

New Horizons - Global and Scientific

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Brighton International Centre, UK

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Medical Physics World

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Message from the Editor

Virginia Tsapaki, Chair, editor eMPW



Dear friends and colleagues,

Welcome to the July edition of eMPW. This issue has dedicated its front page to the upcoming celebration of International Day of Medical Physics (IDMP). Greece is celebrating this day by a number of activities focusing on informing the public about the professional and scientific services provided by medical physicists through an “open day” event and a press conference. We would be very interested to hear from IOMP members about their planned activities on this day. All these activities could be published in the next issue of eMPW. Since, the International Conference on Medical Physics is a “breath away”, I hope that we could meet in Brighton and exchange ideas about the future of our profession. The eMPW would be interested to discuss with the 18 applicants approved for funding from IOMP and publish their experience (details in p.10). Learn more about the new IOMP system of online updating by NMOs in p.7, which is very essential for accurate and precise update of NMO information and the first issue of the new IOMP Journal Medical Physics International in p.8, a “new realm of publishing for the field of Medical Physics”. IOMP is also very proud for its first presentation ever in the

European Conference of Radiology this year. Free issues of eMPW were distributed to show the work of IOMP to radiologists, medical physicists and other professions during the conference. Leaflets on various activities of IOMP were also distributed all through the conference. Due to the big success of this initial attempt, IOMP plans to repeat this next year in ECR 2014. The Professional Relations Committee had a lot of work during the last months finalizing the list of libraries that will continue to receive hardcopy or electronic books and journals through the IOMP/ AAPM Joint Program and finalize the By-Laws of the International Medical Physics Certification. Check if your library is in p.11.

We must not forget that IOMP is not only its officers or ExCom members but is also its regional and national member organizations. Learn about the issues or problems in a number of countries in Latin America (p.13) and Africa (p.15). As a woman I cannot help noticing the “celebration of Women in the Medical Physics profession” in the MEFOMP general meeting. You can read all about it in p.19. Last but not least, news from Asia and South East Asia can be found in p.25. News is welcome not only from IOMP but also from other large international organizations that have strong relations with IOMP. This issue includes information on the International Atomic Energy Agency (IAEA) world directory of radiotherapy centres (DIRAC) which currently is the only centralized database that describes the capacity for delivery of radiation therapy worldwide. Finally one should not leave this issue without focusing with attention to the latest policy statement of IOMP on “Risk of Medical Imaging” in p.22. Let me remind you our Calendar Editor, Ibrahim Duhaini (duhaini@yahoo.com). Please contact him for scientific or international events so as to be included in eMPW. ◀

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www.IOMP.org

...an outstanding Congress to celebrate the 50th Anniversary of IOMP
at the country where it was born

President's Message

Kin Yin Cheung



Fellow of IOMP

The Council has recently approved a scheme for the award of Fellow of IOMP (FIOMP). This honour aims to recognise persons who have made outstanding contributions to IOMP and its regional organisations over a significant period of time. It also aims to encourage more medical physicists to be involved with IOMP in support of its services and activities in the international development of medical physics. Potential fellows can be nominated to the chair of the Awards and Honours Committee (AHC) by Officers and Committee Chairs/Members of IOMP and its Regional Organisations. New fellows of IOMP are awarded once a year. They will be honoured at International Congress in Medical Physics, World Congress in Medical Physics & Biomedical Engineering

and, in the year without such Congresses, International Day of Medical Physics. Our colleagues in the AHC under the leadership of Dr. Tomas Kron are acknowledged for their excellent work in preparation of the guideline for the award.

Policy statement on risk of medical imaging

The Council has also approved the release of a policy statement on risk of radiation from medical imaging. The document, which is prepared by the Science Committee lead by Professor William Hendee, is the third policy statement issued by IOMP. The main purpose of the document is to caution on using effective dose in predicting radiation induced cancer risks and estimating very small and hypothetical risks at low radiation doses and multiplying these estimates by large numbers of patients undergoing medical imaging. The cancer risks derived from such estimations is highly speculative and can raise anxiety in patients and their families and at times causing them to refuse or delay needed radiological examinations. The document is not undermining the importance of radiation safety and protection measures in radiology. It is important that justification, optimization and other safety procedures should continue be applied in medical exposures. This will be the subject of a future IOMP policy statement.

Launching of the Medical Physics International

Thanks to the co-editors, Dr. Slavik Tabakov and Dr. Perry Sprawls, members of the editorial board and members of the preparatory task group, the official IOMP journal Medical Physics International (MPI) was published in March 2013. This marks an important milestone in the development of IOMP. The journal provides a new platform for medical physicists to share their experience, ideas and new information generated from their work of scientific, educational and professional nature. Every medical physicist is welcome to make use of this platform either as an author, a reader or a reviewer and contribute to the advancement of medical physics. Articles published in MPI will be freely available to 19,000 or more medical physicists practicing in more than 80 countries around the world. With this large network of readership, the MPI will soon become one of the most popular and reputable journals in our profession.

IAEA Directory of Radiotherapy Centres (DIRAC)

The IAEA has maintained a registry of radiotherapy centres having radionuclide and high-energy teletherapy machines. It includes data on radiotherapy machines, brachytherapy sources, dosimetry and QA equipment, and staff strength at the centres.

The data base is valuable source of ▶

► information in studying the conditions and status of radiotherapy services and medical physicists in different parts of the world. The information is useful only if the database covers all radiotherapy institutions and is updated whenever there are changes in equipment and manpower. At the request of IAEA, IOMP is asking NMOs to convey this message to the medical physicists in all radiotherapy institutions in their countries and to encourage them to help updating the data or, if their institutions are not included in DIRAC, creating the accounts in the registry for their institutions.

ICMP 2013, Brighton

Thanks to Chairman, Dr. Raymond Wu and members of the Task Group on Travel Awards for coordinating the application and selection of all the travel awards on behalf of IOMP, COC and EFOMP. Apart from IOMP sponsorship to support medical physicists from developing countries to attend ICMP2013, sponsorships are also provided by IUPAP, IAEA, WHO, EFOMP, and from national member organisations in, Switzerland, Germany and Ireland. We are thankful to these international and national organisations for their valuable contributions to the award. The

successful applicants will soon be announced when abstract acceptance is confirmed by the congress organizer.

Thanks to Professors Peter Sharp and Peter Jarritt and members of his committees, the preparation of ICMP2013 is in good progress. The preliminary scientific programme is excellent. Things are indicating that we are going to have an outstanding Congress to celebrate the 50th Anniversary of IOMP at the country where it was born. I look forward to welcoming you at this historical event in Brighton this September. ◀

From the Awards and Honours Committee

Tomas Kron, Chair AHC



As IOMP turns 50 this year, the IOMP AHC has been busy trying to develop a mechanism to recognise colleagues who over the years have made significant contributions to IOMP and its Regional

The IOMP ExCom has approved a proposal of the AHC to create a new recognition for distinguished colleagues who have made significant contributions to IOMP and its regional organisations over a considerable period of time. This honour consists of a fellowship of IOMP. The idea of a Fellow of IOMP (FIOMP) has been around for some time and was

Organisations. To this effect we have been working on a proposal by the previous AHC to introduce the designation "Fellow of IOMP". This honour aims to recognise significant activities for the international development of medical physics. Fellowship would be awarded to persons who have made outstanding contributions to IOMP and its regional organisations over a significant period of time. Other achievements in medical physics would not be considered as primary reason for this honour. In order to make the award of fellowship transparent the committee has been

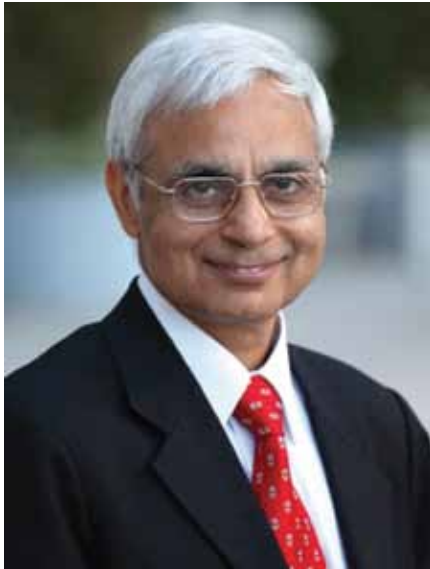
originally developed by Slavik Tabakov and Don Frey, two previous chairs of the AHC. Fellowship indicates a very high level of achievement and procedures have been developed to identify persons who should be recognised in this way. Potential fellows can be nominated to the chair of the AHC committee by Officers and Committee Chairs/Members

working on a points list to specify exactly what contributions would be expected for the award of the title. This list is currently with the IOMP executive and it is hoped that we will be able to recognise our first 'fellows' at the 20th International Conference on Medical Physics (ICMP) in Brighton, UK from 1st - 4th September 2013. The AHC is also working on a more general rewrite of its procedural documents with the aim to make IOMP awards and honours more visible and processes more transparent. As always we would like to hear from anyone who has comments or ideas about this. ◀

of IOMP and its Regional Organisations. The guidelines also include a points-catalogue to facilitate a transparent process. The guidelines will be published shortly on the IOMP webpage and it is hoped to recognise the first fellows at the International Conference on Medical Physics in Brighton in September. ◀

Use of electronic systems for managing work of IOMP

Madan M Rehani, PhD, European Society of Radiology



One of the important tasks every professional body has to manage is the contact details of its members. While there is system of life-membership of national societies that avoids workload of annual updating of membership list, international professional societies tend to have annual membership subscriptions and thus require annual updating. Situation gets complicated as many national member organizations (NMOs) have annual elections, some just do not have elections for few years, a good number of NMOs have only a few members say less than 10 and in some countries there are more than one national

societies each claiming to be real one. There are countries who despite their best intention to pay their membership dues to international society, have great difficulty in sending funds outside the country. Let me share with you how we have tried to use electronic systems in recent years in IOMP.

