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Bulletin of the International Organization for Medical Physics

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President's Message — Azam Niroomand-Rad, PhD, President IOMP



Azam Niroomand-Rad,
President of IOMP

Dear Fellow Members of IOMP,

In the past few months we have had significant accomplishments and one set back. First, I would like to thank the Council Member(s) from various countries who took part in our recent (virtual) Council Meetings. Such participation was instrumental for some of our accomplishments. Similarly, I would also

like to seek your participation in overcoming our recent set back with the International Labor Organization (ILO) regarding classification of the medical physics profession in the next revision of ISCO (International Standard Classification of Occupations). Please read my report on "Classification of Medical Physics Profession – An ILO Web-Based Questionnaire to Update the International Standard Classification of Occupations (ISCO-88)" that has been published in this issue on page 10.

In this message, limited by space, I would like to touch on our current undertakings by providing you the following review:

Establishment of International Commission on Medical Physics (IComMP):

In August 2004, the Council members unanimously approved the EXCOM proposal for the formation of an 'International Commission on Medical Physics,' which will be an 'Affiliated Commission' of the International Union of Pure and Applied Physics (IUPAP). This proposal had significant merit, especially for the two reasons stated below:

- i) Since "medical physics" is considered an "applied physics" and "IUPAP is an international (umbrella) organization for pure and applied physics, they were determined to make a "Commission on Medical Physics" with (or without) us. Thus it was in our interest to keep medical physics activities (worldwide) under our (umbrella) organization by establishing an IComMP in affiliation with IUPAP.
- ii) Since research and educational collaboration are vital to the growth of medical physics, we are convinced that IOMP will clearly benefit from closer association with other (pure and applied) physicists who may have interests similar to ours. We think our association with IUPAP can strengthen the academic and research aspects of our profession that need to go hand-in-hand with the medical/clinical aspects of it.

In October 15, 2004, this proposal was presented to the IUPAP Council and Commission Chairs Meeting in Muumbai, India and was approved enthusiastically. At this meeting, Dr. Pal Ormos, Chair of C6, Commission on Biological Physics and Director of Biophysics Institute in Hungry, introduced Professor Moira Steyn-Ross, Dept. of Physics & Electronic Engineering, University of Waikato Hamilton, New Zealand, as a potential delegate to IComMP from C6 who is interested in collaborating with medical physicists. Moreover, Prof. Gunnar Tibell, Chair of C14, Commission on Education from Uppsala University in Sweden, also expressed interest in collaborating with us.

I believe the next step in finalizing IOMP affiliation with IUPAP is the approval of our proposal by the IUPAP General Assembly that will meet in Cape Town, South Africa, October 26-29, 2005. Once this process is complete, we can officially invite IUPAP members from C6, C14, and/or any other physics group (Commission) within IUPAP to take part in our activities by joining the IOMP International Advisory Board. Conversely all of our members are encouraged to collaborate and take

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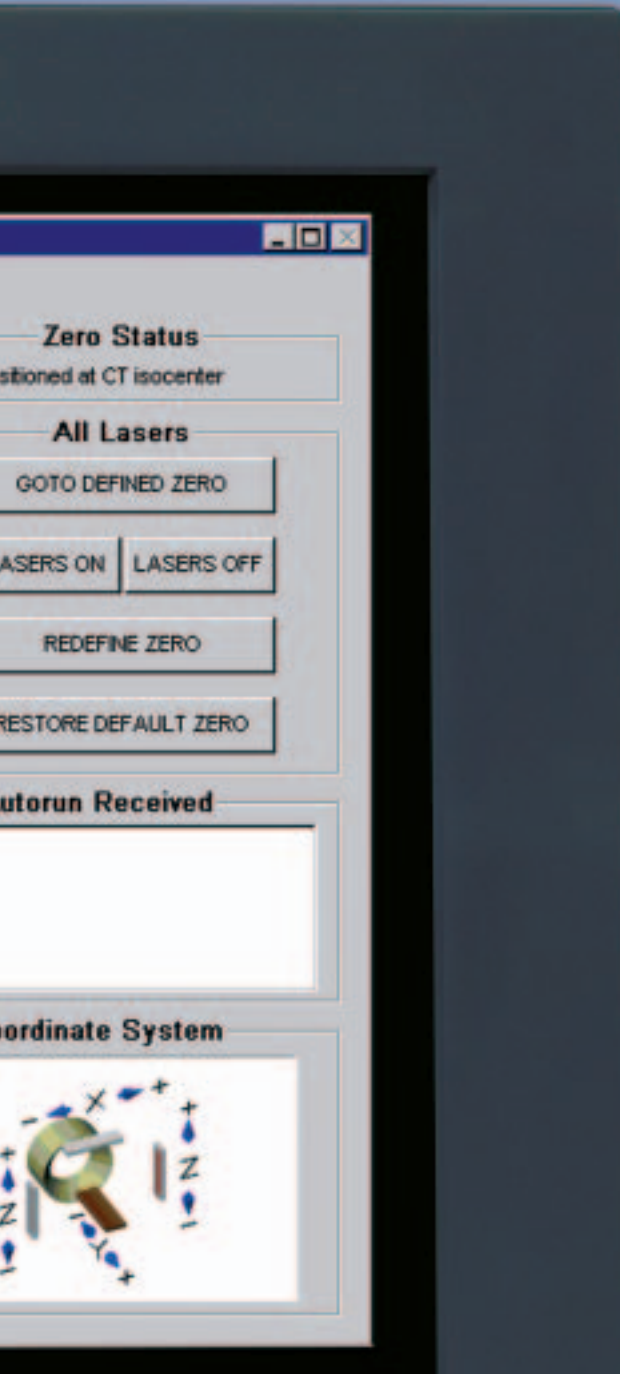
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President's Message – (continued from page 1)

part in the activities of the 18 sub-disciplinary Commissions and 3 Affiliated Commissions in IUPAP. Moreover, we will also than be able to apply for a modest conference grant (~\$1000/year, or \$3000.00 every 3 years) for our conferences.

International Conference on Medical Physics (ICMP) Initiatives with IOMP Chapters:

In October 2004, the Council members approved the proposal for additional international conferences on medical physics mainly for the reasons stated below:

- i) First, in a world where science and technology are rapidly developing, medical physicists, especially those from developing countries, need more opportunities to interact with each other and to be exposed to emerging technologies. Smaller and more frequent scientific meetings of high quality would help to strengthen links among regional medical physicists. Furthermore, such meetings would promote the medical physics profession in the countries/regions where a large triennial World Congress on Medical Physics and Biomedical Engineering (WCMPBE) is not an option.
- ii) Second, with the decline in IOMP financial resources in the past few years, we needed to increase IOMP visibility with exhibitors by participating in more regional international conferences. Clearly more frequent interactions with exhibitors, in smaller conferences, would strengthen and promote our ties with them and would improve IOMP Cooperate membership.

Thus, in addition to the WCMPBE on a triennial basis, and not in the same year as the WCMPBE, the Council approved additional IOMP meeting(s), as organized jointly with its national member and/or regional chapter organizations. However, since neither IOMP nor Chapters of IOMP normally have the resources to organize meetings, IOMP conferences need to be hosted by a national organization. Consistent with the IOMP history, these meetings will be called "International Conferences on Medical Physics, (ICMP)". The timing of the meetings will be very much based on local requirements and precedents. The aim should be to rotate the meetings around the world. The meetings should reflect the priorities and needs of the region in which they are based. The scientific standard must be a balance between the various scientific, educational, training and professional elements.

A substantial exhibition will always be encouraged. The revenue generated will be shared among the national organization, regional chapter, and IOMP with a distribution scheme agreed upon beforehand.

As you may know the Council in Sydney (WC2003) approved our next international conference to be organized on a "trial" basis in collaboration with the European Federation of Organizations in Medical Physics (EFOMP) and the German Society of Medical Physics (DGMP), in Nuremberg, Germany, Sept. 14-17, 2005. Thus this Conference will incorporate the 14th ICMP, the 9th EFOMP and the 36th DGMP meetings. The details of this program are now available at the www.ICMP2005.org. For more information, contact Prof. Dr. Willi Kalender, President of ICMP-2005 or Dr. Antje Schulte (Confrence Secretary), Institute of Medical Physics, Henkestr. 91, 91052, Erlangen, Germany, via ICMP2005info@imp.uni-erlangen.de or fax to +49 9131 8522824.

The World Year of Physics 2005:

The year 2005 has been declared The World Year of Physics by the United Nations Educational, Scientific and Cultural Organization (UNESCO) to commemorate the 100th year of the epoch making papers authored by Albert Einstein in 1905. Many physics activities and programs are being organized worldwide by various national and international physics organizations. The Launch Conference of the International Year of Physics, entitled "Physics for Tomorrow", will be held at the UNESCO Headquarters in Paris, France, January 13-15, 2005. The invited speakers include 5 Nobel Prize Laureates in Physics (1992, 1997, 1999, 2000, 2002) and 2 Nobel Prize Laureates in Chemistry (1996, 1999). There will be round tables discussion on physics and the socio-economical challenges of the 21st century as well as the perception of physics by the general public. More information is available at www.wyp2005.org/launch or you can contact launch@wyp2005.org.

