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Bulletin of the International Organization for Medical Physics

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Professor Barry J. Allen, Ph.D., DSc; IOMP President

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The President's Editorial

Professor Barry J. Allen, Ph.D.; DSc; IOMP President

Excerpt from the Welcome Speech to the European Conference & 14th Congress of the Polish Society of Medical Physics, Krakow, Poland, 17-21 September 2008, entitled:

"Medical Physics and Engineering 110 Years after the Discovery of Polonium and Radium"

The 2008 European Conference on Medical Physics in Krakow celebrates 110 years of medical physics research after the discovery of polonium and radium by Marie Skłodowska-Curie and Pierre Curie. How important was that discovery? It's difficult for me to imagine a world without nuclear decay or alpha particles. My own research today relates to the use of alpha emitting radioisotopes for the targeted therapy of cancer. Why am I doing this 110 years after the discovery, because it's taken that long for the biology to catch up to the physics? But it has, and now the physics is in danger of being left behind.

Where are the frontiers of medical physics today? Clearly, the greatest frontier is still in the disciplines of external beam radiotherapy and imaging. Imaging techniques continue to resolve smaller and smaller tumours, but can never resolve subclinical disease, by definition, nor tell us where micrometastases lie. External beam radiotherapy has improved markedly in terms of targeting well defined volumes and achieving local control, but can never eliminate systemic disease. Nor can such high technology and expensive equipment find a market in the intensely populated rural communities in most developing countries.

These limitations suggest that there are other frontiers of medical physics that must address these important issues. Yet these frontiers are barely known to the vast majority of medical physicists. First is the issue of systemic disease. With advances in Immunology and the development of exquisite targeting vec-

THE PRESIDENT'S EDITORIAL

(Continued on page 26)

Secretary-General's Report

Peter H S Smith, Ph.D., Secretary-General, IOMP

There are over 16,500 medical physicists world wide who are members of IOMP (by virtue of their membership of their own national organisation) – how many are aware of IOMP and know what it does? How many might like to contribute to its activities? Those reading this article obviously do have some knowledge but how many medical physicists read MPW? Does it matter? At the national level, how many officers of the 80 national organisations are aware of the role of IOMP and how often does IOMP feature in discussions at the Council or Board of the national body? Does it matter? If so, why?

The role of the IOMP is broadly similar to that of national medical physics organisations - *to contribute to the advancement of medical physics in all its aspects* - except IOMP operates at the worldwide level. Its activities can be classified under 'scientific', 'educational and training' and 'professional' but for this article I am using three different categories of activity:

- Working with International Bodies
- International Cooperation
- Developing Countries

International Bodies. International bodies include organisations such as the World Health Organisation, the International Atomic Energy Agency (IAEA), the International Commission for Radiological Protection (ICRP) and The International Commission on Radiation Units (ICRU). Where medical physics is involved, they normally invite IOMP to nominate one or more representative to participate in a task force or working party; an example is the Steering Panel on IAEA Action Plan for the

Radiological Protection of Patients or to comment on documents prior to publication (for example, the new ICRP recommendations). Another group of international bodies are the scientific or medically related societies (the International Society of Radiology (ISR) is one example) and several of the International Unions, the most important one, for medical physics, is the International Union of Pure and Applied Physics (IUPAP). One aspect of our working with these bodies is organizing workshops and seminars at both their meetings and inviting them to organize sessions or seminars at IOMP conferences. The relatively new formal link with IUPAP will facilitate cross-fertilisation between medical physics and other areas of physics and strengthen links with the wider academic physics community.

The closest relations IOMP has internationally is with the medical bioengineering community; its counterpart to IOMP is the International Federation of Medical and Biological Engineering (IFMBE). The two organizations have come together to form a grand sounding body – the International Union of Physical and Engineering Sciences in Medicine

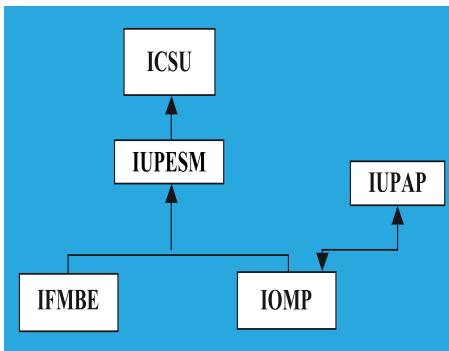


Fig. 1. International links with other organisations

SECRETARY-GENERAL'S REPORT

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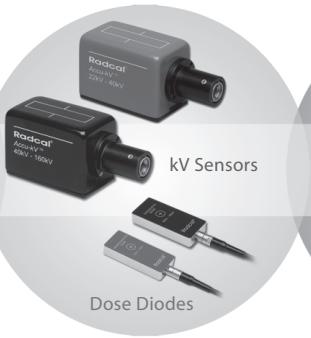


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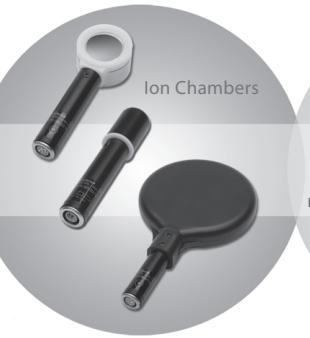
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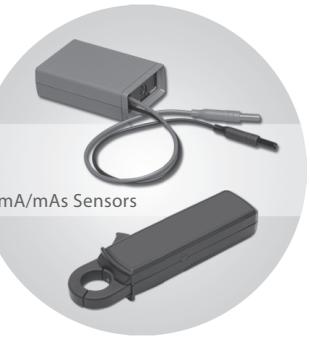
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The IOMP's Past-President Report

Professor Azam Niroomand-Rad, Ph.D.

Outline of activities since June 2008:

1.0 Corporate Funding Officer:

The Corporate Membership Application Form was revised to allow companies to choose membership level based on their marketing interest and the benefits received from IOMP. These levels are: Gold (US\$3000), Silver (US\$2000), and Bronze (US\$1000). Levels (<US\$1000) with lesser benefits are possible on individual basis. Provisions were also made for the companies to sponsor IOMP Special Events such as President's Reception, Marie Curie Award, H. Johns Award and/or other sponsorship opportunities.

2.0 History Sub Committee:

To capture the 45 years of the IOMP history for the next generation, a committee was formed in September 2008. The membership consists of: Robert Gould, Azam Niroomand-Rad (Chair), Colin Orton, and Slavik Tabakov. The charges are: (a) to recognize IOMP members who have made major contribution(s) to the IOMP, (b) to acknowledge the contributions of EXCOM (P, VP, PP, S-G, and Treasurer), Committee Chairs, Editors of MPW, and Curator of the International Library Program, (c) to digitally archive photographs from the past and present WCs, ICMPs, ISEP Workshops and Courses, Endorsed or Sponsored programs, (d) to interview prominent current and past members, and (e) to digitally archive the interviews.

3.0 Opening Ceremony of World Congress 2009 – September 8, 2009:

I am exploring the possibility of having Bill Gates to be Keynote Speaker for the opening ceremony of the WC 2009. I have not achieved this task yet but I have not given up despite many unforeseen obstacles set on the road by the gate-keepers. If Bill Gates agrees to come to Germany, which I hope he does, then he will receive an official invitation letter from Barry Allen, COC Chair and Joachim Nagel, IUPESM President.

4.0 IOMP Booth at the AAPM 50th Anniversary Meeting:

I was in charge of the IOMP booth at the AAPM 50th Annual Meeting and Exhibition which was held in Houston, Texas, USA, July 27 – 31, 2008. The main objective of having this complimentary booth was (a) to encourage participants to attend the WC2009, (b) to persuade the exhibitors to exhibit at the WC 2009, and (c) to get par-

ticipants involved with the IOMP activities. Some materials were displayed on a board and some were placed on a table for hand out. I like to thank Mr. Zaidi from PRC for helping me during exhibition time.

Following are outline of activities and news related to IOMP:

5.0 An Update on the International Scientific Exchange Programs (ISEP):

As founder of the International Scientific Exchange Programs, ISEP, I am pleased to note that these programs have continued to do well under the guidance of M Moshesh, Doracy Fontenla, Raymond Wu, and Don Frey. Since inception in 1990, the ISEPs have been conducted in collaboration with the IOMP ETC. Expenses of ISEPs, including faculty travels, are mostly funded by AAPM and expenses of local organizers are partially supported by IOMP. The ISEPs are custom made to the needs of the medical physicists in developing countries. The first ISEP on radiation oncology physics was in Pakistan in 1992, followed by Poland (1993), Iran (1994), Turkey (1995), Morocco (1996), Russia (1997), Egypt (1998), Romania (1999), Brazil (1999), Thailand (2000), Bangladesh (2001), Saudi Arabia (2002), Cuba (2002), China (2004), Philippine (2005), Cameroon (2005), Argentina (2006), Bahrain (2007), and Czech Republic (2008). The first ISEP program on diagnostic and nuclear medicine physics was in Brazil (2002), followed by Egypt (2003), United Arab Emirates (2004), Cameroon (2005), India (2006), Bahrain (2007), and Algeria (2008). The next ISEP on radiation oncology physics is being planned for Malaysia (2009) and Jordan (2010). The next ISEP on diagnostic and nuclear medicine physics is being planned for Turkey (2009) and Argentina (2010). *If you are interested to get involved with future ISEP programs, please let us know.*

6.0 An Update on the Status of Medical Physics Profession with the International Labor Organization (ILO) - ISCO-08:

The International Labor Organization (ILO) under the auspice of the United Nations is in charge of updating the International Standard Classification of Occupations (ISCO). An important factor in determining the classification of an occupation is the nature of the skills that is required to perform the tasks and duties of the job.