To facilitate maintenance of directory, we initiated online updating. NMOs can update their data using the link <http://bit.ly/hBII8z>

This is very essential and we encourage every member country to regularly update information.

Another online feature that we have started utilizing since 2013 only is e-ballot. We have used e-ballot successfully for two voting's in 2013, one for IOMP Policy statement No. 3 and another for a new proposal to start award of IOMP Fellowships to designate persons as IOMP Fellows.

Previously we had to wait for physical meeting of the Council that is held at World Congress every three years.

The participation rate in voting in e-ballot is very good as experience in earlier years had shown that not every council member participates in physical meeting in world congress and number used to be limited,

sometimes even making it difficult to reach quorum.

For regional organizations also we have online database and we encourage regional organization to regularly update information using the link: <http://bit.ly/tXIjop> We have also utilized maintenance of updated list of payment of dues through a shared folder at dropbox that allows instant view when Secretary General is located at different country than the headquarter. Dropbox feature works great with shared folders.

Virtual meetings have become a routine for managing work of ExCom of IOMP. In earlier years we used to have email communication extending to one week of virtual meeting. Since 2012, we have started using GoToMeeting, that is more time efficient and avoid too much load of email communication that many a times tend to be unproductive.

One important aspect of e-age is that there are new developments occurring every time. Much as we are watching, no one can claim to be up-to-date. We welcome your suggestions in utilization of e-tools. Please feel free to contact me at sg.iomp@gmail.com



IOMP with a booth in ICMP in Brighton

IOMP is happy to announce that it will have a stand at the exhibition area of the International Conference of Medical Physics in Brighton. The exhibition is located in the main Hall at the Brighton Centre in Brighton. The stand number is 29 and is going to provide interesting scientific information for its members. **We are looking forward to meeting you all in Brighton in our booth!!**

The first issue of the new IOMP Journal Medical Physics International

Slavik Tabakov, Perry Sprawls, Co-Editors Medical Physics International

Medical Physics International (MPI), the Journal of the International Organization of Medical Physics (IOMP), is now available with open access at <http://www.mpijournal.org/>.

With the First Edition published in April 2014 the MPI introduced a new realm of publishing for the field of Medical Physics. The purpose is to provide publishing opportunities that are not available with the other traditional journals. The MPI does not publish research papers, as in other journals, but provides literature to support a variety of Medical Physics activities including education, professional development, recent innovations in medical physics procedures and technology, and the sharing and preservation of the profession's history and heritage.

With the advances in worldwide communications Medical Physics has become a highly-connected global community in which all will benefit by sharing ideas, information, experiences, and resources. The vision is that the MPI journal will serve as a major node in this global network. The journal will be published twice each year.

MPI received a very good welcome and during the first month it has been visited by 4200 colleagues. This issue, with a volume of 106 pages, includes the following papers (distributed in 8 main fields):

Medical Physics International 2013, No.1 - Contents

EDITORIALS

Welcome address to medical physics international from the IOMP

President, *K.Y. Cheung*

Editorial, *P. Sprawls*

Editorial, *S. Tabakov*

IOMP PROFESSIONAL & EDUCATIONAL ACTIVITIES

Benefits to medical physics from the recent inclusion of medical physicists in the International Classification of Standard Occupations (ICSO-08), *P. H. S. Smith, F. Nuslin*

IOMP model curriculum for postgraduate (MSc-level) education programme on medical physics, *S. Tabakov, P. Sprawls, A. Krisanachinda, E. Podgorsak, C. Lewis*

Accreditation of medical physics educational programs in North America, *G. Starkschall, W. Beckham, W.R. Hendee*

The impact of the ICTP College on medical physics for the establishment of medical physics in developing countries, *S. Tabakov, P. Sprawls, A. Benini, F. Milano, G. D. Frey, L. Bertocchi*

MEDICAL PHYSICS ORGANIZATIONS

Medical physics education and training in Latin America: current status and challenges, *S. Kodlulovich, L. Vasconcellos de Sá*

Electronic Medical Physics World - a resource for global education, *V. Tsapaki, M. Stoeva, S. Tabakov, M. Rehani, A. Krisanachinda, I. Dubaini, Tae Suk Sub, A. W. K. Kyere, K. Y. Cheung*

EDUCATIONAL RESOURCES

Radiation protection of patients website of the IAEA as a major resource for medical physicists, *M. Rehani*

Free educational resource: medical physics clinical skills workbook for therapy physics, *M. E. Smajo*

EFFECTIVE PHYSICS EDUCATION FOR OPTIMIZING CT Image quality and dose management with open access resources, *P. Sprawls, P-A. T. Duong*

Introduction to vision, colour models and image compression, *S. Tabakov*

PRACTICAL AND APPLIED MEDICAL PHYSICS

Two techniques to facilitate quality assurance procedures on medical imaging, *A. De Stefano*

INNOVATIONS IN MEDICAL PHYSICS APPLICATIONS AND TECHNOLOGY

The development of modern time-resolved angiographic imaging; applications of undersampled acquisition and constrained reconstruction, *C. A. Mistretta*

Intrafractional prostate motion management with the clarity autoscans system, *M. Lachaine, T. Falco*

Dose measurements in small fields, *J.U. Wuerfel*

HISTORY AND HERITAGE

Some remarks on the role of Maria Skłodowska-Curie in the development of the first Polish centre for radium treatment, *O. A. Chomiccki*

ANNOUNCEMENT AND REVIEWS OF RECENT PUBLICATIONS

The 20th International Conference on Medical Physics, *P. Sharp*

Risk of medical imaging – an IOMP policy statement, *W. R. Hendee*

Book Review: Encyclopaedia of Medical Physics, CRC Press, 2013, *G. Donald Frey*

Book Review: Société Française De Physique Médicale (Dominique Le Du, Jean Claude Rosenwald) "Guide Des Bonnes Pratiques De Physique Médicale" France : Edp Sciences, 2012, *Dr Delphine Darios*

PHD ABSTRACTS

Publication of doctoral thesis and dissertation abstracts

Respiratory motion correction in PET/CT imaging, *P. J. Schleyer*

Advanced techniques for cardiovascular magnetic resonance imaging in cases of irregular motion, *C. Kolbitsch*

INFORMATION FOR AUTHORS

The second issue of the new Journal will be during August 2013 and will include additionally the abstracts from the International Conference on Medical Physics ICMP2013, Brighton, UK. ◀

MPW at ECR 2013

Magdalena Stoeva, Associate Editor MPW

The International Organisation for Medical Physics with its 18,000 members in 80 countries is among the largest interdisciplinary professional societies in the world. The increasing role of the Medical Physicists, the closer relations with other specialties and the IOMP's mission to advance medical physics worldwide are the basis of our latest awareness campaign. Part of this campaign was the official presence of IOMP at the ECR 2013. The IOMP booth was mainly dedicated to the latest achievements of the ExCom and the IOMP Sub-committees. Medical Physics World was presented with an accent to the major recent renovations of the main informational resources of IOMP. The presence of IOMP contributed to create professional relations and disseminate scientific and technical information.

IOMP Publications at ECR 2013:

Medical Physics World - Advance Medical Physics Practice Worldwide

Medical Physics International - The Journal of the International Organization of Medical

Physics (IOMP)

International Organisation for Medical Physics (IOMP) e-Zine - a Global Source for Medical Physics Education and Professional Topics ◀



IOMP strengthens ties with ESR at ECR 2013

European Society of Radiology

Medical Physics is undoubtedly one of the most important fields when it comes to the development of radiological techniques and technology, which is why the European Society of Radiology (ESR) actively encourages medical physicists to take part in the European Congress of Radiology (ECR), and medical physics has become a vital and much appreciated element of the congress programme. At ECR 2013, the physics in radiology sessions covered topics such as cone-beam imaging, hybrid imaging systems and breast imaging, while the European Federation of Organisations for Medical Physics held a series of workshops at ECR. ECR 2013 also marked a major step forward in terms of cooperation between radiologists and medical physicists, as the International Organization for Medical Physics (IOMP) and

Medical Physics World took part in the congress. Radiologists and other scientists had the opportunity to stop by the IOMP's booth at the congress to learn more about the organisation and its work. And now, by reading this issue of Medical Physics World, medical physicists from around the world can gain an insight into what the congress has to offer them, as well as how they can contribute to the ECR and the development of radiological technology. This is what makes the IOMP's presence at the ECR so valuable; it brings together those practising with today's lifesaving imaging technology with those developing tomorrow's. The ESR looks forward to welcoming even more medical physicists at ECR 2014, and thanks to continued cooperation with the IOMP and Medical Physics World, more and more

medical physicists are expected to attend the congress. The European Society of Radiology (ESR) is the world's largest radiological society, representing more than 50,000 radiologists and scientists from related disciplines around the world. One of its primary aims is to promote and support science and research in the field of radiology, leading to improved patient care. The ESR's annual meeting, the European Congress of Radiology, is one of the largest medical conferences in the world, attracting more than 20,000 attendees to Vienna each year. ECR 2014 will take place on March 6-10, 2014 at the Austria Center Vienna. The programme will again feature a range of topics concerning physics in radiology, and is expected to attract thousands of scientists from various disciplines. ◀