In addition to this conference, many other "physics" activities are being planned for 2005 – to name a few: "Physics as a Cultural Heritage" (Contacts: Sonja Draxler and Max E. Lippitsch), "Physics Enlightens the World" (Contacts: Max E. Lippitsch and Sonja Draxler), "Physics Talent Search" (Contact: Beverly Hartline), "Stories in Physics" (Contact: Fred Hartline), "Playing Physics"

(continued on page 4)

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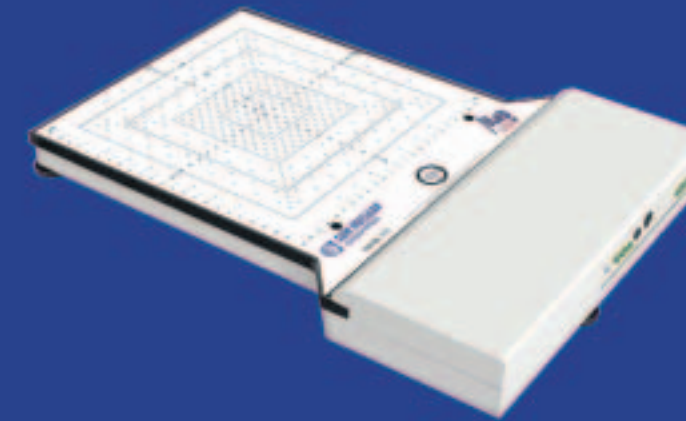
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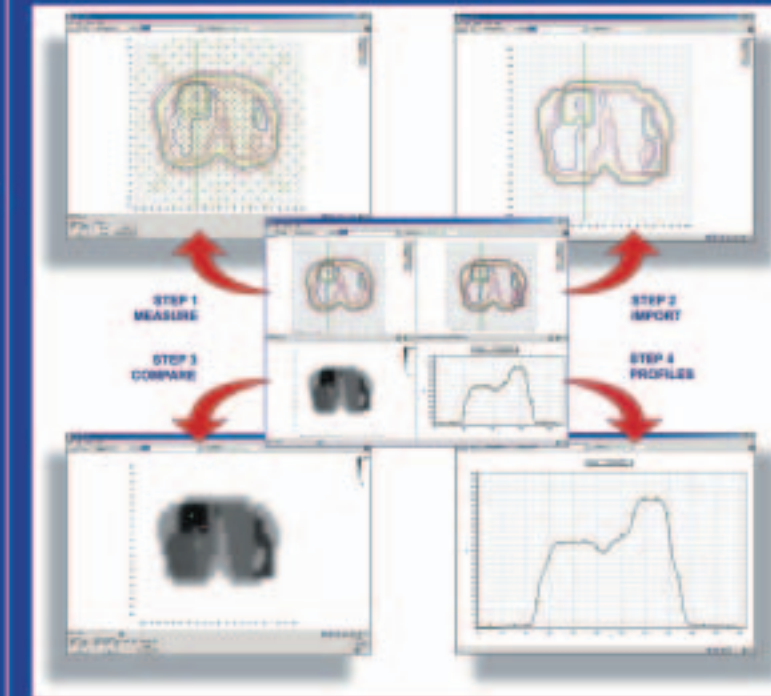
IOMP correspondence should be addressed to
Drs. Niroomand-Rad and Allen.

Advertising requests should be addressed to
Drs. Parsai and Narayana.

Event information should be addressed to
Dr. Carter Schroy.



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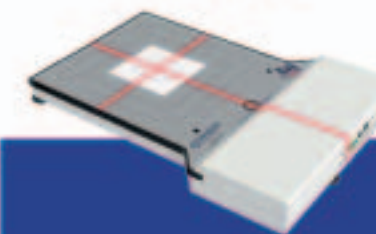
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STRIP IN OLD NEGS

The IOMP website (www.IOMP.org) has been re-formatted to make it easier to navigate and find documents by using a menu (with sub-menus) arrangement. Further updating is on-going. This re-formatting is an interim measure, a full review is planned, and a new website, if agreed upon, may be developed next year. Comments and suggestions for both the current and a possible future enhanced website are most welcome. Ideas for an enhanced website include password-protected areas for particular groups (Council, Committees etc.) and the possibility of conducting virtual meetings using the password-protected areas rather than by email. Another possibility is direct and automatic updating of information from an IOMP database.

Some smaller national member organizations find it difficult to establish and maintain their own websites due to lack of resources. Is there a role for IOMP to assist and host individual websites of national organizations? This is a specific question that raised the more general question of how the IOMP might further assist its smaller national organizations. Clearly the IOMP Regional Chapters have a major role and it is hoped that over the next few years all national organizations will be linked to a Regional Chapter. Comments and ideas are welcome.

At the first Sydney council meeting (see website for minutes) the President put forward definitions of what medical physics is and what medical physicists are. These were adopted, with one amendment, and the IOMP definition of medical physics is:

“Medical Physics is a branch of applied physics, pursued by medical physicists qualified with a University degree or equivalent and majoring in medical physics, physics, physical sciences or other related areas, which uses scientific (mainly physics) principles, methods and techniques in practice and research for the prevention, diagnosis and treatment of human diseases with a specific goal of improving human health and well-being”. See website for the definition of a medical physicist.

In my last report, I mentioned that the Executive committee had agreed on a policy of two virtual meetings a year. However, for this year it was agreed that an extra meeting was needed and this was held in June. The main topics included proposals for an increase in IOMP international conferences on medical physics; links to the International Union of Pure and Applied Physics (IUPAP) and the formation of an International Commission on Medical Physics; and a World Congress in 2005 on ‘Physics and Sustainable Development’ -with one of the themes being ‘Physics and Health’ - to be held in South Africa to mark the ‘The World Year of Physics. The first two were subsequently considered, and voted on, by Council and are reported on in more detail by the President in her report. Notes of the meeting are on the website. Council will have held a virtual meeting by the time this edition is distributed and draft minutes of the proceedings will be available on the website.

President's Message — *(continued from page 2)*

(Contacts: Masno Ginting and Max E. Lippitsch), Einstein@home (Contact: Vinaya Sathyasheelappa), and “International Poster Contest” (Contact: Caitlin Watson). I think we should take this opportunity to make the general public aware of medical physics by designing similar programs with medical physics theme; such as “Physics in Medicine”, “Physics & Health”, “Physics of Radiation Therapy / Diagnostic X-Rays / Nuclear Medicine” .. etc. If you are interested in designing a “medical physics” program in your country for the World Year of Physics, please let us know. We may be able to support you by providing some minimal seed money.

World Congress on Physics and Sustainable Development:

As co-sponsor, IOMP plans to be actively involved in the preparation of the World Conference on Physics and Sustainable Development held in Durban, South Africa, October 31 – November 2, 2005. This conference, initiated by UNESCO, is being planned by the ICTP (International Center for Theoretical Physics, Trieste, Italy), IUPAP, and the SAIP (South African Institute of Physics).

Since Physics & Health is one of the four themes of this conference [other themes are: Energy & Environment, Physics Education, and Physics & Economic Development], it is important that we play a leading role in this conference. We should do our best to make our contributions in health and medicine known to government agencies and scientific communities on the international arena. We should plan to attend this meeting – preferably as speakers if we can - (See details for the World Conference Announcement). We should take part in developing concrete recommendations on issues related to our profession. We should particularly focus on issues related to developing countries – such as the lack of resources and government support. Our strategy should be one that emphasizes the improvement of health through improved education and training of medical physicists, who are instrumental in building the medical physics capacity worldwide. For more information, contact Dr. Edmond Zingu, Chair of IUPAP C13, Commission on Physics for Development, Mangosuthu Technikon, P.O. Box 12363, 4026 Jacobs, South Africa, E-mail: zingu@julian.mantec.ac.za, Fax: (27-31) 906 1166.

As always, the IOMP Officers and Chairs are looking to the members for direction. Please work with us to improve our organization by taking part in IOMP initiatives and providing us continual feedback.



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Report of the IOMP Professional Relations Committee

– Stelios Christofides, Ph.D., IOMP PRC Chairperson (Aug. '03 - Aug. '04)

The following short report briefly describes the current activities of the PRC.

1. Communications and Equipment Exchange Program.

This is the most active of the PRC's programs thanks to the efforts of Mr Mohammed Zaidi and Dr Ajai Kumar Shukla. An account of the activities of this program is given separately in every issue of Medical Physics World.

2. IOMP Libraries Program.

Dr. Alan Wilkinson has also been very active pursuing this important program. An account of the status of this program is given separately in every issue of Medical Physics World.

3. Registration of Medical Physics with the ILO

This is a long standing project under the direct leadership of the President of IOMP Dr Azam Niroomand-Rad. She will include an account of this project in her report. The PRC assists in the pursuit of this IOMP mission.

4. Other Activities

Presently the PRC is drafting the following documents:

a) Conditions and Terms for the WC2006 Travel Awards.

The aim of this programme is to introduce members of developing countries (one from each IOMP region) to medical physics scientific, educational, and professional issues at the international level and make them more effective in advancing medical physics in their own countries.

The application form, Conditions, and Terms of Reference that need to be met by prospective applicants will be posted on the IOMP web site during the first half of 2005, after approval by the PRC and the Executive Committee of IOMP.

b) Sample Constitution to assist in the creation of Medical Physics Associations.

A sample constitution that can be used to create a National Medical Physics Association is already available on the IOMP web site. This dates back to the early days of IOMP and it is felt that it requires a review to bring it up to date with the newly approved IOMP Statutes and Bylaws.

c) Ethical Code of Practice for Medical Physicists.

A number of Medical Physics Associations worldwide have their own Ethical Code of Practice which their members are obliged to follow. It is felt that the IOMP should draft a sample Ethical Code of Practice which can be adapted by National Member Organizations to meet their own national needs.

d) Guidelines on Professional Contact for Medical Physicists.

In the same spirit of mind as for the Ethical Code of Practice, it is felt that National Member Organizations should also follow a Code of Professional Contact with patients. For this reason Guidelines on Professional Contact for Medical Physicists are under development by the PRC.

I would like to invite all those that are familiar with the above issues or have strong opinions that they would like to share with us, to please get in touch with me by email at stselios@cytanet.com.cy. Sample documents that are already in use will be most welcomed.

Calendar of Events

Carter Schroy, Ph.D., MPW Associate Editor

The following events can be found on the online 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.