Past-President Report

CONTINUED FROM PAGE 5

On August 1996, Keith Boddy, IOMP President, submitted a request to Dr. Farhad Mehran at ILO for inclusion of Medical Physics profession in the next revision of ISCO under Health Professional category 2229. For details, please see (Vol. 12(2), Page1). Obviously this was not an easy task and required many more persuasions and follow up by Colin Orton, IOMP President [see (Vol. 15(2), Page 1)], and myself. For details of my previous reports, please see [(Vol. 18(1) Page 1), (Vol. 8(2), Page 2), (Vol. 20(2), Page 10), (Vol. 21(2), Page 1), and (Vol. 22(1), Page 1)].

On December 6, 2007, ILO adopted the occupational classification system of major, sub-major, minor and unit groups which were described in an Annex of a document posted at the [<http://www.ilo.org/public/english/bureau/stat/isco/docs/resol08.doc>]. The adopted resolution which was endorsed by the meeting of experts in the Labour Statistics, was designated *ISCO-08*. Following is citation from ISCO-08 for adaptation of Medical Physics occupation:

Medical physicists

23 In the first questionnaire an occupational description for Medical physicists prepared by The International Union for Physical and Engineering Science in Medicine (IUPESM) was presented for comment. An updated definition provided by the International Organisation for Medical Physics is presented at **Annex 2** (see below). It was concluded from the responses to the first questionnaire that medical physicists are not sufficiently numerous to justify the creation of a unit group but opinion was divided about whether they should be classified in ISCO-88 Unit Group 2111 Physicists and astronomers, or somewhere in Minor Group 222 Health Professionals (except nursing).

24 Since the first questionnaire was developed, there has been a significant reorganisation of groups related to health and science in the draft classification. Medical physicists could be classified either in Unit group 2111, Astronomers and physicists or in Unit Group 2239, Allied Health Professionals not elsewhere classified. In either case they could be listed as an occupation classified in that group.

PAST-PRESIDENT REPORT (Continued on page 21)

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WOMEN IN MEDICAL PHYSICS

Cari Borrás, Ph.D., Chair, IOMP Science Committee

The field of medical physics, as we know it today, emerged after the discovery of x rays in 1895 and radioactivity in 1896. Among the first "medical physicists", Marie Curie distinguished herself by receiving the Nobel Prize in 1903 and again in 1911. Other women followed her example and worked in the field. Among them was her own daughter, Irene Joliot-Curie, who was also awarded the Nobel Prize. Medical physics

societies started in 1919 with the creation of the Hospital Physics Association in the United Kingdom. The United States did not found its society, the American Association of Physicists in Medicine (AAPM), until 1958. It has just commemorated the 50th Anniversary at its Annual Meeting this July in Houston, Texas.

As part of the celebrations and within a session organized by the History Committee, the Minority Recruitment Subcommittee (WMRSC) of the Education and Training of Medical Physicists Committee –part of the AAPM Educational Council– sponsored a Symposium on "50 Years of Women in Medical Physics", organized and moderated by the WMRSC Women Coordinator. The objective of the Symposium was to honor the achievements of women in the fields of radiology, nuclear medicine, radiation therapy and non-traditional medical physics and to analyze their impact at the scientific, educational and professional levels.

The program started with the recognition of key individuals within the AAPM. Of the 133 AAPM charter members, 20 were women. Not only were these women pioneers in the field; their accomplishments were extraordinary. Among them, Mary Louise Meurk won the AAPM Award for Achievement in Medical Physics; Edith Quimby, the AAPM William D. Coolidge Award, and Rosalind Yallow, the Nobel Prize in Physiology or Medicine! Many more women joined the AAPM after them. Two more received the Award for Achievement in Medical Physics: Azam Niroomand-Rad in 2006 and Marilyn Stovall in 2007. Other women were elected to lead the organization. Among the AAPM female officers, there have been two presidents, one secretary and six treasurers.



View of the panelists during the "50 Years of Medical Physics Symposium". From left to right: C. Borrás (at the podium), Paul Guèye, Mary Martel, Shirley Vickers, Emico Okuno and Libby Brateman.

The current Chair of the AAPM Board of Directors and the AAPM President Elect are women.

The Symposium speakers presented an overview of the advancement of several medical physics applications in both diagnosis and therapy and the role played by women. **Mary Martel**, from the University of Texas MD Anderson Cancer Center, Houston, Texas, summarized "The Past, the Present and the Future of Radiation Therapy", by listing the milestones in brachytherapy, teletherapy, dosimetry, computerized treatment planning, 3D conformal therapy, biological optimization, image registration and improved treatment delivery by methods such as IMRT, robotics and adaptive treatment. She recognized some women pioneers in the United States (such as Edith Quimby) and abroad (such as Andree Dutreix) and listed AAPM female members who either played key roles or received awards –among them the AAPM Fellows in Therapy Physics.

Shirley Vickers, from Forest Hills, New York, presented "Evolution of Radiology and Nuclear Medicine", a talk prepared by her and Libby Brateman, from the University of Florida, Gainesville, Florida, in which she reported her early experiences as a young medical physicist around the time that the AAPM itself was being formed, and the role women such as Edith Quimby and Greta Ehrlich played in her career. She and Libby Brateman had actually gone over the whole AAPM membership (over 6,000 members) and identified those women who work in medical imaging (diagnostic radiology as well as nuclear medicine), and radiation safety.

WOMEN IN MEDICAL PHYSICS

(Continued on page 9)



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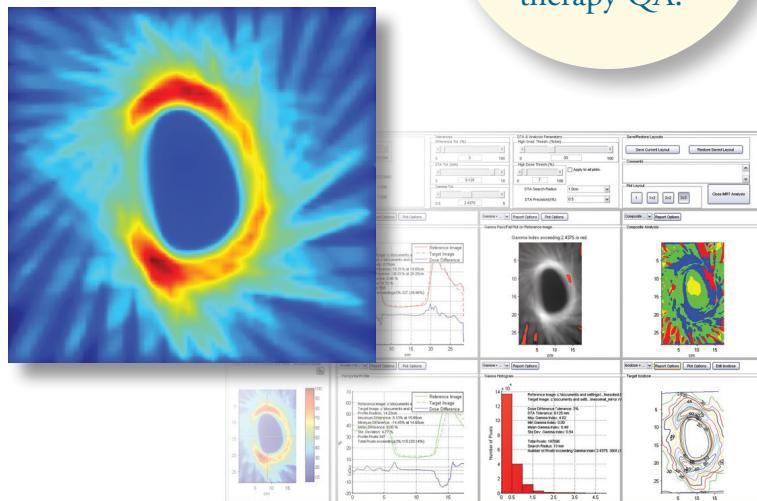


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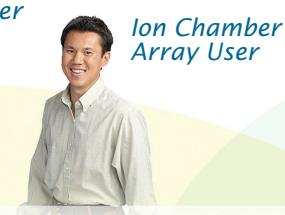
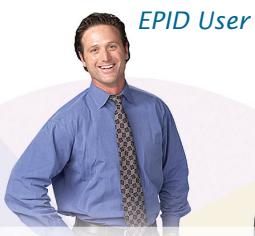
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Women in Medical Physics

CONTINUED FROM PAGE 7

The subject of “Non-Traditional and Emergent Medical Physics” was tackled by **Emico Okuno**, from the University of São Paulo, São Paulo, Brazil. She described the challenge of attracting young people to study physics, the usefulness to develop new teaching methods –such as explaining the physics of soccer– and the need to disseminate knowledge about various medical physics subjects by publishing books not just for scientists, but for lay people as well. Her books deal both with ionizing and non-ionizing radiation and cover areas such as biology, biomechanics and the physics of the human body.

Women have been very active in medical physics worldwide. Emico Okuno showed the current female/male ratios in medical physics societies which are members of IOMP. The AAPM has a 19% female membership (1279 women / 6597 total members), not too different from the 15% at the onset (20 / 133). The data for the rest of the world is shown in Table 1. They show a large variation among countries, but an average everywhere of about 30%, significantly larger than in the US! ●

After the formal presentations, the WMRSC Chair, **Paul Guèye**, from Hampton University, Hampton, Virginia, led a discussion regarding the future of the medical physics profession, the impact of the growing ranks of women on the field and the efforts being made by the WMRSC to recruit more women.

