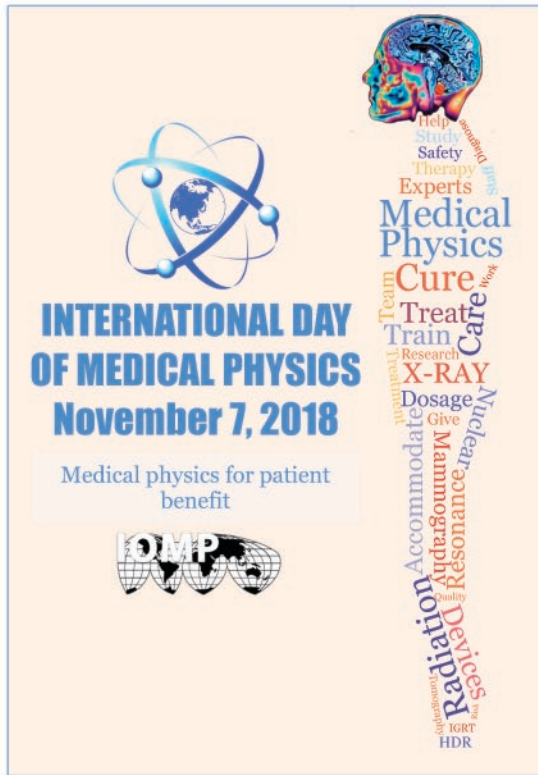
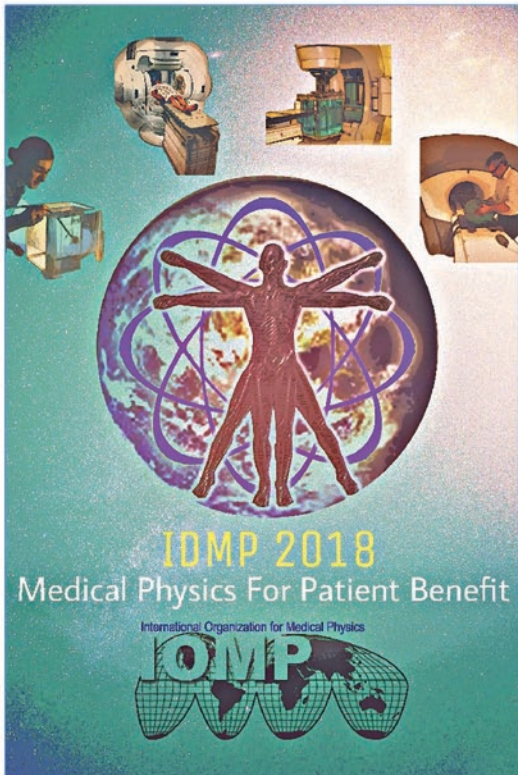


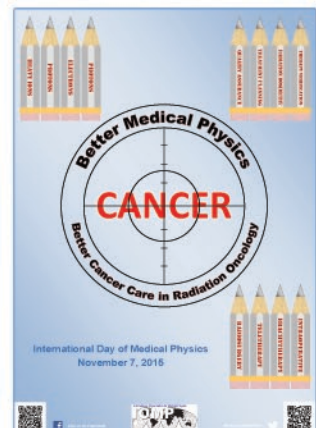
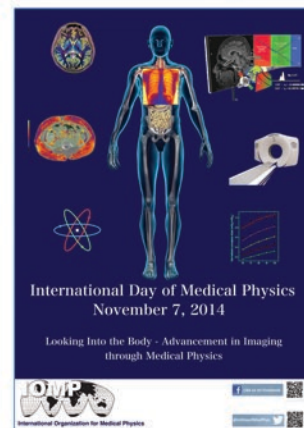
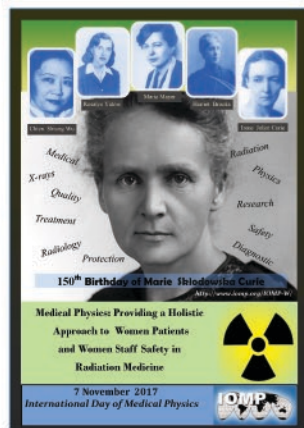
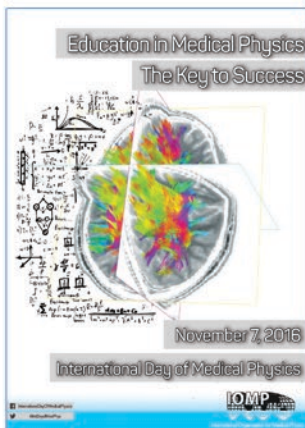
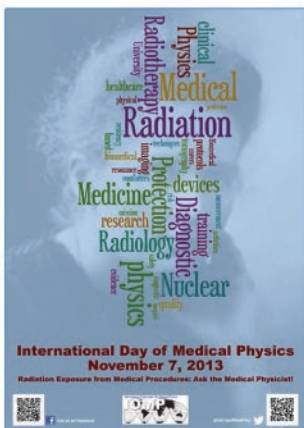


