active role by enlarging the committee, giving each member specific task within the Committee and to form task groups (TG) for specific projects as needed. 6) To discuss with the Education and Training Committee (ETC) the solicitation of Power Point slide presentation on Medical Physics materials (training courses, scientific protocols, thesis dissertations, etc) for inclusion in the IOMP web site after a peer review process led by a TG of ETC and SC members.

In addition, the SC made a list of suggestions for the scientific program of WC 2006 which the SC Chair presented to the WC 2006 Science Committee for consideration.

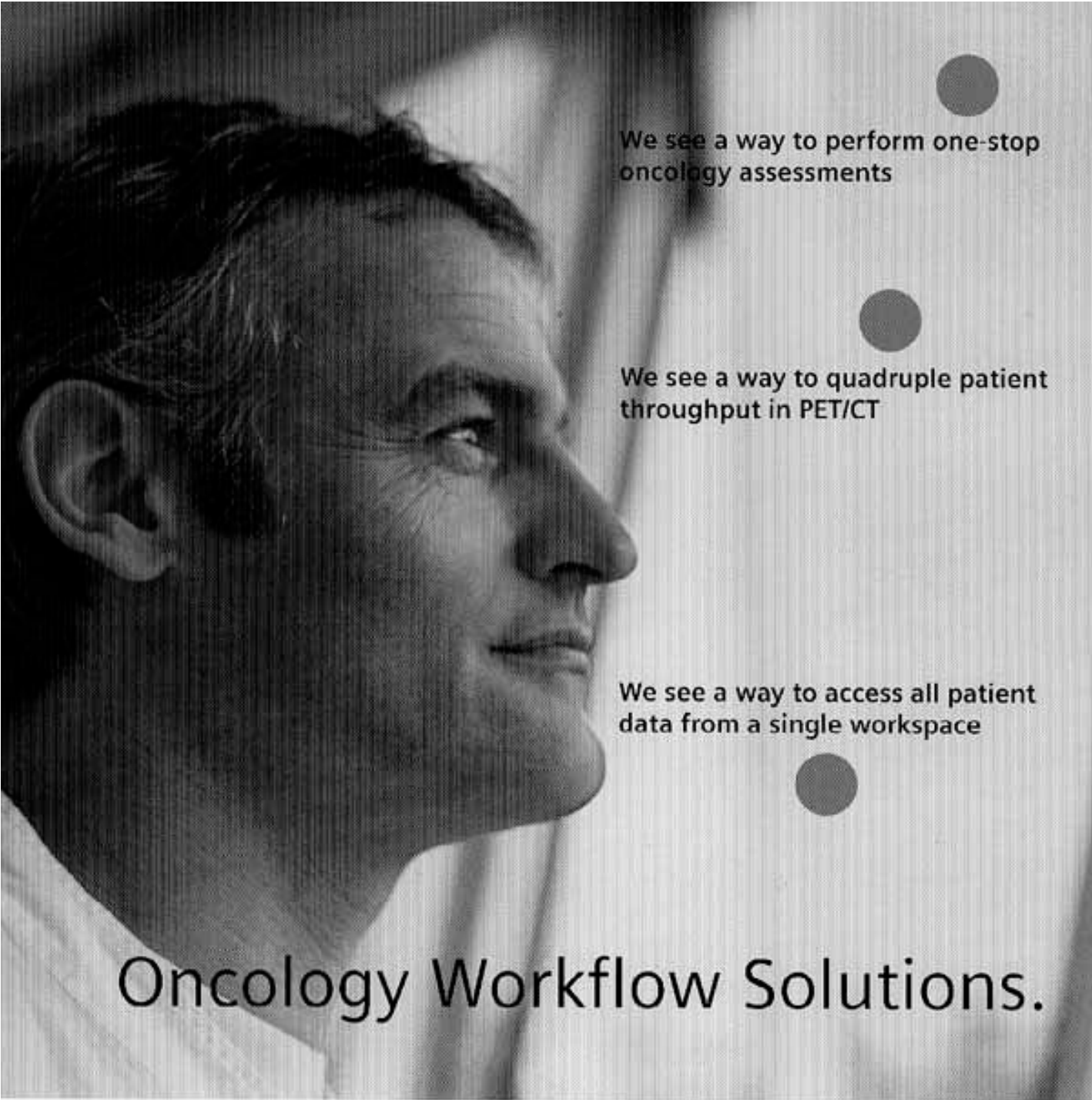
Editor’s Corner–

(Continued from page 6)