Professional Relations Committee Newsletter

Raymond Wu, PhD, PRC Chair



IOMP Travel Award Program

The goals of the program are to assist medical physicists from developing countries to participate in the ICMP2013, and to help them to become more effective in advancing the profession in their countries. At the time of writing, the Travel Award ICMP2103 Program Committee has just finished the job of ranking the Travel Award applications. There are a total of 30 applicants from 20 countries. The awardees have been selected by the Judge Panel chaired by the author, and co-chaired by Dr Fridtjof Nuesslin. The other five members of the Judge Panel are Drs. Jeffrey Hand, Taofeeq Ige, Steven Keevil, Simone Kodlulovich, and Madan Rehani. Some of the applicants have been recommended by the Committee for support by IAEA or by WHO and championed by Dr Ahmed Meghziene of IAEA and Dr. Maria Del Rosario Perez of WHO. Altogether, 18 applicants are approved for funding pending acceptance of their abstracts for presentation. The IOMP award covers the airfare, meals, and accommodation expenses, up to an amount of \$1000 plus the airfare. Most are having the registration fees covered also. At the time of writing, the applicants being recommended for IAEA or WHO funding are still waiting for the decisions to be made by the two agencies. As announced, all applicants must meet the Guidelines for Funding stated in the application form. Except for supports from IAEA or WHO, only one applicant is funded for each NMO. The list of successful applicants below does not include those funded by IUPAP, which sponsors several invited speakers of the African Workshop, and those receiving registration fee bursaries awarded by EFOMP.

Besides IAEA and WHO, the major sponsors of the Travel Award Program are IPEM, and several NMO's including Germany, Switzerland, and Ireland.

The successful applicants are:

Chai Hong Yeong of Malaysia

Nadiia Melenevska of Ukraine, IAEA

Francis Hasford of Ghana, WHO

Omuvwie Bernard Ewrierburhoma of Nigeria, WHO

Mostafa Abd AlMoez of Egypt, IAEA

Sangutid Thongsawad of Thailand

Susie Lau of Malaysia, IAEA

Mohammad Amin Mosleb of Iran

Sentbil Kumar Shanmugam of India

Bamidele Omoniyi Olajide of Nigeria, WHO

Mubammad Abdur Rafaye of Pakistan

Matrika Prasad Adhikari of Nepal

Ambreen Muzaffar of Pakistan, IAEA

Kamila Afroj Quadir of Bangladesh, IAEA

Mihaela Gancheva of Bulgaria

Pedro Ramos of Brazil

Diego Mauricio Orejuela of Columbia, and

Ibrahim Dubaini of Lebanon, IAEA

International Libraries

The International Library Subcommittee of PRC, chaired by Dr. Wilkinson, has finalized the list of libraries that will continue to receive hardcopy or electronic books and journals through the IOMP/AAPM Joint Program. The libraries are selected based on the ability to manage and utilize the books and online medical physics resources, the involvements of international known medical physicists, and the cooperation of the contact person in filing the annual survey. Congratulations to the libraries and contact persons for being recognized! To apply for a library or to re-instate a library dropped from the list, follow the instructions in the previous issues of the eMPW.

International Medical Physics Certification Board

The Task Group on Medical Physics Certification worked with the International Medical Physics Certification Board, Inc (IMPCB) in the past months to finalize the By-Laws. It has been posted in the official website of the organization now. In order to help with clarifying the nomination and election process, Dr. Siyong Kim of the By-Laws Committee prepared a PowerPoint presentation which provided a brief digest of the governing document. The PPT file has been posted in the IMPCB website (www.IMPCB.org). He also prepared a diagram to illustrate the process in the next three years to orderly adapt the terms of office holders to meet the staggered term mandate of the By-Laws. The diagram is duplicated here. IOMP will in the future interact with IMPCB through the Liaison who will serve in the Board of Directors of the independent organization. The Charter Member Organizations are expected to complete the nomination process by early August. ▶

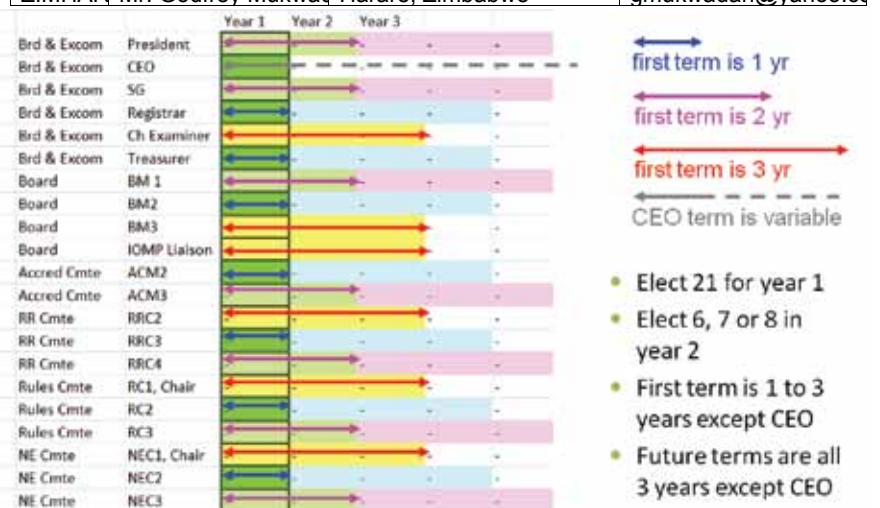
► **HINARI** - IOMP is considering to work with the WHO program HINARI, which stands for Health InterNetwork Access to Research Initiative. Before proceeding, the Professional Relations Committee and the Publication Committee are jointly seeking the assistance of volunteers from Group A countries to provide feedback in using the program. Medical physicists from about 80 countries including Bangladesh, Ghana, Nepal, Nigeria, Sudan, and Vietnam, designated Group A countries by Hinari, are eligible to register and sign on at www.who.int/hinari/en at no cost. Once sign on, the user can access full text of articles published in a large collection of journals including the Journal of Medical Physics.

If you are eligible for free access, have used the program in the past, and are willing to assist, please contact Raymond Wu, Chairman of PRC - RayKWu@gmail.com, or Tae Suk Suh, Chairman of PC - suhsanta@catholic.ac.kr.

DIRAC - A database maintained by IAEA staff that aims to keep track of the major equipment and staff data of all radiotherapy centers in the world. It is an ambitious project that has great potential to be a very helpful source of information to understand the status of our profession in various parts of the world. It is on its way reaching its goals with the help of IOMP, its National Member Organizations (NMOs), and the medical physicists members. My experience shows the IAEA team has maintained the database as accurate as the volunteers cared to update.

The stage exists now. It just needs performers. IOMP certainly can make the database project a great success by urging the world community of medical physicists to provide data. It is painless to get your own password and login to update the data for your current institution. Please refer to the article in this issue written by Dr Joanna Izewska of IAEA. You may also reach the DIRAC database through a link in the IOMP website under the Resources menu. We would like to encourage all NMOs to take part in reminding the members to update the data for their institutions regularly. ◀

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International Day of Medical Physics: Raising Awareness of our Profession

John Damilakis, Chair, IOMP Education and Training Committee



As you know from previous reports and announcements, the International Organization for Medical Physics (IOMP) will celebrate annually, on November 7, the International Day of Medical Physics (IDMP). On that day in 1867, Marie Sklodowska-Curie, known for her pioneering research on radioactivity, was born in Poland. The theme of IDMP 2013 is 'Radiation Exposure from Medical Procedures: Ask the Medical Physicist!' The general public is not aware of the critical role medical physicists play in providing services in medical, educational and

research institutions. Raising awareness of medical physics profession is a matter of great concern. IDMP is an excellent opportunity to promote the role of medical physicists in the worldwide medical scene.