25-29 April 2005

5th Int'l Conference on Isotopes (ICI); Brussels, Belgium
Jointly organized by the Institute for Energy of the European Commission and ESTRO
<http://www.jrc.nl/5ici>
5ici@jrc.nl

7-10 May 2005

1st World Congress of Thoracic Imaging and Diagnosis in Chest Disease; Florence, Italy
<http://www.oic.it/horacicimaging>
v.vitali@oic.it

22-25 June 2005

CARS 2005: Computer Assisted Radiology and Surgery; Berlin, Germany
<http://www.cars-int.org/office@cars-int.org>

28 June - 1 July 2005

XV Congreso Nacional de Fisica Medica Sociedad Española de Fisica Medica (SEFM); Pamplona, Spain
<http://www.sefm.es>
anastasio.rubio.aroniz@cfnavarra.es

24-28 July 2005

AAPM 47th Annual Meeting; Seattle, WA USA
American Association of Physicists in Medicine
<http://aapm.orgwebpage>
aapm@aapm.org

14-17 September 2005

14th Int'l Conference of Medical Physics; Nuremberg, Germany
Incorporates the 9th European Congress of Medical Physics (EFOMP) and the 36th Annual Meeting of the German Society of Medical Physics (DGMP) and is being held jointly with the 39th Annual Meeting of the German Society for Biomedical Engineering
<http://www.icmp2005.org>
ICMP2005info@imp.uni-erlangen.de

18-20 September 2005

7th Int'l Conference on Dose, Time, and Fractionation Multi-Modality Based Modulation of Dose, Time, and Fractionation Using Modern Tools; Madison, WI USA
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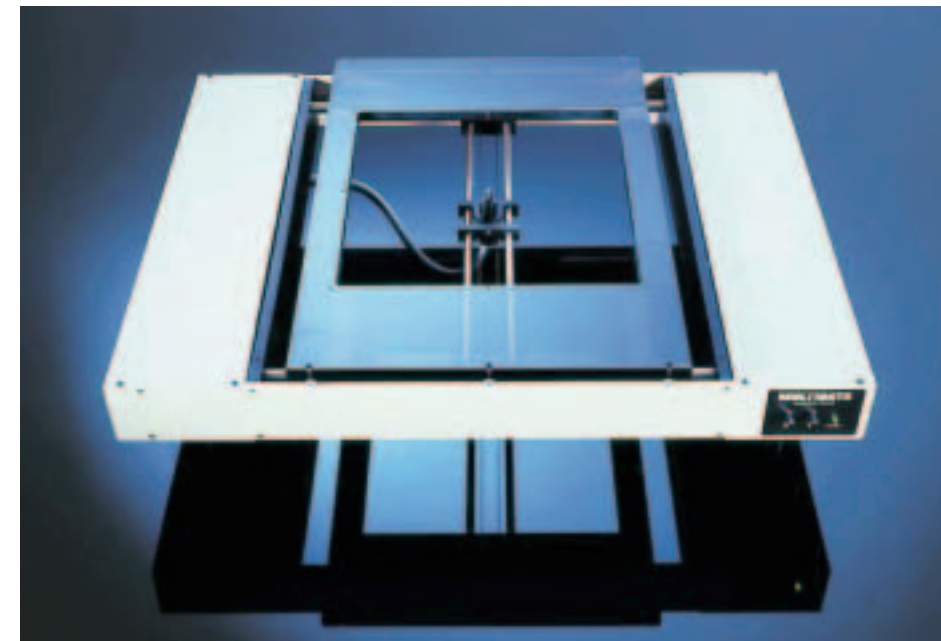
13-18 November 2005

14th International Symposium on Microdosimetry (MICROS 2005); Venice, Italy
An Interdisciplinary Meeting on Ionizing Radiation Quality, Molecular Mechanisms, Cellular Effects, and Their Consequences for Low Level Risk Assessment and Radiation Therapy
<http://micros2005.inl.infn.it>
Roberto.Cherubini@Inl.infn.it

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World Congress on Medical Physics and Biomedical Engineering

Barry Allen, Vice President, IOMP; President WC2003

Dear Colleagues,

The general consensus of delegates was that WC2003 was a great success. Both the scientific program and the congress environment were very good, and were well regarded by our overseas visitors.

Of the 2200 delegates, there were 1000 fully paid, 200 day, 250 student, developing countries or retiree registrations, and 100 complimentary registrations, amounting to a \$2,000,000 budget. 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 different heavy ion therapies such as boron neutron capture therapy (BNCT), targeted alpha therapy (TAT), fast neutron therapy (FNT), proton therapy (PT), and heavy ion therapy (HIT) to be discussed. In view of the many overlapping aspects of these therapies, these joint sessions were 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, particularly as many did not make it to the boards.

Other Physics features were the point-counterpoint sessions on chemotherapy dose, targeted screening, protons vs intensity modulated radiotherapy (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 so as to be more inclusive rather than exclusive.

The Congress was financially successful. Income from registration (\$1558K), sponsorship (\$46K), exhibition (\$308K) and other sources (\$138K) totaled \$2050K. This was offset by a total expenditure of \$1928K, leaving a gross profit of \$113K after GST. After the contractual payment of \$US25K each to the IOMP and IFMBE, the net profit for distribution was \$39K. IOMP and IFMBE each received one sixth of this profit, and the Australian colleges the remaining two thirds. While a 2% profit on a 2 million dollar budget is not much financial reward for up to 8 years of work by some, the budget was at least in the black. SARS and terrorism had their impact on delegate numbers, certainly reducing the turnout by Americans. The high number of day registrations didn't help either. The day registrations really defeat the primary purpose of the Congress, which is to broaden and educate delegates about the big picture. The saving grace of WC2003 was the rather high registration.

Members of the Organizing Committee were Barry Allen, Dan Bader, Alun Beddoe, Richard Kirsner, Nigel Lovell, Jim Hagekyriakou, Peter Hunter, Peter May, Mark Pearcy and Brian Thomas. Assistance was provided by the International Medical Physics and Biomedical Engineering Advisory Committees. The Organizing Committee did a great job over the years, and received valuable assistance from the Conference Organizers, and Tour Hosts. 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. For the most part this structure worked well, and when it didn't, changes were made. Some

of the Tracks were effectively international conferences in themselves, and the outstanding performance of Peter Metcalfe, Don McLean and Geoff Tansley, with some 140 to 190 papers in each track, must be acknowledged. However, we owe a huge debt of gratitude to all the Track and Topic Chairs, and to Brian Thomas and Mark Pearcy who kept the program together when it was bursting at the seams.

Lastly, I must acknowledge the special efforts and expertise of Richard Kirsner, Congress Treasurer and Nigel Lovell, Vice-President. Richard carries with him a vast network of contacts in both medical physics and engineering, and had the responsibility of ensuring fiscal propriety and preparation of the final accounts. Nigel, in his role as Web Site Director, employed his considerable computing skills to the max to be the link between the Tour Hosts conference program and the WC2003 web site.

All abstracts and proffered papers were published on CD. However, selected papers that survived the journal review process have now been published in Volume 49, Issue 16 of Physics, Medicine and Biology (editor Barry Allen) and Volume 25, Number 4 of Physical Measurement (editor Nigel Lovell).

There were, of course, many others who contributed to the success of the Congress and who are not named above. My special thanks go to all those who gave wc2003 their full support.

WORLD CONFERENCE ON PHYSICS AND SUSTAINABLE DEVELOPMENT
DURBAN, SOUTH AFRICA OCTOBER 31 - NOVEMBER 2, 2005

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Assistant Director-General
Natural Sciences
UNESCO




Yves Petroff
President
International Union of
Pure and Applied Physics



Katepalli Sreenivasan
Director-General
International Centre for
Theoretical Physics



Edmund Zingu
President
South African Institute of
Physics



SAVE THE DATE!

The World Conference on Physics and Sustainable Development will be held in Durban, South Africa, on October 31-November 2, 2005.

As part of the celebration of the International Year of Physics, the 100th anniversary of Einstein's Miraculous Year in which he published three of his most famous papers, the **World Conference on Physics and Sustainable Development**, will be held in Durban, South Africa, on October 31-November 2, 2005. Participants from developed and developing nations will join together to examine the contributions that physics has made to society in the past in order to formulate and sharpen action-oriented plans for the contributions that it can and should make in future. This conference will be cosponsored by UNESCO, the Abdus Salam International Centre for Physics (ICTP), the International Union of Pure and Applied Physics (IUPAP), and the South African Institute of Physics (SAIP).

We hope that you will plan to attend and will encourage others to do so. For additional information, please visit www.wcpsd.org

UNIQUE OPPORTUNITY

The World Conference will serve as the first global forum to focus the physics community toward development goals and to create new mechanisms of cooperation toward their achievement. It will be held in conjunction with the 2005 General Assembly of IUPAP and is expected to attract 400-500 participants from across the globe.

Four themes have been chosen for the conference: Physics and Economic Development, Physics and Health, Energy and the Environment, and Physics Education. An International Advisory Committee (IAC) comprised of Nobel Laureates and other international science leaders will work with a Planning Committee to prepare the program. In part, the Conference will be a follow up to the UNESCO-ICSU World Conference on Science which was held in June 1999 and sought to strengthen the ties between science and society, as well as to the broader United Nations World Summit on Sustainable Development that was held in Johannesburg in the summer of 2002. The Conference is expected to lead to important action items and that organizations of physicists, including all of the national physical societies, will join together to implement collectively.



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Donation of Used Equipment

Mohammed K. Zaidi, Program Manager,
IOMP Professional Relations Committee

A full set, of the CMS Modulex Treatment Planning System including computer, printer, digitizer, plotter, CMS water phantom system including water tank, computer, and monitor and Gammex radiation beam analyzer RBA-3, are being donated by William P. Stitt, CHL CRCST CPHM CMRP FAHRMM, Director of Material Services, Reid Hospital and Healthcare Services, 1401 Chester Boulevard, Richmond, IN 47374. The Program Manager is very thankful to Dr. Stitt and Reid Hospital for this donation and support for the IOMP mission to help developing countries.