Redwood City, California company that developed the assay. Soonmyung Paik, MD., director of NSABP’s pathology division, reported the predictive value of the assay achieved a *P* value of .00001. Neither age of 50 years or older nor tumor size of 2cm or larger reached statistical significance as predictors of distant recurrence. Oncologists could have access to the assay as a clinical laboratory service called OncotypeDx early in 2004. In a press conference immediately afterward, Genolic Health President and CEO Randy Scott, Ph.D., said the price has not yet been set, but the company hopes to convince insurers to cover the cost. It is predicted that the assay will become a key measure for newly diagnosed, lower-risk patients whether to have adjuvant chemotherapy.

The procedure uses a standard reverse transcriptase-polymerase chain reaction assay to analyze RNA from thin sections of fixed paraffin-embedded tissue scored from tumor biopsies. It comes up with a recurrence score based on expression of 16 cancer-related genes identified from 250 gene candidates found in earlier studies and five genes included for reference. Recurrence scores are based on a 0 to 100 scale. A score less than 18 is considered low-risk, between 18 and 31 is intermediate risk, and greater than 31 is high risk. In the validation study, the investigators reviewed patients who were in an NSABP clinical trial from 1982 to 1988 and whose outcomes had been tracked over time. They classified 27% as high risk, 22% as intermediate risk, and 51% as low risk. The 10-year rate of distant recurrence was 6.9% for the low-risk patients for intermediate risk, and 51% as low risk. The 10-year rate of distant recurrence was 6.8% for the low risk, 14.3 for intermediate risk, and 30.5% for high risk patients.

The researchers caution that the new assay could only be used in newly diagnosed women who fit the criteria in the trial and would be treated with tamoxifen or possibly an aromatase inhibitor. They indicate that it is not appropriate for women who have already started treatment or who have node-positive or ER-negative tumors. The researchers also note that the assay’s greatest value would be to women who are considered at low risk of recurrence by conventional measures but actually have an intermediate-risk score and need more aggressive treatment. It might also reduce chemotherapy rates, he suggested, if more low-risk women decide to take a less aggressive course of treatment after surgery.



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Calendar of Events

Carter Schroy, Ph.D., MPW Associate Editor

The following events can be found on the Calendar of the journal Medical Physics at <http://medphys.org/calendar/>. Please email your international events to the Calendar

Editor, Carter Schroy, at EventsEd@aol.com for inclusion in MPW. Deadlines for MPW are April 1 and October 1 for issues that are mailed several weeks later.

14-19 February 2004

SPIE International Symposium on Medical Imaging; San Diego, CA USA
<http://www.spie.org/info/mi/> / spie@spie.org

16-18 February 2004

International Workshop on Radiation Health Effects at Low Doses or Low Dose Rates; Neuherberg, Germany
<http://www.gsf.de/institute/ISS/workshop.lowdose/> / rosemann@gsf.de

3-5 May 2004

Advanced Workshop in 'Current Topics in Monte Carlo Treatment Planning'; Montreal, PQ, Canada
<http://mctp.medphys.mcgill.ca/> / mctp@medphys.mcgill.ca

9-14 May 2004

International Conference on Radiation Shielding (ICRS-10) and Topical Meeting on Radiation Protection & Shielding (RPS 2004); Madeira, Portugal
<http://www.itn.mces.pt/ICRS-RPS/> / nisy@comcast.net

10-13 May 2004

International Conference on the Use of Computers in Radiation Therapy (ICCR2004); Seoul, Korea
<http://www.iccr.info>