We encourage you to plan and implement activities that promote the theme of IDMP such as:

- Invite the public to a lecture on the professional services provided by medical physicists
- Hold a press conference on the role of medical physics in healthcare
- Organize lectures related to the IDMP 2013 theme

Please also don't forget to

- create "like" and "follow" buttons on your websites, linking to the facebook page (<https://www.facebook.com/InternationalDayOfMedicalPhysics>) and twitter profile (<https://twitter.com/IntDayofMedPhys>)
- promote the facebook page and twitter profile through existing personal and/or professional social media channels

- send emails to colleagues and friends to promote IDMP
- download and print a poster for the IDMP. IDMP posters can be downloaded in printable format at: www.iomp.org/?q=content/poster-international-day-medical-physics

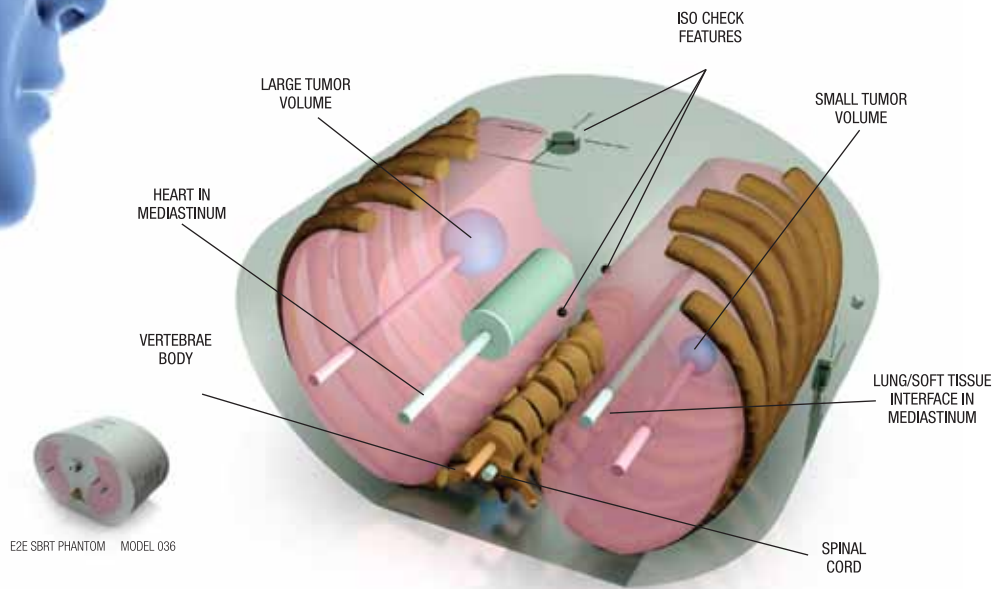
IOMP is currently working to enrich the IDMP website (www.iomp.org/?q=content/international-day-medical-physics) with material to raise awareness about our profession. Specifically, we are planning to upload webcasts and videos on the role and responsibilities, duties and skills of medical physicists, historical multimedia material and publications and leaflets. The IDMP website will be updated regularly with new material. Please send us short reports on your plans associated with IDMP, photos, videos and any other material to be uploaded on the website. Help us interconnect colleagues worldwide and encourage them to become fully involved in activities focused on raising awareness of our profession. ◀

African Workshop at ICMP2013, Brighton, UK

IOMP is organising a Workshop "Medical Physics in Africa – status and way forward" on Sunday 1 September 2013 from 9am. The Workshop aims are to provide a forum for medical physicists from the African Continent and all IOMP member societies attending ICMP2013, to interact and exchange ideas and experience on activities which will be useful for the development of medical physics in Africa. The Workshop is Co-organised with the Federation of African Medical Physics

Organisations (FAMPO, a Regional Organisation of the IOMP). Sponsoring for this event has been kindly provided by the International Union of Pure and Applied Physics (IUPAP). IOMP and FAMPO welcome all colleagues interested in contributing towards the medical physics professional development in Africa in all its aspects – education, training, research, equipment, safety and all relevant professional issues. ◀

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ALFIM: Looking for overcoming challenges and working for medical physics improvements in Latin America



The Latin America Association of Medical Physics (ALFIM) was established in 18 July 1984. Since 2010, the executive committee is composed by a President (Simone Kodlulovich Renha, Brazil), Vice-president (Sandra Guzman Peru), Secretary (Martin Acosta (Panamá), Syndic (Lila Carrizales, Venezuela).

Nowadays, only nine countries in the region have a Medical Physics association: Argentina, Brazil, Colombia, Cuba, Mexico, Panama, Paraguay, Peru and Venezuela. This restricted number of Medical Physics associations and the reduced number of members makes it difficult to organize and implement joint actions in order to improve the situation of these professionals in Latin American countries.

The main problem to create medical physics association is the reduced number of medical physicist in the region. In most of Latin America countries the Medical Physics profession is not officially recognized, there is a lack of specific legislation and education programs, especially practical training, professional certification and accreditation programs. In some countries the Medical Physics activities are conducted

by engineers, technologists or biomedical.

In most of the countries, the involvement of a Medical Physicist is mandatory only in radiotherapy; more than 70% of Medical Physicists are working in radiotherapy and only 15% in radiodiagnostic and 13% in nuclear medicine. However, even in countries where the legislation required the presence of Medical Physicists their duties, profile, qualification and certification process are not well defined.

Nowadays the new technologies are well established in Latin America; however the legislation, regulator, education centers and all stakeholders are not well prepared to guarantee the maximum benefit of these technologies for the patient and also the radiation protection of the patient, public and workers.

In this context, ALFIM has many challenges. During the last years we have prepared a plan action and carried out some activities in order to raise awareness of the Medical Physics profession. We started the process with a diagnosis of the situation applying a survey. Based on these data we decided to prioritize some actions summarized below.

a) Intensify the relationship with Medical Physics Societies and medical physics groups Considering the important role of the Medical Physics societies in the recognition of Medical Physics in each Latin America country, ALFIM has dedicated efforts to encourage these groups to join efforts, increase the number of members, and improve the organizations among other actions. Also, ALFIM has identified groups of Medical Physicists which potentially have conditions to create a society. In these case we are working together to verify the best way to carry out this

process.

Therefore, considering these problems, ALFIM is working in order to support the formation of new societies and also to strengthen the existing societies.

b) Communication In order to achieve the largest possible number of medical physicist (professionals, students) and health professionals in general ALFIM considered important to recognize the effectiveness of social networks. Consequently, new channels have been opened, such as: Facebook (Fisica Medica Alfim), Skype, msn, email that can access directly the ALFIM president. The **WEBPAGE:** www.alfim.net was also created as an important place to exchange information. The use of modern and open communication channels has had a positive impact on the Medical Physics community, especially on students and young Medical Physicists.

c) ALFIM Magazine Started in 2010 as a bulletin. However the impact of this informative document was so positive that we decided to create the ALFIM magazine. In this magazine we invite medical physics from all continents to contribute with information about technologies, legislations, medical physics recognition, courses, training programs, congress and much more. Of course, special space is dedicated to Latin America, where presidents of medical physics associations and representative of medical physics groups, regulatory bodies and other health professionals can updated us about the situation and their countries and subjects of interest in medical physics field

d) Seizing opportunities ALFIM is working in order to include in scientific meetings some special sections such as round table in order to promote the ▶

FAMPO–STATUS AND ACTIVITIES REPORT

Taofeeq A. Ige, Secretary General, FAMPO



INTRODUCTION

The letter of intent with respect to the establishment of FAMPO was dispatched to the IOMP Secretariat in 2008 shortly after the SAAPMB meeting in Durban where the then IOMP Vice-President (Prof. F. Nuesslin) had an informal meeting with delegates from the African countries present and he strongly encouraged the convocation of such a regional body. This inaugural meeting was immediately followed by the circulation of

the draft constitution ably prepared by Dr WID Rae for comments and suggestions by all the different stakeholders and role players in the continent which culminated in the final version of the document on 25th March 2009.

FAMPO and MEFOMP was scheduled to be inaugurated at the 2009 World Congress in Munich however this could not be accomplished for various reasons amongst which was the poor attendance of members from Africa.

The Executive Committee of the Organization were elected in Harare, Zimbabwe in December 2009 comprising of four members from Morocco (Dr Ahmed ibn Seddik) as President, Uganda (Ms Rebecca Nakatudde) as Vice-President, Egypt (Dr Khaled El-Shahat) as Treasurer and Nigeria (Dr Taofeeq Ige) as Secretary-General.

The instrument for the ratification of the organization was deposited with the IOMP Secretary-General (Prof. Madan Rehani) in Vienna shortly after the Harare Meeting in

December 2009.

The IOMP council gave the charter to FAMPO in May 2010 through the communication from the President – Prof. Fridtjof Nuesslin.

AIMS AND PURPOSE

The Aims and Purpose of the Organization among others include:

1. Promoting improved quality service to patients and the community in the continent of Africa
2. Promoting the cooperation and communication between Medical Physics organizations in the region and where such organizations do not exist between individual Medical Physicists
3. Promoting the profession and practice of Medical Physics and related activities in Africa
4. Promoting the advancement in status and standard of practice of the Medical Physics profession, promoting research and improving the training of Medical Physicists
5. Promoting appropriate use of ▶

▶ discussion of the MP professional issues. During these meetings, it is possible to reach the Medical Physicist professionals and students and also regulators, physicians and other important partners in Medical Physics area. It is very relevant to cite that ALFIM has proposed last year the creation of an International day of medical Physics (IDMP) to IOMP. Dr Fridtjof Nüsslin, president of IOMP at that time, supported the idea and started the necessary coordination. He was fundamental in this process. I have to thank him for believing in the idea. Now, a special group was created in IOMP, in which ALFIM also participates, coordinated by John Damilakis, who is organizing very successfully the first

celebration.

e) Education and Training In many countries, it is very difficult to get the adequate formal education; the physicist has to study abroad. ALFIM is working on the development and revision of the syllabus of some Universities, evaluating the possibility to create new ones in the countries or in some regions and promoting information about residency programs.

Another concern is regarding the accreditation of the courses and the certification process of Medical Physicists. These processes exist only in a few Latin American countries.

f) Legislation and Regulatory body Another approach is to establish a working group with regulatory bodies:

ALFIM started the discussion with the representatives of the regulatory body regarding the role of the Medical Physicist in the different fields, considering also the legislation, licensing process and inspections. In general, some progress is noted in radiotherapy but, none in imaging (nuclear medicine and diagnostic radiology).

g) International cooperation ALFIM is seeking to strengthen its partnerships with international organizations: IAEA, PAHO, AAPM, FRALC, IRPA & IOMP. Although, the partnership is already good, it is necessary to establish a plan of joint actions in order to improve the Medical Physics profession in the region and especially to improve the medical care received by the population. ◀

▶ technology to the benefit of rural populations, organizing and/or sponsor international conferences, regional and other meetings or courses and collaborating or affiliate with other scientific organizations. The Federation extends its activities throughout Africa and local islands in the Region.