Acknowledgments

Many thanks to all the persons from the national medical physics societies who so cheerfully calculated the female membership in their societies and to the individuals within the regional medical physics organizations who collated them. In particular, we wish to recognize KY Cheung, Anchali Krisanachinda and May Whitaker from AFOMP/SEAFOMP and the Oceania region, Monica Bruneto and Adlin Lopez from ALFIM, Markus Buchgeister and Nuria Jornet from EFOMP, and Jennifer A. Hudson, from the AAPM. ●

Table 1 – Percentage of Female Medical Physicists per Regional Organization (July 2008)

Asia-Oceania Federation of Organizations for Medical Physics

Country	Nr. Female MPs	Total Membership	Female Percentage
China	540	1350	40
Bangladesh	1	35	3
Hong Kong	8	72	11
Mongolia	1	3	33
Korea	33	242	14
Japan	24	382	6
Taiwan	38	142	27
India	50	700	7
Nepal	0	7	0
Australia (NSW, Vic, Tas, SA)	66	177	37
New Zeland			33
Thailand	46	82	56
Phillippines	27	64	42
Indonesia	9	38	24
Singapore	2	20	10
Vietnam	7	56	13
Total	852	3370	25%

European Federation of Organizations for Medical Physics

EFOMP NMO	Nr. Female MPs	Total Membership	Female Percentage
ÖGMP, Austria	34	166	20.5
BVZF, Belgium	47	121	39
BSBPE, Bulgaria			30
CAMPBE, Cyprus			41
DSMF, Denmark	35	132	27
AMPBE, FYRO Macedonia			48
SFPM, France			42
DGMP, Germany			14
HAMP, Greece			40
HAMP, Hungary	13	64	17
AIFM, Italy			50.3
LMEPS, Latvia			16
PSMP, Poland			40
SEFM, Spain	104	366	28
BIMEF, Serbia (and Montenegro)			40
SHPA, Sweden	119	316	38
SGMPS, Switzerland	20	86	23
IPEM, United	706	1950	36.2
SAMPS, South Africa	17	72	24
DFM, Portugal			55.8
MAMP, Malta	1	5	20
Total	1095	3286	31.3%

Asociación Latino-Americana de Físicos en Medicina (Latin America Medical Physics Association)

Country	Nr. Female MPs	Total Membership	Female Percentage
Argentina	43	113	38
Bolivia	0	6	0
Brazil	251	662	38
Chile	2	9	22
Cuba	30	111	27
Ecuador	1	10	10
Guatemala	0	2	0
Mexico	19	61	31
Peru	8	32	25
Paraguay	0	3	0
Panama	1	7	14
Dominican Republic	0	4	0
Uruguay	0	4	0
Total	355	1024	26%



The Medical Physics Educator's Forum

Slavik Tabakov, Ph.D.; EMITEL Coordinator

EMITEL – an International Project developing the first Medical Physics e-Encyclopaedia

The International project European Medical Imaging Technology e-Encyclopaedia for Lifelong Learning (EMITEL) was announced during the WC 2006 in Seoul. This project includes 7 partner institutions: King's College London (Promoter and Coordinator) and King's College Hospital NHS Foundation Trust, University of Lund and Lund University Hospital, University of Florence and AM Studio, Plovdiv (a web software company). The Consortium incorporates also the IOMP as an international partner and through it additionally includes colleagues from many other countries. EMITEL is financially supported by the EU Leonardo programme.

EMITEL builds on the success of the previous projects developed by the core of the Consortium – EMERALD and EMIT, which developed training materials (e-books and Image Databases) addressing the vocational training of young medical physicists. Currently the materials from these projects are used in 70+ countries around the world and during 2004 project EMIT received the inaugural prize for education of the EU – The Leonardo da Vinci Award.

The new project EMITEL aims to develop an Internet-based tool (e-Encyclopaedia EMITEL), which will be free to be used by all colleagues. The need of such material was discussed and assessed at the two International Conferences on Medical Physics/Engineering Education and Training (ICTP, Trieste, 1998, 2003), organised in the frameworks of projects EMERALD and EMIT.

The project builds up on the original CD-based Dictionary of Medical Imaging Technology Terms (initiated 6 years ago), which quickly grew to a full Medical Physics Dictionary cross-translating terms between each of its languages. Initially the e-Dictionary on CD included English, French, German, Swedish and Italian; later it was expanded with Spanish, Portuguese, Polish and Thai. Through EMITEL it has been uploaded on Internet and further updated with Hungarian, Estonian, Lithuanian, Latvian, Czech, Romanian, Greek, Turkish and Arabic. Another 6 languages are in preparation for inclusion soon (Persian, Bengali, Malay, Bulgarian, Slovenian and Chinese). The Dictionary can be used from: www.emitdictioary.co.uk

The Consortium expresses special gratitude to all colleagues who voluntarily made the translations and to AM Studio

who prepared web software. A list of all contributors is available at the current Dictionary web site. New languages are welcome and all those who would like to include their language can ask the project coordinator for the master file in English (or other language).

Alongside with the Dictionary, the EMITEL encyclopaedia will include explanatory articles (encyclopaedic entries in English) to each of its approximately 3500 terms. An average entry is from 50 to 500 words and aims at audience of MSc-level and above. To enhance the educational value of EMITEL, most articles include images, graphs, examples and other additional information. The entries are grouped in 7 categories – Physics of: X-ray Diagnostic Radiology, Nuclear Medicine; Radiotherapy; Magnetic Resonance Imaging; Ultrasound Imaging; Radiation Protection; General terms.

A special web database and web site with Content Management System were designed to handle the EMITEL e-Encyclopaedia. The web site includes two search engines allowing to search into the multilingual terms (titles of the entries) and into the full text of the articles (encyclopaedic entries in English). Most of the entries are ready and uploaded to this web site, which will be launched in 2009. Next year the Dictionary will be updated with new terms and will be uploaded in this new web site together with the EMITEL Encyclopaedia.

An International/European Conference EMITEL was just held in the Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy 23-26 October 2008). This was facilitated by the fact that recently ICTP was accepted as an external partner to the project. The Conference was attended by invited delegates from 22 countries, which formed a Network aimed at the future expansion and update of the EMITEL Encyclopaedia. The Conference delegates (on the photo) included the IOMP President, Secretary General, Treasurer, Chair of ETC, Chair of AHC, IFMBE Secretary General, IUPESM Secretary General, EFOMP President-elect and many distinguished colleagues from Europe. EMITEL includes many of the IOMP active officers and the opinion of all delegates to the Conference was that the project will be an extremely useful tool for the profession.

EMITEL is the first e-Encyclopaedia of Medical Physics and is expected to be fully ready by the World Congress in Munich 2009. Further the results of this large and complex project will be published on paper and EMITEL will continue to be supported and updated on Internet. ●

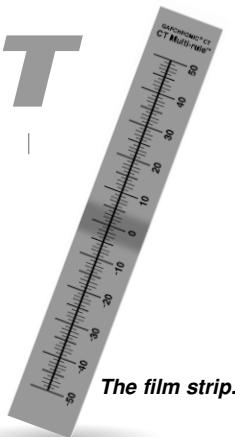
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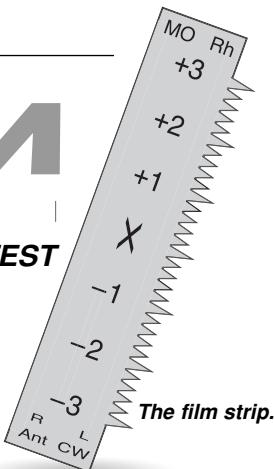


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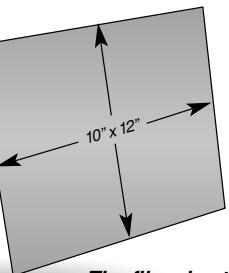
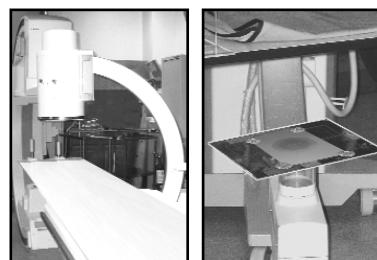


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Editor's Choice

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

This column is dedicated to providing the MPW readers some current news and information related to the fields of Medical and Health physics. Often list of references to review articles, useful websites, and summaries of current innovative advances will be presented. As always, your suggestions to enhance this column are welcomed. In addition, if you have other 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: e.parsai@utoledo.edu.

REVIEW OF PROSTATE CANCER PREVENTION STUDY SHOWS NO BENEFIT FOR USE OF SELENIUM AND VITAMIN E SUPPLEMENTS

Posted October 2008 at: www.ClinicalTrials.gov
(NCT00006392); Study start date: July 2001.

Initial, independent review of study data from the Selenium and Vitamin E Cancer Prevention Trial (SELECT), funded by the National Cancer Institute (NCI) and other institutes that comprise the National Institutes of Health shows that selenium and vitamin E supplements, taken either alone or together, did not prevent prostate cancer. The data also showed two concerning trends: a small but not statistically significant increase in the number of prostate cancer cases among the **over 35,000 men age 50 and older** in the trial taking only vitamin E and a small, but not statistically significant increase in the number of cases of adult onset diabetes in men taking only selenium. Because this is an early analysis of the data from the study, neither of these findings proves an increased risk from the supplements and both may be due to chance. The Southwest Oncology Group (SWOG), an international network of research institutions, coordinates SELECT at more than 400 clinical sites in the United States, Puerto Rico, and Canada.

SELECT participants are receiving letters explaining the study review and telling them to stop taking their study supplements. Participants will continue to have their health monitored by study staff, which may include regular digital rectal exams and PSA (prostate-specific antigen) tests to detect prostate cancer. Investigators intend to follow the participants for about three years to determine the long-term effects of having taken either supplement or placebo and to complete a biorepository of blood samples that will be used in extensive molecular analyses to give researchers

a better understanding of prostate cancer, other cancers, and other diseases of male aging. This additional data collection is a vital part of the study.

Neither the men nor their physicians know which supplements or placebos the men have been taking, a procedure known as blinding or masking. As followup of the SELECT participants continues, the participants will continue to be blinded. A blinded followup may avoid unintentional bias and potentially false conclusions. However, at the request of a participant, they will be informed which supplement, if any, they received.

“SELECT was always designed as a study that would answer more than a single question about prostate cancer,” said Eric Klein, M.D., a study co-chair for SELECT, and a physician at the Cleveland Clinic. “As we continue to monitor the health of these 35,000 men, this information may help us understand why two nutrients that showed strong initial evidence to be able to prevent prostate cancer did not do so.”

SELECT was undertaken to substantiate earlier, separate findings from studies in which prostate cancer was not the primary outcome: a 1998 study of 29,133 male smokers in Finland who took vitamin E to prevent lung cancer surprisingly showed 32 percent fewer prostate cancers in men who took the supplement, and a 1996 study of 1,312 men and women with skin cancer who took selenium for prevention of the disease showed that men who took the supplement had 52 percent fewer prostate cancers than men who did not take the supplement.