23-26 June 2004

CARS 2004 - Computer Assisted Radiology and Surgery; Chicago, IL USA
<http://www.cars-int.de/> / dharrison@cars-int.de

25-29 July 2004

American Association of Physicists in Medicine Annual Meeting; Pittsburgh, PA USA aapm@aapm.org / <http://aapm.org>

3-7 October 2004

American Society for Therapeutic Radiology and Oncology Annual Meeting; Atlanta, GA USA <http://astro.org>

28 Nov - 3 Dec 2004

The Radiological Society of North America Annual Meeting; Chicago, IL USA <http://www.rsna.org>

DONATION OF USED EQUIPMENT -PRC report for January-June 2003.

Mohammed K., Zaidi, Member IOMP-PRC

THERAPLAN 5B Treatment planning system was not shipped due to SARS and was shipped now to International Cancer Centre, Kanyakumari Medical Mission C.S.I., Neyyoor, Kanyakumari District, Tamil Nadu, S. INDIA (MADRAS PORT-CHENNAI), INDIA. Kingston Regional Cancer Centre, Kingston, Ontario, CANADA very kindly donated the system and Dr. L John Schreiner, Chief Medical Physicist got the system checked before shipping.

VINTEN SOLARO TLD reader in working condition with inlay trays, vacuum pump, annealing oven and computer monitor, keyboards and the line printer, was very kindly donated by Catharina Hospital, Department of Radiation Therapy, P.O. Box 1350, 5602 ZA Eindhoven, Netherlands. Dr. Beld prepared a quick manual, which will guide the users to install and operate the reader and the oven. My thanks goes to Drs. Wim Dries and Ewout van den Beld for their efforts. It is being shipped to Institute of Radiotherapy & Nuclear Medicine (IRNUM), University Campus, Peshawar, PAKISTAN, Dr. Ayub Khan, Director, IRNUM.

Shipping arrangements:

The institutions that need used equipment should be ready to pay or make arrangements for shipping at a very short notice.

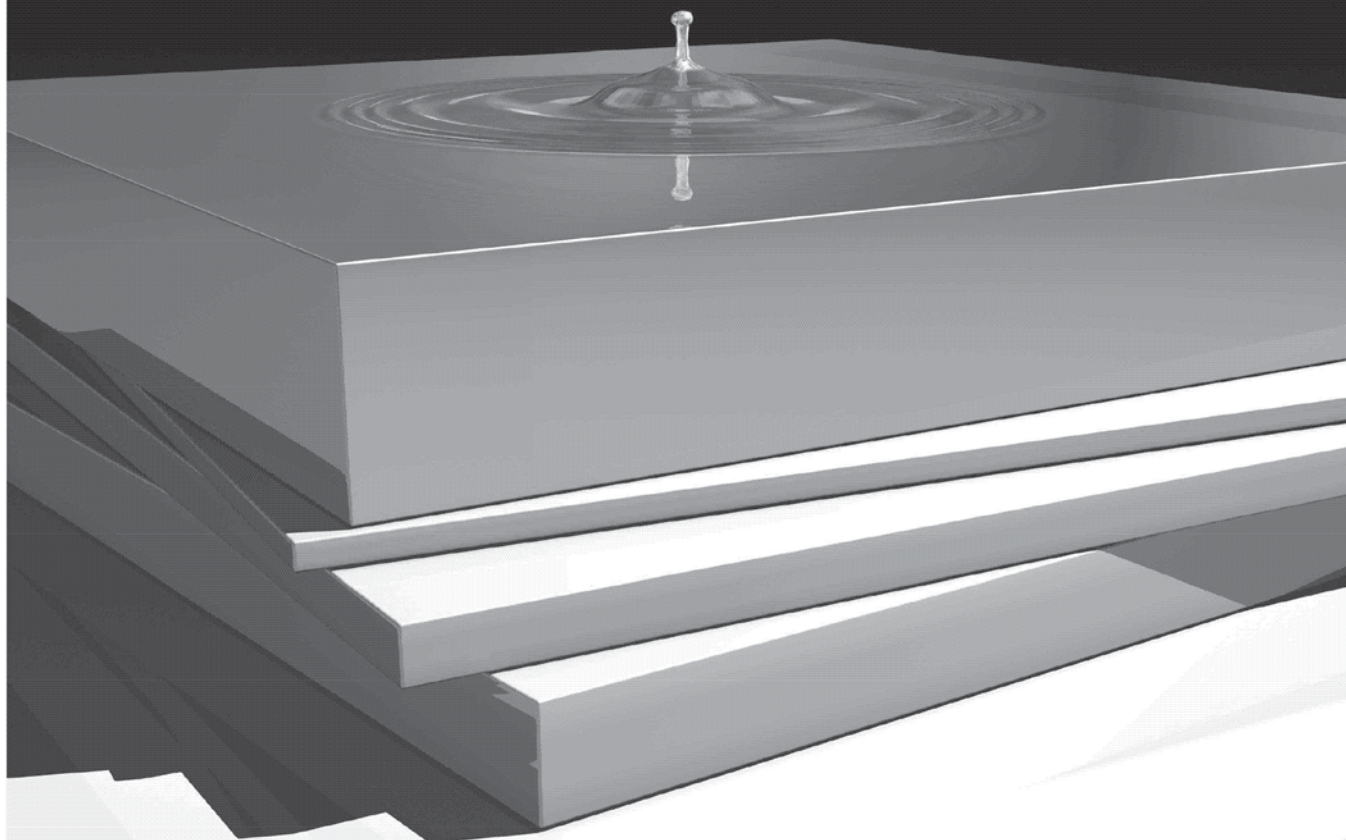
Used equipment needed:

Automatic film processor, block cutter, film densitometer, radiation field analyzer, 2D and 3D treatment planning system (TPS), direct patient dose monitor and ultrasound machine. The TPS can be Windows-based or UNIX-based. The only requirements from my customer is that a digitizer tablet be present and that a wide-carriage printer (preferably plotter) be available.

The equipment donated to IOMP Used Equipment Donation Program is generally in good working condition but we don't guarantee its usefulness. The recipient has to pay for shipping and handling only. The donations to IOMP are sometime tax deductible. If you want to donate or want some used equipment donated to your organization, please contact Mohammed K. Zaidi at Phone: 208-526-2132, Fax: 208-526-2548 or e.mail: zaidimk@id.doe.gov.

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1. Wallace, R.E., Evaluated phantom material for ¹²⁵I and ¹⁰⁹Pd dosimetry Poster: SU-DD-EXH-12, AAPM Annual Meeting, Montreal, CANADA July, 2002
2. Heaton ,R., Ramaseshan, R., et. al., Dosimetric Evaluation of Plastic Water - Diagnostic Therapy (PWDT) Poster PO-T-97, AAPM annual meeting, SanDiago, CA., August 2003.
3. Tello, V.M., Tailor R.C., and Hanson, W.F. How water equivalent are water equivalent solid materials for output calibration of photon and electron beams? Medical Physics 22(7), July 1995 pgs. 1177-1189

CIRS
Tissue Simulation Technology

Report on the AAPM/IOMP International Scientific Exchange Programs- Diagnostic and Nuclear Medicine Physics Course & Workshop Held in Sao Paulo, Brazil, November 13-17, 2002.

Adel Mustafa, Ph.D., Co-Chair, AAPM/ISEP

The Course Directors were Adel Mustafa, Ph.D. from U.S.A, and Helv'ecio Mota, Ph.D., Local Faculty, Brazil. Liaison Members: Doracy Fontenla, Ph.D. & Yakov Pipman, Ph.D., members of the AAPM/ISEP Latin America Subcommittee. The course was held at the Nuclear and Energy Research Institute, IPEN/CNEM, USP