I am very pleased to approve the shipment of the above quoted equipment to the Ashwin PPG Cancer Hospital that is conducting cancer screening camps in both city and rural areas. To treat the cancer patients, the P.Perichi Gounder Memorial Charitable Trust was formed with the intention of attending to the suffering of cancer patients. Dr. L.P. Thangavelu is the Managing Trustee.

Recently the Ashwin PPG Cancer Hospital has installed a telecobalt unit using a generous grant from India's National Cancer Control Program. At present we are treating about 30 patients daily. A considerable number of these patients receive radiotherapy either free of charge or at a reduced cost. We are adding a Brachytherapy ward to the existing Cobalt Therapy Unit. A computerized treatment planning system will be very helpful in giving precise radiation treatment to these cancer patients. The institution has agreed to pay the necessary shipment charges or make arrangements for shipping.

Used equipment needed:

Linear accelerator, Theratron 780 Co-60, Automatic film processor, block cutter, patient dose monitor and ultrasound machine.

Shipping arrangements:

The institutions that need used equipment should mention in their response that they will pay for or make arrangements for shipping at a very short notice.

Dr. Ajai Kumar Shukla from India will be helping me in IOMP efforts to deliver quality service in obtaining and transferring used equipment from generous donors to those who are in need. He can be reached at the Department of Nuclear Medicine, SGPGIMS, Raebareilly Road, Lucknow (UP), 226014, INDIA. His phone number is 91-0522-2668700 extension 2615 and his email address is akshukla@sgpgi.ac.in.

The equipment donated to the IOMP Used Equipment Donation Program is generally in good working condition but we don't guarantee its usefulness. The donations to IOMP may be tax deductible.

There is a possibility that in early 2005, the webpage, www.iomp.org, may have some space for the used equipment program for a posting of available used equipment.

If you wish to donate or are in need of used equipment for your organization, please contact Mohammed K. Zaidi at Phone: 208-526-2132, Fax: 208-526-2548 or e-mail: zaidimk@id.doe.gov

Report from the ETC – October 2004

Education and Training Committee

– Slavik Tabakov, Ph.D., Chairman ETC

During the period of April 2004 - October 2004 the IOMP Education and Training Committee had a busy schedule of assessing and supporting various regional activities. The programs approved were:

- A Workshop "Current QA/QC Practice in Radiotherapy and Oncology" at the Chulalongkorn University, Bangkok, Thailand; August 30 - September 1, 2004
- "Medical Physics Refresher Courses" – satellite to the 3rd Iberian Latin American and Caribbean Congress of Medical Physics, Rio de Janeiro, Brazil: 26-29 September 2004.
- A Workshop "Intensity Modulated Radiation Therapy Delivery systems, Patient's benefits & Radiological Safety" an AMPI activity in New Delhi (India) (satellite to the Silver Jubilee Conference of the Association of Medical Physicists in India); 28th – 31st October 2004.
- A fact-finding visit to AFOMP region countries by the IOMP Vice-President (Prof. B Allen).
- Additionally, the Workshop on Radiation Therapy Physics in Sichuan China was held during August 23-27, 2004 (this activity was approved in 2003, but postponed due to SARS). The course was sponsored by the AAPM and the Chinese Medical Physics Society.

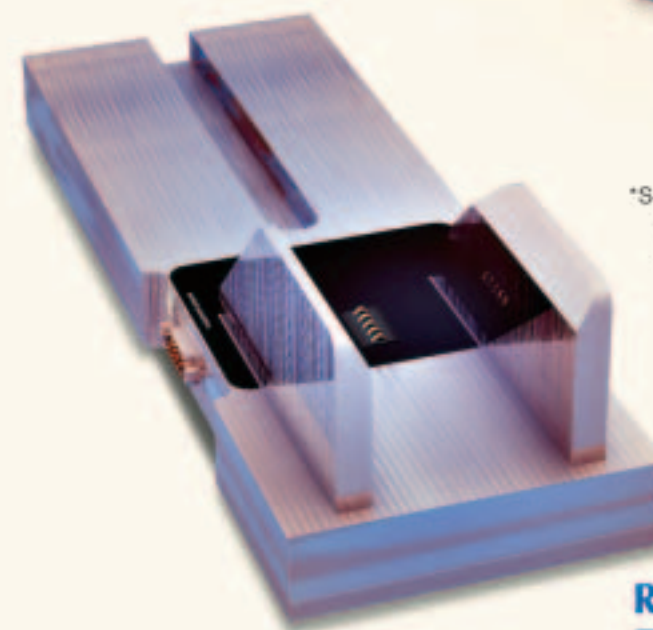
Another important international Education/Training activity during this period was the bi-annual International Medical Physics College at ICTP, Trieste, Italy (the Abdus Salam International Centre for Theoretical Physics), held for 4 weeks during September 2004. This activity directed by P Sprawls, A Benini, S Tabakov and L Bertocchi gathered specialists from 42 countries. Along with a busy schedule of lectures, a discussion and a poster session were held addressing education and training initiatives in various countries. As before, special attention was given to the representatives from Africa aiming to help the development of the profession in the region.

This College coincided with the 40th Anniversary of ICTP, and on this occasion special gratitude was expressed to Prof. Luciano Bertocchi who is one of the Founders of this unique International College (running for some 20 years now).

Also during this period the international project EMIT (coordinated by the ETC Chair) was completed. This project developed 2 new e-learning modules on MRI and Ultrasound image training (to complement the existing 3 EMERALD training modules on X-ray, Nuclear Medicine and Radiotherapy). The project also developed a multilingual Medical Physics Dictionary (cross translating between any of its 7 languages – English, French, German, Spanish, Portuguese, Italian and Swedish). Colleagues who are willing to add their language to this dictionary must contact Dr S Tabakov through www.emerald2.net.



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Report on the China's "AAPM/IOMP International Scientific Exchange Program"

Radiation Therapy Physics Course & Workshop; Chengdu China; August 23-27, 2004

— Raymond K. Wu, PhD, Chair, AAPM Asian Oceanic Affairs Subcommittee & Yimin Hu, Prof, Co-Chairman, Organizing Committee

The 13th AAPM/IOMP Radiation Oncology Physics Course & Workshop was successfully held on August 23-27, 2004 in Chengdu, China. The course entitled Advances in Radiation Oncology Physics was organized by AAPM and the Chinese Society of Medical Physics (CSMP). The course attracted over 250 participants from all over China. Most are radiation oncology physicists and radiation oncologists who have been in practice for several years. In parallel with the course, the North American Chinese Medical Physicists Association (NACMPA) put together a commercial exhibit and a series of Instrumentation Sessions to provide hands-on experience for the participants. All together 33 Chinese and International firms participated in this effort, providing the opportunity for participants to directly interact with the vendors for the major emerging technologies covered in the course.

A total of 24 lecture hours were presented at the five-day course. Instantaneous interpretation via a wireless system was provided by NACMPA. In addition to the lectures, blocks of time were reserved for small group sessions on various topics of interest. Topics covered in the lectures/sessions included basic QA, radiation safety, education, certification, recent advances and future research directions in radiation oncology and physics. During two separate afternoons, about 30 physicists participated in the Dose Calibration Workshop and the Chamber Inter-comparison Workshop in the Huaxi Hospital of the Sichuan University Medical School. Dr. Faiz Khan and Mr. Thomas Slowey from U.S., and Dr. Jianrong Dai of the Chinese Academy of Medical Sciences conducted the hands-on workshops.

Upon registration each participant was given a 215 page Collection of Presentation Material covering all the lectures and topical sessions that included offset PowerPoint images in great detail. Feedback comments indicated that this effort reduced the language barrier and improved the educational impact of the course. In addition, MDS Nordion and TomoTherapy donated and shipped 250 copies of the textbook written by Jacob Van Dyk, "The Modern Technology of Radiation Oncology: A Compendium for Medical Physicists and Radiation Oncologists".

The website <http://www.aapm.org/org/committees/ao> displays the teaching program, the Chinese and English abstracts of all 24 lectures and 36 topical sessions, the list of faculty, the geographic distribution of participants, and other information. For details please visit the China Workshop link. The hard work of the Chinese and U.S. workers made it possible to get over fifty abstracts translated in a very short time, and hundreds of megabytes of PowerPoint files downloaded and edited for the production of the printed proceedings. The website accommodates this kind of close cooperation regardless of the physical distance between the collaborators.

The Course & Workshop would not have been possible without the generous support of the many industrial sponsors listed on the Workshop homepage. Among them are regular supporters of the AAPM/IOMP program which include Siemens, Varian, Elekta, NOMOS, CMS, MDS Nordion, and Sun Nuclear. Most of the other sponsors listed on the homepage either have supported past scientific exchange programs or indicated that they will be happy to sponsor future programs.

The participants were asked to enter a score of 1 to 10 on the Course Evaluation Form for each of the lectures and sessions

attended. About half of the participants returned the forms. Average scores of 9 or higher were indicated for sessions 2H06, 3A01, TQ08, TD15, TQ16, TB21, TA26, TA27, TA29, TA30, TT31 and TS32 (see website for session codes). It is interesting to note that the higher scored sessions were either delivered in Chinese or presented with quality translation. This is consistent with the comments collected, which repeatedly indicated that the language used and translation quality were very important and/or appreciated. However, by far the most popular themes of the comments were on the overall good quality of the course, the participants' appreciation of the presentations of all faculty members, and the desire of more frequent future AAPM/IOMP courses.

The Organizing Committee would like to express its appreciation to the many hard working individuals for their contributions to the success of the event. Special thanks are due to Prof. Yimin Hu, Prof. and Mrs. Dake Wu, Dr. Jianrong Dai, Mr. Ke Zhang, Dr. Sen Bo, Dr. Shaoyu Du, Mr. Zhiquan Tang, Dr. Reijie Yang, Dr. Jinyi Lang, Dr. Fangfang Yin, Dr. Jeff Ning Yue, and many others. The names of the U.S. and Chinese members of the Organizing Committee are listed on the web pages if you are interested in contacting them for additional information.