Based on these and other earlier findings, in 2001, men were recruited to participate in SELECT. They were randomly assigned to take one of four sets of supplements or placebos, with more than 8,000 men in each group. One group took both selenium and vitamin E; one took selenium and a vitamin E placebo; one took vitamin E and a selenium placebo; and the final group received placebos of both supplements.

It should be noted that in 2003, while SELECT was recruiting men, a different SWOG-sponsored study reported that the drug finasteride reduced the incidence of prostate cancer by 25 percent. When this was discovered, men on SELECT were informed and allowed to take finasteride. Finasteride has not yet been approved by the U.S. Food and Drug Administration for prostate cancer prevention.

Except for skin cancer, prostate cancer is the most common type of cancer in men in the United States.

In 2008, there will be an estimated 186,320 new cases of prostate cancer and 28,660 deaths from this disease in the United States. "Finding methods to prevent and treat prostate cancer remains a priority for the NCI, and with the aid of new molecular diagnostic tools and applications, we hope to continue to make headway in reducing deaths and new cases of this disease," said NCI director John E. Niederhuber, M.D. "The science of cancer prevention is also leading toward individualized, molecular prevention, in which we will calculate risk and design preventive steps based on an individual's genome."

SELECT has been funded by NCI for \$114 million, with additional monies from the National Center for Complementary and Alternative Medicine, and with substudies funded and conducted by the National Heart, Lung and Blood Institute, the National Institute of Aging and the National Eye Institute at NIH. The substudies were evaluating the effects of selenium and vitamin E on chronic obstructive pulmonary disease, the development of Alzheimer's disease, and the development of macular degeneration and cataracts, and will continue without participants taking study supplements. An NCI-funded substudy is looking at the effects of the supplements on men who developed colon polyps.

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

COLON CANCER:

Colon cancer is the third most common cause of cancer in men and women and more than 52,000 dies each year with this disease in America alone and is increasing as both genetic and environmental components are crucial in the disease process. The human colon is a complex ecosystem containing more than 100 trillion microorganisms representing over 1,000 species of bacteria. Eons of co-evolution have formed an inextricably beneficial relationship between symbiotic microbes and humans, enabling the continued evolutionary success of both. Dr. Sarkis K. Mazmanian from the California Institute of Technology USA, novel hypothesis is that intestinal bacteria are a critical factor in cancer and has proposed that symbiotic microorganisms had evolved molecular mechanisms to protect their host from unfavorable immune responses that cause disease. To understand the properties of beneficial molecules of intestinal bacteria may lead to a new class of natural therapeutics for colon cancer. It is further mentioned that by merging the disciplines of microbiology and immunology will help understand the fundamental basis of colon cancer [www.businesswire.com].

GASTROINTESTINAL CANCER AND RENAL CELL CARCINOMA:

The Food and Drug Administration (FDA) has approved the experimental drug Sunitinib (Sutent), a capsule taken once daily for treating an uncommon gastrointestinal cancer and advanced renal cell carcinoma in patients who are resistant to or unable to take the primary treatment. Sunitinib is a targeted therapy, very well tolerated by the patients, that inhibits multiple proteins involved in the growth of cancer cells and the formation of blood vessels that supply tumors with nutrients, a process called angiogenesis. The clinical trial results were presented by Dr. George Demetri of Dana-Farber Cancer Institute, at the Gastrointestinal Cancers Symposium. Their finding indicates that the tumor growth stopped within a week but it took eight months of therapy for the tumor to shrink. The relative risk of death was reduced by half and may take longer [NCI Cancer Bulletin, Volume 3/5, 2006]. Targeted Alpha Therapy (TAT) has been used for the treatment of metastatic melanomas where cancer cells are selectively targeted by a carrier. The carrier is labeled with a radioisotope that emits alpha particles. If the efficacy of TAT produces satisfactory results, clinical trials will soon start. To address this issue, some researchers have been doing a screening program since 1985 [Geller AC, J. Am. Acad. Dermat. Volume 48/1, 2003; Dermatology News, May 2007, Allan BJ et.al.].

TRANSARTERIAL BRACHYTHERAPY:

About 19,000 new cases of Hepatocellular carcinoma (HCC) were diagnosed in 2007 of the sixth most common cancer worldwide. The maximum acceptable dose for whole liver XRT is 35 Gy. The vascular interventional radiology (VIR) technique to occlude the arteries that feed the tumor with embolic material alone or mixed with chemotherapy has an important role for HCC and other cancer metastases. A drug delivered to those arteries using VIR catheter techniques would achieve a high concentration in liver tumors. Using VIR techniques, 90Y spheres can be administered in the hepatic artery or more distally into the branch arteries. They will lodge in the neoplastic blood vessels and this domestic model suggests a 300 Gray dose to the tumors with a falloff to 100 Gy within 4 mm of the spheres. The cumulative exposure over the emission life of 90Y is up to 3,000 Gy to the tumor and only 80 Gy to the normal liver. These 90Y spheres have been used for other cancers such as cholangiocarcinoma, metastases are exclusively or largely confined to the liver. The treatment requires careful planning, interdisciplinary consultation and a significant commitment from the patient [Enterprise Imaging & Therapeutic Radiology Management, March 2008, 29-31].

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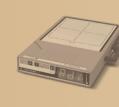
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POST CONFERENCE REPORT

A REPORT ON THE 5TH KOREA-JAPAN JOINT MEETING ON MEDICAL PHYSICS, JEJU, KOREA

Tae Suk Suh, Ph.D. Organizing Committee Chair

Youngyih Han, Ph.D Scientific Committee Chair

Soo Il Kwon, President, The 5th Korea-Japan Joint Meeting on Medical Physics

The 5th Korea-Japan Joint Meeting on Medical Physics (The 5th KJMP) was held during 10-12 September, 2008 in Jeju Hanwha Resort in Jeju, Korea. It was held in conjunction with the 37th Meeting of Korean Society of Medical Physics (KSMP) and the 96th Meeting of Japan Society of Medical Physics (JSMP). This Joint Meeting has been already held 4 times (two in Korea, two in Japan). The past four Joint Meetings were quite successful and have made an important role to promote research activities in medical physics, while offering a great opportunity of cultural exchange between two societies. The theme of 5th KJMP was “New Horizon of Medical Physics”. The meeting extended our visions on the medical physics by introducing new paradigm of future trend of medical physics which utilize interdisciplinary approaches such as image-guided therapy, and state of art imaging technique. This is truly reflected by the plenary session, and other symposiums.

Professor William Hendee from the University of Wisconsin, USA gave an outstanding plenary speech on “Entrepreneurship in Medical Physics”. Another Plenary speaker Dr. Tatsuaki Kanai from NIRS, Japan also gave a nice presentation on “Progress in Carbon Radiotherapy”. There were three excellent symposiums: “Advanced Technology in Radiation Therapy”, “The State of Art Molecular Imaging Technology”, and “Education and Training of Medical Physics”. Two other leading scientists invited from USA, Dr. Daniel Low from Washington

University and Dr. Jason Sohn from Case Western University also covered new idea on IGRT and adaptive RT in their lectures. The symposium on “Education and training of Medical Physics” was an important event of 5th KJMP, and was moderated by Dr. William Hendee with five key panelists from Korea and Japan.

The conference was attended by 205 participants. Abstracts considered within the scientific program were 68 oral presentations, 61 posters. There were 13 invited oral presentations in plenary or symposium. The young investigator’s awards were provided to four young scientists from Korea and Japan through the competition in “Young Investigator’s Presentation Session”

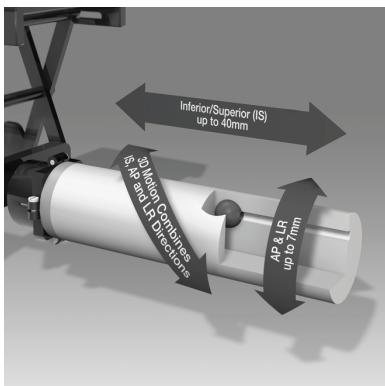
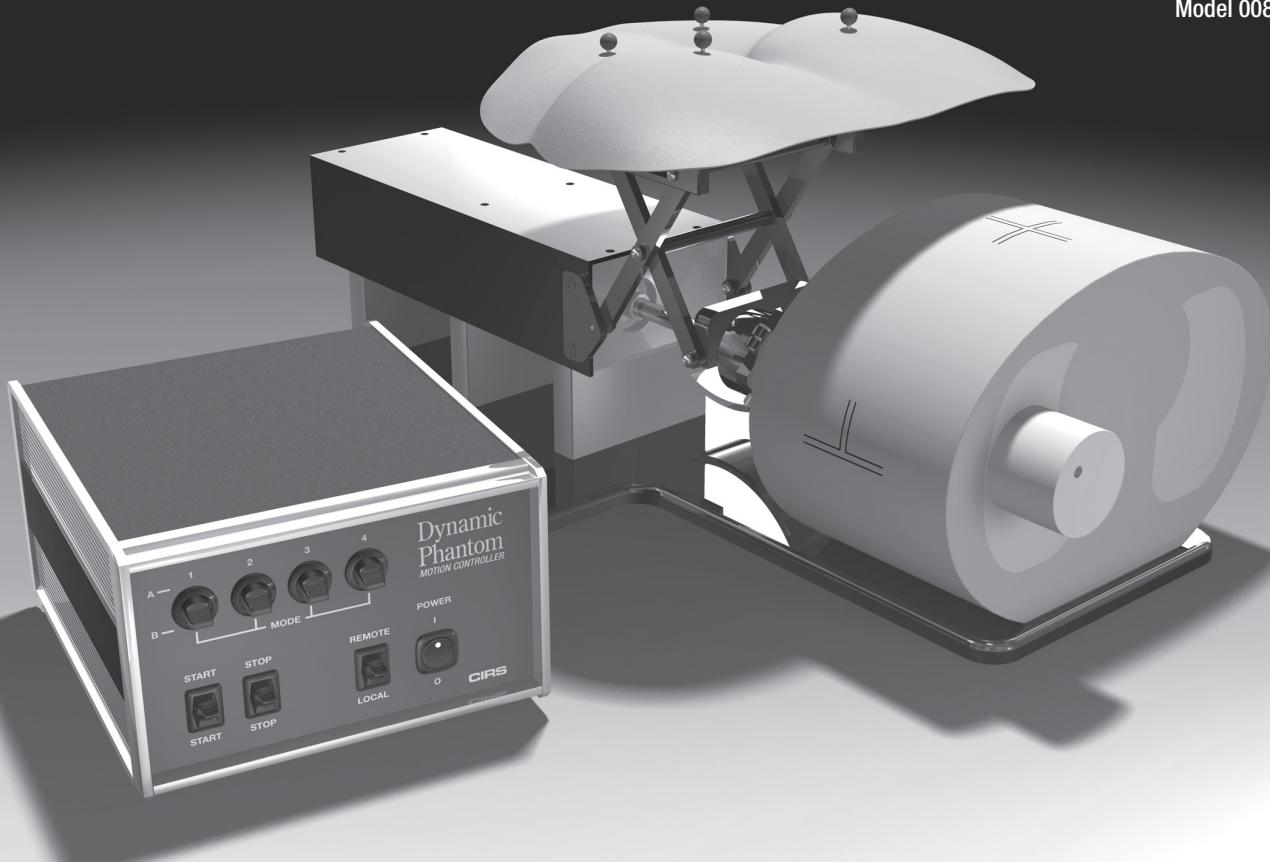
A series of social activities were arranged with the Welcome Reception held on a beautiful garden locating in the middle of Halla Mountain. Some tours were arranged to allow attendees to see the beautiful scenery and history in Jeju.