ACTIVITIES

FAMPO's first outing as a regional body was at the Third African IRPA Regional Congress (AFRIRPA3 2010) from 13th – 17th September, 2010 in Nairobi, Kenya and several issues were discussed with several parties which include IRPA, WHO and IOMP on how to put the organization in a very good standing. A paper titled "Medical Physics and the Challenges in Africa" was delivered at that meeting by the Vice-President of FAMPO - Ms. Rebecca Nakatudde.

At the 41st Annual Congress of the German Society of Medical Physics (DGMP) in Freiburg between 29th September and October 2nd 2010, the membership of the society from Africa had a round-table session with 6 (six) paper presentation and articulated some proposals on strengthening and deepening Medical Physics in the continent. The SG – Taofeeq IGE – who was invited to the congress to make a presentation on Nigeria seized the golden opportunity to intimate our Diaspora brethren in Germany on the birth and the status of FAMPO at the meeting.

The web-site of the body was deployed on 15th November, 2010 with the following address [http:// www.federation-fampo.org](http://www.federation-fampo.org) . Some individual members and National Member Organization have taken advantage of this platform to register their membership interest.

An oral paper presentation was delivered by the SG – Taofeeq IGE – at the AAPM/COMP Bi-annual congress in Vancouver in July/August 2011 titled "The Clinical Medical Physics Situation in Africa". FAMPO acknowledged the kind invitation and the

sponsorship offered by the African sub-committee of the AAPM towards this meeting.

In February, 2012 at Kampala, Uganda – the Chairs of Education and Training Science and Professional Relations Committees as provided for in the Constitution of FAMPO were elected as follows: Dr Willem Groenewald (South Africa), Dr Ehab Attalla (Egypt) and Dr Mounir Besbes (Tunisia). The Kampala meeting provided the opportunity for the first general assembly of the organization.

A one-man delegation from FAMPO was at the burial of one of her illustrious and colorful colleague, a Chief Physicist at the Korle-Bu Teaching Hospital, Accra – Kwaku NANI – at Peki Avetile township in Volta Region of Ghana in March 2012.

FAMPO was represented at the Glasgow Conference (13th – 18th May 2012) of IRPA (IRPA 13) and "The Role of MPE/QE/RPO in Hospitals – the African Perspective" paper was presented which summarizes the survey carried out among the professionals in the continent through some questionnaire distributed at the opportune meetings in Kampala and Gaborone in the months leading to this conference.

FAMPO was also represented at the World Congress of Medical Physics and Biomedical Engineering (May 26 – 31, 2013) in Beijing, CHINA.

The Second General assembly of FAMPO came up during the Regional coordination meeting of the IAEA Project RAF/6/038 in Rabat, MOROCCO (1 – 4 October 2012) and some far reaching decisions were taken especially with respect to consolidating the database of the professionals in the continent. FAMPO was recently contacted to endorse the upcoming IAEA publication of the reports of Task Force Meetings (TFM) under the Regional project –RAF6032&RAF6038 – Promoting Regional and National Quality Assurance Programmes for Medical Physics in Nuclear Medicine (AFRA II-7) and has also endorsed the just concluded Regional

Post-Graduate Medical Physics Syllabus for Academic Programmes.

The Fourth Regional African Congress of International Radiation Protection Association (AFRIRPA 04) has been scheduled for Morocco in 2014 with the theme "Strengthening of radiation protection infrastructures in support to the health sector in Africa" and FAMPO has endorsed this activity and is one of the main sponsors.

WORKPLAN

The Executive Committee has drawn up a very ambitious work plan which it intends to follow through systematically with collaboration and assistance of all the identified regional and international partners and donor organizations.

CHALLENGES

- The establishment of a befitting and effective administrative and financial structure for the organization.
- Communication among the stakeholders at various levels is still sub-optimal

FUTURE PLANS

- Conclude and continuous update of the data base of the professionals in the Continent with a view to keeping an authentic register of all the members
- Populate the committee membership whose Chairs were recently elected.
- Constitution of the Council Members of the Organization with nominees from all the countries that have signified interest in the body viz – Algeria, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Mauritius, Morocco, Niger, Nigeria, Senegal, South-Africa, Sudan, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe .
- Fund raising initiative to support the execution of the organization's work plan.
- Organization of Relevant Education and Training Workshops and Courses with the assistance of our development partners.
- Collaboration with the regional and international development partners such as AU, FNRBA, NEPAD, IRPA, WHO and IAEA towards raising the awareness of Medical Physics profession in Africa. ◀

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The IAEA Directory of Radiotherapy Centers (DIRAC)

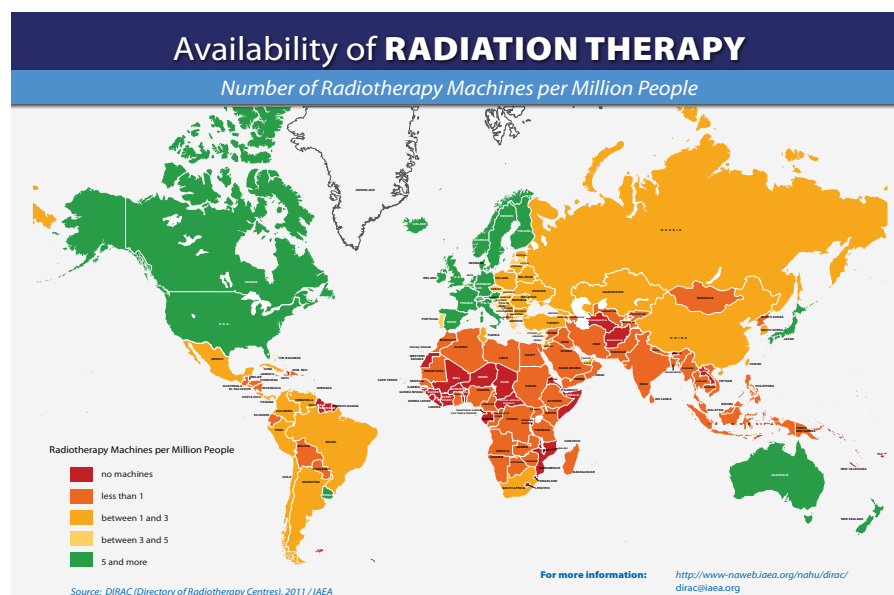
Joanna Izevska, Eduardo Rosenblatt, Yaroslav Pynda, IAEA



The IAEA maintains a world directory of radiotherapy centres (DIRAC) which contains data on radiotherapy facilities, teletherapy and brachytherapy equipment, imaging equipment, equipment for treatment planning, dosimetry, quality assurance and personnel. DIRAC is equipped with an on-line web interface. The remote users are given access to DIRAC that enables any necessary input and data updates regarding radiotherapy centres. Thus the database is being continuously updated, based on on-line completion of the electronic forms by radiotherapy centres. At the same time other sources of information are used such the IAEA/WHO thermoluminescent dosimetry (TLD) postal quality audits for radiotherapy, national surveys, databases and registries, customer lists provided by radiotherapy equipment manufacturers and information collected by IAEA staff during their travel missions. Currently DIRAC counts over 7600 radiotherapy centres operating approximately 13000 teletherapy, and 2300 brachytherapy machines, serving the world's 7 billion people. The global data show a dramatic discrepancy in cancer patients' ability

to access radiotherapy around the world (see Figure 1). In high-income countries one teletherapy machine is available for less than 125,000 people. In middle-income countries one machine serves about 1,100,000 people. In low-income countries, 5 million people or more rely upon one teletherapy machine. There are presently about 50 countries, independent territories and island nations with no radiotherapy available to their citizens; 60% of them have a population of more than 1 million. There is a clear need for additional radiotherapy facilities. To approach the level of higher-income countries, nations of lower income would need to increase the availability of radiotherapy equipment by tenfold or more. Strategies to develop new facilities need careful planning and have to be accompanied by a substantial investment in staff training. At present, DIRAC is the only centralized database that describes the capacity for delivery of radiation therapy worldwide. It encompasses approximately 90% of the existing

radiotherapy facilities with comprehensive information for most countries. By offering a global assessment of the geographical distribution of radiotherapy facilities, DIRAC constitutes an important source of information for understanding the current trends in the provision of radiation therapy in the world as well as for estimating the needs for radiotherapy services in the various regions or countries. The maintenance of large databases such as DIRAC is a complex task and small data fluctuations are unavoidable at any given time because of the dynamic nature of the data changes involving uncertainties caused by the sources of information and the time of data collection. To maintain DIRAC as a truly reliable source of information for all, it is in our common interest to keep DIRAC data as accurate and up-to-date as possible. With this article the IAEA DIRAC Team addresses the IOMP members' with a request to verify and update the information pertaining to radiotherapy centres in their countries. ◀



MEFOMP Activities during the last 6 months

Ibrahim Duhaini, President of MEFOMP



A. Briefing from the President of MEFOMP:

As part of the yearly activities, the Middle East Federation of Organizations of Medical Physics (MEFOMP) conducted its General Meeting for some members and discussed issues related to medical physics societies, education and training, cooperation among medical physics societies in MEFOMP countries and other related issues.