* *Pakistan (1992), Poland (1993), Iran (1994), Turkey (1995), Morocco (1996), Russia (1997), Egypt (1998), Brazil (1999), Romania (1999), Thailand (2000), Bangladesh (2001), Saudi Arabia (2002)*

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November 1, 2004: Start of early registration
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April 30, 2005: Abstract acceptance notification

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Please feel free to contact us at any time:

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A Report on: Asia Oceania Federation of Medical Physics

A chapter of the International Organization of Medical Physics, www.afomp.org

— Barry J. Allen, Ph.D., DSc, V.P., IOMP

President's Report

After completing 3 years as inaugural President of AFOMP, Dr K Y Cheung retired at the end of 2003. During Dr Cheung's watch, AFOMP consolidated and grew, the constitution was developed and Mongolia and Nepal joined to bring the membership to 16 States. Three successful AOCMP meetings were held, the first in Bangkok, the second meeting with the Korea-Japan Society in Gyeongju and the third with wc2003 in Sydney. The status of Medical Physics in the region was surveyed and the results are pending.

Summary of activities

This year has seen an ongoing effort to develop AFOMP's role in the Asia-Pacific region. However, it is clear that for AFOMP to be of real significance in the region, we must generate funds, primarily from commercial support. Dr Ng has noted problems with attendance at the Kuala Lumpur meeting, because of a lack of travel grants.

New Members

The President, using limited support from IOMP and AFOMP, visited the non-member states of

Brunei and Vietnam to begin a relationship with these countries. Unfortunately, there were insufficient funds to visit other countries in the region. However Iran expressed an interest in applying for membership.

Annual Meetings and Scientific Programs

Dr Kwan Ng has done a great job in putting together the 4th AOCMP/3th SEACOMP in Kuala Lumpur, and Japan has volunteered to hold the 2005 meeting in Kyoto.

AFOMP Journal

Our relationship with the journal APESM continues to grow. APESM published the 4th AOCMP abstracts (Vol 27/2,75-106), and continues to feature the Office Bearers of AFOMP on a separate page. However, we need to encourage AFOMP members to publish in this journal.

Future Directions

We must develop independent funding sources, in much the same way as IOMP. The regional meetings should contribute to our funds, but more importantly, commercial interests, which will be the beneficiaries of the developing markets in the AFOMP region, should provide the oil to grease the AFOMP wheels. To this end, a Commercial Funds Committee was formed with this objective in mind. Members are KY Cheung, K inamura and the chair is BJ Allen. Further, the Professional Development Committee (PDC) needs to establish guidelines for the development of standards in developing countries. In this way, AFOMP can make meaningful contributions to the region. The Regional Cooperative Agreement is now back on course, and a draft policy has been submitted to the IAEA by the administering officer in Australia. The RCA will be critical in bringing training opportunities to the AFOMP region.

Radiation Discussion Rooms (RDRs) on the VRM — John Cameron, Ph.D. (jrcamero@wisc.edu)

This article describes a scientific communication scheme which will be an important part of the Virtual Radiation Museum (VRM). The VRM is under development at the University of Wisconsin Department of Medical Physics under my direction. Most of the VRM will provide educational material about many aspects of radiation and radioactivity. The VRM can be much more useful than a physical museum. We plan to have a series of Radiation Discussion Rooms (RDR). I give my reasons for initiating such an activity below and describe its initial characteristics. I solicit your comments and your advice.

Tentative List of Radiation Discussion Rooms:

- RDR 1. Health effects of low dose rate radiation
- RDR 2. Radiation Protection Quantities
- RDR 3. Scientific basis of As Low as Reasonably Achievable
- RDR 4. How to reduce radiation phobia.

Science journals serve an important role in science communication but because of cost they must limit discussion. In general all published articles are refereed. This has good and bad aspects. A bad aspect is that refereeing keeps out odd ball material, some of which can be very important. These are often not published in scientific journals. Also many important but controversial topics are not discussed in science journals. An example would be the need for a change in the procedures followed by ICRP and NCRP. Although letters to the editor are published, their value is greatly reduced by not having the original article readily available. It is rare that a letter discussing a previous letter is published. The RDR would not have these disadvantages.

Many discussions take place on List Servers. They are wonderful for quick communication. However many contributions are done in haste and are poorly written and rarely give references. From my view point List Servers have too much "noise" which often buries the useful contributions. While list servers are often archived, it is not easy to find the material you are looking for since the "noise" is archived along with the useful contributions. List servers and journals have a wide mix of topics under discussion at any one time. Each RDR will be limited to one relatively narrow topic. If it starts to become too broad it will be divided into two or more rooms. All previous contributions at each RDR will be immediately available for review or reference. The RDRs are half way between a List Server and a hard copy journal. Journals are arbitrary in what they will publish because of biased editors or referees. All contributions to the RDRs will be filtered to be sure they are well written, well referenced and make sense. Since contributions will not be refereed, some noise will

be included but that also happens in journals. If any contribution seems plausible and is well written, it will be posted. In other words, we are against refereeing the contributions but we are in favor of filtering them. Anybody can visit the VRM and the RDRs. They can also contribute a commentary to support or contradict any material already posted in a given RDR. Most contributors are expected to be from radiation scientists. However the rooms will be open to the general public and although they may contribute questions to be answered by the experts, it is assumed that the general public will not usually post commentaries. Some of the Q & A may be posted if they are of general interest. Each RDR will have a "Contact the Editor" link which permits them to send a comment or query.

Each RDR will be devoted to serious discussion of a topic of interest dealing with some component of the scientific community. Only contributions which are thoughtfully written and include relevant references will be posted in a RDR.

The first RDR will discuss health effects of low dose rate radiation. A person visiting this room will find many links to URLs. Each link will have a brief description of the contents to be found at that link.

I hope to have good representation of senior radiation scientists from all over the world as "Room Editors" of the RDR. Some of them may be willing to be listed as "Honorary Editors" and give general advice on which URLs should be included for a particular RDR.

I am writing to solicit your advice on the idea of RDRs and to ask if you might help monitor contributions to any room that is of interest to you. I am happy to work on this project but its success will depend on help from many people.

I hope to initiate the first discussion rooms within the next month. I do not ask for a large time commitment from anyone. I desire advice from a variety of radiation scientists. I will also ask some of the past presidents of HPS to give advice and suggest current URLs that should be linked to a particular room. I plan to announce (i.e., advertise) the existence of the archived discussion rooms as soon as one or more are open for business.

The greatest need for this type of scientific discussion to work is to have a number of volunteers who will work as "Room Editors" to help filter out commentaries which are personal or pointless.

I hope that eventually "articles" from RDRs will be referenced. They will not replace journal articles but they will greatly open opportunities for scientific discussion. I welcome your comments and advice.

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Report of the Sixth Congress of Medical Physics held in Mashhad, Iran: May 9-11, '04

– E. Ishmael Parsai, Ph.D.; MPW Editor, M. Taghi Bahreyni, Ph.D.; Congress Secretariat

The 6th congress of Medical Physics held in Mashhad University of Medical Sciences (MUMS) in Iran was held very successfully from May 9th through May 11th, 2004. This congress was organized by the faculty of MUMS University and was sponsored by the Iranian Association of Medical Physics (IAMP). Other sponsors included the National Iranian Petrochemical Industries Co., National Iranian Gas Co., and the Environmental Protection Agency of Iran. According to members of the IAMP and local organizers, this congress with 397 registered attendees was one of most successful congresses in this field held in Iran in recent years.

Participants included medical and health physics faculties, physicians, residents, students and other experts from bio-engineering and medical engineering fields. There were a total of 144 articles submitted to the congress from which 86 were accepted through a preferred process and presented as poster presentations. There were also 8 invited guest speakers from abroad who presented a total of 22 lecture hours of keynote speeches in topics of their respective expertise in both the Farsi and English languages. A wide range of topics were covered in oral and poster presentations including: Radiation Therapy, Diagnostic Imaging, Nuclear Medicine, Ultrasound, Radiobiology, Dosimetry & Radiation Protection, and Natural Background Radiation.

In addition to oral presentations, each afternoon a summary of the accepted poster presentations were also presented in a report format not by the author but by an expert in that field. The book of the congress proceedings including a collection of presentation materials for all the submitted full papers and abstracts and lectures as well as keynotes were printed both in English and Farsi in high resolution format and distributed to each one of the participants at the time of registration. Feedback comments indicated that having access to this material at the time of lectures reduced the language barrier and improved the educational impact of the oral lectures.

The objectives of this congress were to present topics about the current status of diagnostic and treatment of cancer patients using state of the art technology, to promote the professional profile of the field of medical physics in Iran, and to exchange information relating to the medical physics profession and research with colleagues abroad. The program began with a welcoming address by Dr. Bahrami, the president of the university followed by opening remarks presented by professors M. H. Bahreyni, the vice president of research affairs at MUMS, and M.T. Bahreyni, the chairman of medical physics department and the congress secretariat. Evaluation forms were distributed among the participants and were collected upon completion of the congress meeting. Various aspects of the program including the quality and the quantity of the lectures presented by each speaker during the meeting were evaluated. The results of the evaluations were summarized and are available for review through IAMP headquarters.

Corporate Sponsors supporting this meeting were offered a table-top space in a room near the lecture hall for exhibition of their products. The organizing committee wishes to acknowledge the commitment and extraordinary effort of all the involved staff members and of the Local Organizing Committee at MUMS in the past two years in organizing and implementing this program. This congress provided an excellent opportunity for interaction among the medical physicists from different parts of the world with an unforgettable friendship among the faculty and the participants.

Report of the Science Committee

– Cari Borrs, D.Sc, IOMP SC Chair

The main activities of Science Committee (SC) in this period have dealt with the strengthening of the relationship between the IOMP and the International Society of Radiology (ISR) and the co-sponsorship of two Regional Chapter Congresses, the Joint SEAFOMP/AFOMP Congress in Kuala Lumpur, Malaysia, and the ALFIM Congress in Rio de Janeiro, Brazil. The IOMP SC provided some financial support to these Congresses.