5th KJMP provided a great opportunity for the attendees to update themselves on the current trends in various fields of medical physics by exchanging scientific and technological information as well as strengthening friendship between Korean and Japanese medical physicists. In addition to the academic aspects of the Congress, Jeju offers unique experiences for all the members with its rich heritages and tradition lifestyle. ●



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BECOMING A BETTER TEACHER OF MEDICAL PHYSICS

Report of the “Workshop on Becoming a Better Teacher of Medical Physics” held in League City, Texas, August 2008

William Hendee, Ph.D., Chair of IOMP Publications Committee and Workshop Co-director, and Herbert Mower, Ph.D., Workshop Co-director

Among their other responsibilities, all medical physicists are teachers. We teach not only in the classroom, but in every consultation with our physician, physicist and technologist colleagues. Some of the most well-known medical physicists gained their reputations because they are or were good teachers. But not all medical physicists are good teachers – and even those who are can always improve.

To address the challenge of effective teaching, a 3-day workshop on Becoming a Better Teacher of Medical Physics was held on August 1-3 in League City, Texas, following the Houston annual meeting of the American Association of Physicists in Medicine (AAPM). The focus of the workshop was “on the challenges and opportunities of effective teaching of medical physics to various constituents.” Each participant was expected to participate in the entire program and develop a self-directed educational project (SDEP) as outlined by the Maintenance of Certification program of the American Board of Radiology. On the evening before the workshop, Herbert Mower (Chair of the AAPM Education Council) and I described the evolution of the workshop and how it reflected the conclusions and recommendations of educational summits sponsored previously by the AAPM (2006) and the Radiological Society of North America (2007).

The program opened with a keynote address on How People Learn Physics by Edward “Joe” Redish, Professor of Physics from the University of Maryland. Dr. Redish helped attendees understand through examples that students interpret what is taught

by using their existing knowledge (sometimes only part of it), and that instructors must provide this background knowledge and understanding if it is lacking in the students. This talk was followed by a plenary session on Comparing How Physicists and Physicians Learn by Gary Becker, Executive Director of the American Board of Radiology, and E. Russell Ritenour, Professor and Chief of Medical Physics at the University of Minnesota. This session revealed that the learning process is different for physicians compared with physicists, and teachers must understand this difference in approaching either group.

A second keynote address was given by Victor Montemayor, Professor of Physics at Middle Tennessee State University on the topic Understanding and Engaging Your Audience. Dr. Montemayor emphasized that a key to effective teaching is keeping the students engaged in the learning process and providing rapid feedback on their understanding of topics. Following this keynote address, a plenary session was conducted by Kimberly Applegate, Associate Professor of Radiology at the University of Indiana, and Stephen Thomas, Associate Executive Director of the American Board of Radiology, on the question of How Can the Assimilation of Knowledge be Assessed? Both speakers emphasized that adults learn best when the information is relevant and when rapid feedback of knowledge assimilation is available, whether the assessment is by the learner or by a third party.

Determining the breadth and depth of information that should be learned by physicians and physicists is a challenge. This issue was discussed in

principle in a keynote address shared between J. Anthony Seibert, Professor of Radiology at the University of California – Davis, and Ervin Podgorsak, Professor and Director of Medical Physics at McGill University. These speakers emphasized that teaching is done best by individuals who are competent, empathetic, motivated and disciplined, and who respect their students and understand that learning is hard work. This interchange with the audience was followed by discussion of approved physics curricula for radiologists and radiation oncologists (presented by Philip Heintz, Professor of Radiology at the University of New Mexico and George Starkshall, Professor of Medical Physics at the University of Texas MD Anderson Cancer Center) and of approved physics curricula for medical physicists (presented by Jay Burmeister, Chief of Physics and Director of Education at the Karmanos Cancer Institute of Wayne State University and Edward Jackson, Professor of Imaging Physics at the University of Texas MD Anderson Cancer Center).

The final keynote address was provided by George Nikiforidis, Chair of the Department of Medical Physics and Dean of the School of Medicine at the University of Patras, Greece. Dr. Nikiforidis spoke on the topic of Teaching and Learning Through Collaboration and described the integration of medical physics throughout several clinical departments in his institution, including radiology, radiation oncology, neurology, neurosurgery, orthopedic surgery, pathology, and medicine. He emphasized that

BECOMING A BETTER TEACHER

(Continued on page 24)

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Secretary-General's Report

CONTINUED FROM PAGE 2

(IUPESM). This has allowed IOMP to participate directly in the activities of the International Council for Science (ICSU) which represents all the national scientific bodies and all the international scientific unions. Figure 1 illustrates the links involved.

ICSU has a strategic plan and one of the four themes for the next five years is 'human health' and this includes an inter-Union initiative 'Science for Health and Well-Being' in which IUPESM is a significant player. There is potential for other involvement – IUPESM has nominated a medical physicist to serve on the new ICSU Committee on Freedom and Responsibility in the Conduct of Science (CFRS). IOMP initiated a *Bill of Rights for Scientists and Engineers* which has been endorsed by IUPESM.

International Cooperation.

The main cooperation externally is with the biomedical engineers, both directly and through IUPESM. *The Medical Physics and Biomedical Engineering World Congress* series, is organised through IUPESM. The next one is in Munich next September – see www.wc2009.org. An IUPESM task force has been established: *'Health Technology and Training Task Group (HTTG)*. See <http://www.biomedea.org/HTTG/>.

Internally within the worldwide medical physics community there is an important role for IOMP in promoting cooperation and supporting the various national and regional medical physics organisations. One of the most significant current developments is that of regional bodies – there are 4 at the moment (ALFIM, SEAFOMP, AFOMP and EFOMP - see www.iomp.org/regchapt.htm for details) covering, Latin America,

Asia/Australasia and Europe, with two further ones in the process of formation covering Africa and the Middle East. Each of the regional groups have representation on the IOMP Council, as do all national organisations. The regional groups are likely to play an increasing and complementary role to that of IOMP in the future.

Developing Countries.

IOMP places a special emphasis on supporting the development of medical physics in developing countries with several special programmes – a library programme and an equipment donation programme are two of these. Limited financial assistance for travel assistance to attend the World Congresses is also provided, as well as a specialist training programme. An interesting recent project, only possible through funding by the Irish Radiotherapy Physics Group, was bursaries to provide full financial support (travel, accommodation, fees etc.) for three medical physicists from developing countries (Nepal, Ghana and Bangladesh) to attend an ESTRO course.

The above only provides a summary of some of the activities of IOMP – for further information see the IOMP website (www.iomp.org) and the document *Review and Way Forward: 2006-2012*. (www.iomp.org/2006/Council/ReviewandWayForwardAugust2006.pdf

To return to my original questions – IOMP needs the support of national organisations to:

- Guide the IOMP and to set priorities through their delegates to the IOMP Council
- Nominate individual medical

physicists as officers, chairs and to fill other posts

- Provide financial support – national dues are the main source of income
- Provide a communication channel to their members about IOMP and to support individuals participating in IOMP activities.

Individual medical physicists should have some awareness of IOMP because:

- There are opportunities to be involved in IOMP activities and to work with colleagues around the world
- So that they support their national organisation paying the national dues
- There is the opportunity to support the advancement of medical physics in developing countries and thereby the overall development of healthcare in those countries.