– Campus Armando Salles Oliveira, Sao Paulo. The main auditorium is equipped with impressive audio-visual capabilities including instantaneous translation from and to English. Sponsors of this program were: AAPM/ISEP, the Brazilian Medical Physics Association (ABFM) and the International Organization of Medical Physics (IOMP). The course objectives were to review the latest developments in diagnostic radiology and nuclear medicine physics and to present guidelines for initiating quality assurance programs by the attendees in their facilities. The course Participants were 163 registered participants came from different parts of Brazil. There were 79 medical physicists, 53 medical physics students, 9 bio-med engineers, and 22 were physicians working with radiation such as dentists and vascular interventionalists. The specialty distribution of the participants was as follows: 69 from diagnostic radiology, 17 from nuclear medicine, 28 from Diagnostic/Therapy and 49 from other specialties including radiation protection, regulatory and radiological technology. Sixty six (66) of the participants were active members of the Brazilian Medical Physics Association (ABFM), 17 have their applications for membership under consideration and 81 were not members. 68 of the participants were Females and 95 were males. (Note: Number of ABFM members are 539 including 487 being full active members).

The course was presented in a total of 25.5 hrs with the AAPM faculty presenting about 92% of the presentations and the host faculty gave the rest. The course language was English with instantaneous translation. Evaluation forms of all presentations were distributed daily in the morning and were returned by the participants at the end of the day. Practical sessions on quality assurances were not possible due to the large number of participants and the lack of a close radiology facility to the program location. However, detailed discussions between the attendees and lecturers helped fill a gap in the meeting objectives. The course material was put on C.D.s and was given to participants as part of their registration package. Each CD had about 580 Mbytes. The material included all Power Point and pdf formatted presentations made by ISEP and host faculty. Several copies of “ Essential Physics of diagnostic Imaging”, by Bushberg, et al, will be donated by the ISEP to the ABFM.

Formalities: Presentations at the opening session were made by representatives of the AAPM/ISEP (Dr. Mustafa,

Dr. Morin), the ABFM (Dr. Mota) and by Dr. Rodriguez, Superintendent of Brazil IPEN/CNEN. All AAPM/ISEP faculty and host faculty attended the opening and closing ceremonies and the distribution of certificates.

AAPM / ISEP Faculty: Martin Graham, Sloan-Kettering Memorial hospital, Cornell University, New York, NY, Mahadevappa Mahesh, Ph.D, Johns Hopkins University School of Medicine, Baltimore, MD, Richard L. Morin, Ph.D., Mayo Clinic Jacksonville, Jacksonville, FL, Adel Mustafa, Ph.D., St. Vincent's Catholic Med. Center, New York Medical College, NY, J. Anthony Seibert, Ph.D., University of California Davis, Sacramento, CA

Brazil ABFM Faculty: Helve'cio Mota, Ph.D., Department of Medcial Physics, IRD/CNEN, Rio de Janeiro RJ, Thomaz Ghilardi Netto, Ph.D., Hospital of clinics USP, Ribeirao Preto SP, Linda Caldas, Ph.D., Department of Radiation Protection, IPEN/CNEN, Sao Paulo SP, Claudio Rodriguez, Ph.D., Superintendent of the IPEN/CNEN, Sao Paulo SP

Assessment: 1). This was the first regional ISEP / Diagnostic program and by all accounts turned out to be a very successful event. Attendees and officials constantly praised the course contents, format, planning and implementation. 2). The course covered most diagnostic physics modalities with special emphasis on advances in digital imaging. Issues of radiation safety and establishing hospital wide radiation safety programs received a good deal of attention. 3). There was great interest in mammography: modality, technique, quality assurance and regulatory issues. More time was needed for this modality. 4). The organizational aspects of the program by the local faculty were impeccable. The use of computer power, and high tech audio visual aid was obvious at all levels. The running of the program from hour to hour and day to day was done with great smoothness. Thanks to our hosts. The local organizing committee's attention to participants and faculty needs was professional, cordial and remarkable. It made our task easier and our stay in Sao Paulo especially enjoyable. 5). The social and daily logistics including breaks, food arrangement, hotel stay and transportation was very well organized and much appreciated. 6). The ISEP faculty did excellent job in making the presentations and by getting engaged in very useful discussions with the participants. They made remarkable and frequent real-time adjustments to their presentations to minimize overlapping of topic materials, reduce repetitions, and responded to the trends and directions in the audience interests. 7). The local faculty, organizers and many participants conveyed to ISEP faculty how grateful they were to the AAPM and ABFM for organizing such a course. 8). Financial: Reported to the AAPM/ISEP Committee.