IOMP/ISR Relationship

The Joint IOMP/ISR Session on “The Future of Radiology Must Include New Technologies: Image Guided Surgery and Functional Imaging”, held at the 23rd International Congress of Radiology (ICR) in Montreal, Canada, in June 2004, was extremely successful. It included the following presentations: *Image Support of Minimally-Invasive Surgical Procedures*, by Terry M Peters; *Micro-Motion Detection with MRI: Applications to Tissue Characterization*, by Don B Plewes; *Role of Biomolecular Measurements in the Development of Functional Imaging*, by Gary D. Fullerton, and *Combining Functional Magnetic Resonance Imaging with Virtual Reality*, by Simon J. Graham. During the ICR, representatives of ISR and IOMP held a meeting to explore a process to form a long-term agreement between ISR and IOMP to collaborate on issues of common interest.

The IOMP and ISR have participated in ad hoc scientific and professional interchanges over the past four years. Examples of these interchanges are joint sessions at ICR (Cancun, Montreal), joint sessions at the WCMPBE (Sydney), and inclusion of the IOMP definition of a medical physicist in ISR documents. Dr. Jan Labuscagne, Chair of the Scientific Program Committee of the ISR2006, approached the IOMP Science Committee Chair to continue the IOMP scientific collaboration at the 2006 ICR in Cape Town, South Africa. He has already invited South African medical physicists to participate in the Congress. These interchanges are positive for both organizations and should be continued.

To formalize an ongoing relationship, the Executive Committees of both organizations have agreed to form an ad hoc working group which will draft a formal letter of agreement. G. Fullerton and C. Borrs are working on behalf of IOMP. The letter will define the range of activities to be shared and the formation of standing committees in both

organizations to address joint programs including financial arrangements. The intent is that this agreement would be completed and formally signed by officers of the two organizations at the 2004 RSNA meeting in Chicago, and that an “IOMP/ISR Interchange Committee” will meet annually at the RSNA meeting.

Examples of common issues of interest to both organizations which need the combined attention and action of both organizations are: Ongoing scientific program interchange (continue Cancun and Montreal), national regulatory impact on radiology and the practice of medical physics, potential negative impact of regulation on medical care, need for professional recognition of medical physicists, availability of well trained medical imaging scientists in developing countries, and the misuse of medical imaging equipment by insufficiently trained physicians.

3rd South-East Asian Congress of Medical Physics (SEACOMP) and 4th Asian-Oceania Congress of Medical Physics (AOCMP)

The Joint 3rd SEACOMP and 4th AOCMP Congress was held in Kuala Lumpur, Malaysia, September 27-29, 2004, and it was attended by more than 200 medical physicists from more than 20 countries, mostly Asian and South-East countries. The theme of the Congress was “Progress and Innovations in Medical Physics” and it was organized by Prof. Kwan Hoong Ng. The IOMP was represented by Professor Barry Allen, IOMP Vice-President. The IOMP SC Committee was represented by its Chair. Highlights of the Congress can be found on the website: <http://www.um.edu.my/seacomp3>

III Iberian Latin American and Caribbean Congress of Medical Physics

The ALFIM Congress was held jointly with the IX Brazilian Congress of Medical Physics, September 26-29, 2004, in Rio de Janeiro, Brazil, and it was attended by over 500 medical physicists, mostly from Brazil. The Congress was organized by Dr. Helvecio Mota. The IOMP was represented by Dr. Azam Niroomand-Rad, IOMP President. The IOMP SC Committee was represented by Dr. Carlos Eduardo de Almeida, from Brazil. Details of the Congress can be found on the website: <http://www.rio2004.org>

Status AAPM/IOMP Libraries

October 2004 – Allan Wilkinson, Ph.D., Curator of Libraries

We currently have 63 active libraries in 41 countries. Active status is maintained by returning an update questionnaire every 2 years. The 2004 update questionnaire was mailed to 70 libraries in April 2004. By mid-October 2004, responses from 38 libraries had been received. There are 2 libraries that sent updates in 2003. All other libraries on the active list (23) were placed there in 2002. This latter group is currently being contacted to ensure that they remain on the active list. Two libraries on the inactive list (Malaysia and the Philippines) have indicated interest in being reinstated.

There have been 3 large private donations of journals/books this year to India, Pakistan, and Thailand. We are in the process of assigning 3 more private donations to deserving libraries.

IOPP continues to donate five books to new libraries. Our contact at IOPP is Julia Tancock. Kathy Burroughs at AAPM coordinates the donations of Medical Physics Journal subscriptions. She informed us that 42 members donated their 2004 subscriptions to the Library Program. We have faxed her the list of current address for the 42 recipient libraries. Each quarter, The Society for Radiological Protection mails their quarterly publication, *The Journal of Radiological Protection*, to all active libraries.

Anyone wishing to donate materials or establish a library is asked to contact the curator.

Classification of Medical Physics Profession

– Azam Niroomand-Rad, PhD, IOMP President

An ILO Web-Based Questionnaire to Update the International Standard Classification of Occupations (ISCO-88)
www.ilo.org/public/english/bureau/stat/isco/isco88/quest.htm

In 2002, I reported to you on the status of “Recognition of Medical Physics Profession” by the International Labor Organization (ILO). See my Vice-President Reports in MPW, Vol. 18, No. 1 and No. 2. This is a follow up report and a request for your participation in responding to the ILO web-based questionnaire.

In the past couple of years, I’ve had to reestablish my communications with the new ILO Director, Dr. A. S. Young and his assistant, Ms. Adriana Mata-Greenwood, who have replaced Dr. Mehran and Dr. Hoffman. Since resuming my communications with these two individuals and checking my facts with IOMP past presidents, I’ve learned the following:

- In August 1996, the IOMP’s initial request to ILO (Dr. Mehran), which was submitted by Prof. Keith Boddy, stated that medical physicists are health professionals. Since the new ILO Directors were NOT aware of this request, we had to resubmit a copy of this letter to Ms. Adriana Mata-Greenwood.
- In August 1996, the ILO’s initial response to Prof. Boddy by Dr. Mehran (CC to Dr. Hoffman), stated that medical physicists should be covered by occupational code 2229 Health Professionals (except nursing) not classified elsewhere. We had to resubmit a copy of this letter to Ms. Adriana Mata-Greenwood.
- In October 1997, the ILO Director (Dr. Hoffman) made a recommendation to introduce the medical physics title to ISCO-88 unit group 2111 physicists and astronomers, based on the information he received from Australia, Canada, France, the Netherlands, Germany, UK, and USA.
- In January 1998, Prof. Boddy responded to the ILO (Dr. Mehran CC to Prof. Colin Orton) by expressing his concern for Dr. Hoffman’s recommendations of coding medical physicists in group 2111. We also resubmitted a copy of this letter to Ms. Adriana Mata-Greenwood.

Since January 1998, Dr. Orton and myself have continued our communication with Dr. Hoffman. Initially it appeared that his recommendation was “final” with no recourse. However, I recently learned from Ms. Adriana Mata-Greenwood, that we still have a chance to provide new data to ILO in favor of classification of the medical physics profession in Health Professional category 222. Therefore, please accept my apologies for not having fully understood the bureaucratic logistics of the ILO when I reported to you in 2002.

Our rationale for NOT wanting to classify the medical physics profession as a sub-unit of 2111 - Physicists and Astronomers – is based on “the smaller” similarity in the tasks and duties of medical physicists with respect to other physicists (of group 2111). Our tasks and duties, which are numerous in practice, have more similarities to those provided by health professionals (in group 222). In fact, in the past few months, with the help of the Professional Relation Committee, we were able to gather and submit new documents to ILO indicating that in several countries including Australia, Canada, China, Italy, The Netherlands, and the USA, the medical physics profession is (or is being) classified as a Health Profession. We therefore submitted a revised document to ILO, emphasizing the clinical tasks of medical physicists. We pointed out that most medical physicists work in hospitals and care for patients in collaboration with physicians, and that they are often certified by the health professionals.

Despite these efforts, I have just learned that the ILO staff failed to incorporate our new documents in the ILO web-based questionnaire that was expected to go on line in October 2004. Moreover, information about the first questionnaire has been sent to all National Statistical Institutes and Ministries of Labor as well as all Workers and Employers Organizations, Vocational Training Institutions, and Employment Services. Following is a reproduction of Dr. Young’s letter informing government agencies and experts to take part in the web discussion by providing feedback to the ILO:

ST-25-104-1
Dear Sir,
Updating the International Standard Classification of Occupations

The International Labour Office is updating its International Standard Classification of Occupations (ISCO). This updated version will be known as ISCO-08 and should be available in English, French and Spanish by the end of 2007. The deadline recommended by the United Nations Statistical Commission ensures that ISCO-08 will be ready in time for countries to incorporate it in their preparations for the 2010 round of Population Censuses.

The 17th International Conference of Labour Statisticians decided that ISCO-08 would be adopted by a tripartite *ILO Meeting of Experts on Labour Statistics*, to be convened at the end of 2007.1.

Prior to that Meeting of Experts, the intention is to obtain feedback from all countries using two mechanisms. The first is through questionnaires to obtain information from countries through their Ministry of Labour as well as National Statistical Agency, Vocational Training Institute, and Employers and Workers Organizations, on potential areas that could require improvement. The purpose is to obtain general guidelines as well as concrete recommendations for the creation of new occupational groups and to improve the descriptions of already existing groups.

The second mechanism is to use a web discussion forum for particular issues. The web discussions will concentrate on some of the issues in the questionnaires, as well as any others that may arise. These discussions will start later in the year and be continuous up to 2007. You are most welcome to participate.