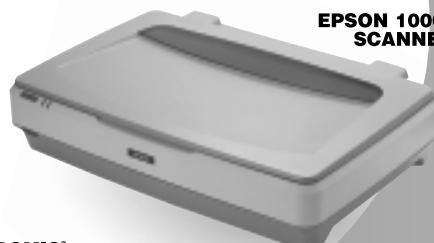
IOMP operates under considerable financial constraints but its main asset is its members. As the world goes evermore global there will be an increasing number of medical physics issues best considered or carried out at the international level. With the active support and interest of individual members and national organisations IOMP must further develop in order to achieve its objectives, meet new challenges and to maximise the contribution that physics can make to healthcare. The involvement of more members is required. IOMP must provide the structure for this to happen and this is a challenge to the Executive and to Council. ●



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INVITATION TO BID TO HOST THE 18TH INTERNATIONAL CONFERENCE ON MEDICAL PHYSICS IN 2010-2011

An invitation has been sent out to all national and regional organisations to bid to host the 18th International Conference on Medical Physics in 2010-2011.

This series of conferences are in addition to the World Congresses on Medical Physics and Biomedical Engineering (WCMPBEs) and take place approximately midway between WCMPBEs. The objectives of these conferences include

the development of medical physics, strengthening of links amongst regional medical physicists and the promotion of the medical physics profession in regions or countries where a large World Congress is not feasible. It also hoped that some will generate additional income for IOMP to enable it to expand its work, particularly in developing countries. The intention is that the conferences will rotate around the world.

Two have been held since this new pattern of holding an IOMP conference mid-way between World Congresses was started in 2004: one in Europe (Germany) in 2005 and the other in the Middle East (Dubai, UAE) in 2008.

Further information from Peter Smith, Secretary-General.

peterhssmith@btinternet.com

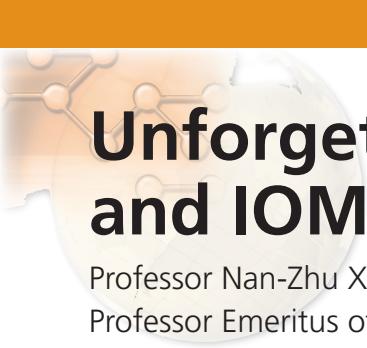
Past-President Report

CONTINUED FROM PAGE 6

Annex 2: Medical Physicist (Revised definition provided by the International Organisation for Medical Physics)

Medical Physicists apply knowledge and methodology of science of physics to all aspects of medicine, to conduct research, develop or improve theories and address problems related to diagnosis, treatment, and rehabilitation of human disease. They are directly involved with patients and people with disabilities. Tasks include: (a) Conducting research into human disorders, illnesses and disabilities; investigating biophysical techniques associated with any branch of medicine, (b) Conducting specialised examinations of patients and the disabled, improving patient care and clinical services, developing innovative imaging and non-imaging diagnostic procedures for specific medical applications, (c) Developing novel instrumentation and physiological measurement techniques, mathematical analysis and applications of computers in medicine in response to clinical need for patients, and aids to everyday living for the disabled, (d) Ensuring the quality, safety testing and correct maintenance and operation of treatment machines, x-ray equipment, radiation treatment planning computers; medical uses of ultrasound, MRI, and infrared; and the correct delivery of prescribed radiation doses to patients in radiation therapy, (e) Ensuring the accuracy of treatment unit parameters and settings used for a patient's treatment, including correct transfer of parameters between the simulator, treatment plan and the treatment unit, and periodic review of each patient's chart, (f) Calculating dose distributions and machine settings, design and fabrica-

tion of treatment aids and treatment-beam modifiers for individual patient treatments, (g) In-vivo measurement to verify the dose delivered to a patient; participation at patient discussion conferences, (h) Advising and consulting with physicians on the physical and radiobiological aspects of patients' treatments, and the development of treatment plans in such applications as use of ionising radiation in diagnosis, therapy, treatment planning with externally delivered radiation as well as use of internally implanted radioactive sources given the state of technology, (i) Planning, directing, conducting, and participating in supporting programs and remedial procedures to ensure effective and safe use of ionising and non-ionizing radiation and radio nuclides in human beings by physician specialist, (j) Formulating radiation protection guides and procedures specific to hospital environment and other professional groups and organizations; conducting specialised measurements and producing protocols to minimise radiation exposure of patients, staff and the general public, (k) Participating in and contributing to the development and implementation of national and international standards, laws and regulations relating to patient safety, particularly to radiation and radioactive materials, (l) Teaching principles of medical physics to physicians, residents, graduate students, medical students, technologists, and other health care professionals by means of lecturers, problem solving, and laboratory sessions, (m) Preparing, publishing and presenting scientific papers and reports, and (n) Supervising and managing radiation workers and other health professional workers. Examples of the occupations classified here are: Clinical medical physicists, Clinical scientist. For more details of ISCO-08, please see [<http://www.ilo.org/public/english/bureau/stat/isco/docs/healthocc.pdf>].



Unforgettable Events with AAPM and IOMP in the last 28 years

Professor Nan-Zhu Xie, Ph.D.; (83 years of age); Emeritus Member of AAPM
Professor Emeritus of Medical Physics, Guangzhou Medical College, China



1981 Inviting Dr. John R. Cameron (President of AAPM, 1968) to visit China attending the Establishing Meeting of the Chinese Society of Medical Physics (CSMP) and giving lectures on Medical Physics in Guangzhou, Shanghai, Hangzhou, and Beijing for 4 weeks.

1984 I was invited to attend the 26th Annual Meeting of AAPM by Dr. Edward S. Sternick (President of AAPM, 1984) on July in Chicago meeting Dr. Lawrence H. Lanzl (President of IOMP, 1984). Dr. Sternick introduced me to join AAPM as a Full Member.

1985 I was invited to go to Espoo, Finland attending the World Congress of Medical Physics and Biomedical Engineering by President of the International Organization of Medical Physics (IOMP) Professor Lawrence H. Lanzl. I represented the Chinese Society of Medical Physics (CSMP) to talk with President Lanzl about CSMP joining IOMP as a Country Member and was accepted with pleasure by Dr. Lanzl.

1986 I was invited to go to Lexington, Kentucky attending the 28th AAPM Annual Meeting by Dr. Edwin McCullough, President of AAPM (1986) who had given me the honor to present a 15 minute talk "The status of Medical Physics in China and the Scientific Exchanges between CSMP and AAPM". I thanked Dr. McCullough forever.

1986 I was invited by IOMP to go to Bombay, India attending "The First Asian International Conference on Medical Physics". Drs. Madhvanath, the President of the Indian Association of Medical Physics (IAMP). Alexander Kaul (Past-President of IOMP), Lawrence Lanzl (President of IOMP), John R. Cunningham (President- Elect of IOMP) had given special speeches at the Conference. I had the honor to present "The Status of Medical Physics in China" at the Conference and met many Indian Colleagues too.

1988 I was invited by IOMP going to San Antonio on 1988 attending the World Congress on MP & BME. I represented CSMP as an IOMP country member at the council of IOMP and was elected as the Chairman of IOMP Developing Countries Committee (1989 – 1991)

1991 AAPM & IOMP leaders Drs. John Laughlin and John Cunningham and many AAPM members Drs. Melvin Siedband, Raymond Wu visited Guangzhou Medical College and helped me build up the IOMP-AAMP library in Guangzhou and then we went to Kyoto, Japan

attending the World Congress on MP and BME. In the council of IOMP, I met many old friends of IOMP and AAPM Drs. John Cameron, John Laughlin, John Mallard, John Cunningham, Lawrence Lanzl, Colin Orton, Edwin McCullough, Melvin Siedband. I was elected again as the Chairman of IOMP-DCC (1992–1994).

1992 Since 1983, I had been working on Magnetic Resonance in Medicine (MRM) in China researching, teaching and writing books on MRI, MRA, and MRS. I was invited to go to Berlin, Germany to attend the "92nd International Conference of MRM". I met Dr. Fullerton and his wife Nancy and many medical physicists, and radiologists from different countries and learned that the development of MRI & MRS was moving ahead very rapidly worldwide.

After the Berlin conference, I flew across the Atlantic Ocean to New York where Dr. Sternick was waiting for me at the airport. As a member of the New York Academy of Sciences, I visited the famous Academy for the first time with Dr. Sternick and learned about the history of the Academy that dates back more than 100 years. Dr. Sternick accompanied me to Calgary, Canada from New York to attend the AAPM and CAPM Combined Meeting. I was fortunate to witness Dr. Suntharalingam winning the Coolidge Award presented by Dr. John R. Cameron at the meeting. It reminded me of the presentation of the Coolidge Award to Dr. John R. Cameron by Dr. Suntharalingam in 1980. Twelve years later, the Coolidge Award was presented to Dr. Suntharalingam by his adviser, Dr. Cameron. It was very nice to remember.

After the Calgary Meeting, I flew to Los Angeles to visit Dr. James B. Smathers at the UCLA Center for the Health Sciences. He was very kind and friendly and showed me much new equipment of medical imaging and radiotherapy in the Department of Radiation Oncology. I was much obliged to him, hoping that he would be able to visit China.

1993 I attended the AAPM Annual Meeting in Washington D.C. I met many old AAPM friends, including some members from Taiwan. I was very happy to tour the White House and Washington learning more about the history of the United States.

1994 "The 94' Asian and Pacific International Conference on QA Testing Technology" was held at the beautiful White Swan Hotel by the side of Pearl River in Guangzhou. Drs. James B. Smathers, David Goodenough, Frank B. Atkins, K.Y. Cheung, Kuang Y. Chen and many Chinese Col-

leagues presented articles on QA testing of medical imaging and radiotherapy. Dr. Sternick, the Co-President of the QA Conference, representing Dr. Orton from IOMP, gave a congratulatory speech during the Opening Ceremony. That was the first QA International Conference held in China. It introduced new high-tech QA testing to Chinese medical physicists, biomedical engineers and medical doctors and improved the QA programs carried out in China by the Chinese Government.