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Report on the AAPM/IOMP International Scientific Exchange Programs- Diagnostic and Nuclear Medicine Physics Course & Workshop Held in Cairo, Egypt, February 23-27, 2003

Adel Mustafa, Ph.D., Co-Chair, AAPM/ISEP

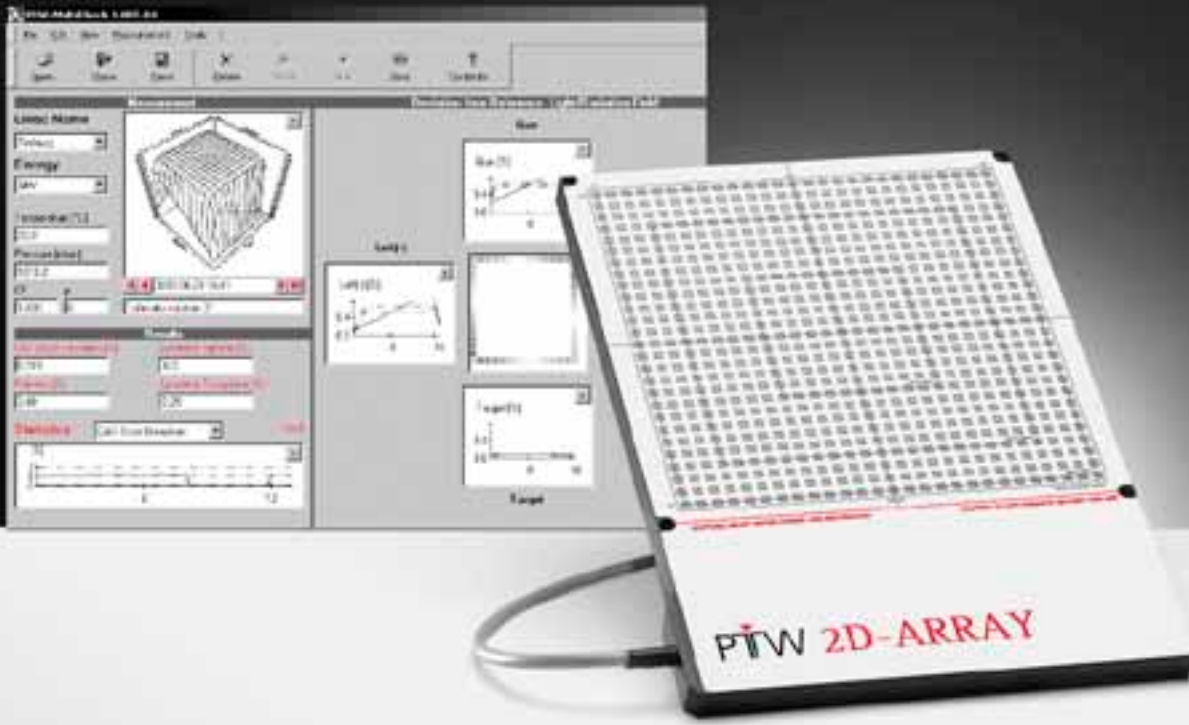
The Course Directors were Adel Mustafa, Ph.D., from U.S.A, and Ahmed Reda Al-Shafei, Ph.D., EMPA, Egypt. The course was held at Nasir Institute Hospital, Cairo. This is a multi-disciplinary hospital with a strong teaching program in many areas of medicine. We used the Institute's main auditorium, which was provided with appropriate computerized audio-visuals. This course was Sponsored by AAPM/ISEP, the Egyptian Association of Medical Physics (EAMP), the International Organization of Medical Physics (IOMP) and the Egyptian Atomic Energy Agency (EAEA). It was held under the patronage of the Egyptian Minister of Higher Education and Scientific Research and the Minister of Health and Population. Course objectives were to review the latest developments in the field of diagnostic radiology and nuclear medicine physics. Instructions on how to start a hospital-wide radiation safety and quality assurance programs were also covered. There were 116 registered participants who came from different parts of Egypt and some from Sudan. We did not have a break down of the attendees medical physics sub-specialties. However, a large number were from therapy physics or therapy/diagnostic physics. There were many physicists from the national radiation protection authorities and regulatory organizations. Some radiologists and radiology residents also participated including prominent Egyptian radiologists from Cairo University School of Medicine. About 40% of the participants were females. In Egypt, diagnostic radiology physics is not yet developed as a clear sub-specialty. Teaching of physics to radiology residents is done by physicists with dual involvement in therapy and diagnostic physics. At least half of the participants were members of the Egyptian Association of Medical Physics (EAMP).