A first questionnaire has been prepared for your consideration and can be downloaded at www.ilo.org/public/english/bureau/stat/isco/isco88/quest.htm. Hardcopies of this document are also available and can be requested by e-mail from the ISCO team at the address below. We recommend that this questionnaire be discussed as widely as possible in your country, involving the National Statistical Agency, Employment Services, Vocational Training Institutes, and Employers’ and Workers’ Organizations. The ideal would be to have a single country position that reflects the needs of the users and producers of the classification and its by-products. However, separate questionnaires may also be completed by each of these institutions, if it is not possible to have a single country position. With this in view, we have sent a copy of this letter to the institutions listed in the attached annex.

(continued on page 14)

“Current QA/QC Practice in Radiotherapy and Oncology”

A Report of a Workshop held in Bangkok, Thailand; August 30th – September 1st, 2004

– Cheng B Saw, PhD (UPMC Cancer Centers, Pittsburgh, PA); Anchali Krisanachinda, PhD (Chulalongkorn University, Bangkok, Thailand); Sivalee Suriyapee, ME (Chulalongkorn University, Bangkok, Thailand)

A three-day Thailand Workshop with the theme, “Current QA/QC Practice in Radiotherapy and Oncology” was held in Bangkok, Thailand from August 30th to September 1, 2004. The invited faculty members from the United States for this workshop were Cheng B Saw, PhD, (UPMC Cancer Centers); Todd Pawlicki, PhD (Stanford University); Jack Yang, PhD, (Monmouth Medical Center); Raymond Wu, PhD, (OhioHealth Hospitals); and Zhen Zheng, PhD, (UPMC Cancer Centers). This workshop was organized by Cheng B Saw, PhD, Anchali Krisanachinda, PhD, and Sivalee Suriyapee, ME. The American Association of Medical Physicists in Medicine (AAPM), the North American Chinese Medical Physicist Association (NACMPA), and the International Organization of Medical Physicists (IOMP) endorsed, and the Thai Medical Physicist Society sponsored this workshop. Financial support was provided by Siemens Medical Solutions, Mentor Corporation, Standard Imaging, LACO, Scantronix Welhofer, Sun Nuclear, TomoTherapy Inc, Varian Medical Systems, Elekta, North American Scientific, Business Alignment Co, Ltd, Kamol Sukosol Electric Co, Ltd, Supreme Product, Dispo-Med Co, Ltd, and Roche Thailand, Ltd.

The keynote address on the “Frontiers in Oncology” was made by Dr. Kris Chatamara, Department of Surgery, Faculty of Medicine, Chulalongkorn University, Thailand. His talk stressed the chronological changes in the management of breast cancer from mastectomy to breast conservation as the current standard of practice around the world.

Although the objective of this workshop was quality assurance, additional topics were selected for inclusion at the request of the host faculty to deal with the current development of radiotherapy in Thailand. These included the commissioning of treatment planning systems, the use of three-dimensional tools, IMRT update, and shielding requirements. Dr. Saw presented quality assurance aspects on linear accelerator, simulator, and CT-Simulator, while Dr. Zheng and Dr. Yang presented brachytherapy quality assurance and high-dose rate (HDR) quality assurance respectively. The step-by-step procedures in the commissioning of treatment planning systems were explained by Dr. Yang for the ADAC pinnacle treatment planning system, Dr. Zheng for the Eclipse treatment planning system, and Dr. Pawlicki for the Xio treatment planning system. Dr. Zheng explained the AAPM TG51 (1999) and IAEA TRS-398 (2000) calibration protocols and their differences. The use of 3D treatment planning systems and treatment tools such as dose volume histograms (DVH) were discussed by Dr. Saw and Dr. Pawlicki. Dr. Yang and Dr. Wu presented an update on the status of IMRT independently. Lastly, Dr. Wu discussed stereotactic radiosurgery and shielding requirements for radiation producing installations.

There were 57 members of the Thai radiological community that participated in this workshop. The workshop succeeded in having interactive sessions of the faculty with the participants. There were a number of questions raised regarding the commissioning of treatment planning systems and IMRT. These subject matters were of great interest because Thailand is undergoing a transition from 2D treatment planning systems to 3D treatment planning systems with the future implementation of IMRT. The distribution of a number of textbooks – Foundation of Radiological Physics authored by Cheng B. Saw, PhD (<http://www.geocities.com/cbsaw2003/>) to the Thai radiological community and faculty was made possible through a partial financial contribution from Siemens Medical Solutions (Concord CA). After the meeting, the faculty toured Bangkok and its neighborhoods for two days graciously accompanied by the host faculty. Based on the comments from the participants, faculty, and organizers the overall assessment of the workshop was that it was a success. The faculty members had a very good time and look forward to returning to Thailand in the near future.

International Scientific Exchange Programs The Physics of Radiation Therapy May 2005 Manila, Philippines

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Third Southeast Asian Congress of Medical Physics and Fourth Asia-Oceania Congress of Medical Physics

– Kwan-Hoong Ng, Ph.D., Congress Chairman and SEAFOMP President

“Progress and Innovations in Medical Physics”
27 to 29th September 2004; Kuala Lumpur, Malaysia

This congress was jointly organized by the Department of Radiology, University of Malaya, Malaysia; Radiation Physics, Biophysics and Medical Physics Subgroup of the Malaysian Institute of Physics (IFM); Southeast Asian Federation of Organizations for Medical Physics (SEAFOMP); and Asia-Oceania Federation of Organizations for Medical Physics (AFOMP). It was supported by the International Organization for Medical Physics (IOMP) and Abdus Salam International Centre for Theoretical Physics (ICTP).

Endorsements and recognition from the following organizations are acknowledged: International Union for Physical and Engineering Sciences in Medicine (IUPESM), European Federation of Organizations for Medical Physics (EFOMP), American Association of Physicists in Medicine (AAPM), Institute of Physics and Engineering in Medicine (IPEM), College of Radiology, Academy of Medicine Malaysia (CoR), and the Ministry of Health Malaysia (MOH).

A total of about 220 participants attended the congress, representing some 23 countries: Australia, Austria, Belgium, Brunei, China, Germany, Hong Kong China, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Myanmar, Netherlands, Philippines, Singapore, Sweden, Thailand, United Kingdom, USA and Vietnam. The congress attracted multi-disciplinary participation from medical physicists, radiographers, radiologists, radiation oncologists, biomedical engineers, equipment vendors, technologists, students, administrators, regulators, etc.

A most appropriate theme “Progress and Innovations in Medical Physics” was chosen to reflect the status and direction of medical physics in the region. The high scientific standard was reflected by the 11 plenary addresses, 16 keynote lectures, 4 refresher courses, 1 symposium, 22 proffered papers and 28 posters. The topics covered included: Biophysics, Computing, Digital Imaging, Dosimetry, Education in Medical Physics, Functional Imaging, Image Processing, Biomedical Instrumentation,

Magnetic Resonance Imaging, Medical Electronics, Medical Informatics, Modeling, Molecular Imaging, Non-Ionizing Radiation, Nuclear Medicine, Physics of Human Body, Quality Assurance, Radiation Protection, Radiation Therapy, Radiobiology, Radiological Physics, Radiology, Regulations and Organizations, Signal Processing, and Ultrasound. A trade exhibition was also held.

We were very privileged to have the keynote address delivered by the former First Lady of Malaysia (who is a medical doctor), Y.A. Bhg. Tun Dr. Siti Hasmah bt Hj Mohd Ali, on “Medical Physics in Women’s Health”. This was followed by the inaugural SEACOMP Lecture on “Recent Developments in Volume CT Scanning” by Professor Willi Kalender from Germany in honor of Professor John Cameron. Subsequently the audience viewed a recorded lecture by Professor John Cameron on “Imagination and Creativity in Medical Physics” followed by a teleconferencing session with him. Furthermore, we continued the SEACOMP tradition of awarding the best student presentations, both oral and poster, to encourage greater interest in this field. Book prizes were generously donated by Medical Physics Publishing.

Medical physics is experiencing rapid growth and we have witnessed the rapid deployment of PET/CT, IMRT, digital radiology, functional MRI, PACS, and teleradiology in Southeast Asia and the Asia-Pacific region. In order to utilize these modalities optimally and safely we need to be innovative. We are happy to declare that this congress achieved its objectives. The educational and social experiences were both exciting and rewarding for all.

The abstracts were published in the Australasian Physical & Engineering Sciences in Medicine Vol. 27 No. 2 June 2004 issue. A 380-page proceedings, in hard and soft copies, were also published and distributed to all the participants (copies are available from the organizer ngkh@um.edu.my).

Congress programs, reports, interviews, student awards, photo gallery, etc. can be accessed from: [SEACOMP2004](http://www.um.edu.my/seacomp3) <http://www.um.edu.my/seacomp3>

Classification of Medical Physics Profession – (continued from page 10)

It would be most helpful if the completed questionnaire could be returned by January 15, 2005. It should be addressed to the ISCO team at isco@ilo.org, by fax at +41 (22) 799 6957 or by mail to the following address:

The ISCO Team, Bureau of Statistics • International Labour Office • 4, rue des Morillons • 1211 Geneva 22 Switzerland

In case of any questions, please contact the ISCO team directly at any of the above addresses. Meanwhile, you are invited to browse through our ISCO website at: www.ilo.org/public/english/bureau/stat/isco/index.htm.

Thank you for your valuable contribution to this important project.

Yours faithfully, (Signed)

A. S. Young

Director, Bureau of Statistics

1. This is a departure from the usual procedure of adoption of a resolution at an International Conference of Labour Statisticians (ICLS), which is then approved by the ILO Governing Body.

In view of our temporary setback, please take the opportunity to read the existing materials and questions on Medical Physicists that appear on page 16, Section B31, of the Exploratory Questionnaire on ILO website: www.ilo.org/public/english/bureau/stat/isco/isco88/quest.htm. For those who do not have access to web, the ILO specific inquiries about medical physicists are quoted here:

“Please comment (a) on whether medical physicists are sufficiently numerous or important in your country to warrant a unit group; (b) on whether they should be grouped together with medical doctors, physicists and astronomers or another occupational group; and (c) on the proposed description”.