The meeting took place at the Arab Health Exhibition 2013 since it is one of the prominent event happening in our region and attracts a lot of medical physicists. This meeting brought together Medical Physicists from some MEFOMP member countries : Lebanon, Saudi Arabia, Iraq, UAE, Qatar, and Jordan. The Meeting was held on Wednesday January 30, 2013 from 6:00 – 9:00 pm at Dusit Thani Dubai Hotel in UAE.

The discussed Agenda of the Meeting was as follows:

1. Welcome Message
2. Updates of MEFOMP Status
3. Country Briefing on Tasks by Medical Physics Society Delegates.
4. Reception and Dinner

A follow up meeting is scheduled to be held for MEFOMP country attendees at the ICMP 2013 in Brighton UK in September 2013.

As we are Celebrating Women in the Medical Physics profession, we would like to recognize two of the pioneers in Medical Physics in our Region:

Dr. Huda Al-Naemi, the Executive Director of Occupational Health and Safety at Hamad Medical Corporation in QATAR and Head of Radiation License Committee in SCH, received recently the prominent “ L' OFFICIEL” Arab Woman’s Award in the Medical Field for her dedicated efforts and hard work in her professional career. She established the Medical Physics and Radiation Safety Unit at HMC and worked very consistently to bring International Standards in Radiation Safety to physicians, staff, and all radiation workers in the state of Qatar.

Dr. Jamila Al-Suwaidi, Consultant Radiation in Medicine Developments and Chair of DHA Radiation Protection Committee, one of the pioneer and Founder of EMPS has been awarded the "Discretion Award of the UAE Government” from the President of UAE, Sheikh Khalifah Al-Nuhayyan for her efforts and dedication to serve the Medical Physics and Nuclear Medicine communities in UAE. On behalf of all MEFOMP countries, I would like to congratulate Dr. Al-Naemi and Dr. Al-Suwaidi for their outstanding awards and recognition, may God bless them in all their endeavors in our Region”.

B. Report from Qatar submitted by Mr. Nabil Iqeilan on Behalf of Qatar Medical Physics Society (QMPS):

On 22-23 February 2013, some of 150 professionals from across the Gulf Countries gathered in Doha for The First Conference on Radiation Safety in Interventional Cardiology. The conference was organized by Radiation Safety Section (RSS), from the Occupational Health and Safety Department (OHS), Hamad Medical Corporation.

This conference established itself as a major event in discussing the link between the

academic activities and the actual practice of radiation safety and protection in the health care delivery system. Dr. Huda Al Naemi, the Executive Director of the OHS department, has invited the experts in a broad spectrum of interventional procedures namely Prof. Madan Rehani, Director of Radiation Protection, European Society of Radiology, Dr. Guglielmo Bernardi from S. Maria Della Misericordia University Hospital, Udine Italy, Dr. Salaheddin Arafa, Director of Cardiology lab, Heart Hospital HMC, and Mr. Ibrahim Duhaini, Director of the Radiation Safety Section.

The conference was honored by the attendance of Cardiologists, Interventional Radiologists, Physicists, Technologists and Nurses from many different countries. A workshop was held as part of the conference activities headed by Prof. Rehani to highlight the essential skills and to apply some of the good practice that are needed for performing the interventional procedures by applying the ALARA Principle (As Low As Reasonable Achievable). The training involves some measurements and calculation for the amount of the scattered radiation that reach the staff during the interventional fluoroscopic procedures. Some of the measurements are done with and without shields to show and give more confidences to the staff that wearing lead aprons and using the available shielding accessories will make a big difference in their doses. At the end of the training, some discussion took place on how and what are the best ways to minimize radiation doses to patients and staff. ▶





C. Report from Kingdom of Saudi Arabia submitted by Mr. Refaat Al-Mazrou General Secretary, Saudi Medical Physics Society (SMPS)

After the successful Fifth Gulf Nuclear Medicine conference which was held in Kuwait from 18 – 20 March, 2013, I would like to take this opportunity to congratulate our colleagues at the Kuwait Society of Nuclear Medicine and the members of the different committees for a well done and wonderful job. We had very pleasant days full of valuable information and friendly environment. The speakers were very knowledgeable, gave informative lectures full of priceless scientific data.

The organizers managed to attract five companies to participate in the exhibition. According to the registration records, there were more than 460 participants registered for this conference. This reflects the popularity of

this conference and the enthusiasm of the Nuclear Medicine (NM) community for education and learning. We wish all the success for our next conferences. The delegates agreed, after some discussions, to form a committee and ask each country to assign one physician and one technical staff to represent their country in this committee. This committee will take care of the communications among the countries, find new ways of cooperation and increase the training and education cooperation among the Gulf States. Also, this committee should work with the next conference host in organization (if needed), discuss the sponsorship and invitations to the conference and find ways to attract non-Nuclear Medicine specialists to attend our conferences.

D. Report form Yemen submitted by Mr. Abdo Al Qubati coordinator of the Yemeni Medical Physics Association (YMPA):

The activities of the Yemeni Medical Physics Association (YMPA) included the following issues:

1. YMPA was established recently by 6 medical physicists as the founding members. The YMPA hope to increase its members when physicists trainees return home.
2. YMPA is registered under the Yemen Oncology Society being a larger group and all medical physicists joined this society.
3. The Scholarship for Medical Physicists Scientific and Practical Rehabilitation Committee has recently sent a medical physicist from Yemen to Saudi Arabia to

participate in a regional training program and clinical medical physicist workshop.

4. YMPA prepared and submitted an article about the definition of medical physicists and their role in radiation therapy to Hospital Administrators in some Yemini hospitals. YMPA is a young and new group, working hard in search for material support to start the awareness and the importance of medical physics profession in the country. YMPA hope to receive support and assistance from international medical physics organizations to enhance and improve the situation in Yemen. **E. Report from United Arab Emirates submitted by Najlala Al-Mazrouei, President of the Emirates Medical Physics Society (EMPS):**

Below are some of the activities of EMPS:

1. Published a chapter in cooperation with: InTech, Janeza Trdine 9, 51000 Rijeka, Croatia, with Title (Assessment of AGD in UAE Hospital) in the book name: (Mammography – Recent Advances). First published March, 2012, A free online edition of this book is available at www.intechopen.com
2. Engaged in several project with the IAEA related to the evaluation of patient doses in the diagnostic radiology
3. Members participated as speakers in many of the international and regional scientific conferences.
4. Members collectively conducted training of students, technologists and nurses in radiation protection.

F. Report from Lebanon submitted by ▶





► **Ibrahim Duhaini on behalf of the Lebanese Association of Medical Physicists (LAMP):**

LAMP officers Meeting was held in Beirut on Friday February 15, 2013 at 7:00 pm.

The following were discussed as per the agenda:

1. Evaluation of the general situation of Medical Physicists in Lebanon
 2. Ways that can help each others in Lebanon as MP.
 3. Update on the new technologies in the country.
 4. Seeking technical assistance from the IAEA.
- Also, the meeting was adjourned to discuss the below future plans during the upcoming meeting in the summer where a lot of Lebanese physicists gather for vacation:

Below are the proposed Future Plans for further discussion and implementation:

1. Preparing for a National or Regional Conference in Lebanon on the New Technologies and Innovations in Radiation Therapy Modalities in coordination with all Radiation Oncologists in Lebanon.
2. Coordinating with the National Council for Scientific Research (CNRS) and the Lebanese Atomic Energy Commissions (LAEC) on issues related to training Radiotherapy Staff (junior physicists, Dosimetrists, RT technologists,...) with IAEA and other organizations.
3. Coordinating with the Lebanese University to enhance the Biomedical Physics program at the university and encourage graduate students to enroll in this program.
4. Encouraging Lebanese medical physicists working abroad to come back to Lebanon.

G. Iraq Report submitted by Dr. Nabaa Naji on behalf of the Iraqi Medical Physics Society (IMPS)

The Iraqi Medical Physics Society conducted its election on April 4, 2013 in Al-Mustansiriya Medical College in Baghdad. 30 MPs were participated in this event. They represented different medical institutions in Baghdad and other Iraqi provinces. The election was done under the supervision of the MOHE/ Development and research unit, where the head of societies section managed the election process. The administrative body was elected, it consists of seven members. Then, the administrative body named the society president, vice president, secretary and financial officer.

A power point presentation was introduced to clarify the steps of IMPS formation, writing of IMPS constitution, IMPS activities and affiliation to national international organizations. The presentation focused on the role of MEFOMP in the development of IMPS through the continuous support to IMPS members' and activities. Adding to that the membership of IMPS to the IOMP. We also discussed the upcoming IMPS activities represented by the ISEP which is proposed to be held in Baghdad on October, 2013 and the main challenges facing this activity.

H. Report from Syria submitted by Hassan Kharita and Osama Anjak on behalf of the Syrian Medical Physics Association (SMPA):

The activities of the Syrian Medical Physics Association (SMPA) included the following

issues:

1. SMPA is in the stage of being established with 35 medical physicists as the founding members. The SMPA hope to increase its members when young medical physicists graduate.
 2. Syria currently has four operational radiotherapy centers (Two in Damascus, one in Lattakia, and one in Homs) and all these centers are also equipped with radiology equipment (CT Scanner, Mammography, General X-ray, and intervention X-ray).
 3. Education (typically at Ph D. and M Sc. Levels) of Medical Physics is done out of Syria (France and UK).
 4. The SMPA in collaboration with the Atomic Energy Commission of Syria and Damascus University has established a two years MSc. Programm in Medical Physics (in Arabic). This M.Sc. will start at Damascus University, Physics Department in Oct. 2013.
 5. Fellowships for clinical training in the field of medical physics have been provided recently by IAEA training program.
- SMPA is a young association, all members have good qualifications and they are working hard to start awareness program about the importance of medical physics profession in the country. SMPA hope to receive support and assistance from international medical physics organizations to enhance and improve the situation in Syria.