1997 The 1997 AAPM Annual meeting was held in Milwaukee. I became an Emeritus Member of AAPM in 1996 and attended the AAPM Meeting free of charge for the first time. I met Drs. Larry Lanzl, John Cameron, John Cunningham, Ned Sternick and many old friends. I asked Dr. John R. Cameron to write an article on "The Future of Medical Physics in the 21st Century" for me to translate into Chinese for a Chinese Journal. He also gave me a copy of his new book "Physics of the Body", which was of great interest to our Chinese colleagues.

1998 In 1998, I invited Drs. Hendee and Siedband to visit Guangzhou Medical College to give lectures on Medical Imaging & Radiation Therapy and tour in Guangzhou for six days. They were warmly welcomed by Chinese radiologists, medical physicists and medical doctors. After the meeting, Dr. & Mrs. Hendee and I flew to Xian, touring for two days and enjoying this famous old city. Then we flew to Beijing to lecture and tour for six days. Dr. Hendee was especially welcomed by the head of Peking Hospital and gave a lecture of Functional MRI. He met the famous Professor Guozhen Li to talk about research of MRI with acupuncture. Dr. Hendee was invited to give a lecture on Medical Imaging at Peking University and dined with the Vice President of the University.

1999 Dr. Hendee and I worked on the ICMIMPPRT for nearly a year. We were pleased to have nearly three hundred participants from Asia, America, Europe and Australia who submitted outstanding articles to the conference. The Conference was successfully held in the China Hotel on October 4-6, 1999, Guangzhou. Many well-known professors presented special articles on Medical Imaging and Precision Radiotherapy and shared their experiences with their colleagues from different countries. I felt honored to have been supported by AAPM, IOMP, CSMP and all the participants from across four oceans.

2001 I went to Salt Lake City attending AAPM Annual Meeting on July and I thanked Dr. Ned Sternick to arrange everything for me. I was invited by Dr. Arthur Boyer to visit Stanford University to talk about developing Medical Physics in China in August. Dr. Boyer invited me to his home to take dinner and drink for friendship enjoying a beautiful night.

2002 I invited Professor Stewart Bushong and his wife Bettie

to visit China in May. Dr. Bushong gave lectures on "Digital Imaging Technology" in Guangzhou Medical College and Tsinghua University and toured in the Yangtze River 3 gorges by ship and walked up to the top of the Great Wall. We are old friends and this was the second time they visited China.

I invited Dr. and Mrs. John Cameron and Dr. Ned Sternick to visit China on October to celebrate Dr. Cameron's 80th birthday in Guangzhou City. We were so happy to remember that Dr. Cameron was the first American Professor of Medical Physics to visit China giving lectures on Medical Physics in 1981. And after 22 years, John visited China again giving lectures on "Physics of the Body" in Guangzhou Medical College, Beijing Tsinghua University and Shanghai Communication University hospital. How nice and wonderful!

2004 Dr. Stewart Bushong and his daughter Leslie visited China for the third time. I invited him to go to the famous Taishan Medical University giving lectures on "Radiologic Science and Technology" and was warmly welcomed by the Chinese radiologists and medical physicists.

2005 I was invited to go to Seattle attending the 47th AAPM Annual Meeting and met many old friends. I was so lucky to attend the Memorial Meeting for Dr. John Laughlin and Dr. John Cameron and met Mrs. Laughlin and Mr. John Cameron with their relatives.

2007 I invited Dr. and Mrs. William Hendee to visit China in May to lecture on his new book, "Medical Physics, 2006". We went to Zhejiang University in Hangzhou, Wuhan University, Taishan Medical University, Peking University and Tsinghua University (5 famous Chinese Universities) to give lectures, and toured in West Lake, Wuhan Yangtze River Cruise, Taishan, and the Great Wall. This was a 15-day long trip lecture and warmly welcomed by the five universities.

In August, "The International Conference on Medical Physics" was held in Huangshan Hotel, organized by IOMP, AAPM & CSMP. Professor Barry Allen, the President of IOMP, DR. Raymond Wu, the representative of AAPM and Dr. Yimin Hu, the President of CSMP hosted the conference. I met Drs. Allen, Raymond Wu very happily. More than 3 hundred participants from China, U.S., Australia, Korea, Japan, Thailand, Malaysia, and other countries presented papers and discussed new and up-to-date problems of Medical Physics. It was a very successful International Conference held in China.

2008 I feel honored to be invited to attend the 50th Anniversary Annual Meeting of AAPM when I am 83 years old. I have the chance to meet many many AAPM old friends. I write this paper to remember AAPM and IOMP in the last 28 years. Thank you! ●

Calendar of Events

Carter Schroy, Ph.D., MPW Associate Editor

The following events can be found on the IOMP Calendar at <http://iomp.org/nextmeetings.htm> and on the Medical Physics Calendar at <http://medphys.org/calendar> which has links to other calendars. Most meetings are also posted on the Global Medical Physics Mailing List (<http://lists.wayne.edu/cgi-bin/wa?A0=MEDPHYS>). Please email your international events to the Calendar Editor, Carter Schroy, at eventsed@aol.com (or fax to +01 309.276.7728) for inclusion in MPW. Deadlines are April 1 and October 1 for issues that are mailed several weeks later.

7-11 February 2009

Winter Institute of Medical Physics ; Summit County, CO USA
<http://gowimp.org>

7-12 February 2009

SPIE Medical Imaging Conference ; Orlando, FL USA
<http://spie.org/medical-imaging.xml>

11-13 February 2009

Medical Physics, Radiation Protection, and Radiobiology ; Jaipur, India
email: arunchougule11@gmail.com

27 Feb - 1 Mar 2009

SPECT/CT Hands-on Short Course ; Houston, TX USA
http://www.mdanderson.org/pdf/spectct_2009.pdf || email: gmoore@mdanderson.org

1-4 March 2009

30th Int'l Acoustical Imaging Symposium ; Monterey, CA USA
<http://andre-lab2.ucsd.edu/AI30/> || email: mandre@ucsd.edu

24-28 March 2009

Annual Congress & Workshop of the South African Association for Physicists in Medicine and Biology (SAAPMB); Bloemfontein, South Africa
Theme: Target Delineation
<http://www.saapmb2009congress.co.za>
|| email: congress@internext.co.za

27-29 April 2009

IAEA Int'l Conference on Advances in Radiation Oncology (ICARO) ; Vienna, Austria
<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=35265>

2-5 May 2009

American College of Medical Physics Annual Meeting ; Virginia Beach, VA USA
<http://www.acmp.org>

31 May - 2 June 2009

American Brachytherapy Society Annual Meeting ; Toronto, Canada
<http://www.americanbrachytherapy.org/meetings/index.cfm>

21-25 June 2009

AAPM Summer School; Colorado Springs, CO USA
Clinical Dosimetry Measurements in Radiotherapy
email: karen@aapm.org

19-21 July 2009

Training Course on Radiation Shielding in Medical Installations (RSM2009) ; Ericeira, Portugal
<http://www.rsmi2009.itn.pt/>

23-27 June 2009

CARS 2009 - Computer Assisted Radiology and Surgery ; Berlin, Germany
23rd Int'l Congress and Exhibition; Joint Congress of CAR / ISCAS / CAD / CMII / EuroPACS / CURAC
<http://www.cars-int.org> || email: office@cars-int.org

26-30 July 2009

American Association of Physicists in Medicine (AAPM) Annual Meeting; Anaheim, CA USA
email: karen@aapm.org || <http://www.aapm.org/meetings/>

Becoming a Better Teacher

CONTINUED FROM PAGE 17

teachers should think of their job as creating intellectual experiences for students through problem-centered learning.

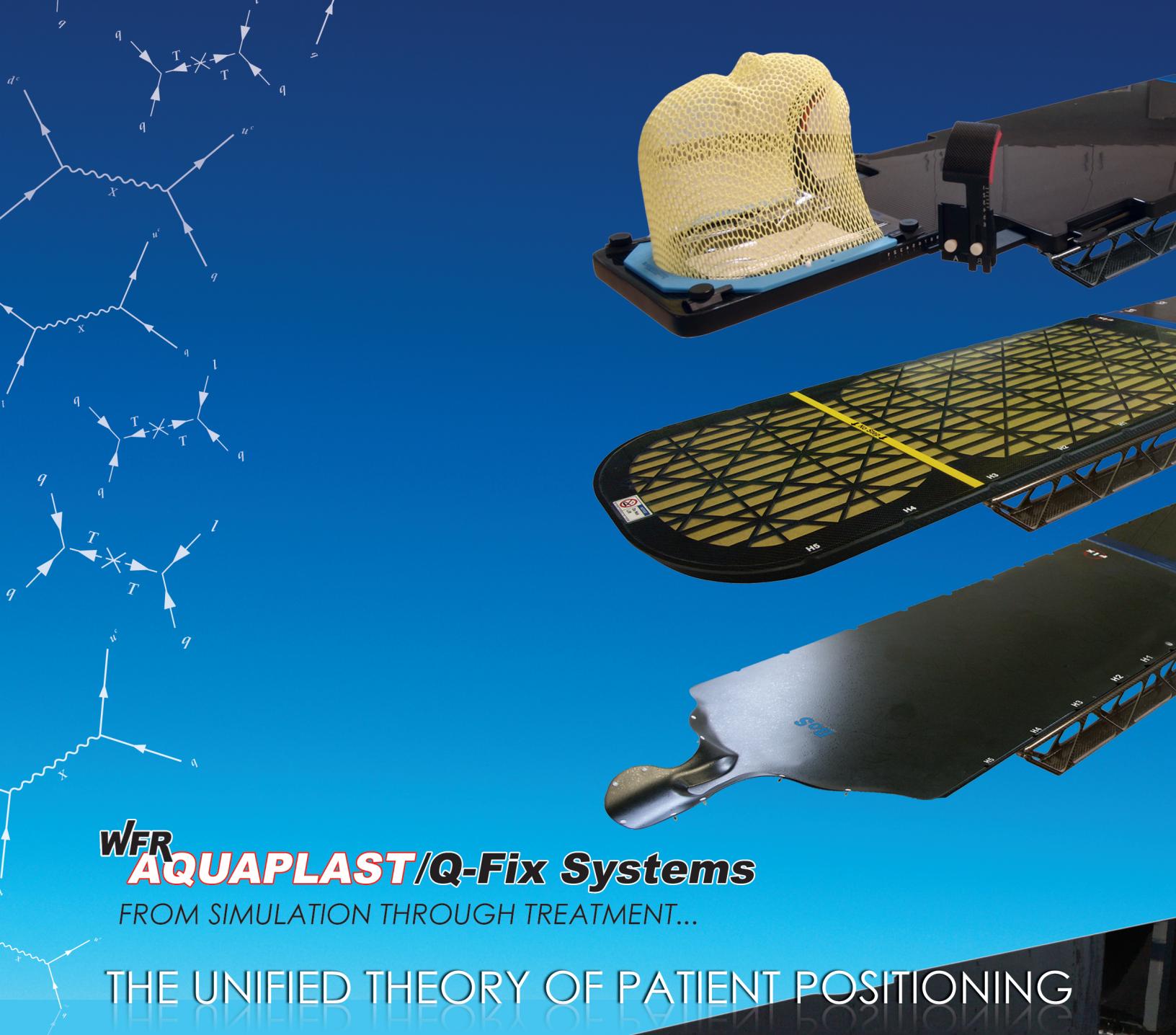
The meeting offered four opportunities for participants to separate into twelve breakout groups to discuss what they had learned from the keynote talks and plenary sessions. Each breakout group had a moderator and a scribe who was responsible for describing the conclusions of the