The five-day course contained over 29 presentations totaling 24.5 hours. Time was allowed for questions, views and lengthy discussions especially in areas of radiation safety and related regulatory issues. The course language was English. Attendees were able to follow without additional translation help. Evaluation forms of all presentations were distributed in the morning and participants returned it at the end of the day. Two practical sessions on quality assurance were given and attended by 60% of the participants. The sessions covered QA in general radiography and Mammography and directed by Drs Adel Mustafa and Don Frey.

Course Material: The course material was stored on CD and was given to participants as part of their registration package. Each CD had about 550 Mbytes. The material included all Power Point and pdf formatted presentations made by ISEP faculty. Eight (8) copies of "The Essential Physics of Medical Imaging", by Bushburg, et al., Were donated by ISEP to the Egyptian Association of Medical Physics.

AAPM / ISEP Faculty: Donald Frey, Ph.D., Medical University of South Carolina, USA Mustapha Hatab, Ph.D., University of Texas Southwestern Medical Center at Dallas, USA Adel Mustafa, Ph.D., New York Medical College, New York, USA, Program Director Ehsan Samei, Ph.D., Duke University School of Medicine, USA, Perry Sprawls, Ph.D., Emory University School of Medicine, USA, Stephen Thomas, Ph.D., University of Cincinnati Medical Center, USA.

Assessment: 1). This is the Second ISEP / Diagnostic regional program and it was as successful as the one held in Brazil last year. The program attracted the attention of the Egyptian health and education officials, radiology educators and national radiation protection regulators. It sensitized those concerned to the need for establishing a clear role for the medical physicist in diagnostic radiology and nuclear medicine not only in teaching but also in daily radiology work. The local organizers and officials from the Egyptian medical physics association were very pleased to see the response received by the participants. This was reflected in an increase in the number of medical physicists who wanted to become members of EAMP. 2). The course covered most diagnostic physics modalities with special emphasis on advances in digital imaging. Issues of radiation safety and establishing hospital-wide radiation safety programs received a good deal of attention. There was a lot of discussions on the Egyptian radiation protection regulations and how best to implement it. 3). There was great interest in quality assurance, new imaging modalities, radiation safety and regulatory issues. 4). The organizational aspects of the program by the local faculty was very good. The local organizing committee's attention to participants and faculty needs was highly appreciated. The committee and participants kindness to the USA faculties were overwhelming. We felt the sincerity and genuine appreciation of our hosts to our contribution. 5). The social and daily logistics including breaks, food arrangements, hotel stay and transportation, was facilitated by the local organizers. The social program included a special Nile cruise and dinner to all participants sponsored by local medical companies. 6). The ISEP faculty did excellent job in making the presentations and by engaging in very useful discussions with the participants. A lot of side discussions took place during the breaks and lunch times. Many participants requested additional information and educational material from the AAPM faculty. 7). The local faculty, organizers and many participants conveyed to ISEP faculty how grateful they were to the AAPM and EAMP for organizing this course. They requested help with organizing special focused courses in the areas of "quality assurance and hospital radiation safety in covering all aspects of diagnostic imaging". 8. Financial: Reported to the AAPM/ISEP Committee.



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