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Editorial: Risk of Medical Imaging

William Hendee, PhD, Editor, Medical Physics

(First published in the April 2013 issue of Medical Physics Journal)



Over the past few years papers have appeared in the scientific literature that predict thousands of cancers and cancer deaths each year in populations of patients receiving medical imaging procedures (primarily computed tomography) employing ionizing radiation. The predictions in these papers are computed by estimating very small and hypothetical risks at low radiation doses and multiplying these speculative estimates by large numbers of patients experiencing medical imaging. The public media use these papers to develop print and electronic news releases that raise anxiety in parents, families and patients, at times causing them to delay or defer needed imaging procedures. Decisions to delay or defer examinations constitute real risks to patients, as contrasted with the hypothetical risks presented in the papers.

Professional organizations, including the American Association of Physicists in Medicine and the Health Physics Society, have developed policy positions in an effort to illuminate the controversy over the risks of low-level radiation exposures (see URLs in the supporting documents and additional readings). Scientific advisory groups such as the International Commission on Radiological Protection, the National Council on Radiation Protection and Measurements, and the United Nations Scientific Committee on the Effects of Atomic Radiation have also addressed the controversy (see URLs in the supporting documents and additional readings). Now the International Organization for Medical Physics, representing 80 national and six regional medical physics organizations and 18,000 medical physicists worldwide, has developed its own policy statement which is reproduced below. One can only hope that the policy statements issued by these knowledgeable organizations will have some deterrent influence on the continued propagation of unsupportable cancer risk estimates related to medical imaging

procedures conducted with minimum doses of radiation consistent with high quality studies.

IOMP Policy Statement

This policy statement addresses predictions of induced cancers and cancer deaths in a population of patients exposed to low doses (<100 mSv) of ionizing radiation during medical imaging procedures.

- Prospective estimates of cancers and cancer deaths induced by medical radiation should include a statement that the estimates are highly speculative because of various random and systematic uncertainties embedded in them. These uncertainties include dosimetric uncertainties; epidemiological and methodological uncertainties; uncertainties from low statistical power and precision in epidemiology studies of radiation risk; uncertainties in modeling radiation risk data; generalization of risk estimates across different populations; and reliance of epidemiological studies on observational rather than experimental data. Such uncertainties cause predictions of radiation-induced cancers and cancer deaths to be susceptible to biases and confounding influences that are unidentifiable.

- Paragraph A86 of Report 103 of the International Commission on Radiological Protection (ICRP) states that “There is, however, general agreement that epidemiological methods used for the estimation of cancer risk do not have the power to directly reveal cancer risks in the dose range up to around 100 mSv.” Further, UNSCEAR Report A-67-46, approved in May, 2012, states that “The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) does not recommend multiplying very low doses by large numbers of individuals to estimate numbers of radiation-induced health effects within a population exposed to incremental doses at levels equivalent to or lower than natural background levels.”

- Predictions of radiation-induced cancers and cancer deaths from medical imaging procedures should be accompanied by estimates of reductions in patient morbidity, mortality and cost resulting from the same medical imaging procedures.

- If effective dose is used to generate predictions of cancers and cancer deaths, a statement should be included that the ICRP has expressed caution in the use of effective dose for purposes of estimating risks to individuals or populations exposed to ionizing radiation. Paragraph 151 of ICRP Report 103 states: “The use of effective dose for assessing the exposure of ▶

▶ patients has severe limitations that must be considered when quantifying medical exposure,” and “The assessment and interpretation of effective dose from medical exposure of patients is very problematic when organs and tissues receive only partial exposure or a very heterogeneous exposure which is the case especially with x-ray diagnostics.”

Supporting Documents and Additional Reading

- National Research Council, Health risks from exposure to low levels of ionizing radiation: BEIR VII – Phase 2, Committee to Assess Health Risks from Exposure to Low Levels of Ionizing Radiation, Washington, DC, National Academies Press, 2006.
- The 2007 recommendations of the International Commission on Radiological Protection. ICRP publication 103. Ann ICRP 2007; 37 (2-4) 1-332.
- Health Physics Society. Position statement of the Health Physics Society. Radiation risk in perspective. July, 2010. http://hps.org/documents/risk_ps010-2.pdf.
- American Association of Physicists in Medicine. Position statement of the American Association of Physicists in Medicine. Radiation risks from medical imaging procedures. December, 2011, affirmed November, 2012.

<http://www.aapm.org/org/policies/details.asp?id=318&type=PP>

- W. Hendee, M. O'Connor. Radiation risks of medical imaging: Separating fact from fantasy. Radiology 2012, 264:2 312-321.
- United Nations Scientific Committee on the Effects of Atomic Radiation. Report of the United Nations Scientific Committee on the Effects of Atomic Radiation. 59th session (May 21-25, 2012). General Assembly Official Records. 67th session, Supplement No. 46. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/V12/553/85/PDF/V1255385.pdf?OpenElement>
- P. Zanzonico, M. Stabin. Benefits of medical radiation exposures. Health Physics Society. <http://hps.org/hpspublications/articles/Benefitsofmedradexposures.html>
- National Council on Radiation Protection and Measurements. Uncertainties in the Estimation of Radiation Risks and Probability of Disease Causation. NCRP Report 171. National Council on Radiation Protection and Measurements. Bethesda, MD. 2012. http://www.ncrponline.org/Publications/Press_Releases/171press.html ◀

DONATION OF USED EQUIPMENT – PRC REPORT FOR Jan-Jun 2013

Mohammed K. Zaidi, Program Manager, IOMP PRC

Madjid Aissi, PhD, Vice-president, Vantage Oncology Center, 1500 Rosecrans Avenue, Suite 400, Manhattan Beach, CA 90266, USA' has very kindly donated a used Varian Clinic 4MV, 1998 to IOMP Used Equipment Donation Program. I plan to ship this equipment to Aal Soliman Hospital, Port Said, Egypt (Dr. Sallm). The arrangements are being made to ship it. Dr. Ryan Kania and Jordan Markel from Tampa, FL USA had agreed to donate two used B Braun Dialog Dialysis Machines with Lumex Dialysis Chairs, Blood tubing sets, IV Cannulas and double-lumen catheters, Safety Syringes, Vacuum blood collection tubes to our program to be shipped to International

Organization for Migration (IOM), Advocates for World Health. IOM had setup an Integrated Renal Care Center at Zamalek, Cairo, Egypt (Dr. Arafa Sherif). Necessary arrangement for shipping this consignment is being made. Mr. Martin Mukosai, Clinical Radiographer Technologist, Mwandu Mission Hospital, Livingstone, Zambia had obtained six months training as a sonographer. He wants to stay connected through membership to AIUM/supply of latest study material to keep him educated. Recent requests: Mr. Mukosai had requested publications of ultrasound journal and any books on US techniques. Other requested items are: an Ultrasound

machine, a laptop computer, gamma camera, well counter, and a dose calibrator for nuclear medicine. The equipment donated to IOMP Used Equipment Donation Program is in good working condition but we don't guarantee its usefulness. The donations of used equipment to IOMP are sometime tax deductible. IOMP will not be responsible for any warehousing expenses or loss if the used equipment donated to IOMP couldn't be shipped. If you want to donate, or want specific used equipment donated to your organization, please contact the IOMP PRC UEDP Manager. For more information, please visit www.iomp.org or email zaidimk@gmail.com. ◀



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12th Asia-Oceania Congress of Medical Physics (AOCMP) and 10th South East Asian Congress Of Medical Physics (SEACOMP)

11-14 December 2012, At Khum Phu Come Hotel, Chiang Mai, Thailand

Introduction

Thailand had been chosen to host the 10th SEACOMP at the 9th SEACOMP in Bohol, Philippines in 2011. The period of the Congress was proposed after SEAROG workshop in the first week of December 2012 in Bangkok. At the World Congress of Medical Physics and Bio-Medical Engineering in May 2012, Beijing China, Thailand was approached by AFOMP EXCOM to co-host the 12th Asia-Oceania Congress of Medical Physics with 10th SEACOMP in December 2012. Finally, the Congress was hosted by Thai Medical Physicist Society, Chiang Mai University, South-East Asian Federation of Organizations for Medical Physics, Asia-Oceania Federation of Organizations for Medical Physics (AFOMP) and International Organization of Medical Physics (IOMP). The AFOMP Awards and Honor Committee had announced the Travel Awards for the young medical physicists from developing countries prior the Congress. Three awards were given to Mr. M Akhtaruzzaman (BD), Mr. Cao Huu Vinh (VN) and Mr. Nguyen Cong Minh (VN).