breakout group to the entire workshop audience during a report back period that followed each breakout session. These breakout groups helped to engage the audience in the workshop's learning process, and yielded many suggestions and proposals on how physicists could become better teachers.

On the final day of the workshop, each participant developed a Self-Directed Educational Program targeted to what he/she planned to do to become a better teacher. Some of these proposals were presented to

the workshop audience where they engendered considerable discussion and enthusiasm.

The 2008 workshop attracted 112 participants, including attendees not only from the United States and Canada, but also from Ireland, Sudan, Germany, Algeria, Greece, India, Italy and Brazil. Response of the attendees to the workshop was overwhelmingly positive, and many of the participants recommended that it be held again next year in conjunction with the AAPM annual meeting in Anaheim. ●



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DONATION OF USED EQUIPMENT –

PRC REPORT FOR JULY-DECEMBER 2008

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

Shipping equipment to developing countries is a very difficult and painful assignment. Please note the problem other's are facing in doing this. Jennifer Nolan, University of Michigan Hospital (UMH) and Global GAME volunteers decided to donate 144 high-quality pulse oximeters to the biomedical staff of Pristina Hospital (UCCK), Ministry of Health (MoH), Pristina, Kosova. They arrived after four months despite difficulties including a labor strike in a Geek port, changes in political structure of Kosovo resulting new MoH leadership, difficult travel by truck from Greece to Kosovo, and crucial paperwork authorizations for the final border crossing. They were delivered by Dr. Askew and John Chesnet to the local authorities and now being distributed among various healthcare facilities in Kosovo.

Appropriate Healthcare Technologies for Developing Countries 2008 was held May 21-22, 2008 at The IET, Savoy Place, London, UK. Their website is <http://conferences.theiet.org/aht/>. Dr. Parsai, Editor, MPW sent 75 copies of the last two issues of the Medical Physics World (MPW). The MPW publication was very much liked by about 60 participants at this WHO supported meeting. The keynote speakers Drs. Peter Heimann, Andrei Issakov and Thomas Judd, all

from WHO, had good words about the IOMP used equipment donation program which I introduced just after Dr. Issakov's talk on WHO donation programs. I had meet and will remain in contact with others involved in international programs to support and help developing countries. Now I have a better picture of what is happening in these poor countries and how I can as program manager for used equipment help IOMP manage this great support program. I am thankful to chairman IOMP PRC and the executive committee for approving financial support to attend this great meeting. I took the remaining MPW newsletters to the NATO Advanced Training Course conducted at Mugla, Turkey and were well taken by the workshop trainees.

The IOMP DPM also attended the AAPM annual meeting held in Houston during July 27-31, 2008 and helped Dr. Azam Niromand-Rad in managing the booth, meet vendor and was an advocate for donation program and had meet some very serious donors.

Used equipment needed:

Treatment planning systems, Automatic film processor, block cutter, patient dose monitor and ultrasound machine and an HDR unit – if you want to donate one, please contact.

Shipping arrangements:

The institutions that need used equipment should mention in their response that they would pay 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 getting and transferring used equipment from generous donors to those who need them badly. He can be reached at Department of Nuclear Medicine, SGPGIMS, Raebarelli Road, Lucknow (UP), 226014, INDIA. His phone number is 91-0522-2668700 extension 2615 and email address is akshukla@sgpgi.ac.in.

The equipment donated to IOMP Used Equipment Donation Program is generally in good working condition but we don't guarantee its usefulness. The donation of used equipment to IOMP is sometimes tax deductible. IOMP will not be responsible for any warehousing expenses or loss if the used equipment donated couldn't be shipped.

If you want to donate or want some used equipment donated to your organization, please contact Mohammed K. Zaidi, Professional Relations Committee, at our website www.iomp.org or email to zaidimk@gmail.com.

The President's Editorial

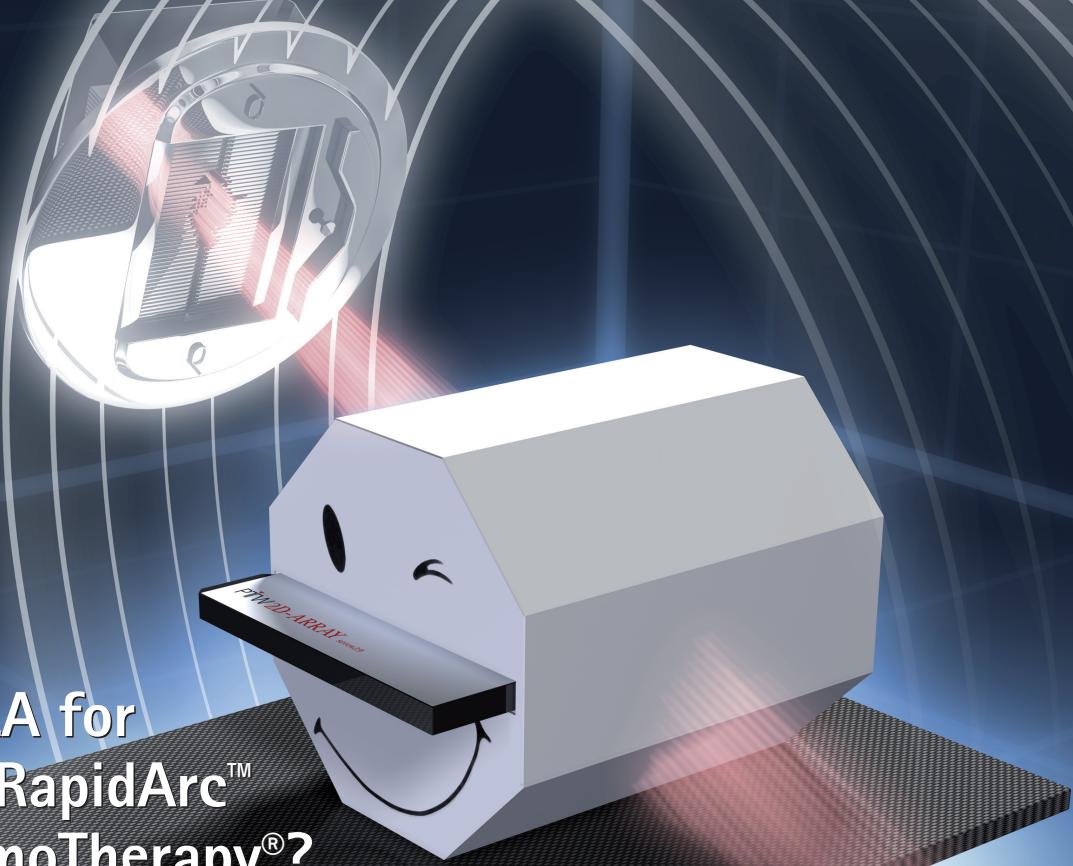
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tors, we can now utilize the Curie alpha rays and label monoclonal antibodies with alpha emitting radioisotopes that can selectively kill targeted cancer cells. This therapy does work and the field of targeted alpha therapy is slowly gathering momentum, with some 10 clinical trials in operation or at the planning

stage around the world. This fusion of biology and medical physics suggests that we should use the term biomedical physics much more than we do. So I would propose that a new frontier is that of biomedical physics for the control of systemic disease.

A discipline that ignores the plight of two thirds of the world's population is not really doing its job. For rural populations in developing countries,

cancer is something that might only be acknowledged at the most terrible symptomatic stage, a stage that would be incurable in the first world. Palliative therapy is the only course to reduce pain and improve quality of life. But how much time and effort is going into the provision of low cost technologies that are appropriate for the objective of palliation? I suggest that this is the third frontier, appropriate technology for palliative therapy.



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* Van Esch et al: "On-line quality assurance of rotational radiotherapy treatment delivery by means of a 2D ion chamber array and the Octavius phantom" Med. Phys. 34 (10), October 2007

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