Since the appropriate listing of medical physicists in the next revision of ISCO-88 (in 2007?) is a major step in the “recognition” of the medical physics profession, I would like to ask all of you (collectively or individually) to take part in the ILO web discussion. In addition, contact your national government agency(ies) and organizations and provide them with our new findings; namely in several countries including Australia, Canada, China, Italy, The Netherlands, and the USA, the medical physics profession is (or is being) classified as a Health Profession in group 222. Thank you in advance for your participation in such an important undertaking.

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This column has been added to provide an update on new information source and related news topics in the fields of Medical and Health physics. Often we list reference to review articles, useful websites, and summaries of current innovative advances in the field. Any suggestion from the readers to enhance this column is welcomed. Also, if you have ideas or issues that you believe should be brought to the attention of the MPW readers, please send them to the MPW editor, Dr. Parsai, at: eparsai@mco.edu.

MAJOR COMMITMENT TO NANOTECHNOLOGY FOR CANCER RESEARCH

In September of 2004, the National Cancer Institute (NCI) announced a new \$144.3 million, five-year initiative to develop and apply nanotechnology to cancer. Nanotechnology, the development and engineering of devices so small that they are measured on a molecular scale, has already demonstrated promising results in cancer research and treatment. "Nanotechnology has the potential to radically increase our options for prevention, diagnosis, and treatment of cancer," said Dr. Eschenbach, director of the National Cancer Institute. "NCI's commitment to this cancer initiative comes at a critical time. Nanotechnology supports and expands the scientific advances in genomics and proteomics and builds on our understanding of the molecular underpinnings of cancer. These are the pillars which will support progress in cancer." To carry out this initiative, the NCI, part of the National Institutes of Health, is forming the NCI Alliance for Nanotechnology in Cancer, a comprehensive, integrated initiative encompassing researchers, clinicians, and public and private organizations that have joined forces to develop and translate cancer-related nanotechnology research into clinical practice. The new NCI Alliance for Nanotechnology in Cancer is one of the first steps in implementing the *Cancer Nanotechnology Plan*, which was developed in the past two years with the input of a broad cross-section of the cancer research and clinical oncology communities. The NCI Alliance consists of four major program activities: 1)†Centers of Cancer Nanotechnology Excellence (CCNEs); 2) Multidisciplinary research teams; 3) Nanotechnology platforms for cancer research; and 4) Nanotechnology Characterization Laboratory (NCL). Among the key components of the Cancer Nanotechnology Plan are milestones to measure success over two time periods. Within the first three years, the plan calls for acceleration of projects that hold promise for near-term clinical application. "We are already seeing how nanotechnology is transforming our ability to translate research advances into clinical advances," said Dr. Wickline, Professor of Medicine at Washington University, St. Louis, Mo., and NCI grantee for nanotechnology research. Recent advances in cancer treatment involving nanotechnology include:

- Liposomes, the "first generation" of nanoscale drug delivery devices, were developed to deliver anticancer therapeutics directly at tumors. Specifically, liposomal doxorubicin is being used to treat certain forms of cancer, while liposomal amphotericin B treats fungal infections often associated with aggressive anticancer treatments.
- Recently, a nanoparticulate formulation of the well-known anticancer compound taxol was submitted to the FDA as a new treatment for advanced-stage breast cancer.

DOCTORS TAILORING CANCER DRUGS TO INDIVIDUALS

Doctors and scientists in cancer research are trying to perfect the field of personalized treatment. According to the June 2nd USA Today, doctors

hope to use individualized cancer treatments to help avoid some of the side effects that patients endure during chemotherapy. Roy Herbst, chief of thoracic oncology at M.D. Anderson Cancer Center, says that, "Patient-specific therapy might be the only way we will make inroads into this disease." Researchers are beginning to use the genetics of an individual patient's tumor cells to tailor cancer drug therapies. They are also developing ways of predicting which patients will benefit the most, and which might experience severe side effects from targeted therapies, in a new field termed pharmacogenomics. The targeted cancer therapy drugs work by blocking specific molecular structures inside a patient's tumor cells, and result in fewer side effects than conventional chemotherapy. The number of these targeted cancer drugs are growing, and there are many more are currently being developed. One example is a drug called Iressa that binds to and turns off the enzyme known as the epidermal growth factor receptor (EGFR). This enzyme is common in many different cancers and triggers cells to divide and spread without dying. The drug Iressa works very well on some patients and not as well on others. One reason for the discrepancy in Iressa's effectiveness was recently discovered. Some tumors have mutated versions of EGFR that make them especially vulnerable to Iressa. There are however limitations to targeted therapies. Many therapies are not meeting expectations, some patients become resistant to the therapy, and doctors still need more options for patients.

The following has been compiled by: Mohammed K. Zaidi, Member, IOMP Professional Relations Committee.

PROSTATE TREATMENTS:

Men with prostate cancer often struggle over which treatment to choose: surgery to remove the glands, external beam radiation or the implantation of permanent radioactive seed. A recent study performed during 1992-98 on 1800 patients in the USA brings up-beat news: "Outcomes are generally excellent, regardless of treatment choice" for patients with cancer that has not spread beyond the prostate. Louis Potters, M.D., FACR, an expert in prostate cancer says selecting the most appropriate treatment is a matter of personal preference and circumstances. *Rad & Oncol.* 71 (1): 29-33. 2004. Regular screening – via stool analysis, sigmoidoscopy or colonoscopy – is the key to surviving colon cancer. Some important things to get checked are: evidence of blood in the stool, after 50 years of age, a routine sigmoidoscopy every five years or a colonoscopy every ten years, report to your doctor any bowel symptoms, such as constipation or diarrhea, abdominal pain or blood in stool.

TYPE OF FOOD WE CONSUME MAY HELP REDUCE CANCER RISK:

Drinking coffee, eating high fiber diet, drinking plenty of tea and taking aspirin, vitamin E, eating nuts and olive oil may help - it is said that eating nutrient's help cure disease. Eating large doses of Turmeric, a bright yellow substance found in curry, significantly cut deaths among mice with genetic disease, and scientists soon will begin studying the effects in people. People who drank about 8-ounce glasses of milk per day had a 15% reduction in colorectal cancer, according to a study that seems to redeem the health benefits of a much maligned beverage. Milk may have a protective effect against colorectal cancer, most likely due to its rich calcium and vitamin D contents. Physician should encourage high risk patients to increase calcium intake; maintain a healthy body weight and consume a diet rich in fruits, vegetables and whole grains. Previous Harvard studies have linked dairy products to ovarian and prostate cancer (Cho E. *JCNI*, 96 (13) 1015-1022, 2004).

NON-HODGKINS LYMPHOMA:

Different cancers offer different survival rate – for instance, non-Hodgkins lymphoma has 85-95 percent survival rate. National Cancer Institute data indicates that not only is the incidence of cancer decreasing, but people are also living longer and are more cured. People whose cancer was detected in the 1980's – half of them survived only five years, in 1990's, the rate was increased to 65 percent. This is mainly due to the early detection. The survival rate for stage one cancer is around 90 percent while stage four cancer are very low survival rate. Some do live longer and relatively healthy lives irrespective of cancer stage. New treatments for cancer are more effective and less toxic. They are much better, quicker and stronger. Chemotherapy had a horrible reputation but now the therapy has evolved and become more effective and less toxic. Retuxin a high tech new pharmaceuticals, is a cutting edge engineered antibody – half human half mouse – that attacks the tumor mercilessly, attaching to a protein on the surface of the tumor. A tumor of orange size reduced to nothing there just after four months. The patient attributes his survival to not only the medical advances but to his faith and the people in life. He said that you had to have a sense of humor – you had to laugh. You have to have hope and the confidence and assurance that GOD is in control (*Idaho State Journal*, 9/12/2004, page D7).

CERVICAL CANCER – NEW HOPE FOR MOTHERHOOD:

Upto 75% of the cervical cancer cases diagnosed each year are in the early, stage 1 category. Such malignancies traditionally have been treated by hysterectomy and radiation, ending any chance of having children. Women with these early cancers (localized and not involving other tissues) now can be cured with a procedure know as abdominal radical trachelectomy, in which only the affected portion of the cervix is removed, leaving the rest of the uterus intact. Normal menstrual periods resume in 97% of all premenopausal women who undergo this new surgical technique. This advance technique offers hope to thousands of women who develop cervical

cancer during their childbearing years. Still, such women are advised to wait up to two years after the operation before becoming pregnant (Dr. Isadore Rosenfeld, *Parade* June 6, 2004, 21 (www.wcn.org)).

THERAPEUTIC RIDING - THE TRUE HORSEPOWER:

Therapeutic riding can increase strength and flexibility, as well as communication and social skills. Therapy horses are changing the lives of people with cerebral palsy, muscular dystrophy, multiple sclerosis, spinal bifida, learning and attention issues and autism. Horses are also trained to do guide work – a job normally performed by dogs. Horses were a noble form of transportation but if they are trained and given a chance they can be much more – their ride strengthening muscles, help gain better balance and people speak more clearly and make them become more social. They have been used in rural search-and-rescue efforts – they have excellent endurance, sense of smell and ability to handle rough terrain. They have also been trained to track an air-borne human scent (*Horse Illustrated*, May 2004, page 114-122).

RADIATION SAFETY PROBLEMS IN THE CASPIAN REGION:

A recent publication titled "Radiation Safety Problems in the Caspian Region" - the proceedings of a NATO Advanced Research Workshop, held in Baku, Azerbaijan, 11-14 September 2003, NATO Science Series: IV: Earth and Environmental Sciences, Vol. 41, Zaidi, Mohammed K.; Mustafaev, Islam (Editors), 2004, XXI, 249 p., Softcover or Hardcover, ISBN: 1-4020-2376-6, is available from Kluwer Academic Publishers, Hingham, MA 02018-0358, USA or General Customer Service for Europe, Asia, and Africa: Kluwer Academic Publishers, Customer Service Department, P.O. Box 322, 3300 AH Dordrecht, The Netherlands, e-mail: services@wkap.nl.

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