The Congress

Pre-Congress was planned to be on 11 December 2012 of two parallel workshops on radiation therapy physics and medical imaging. Five Invited Speakers with 86 participants attended radiotherapy workshop on 'QA and dosimetry', '4D patient IMRT QA', 'Uncertainties in radiotherapy targeting and the determination of margins' and 'Commissioning of Modern Accelerator'. Six Invited speakers with 68 participants attended medical imaging lectures and workshop on 'Work of the IAEA in Medical Radiation Protection', 'Radiation Protection in Fluoroscopy outside Department of Radiology', 'The Application of Image J in Medical Imaging', 'Real Time Dosimetry for Interventional Health Professions', 'Acceptance Testing and QA in Diagnostic Radiology'. Welcome party was held at Green Lake Resort Chiang Mai with the culture show, Certification presented to Diagnostic Radiology Medical Physicists after first completion the IAEA Clinical Training in AFOMP, by Professor Rethy Chhem, Director, Division of Human Health, IAEA.

Under the theme 'The Convergence of Imaging and Therapy' the Congress was started by Northern Thailand classical dance to greet and welcome all participants, opened by Dean, Faculty of Medicine Chiang Mai University, followed by the John Cameron Memorial Lecture by Professor Tomas Kron on 'The Convergence of Imaging and Therapy', invited lecture by Professor Rethy Chhem on 'Role of Medical Radiation Physicists in response to Nuclear Accident: The IAEA Perspective, Presidential Symposium on 'Transformation Leadership in the Convergence of Imaging and Therapy' by Professor Kwan Hoong Ng. There were 202 participants from 19 countries, 26 Invited Speakers. The scientific program was organized such that there were 2 refresher courses, 2 workshops, 8 pre-congress lectures, 11 invited lectures 5 symposia, 56 oral presentations and 32 posters. The best presentation on oral and poster was arranged for AFOMP and SEAFOMP awards on radiotherapy and medical imaging. ▶



► *Radiotherapy:*

Best oral presentation:

AFOMP: Dong-Su Kim (KR)

SEAFOMP: Roger Cai Xiang Sob (SG)

Excellent oral presentation:

SEAFOMP: Narumol Ngeantbean (TH)

Best Poster:

AFOMP: A. Nakata (JP)

SEAFOMP: GS Sim (MY)

Excellent Poster:

AFOMP: J.Y.Park (KR)

Medical Imaging:

Best oral presentation:

AFOMP: Janaka C Marasinghe (JP)

SEAFOMP: Pawana Intbibal (TH)

Excellent oral presentation:

AFOMP: Shimpei Kondo (JP)

SEAFOMP: Mintra Keawsamur (TH)

Best Poster:

AFOMP: Diaki Hayashi (JP)

SEAFOMP: SS Leong (MY)

The organizing committee appreciates well supported by the suppliers on lectures, presentations and technical exhibition. Those are Unfors RaySafe Pte Ltd, Carestream, Beide Rich Co.Ltd., Berli Jucker Public Co.Ltd., Ion Beam Application Co., Ltd., Supreme/Philips (Thailand) Co., Ltd., PTW- Asia Pacific Ltd, Business Alignment Co., Ltd., Dispomed Co., Ltd., Sun Nuclear, Treat Med Co., Ltd., Elekta, Komol Sukosol Electric Co., Ltd.

Conclusion

The three day Congress with the half day Chiang Mai City tour by 3 trams went well with the good memory of the participants. The 13th AOCMP and 11th SEACOMP will be held at Singapore on 12-14 December 2013, Chairman: Dr.James Lee. The 14th AOCMP and 11th SEACOMP will be

held in Ho Chi Minh City, Vietnam.

Both AFOMP and SEAFOMP had arranged the new executive committee for 2013-2016 as followings:

AFOMP President: Dr.H.Y. Min (CN)

Past-President: Dr.K.Hoong Ng (MY)

Vice President: Dr.Tae Suk Sub (KR)

Secretary General: Dr.H. Round (NZ)

Treasurer: Dr.A. Krisanachinda (TH)

SEAFOMP President: Ms.A. Peralta (PH)

Past-President: Dr.Krisanachinda (TH)

Vice President: Dr.J.Lee (SG)

Secretary General: Mr. HPrasetio (ID)

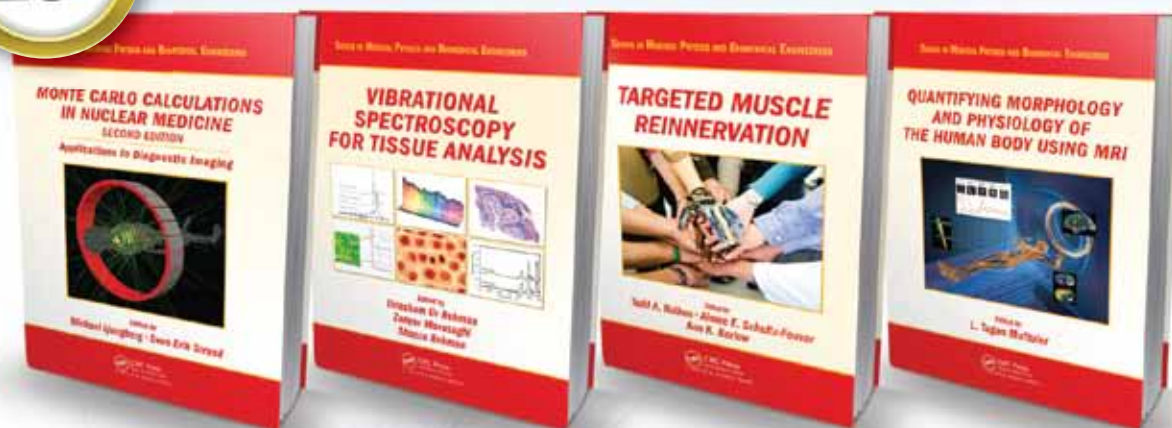
Treasurer: Ms.S.Suriyapee (TH)

The best and consistent cooperation among Asian and South East Asian members will strengthen the medical physic professionals for the better healthcare in the region. ◀

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CALENDAR OF EVENTS

IOMP NMOs

Ibrahim Duhaini, Calendar Editor

A. Qatar
IAEA Regional Training Course on HDR Brachytherapy, Organizer: Hamad Medical Corporation & IAEA, Sponsoring Body: IAEA, June 20- 24, 2013, Doha, Qatar, Contact: Mr. Rabih Hammoud: E: rhammoud2@hmc.org.qa

B. Bangladesh
2nd International Conference on Medical Physics in Radiation Oncology and Imaging (ICMPROI-2014), and the 3rd Annual Conference of Bangladesh Medical Physics Society (BMPS), Organizer: BMPS, Sponsoring Body: ICMPROI-2014, March, 13-15, 2014, Dhaka, Bangladesh, Contact: Dr. Hasin Anupama Azhari, President BMPS

C. Australia
Engineering and the Physical Sciences in Medicine (EPSM), The Australasian College of Physical Scientist and Engineers in Medicine (ACPSEM), Organizer: EPSM & ACPSEM, Sponsoring Body: www.epsm.org.au, 3 – 7 Nov 2013 , Pan Pacific Hotel, Perth, Australia, Contact: S. Geoghegan, E: sean.geoghegan@act.gov.au

D. Brazil
XVIII Congresso Brasileiro de Física Médica, Organizer: Associação Brasileira de Física Médica (ABFM), Sponsoring Body: ABFM, 12-15 August, 2013 – São Pedro – SP, Brazil, www.abfm.org.br

E. Mexico
Activity Title: III Congreso FMOFM Organizer: Mexican Federation of Medical Physics Organizations, Sponsoring Body: Mexican Federation of Medical Physics Organizations, FMOFM, November 15-18, 2013, Mexico City, www.fmofm.org.mx

F. ICMP 2013
20th International Conference on Medical Physics and Biomedical Engineering, Organizer: ICMP, IOMP,

IPEM , & EFOMP, Co-Sponsoring Body: IUPAP & IAEA, 1-4 September 2013 in Brighton, UK, www.ICMP2013.org

G. AAPM 2013
55th Annual Meeting of American Association of Physicists in Medicine, AAPM, 4-8 August 2013, Indianapolis, IN - USA, www.aapm.org

H. RSNA 2013
Radiological Society of North America Annual Meeting, RSNA, 1-6 December 2013; Chicago USA, www.rsna.org

I. ERRS 2013
Annual Meeting of the European Radiation Research Society, Organizer: ERRS, 1-5 September 2013 in Dublin, Ireland, www.err2013.ie

J. DGMP 2013
44th Annual Meeting of the German Society for Medical Physics, Organizer: DGMP, 18–21 Sep. 2013, Cologne, Germany, www.dgmp-kongress.de

K. ASTRO 2013
The American Society for Radiation Oncology Annual Meeting, Organizer: ASTRO, 22-25 September 2013; Atlanta, GA USA, www.astro.org

L. EANM 2013
Congress of the European Association of Nuclear Medicine, Organizer: EANM, 19-23 October 2013, Lyon, France, www.eanm.org

M. ECR 2014
European Conference of Radiology (ECR), Organizer: ESR, 6-10 March 2014, Vienna, Austria, www.myesr.org

N. RAD 2014
The Second International Conference on Radiation and Dosimetry in Various Fields of Research, 27– 30 May 2014, Niš, Serbia, www.rad2014.elfak.rs

O. WC 2015
World Congress of Medical Physics, Organizer: IOMP, June 7-12, 2015, Toronto, Canada

Algeria	Nepal
Argentina	Netherlands
Australia & New Zealand	New Zealand
Zealand	Nigeria
Austria	Norway
Bangladesh	Pakistan
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Mongolia	<i>NMO status</i>
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