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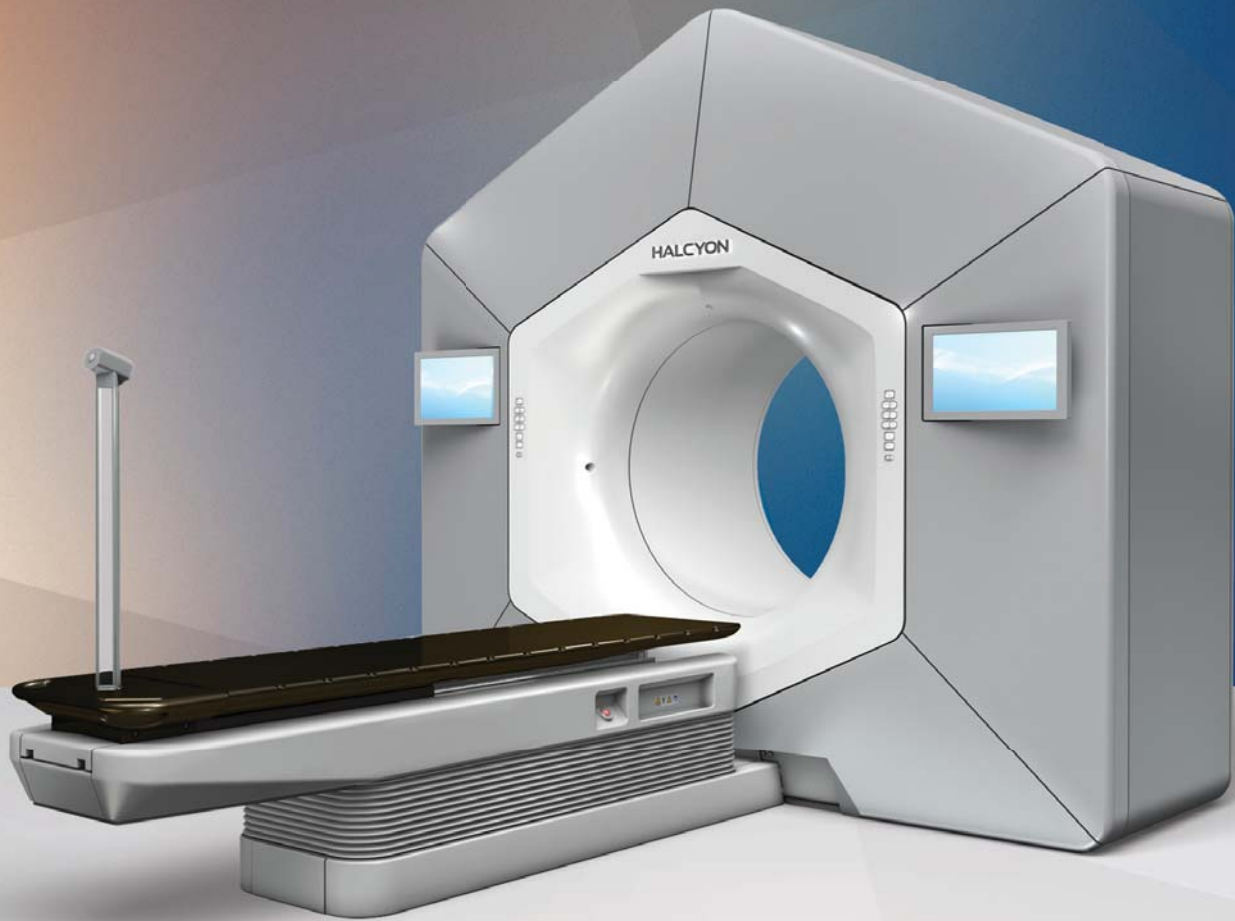


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Medical Physics World

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IOMP NMOs

National Member Organisations

Algeria	Morocco
Argentina	Myanmar
Australia & New Zealand	Nepal
Austria	Netherlands
Bangladesh	New Zealand
Belgium	Nigeria
Brazil	Norway
Bulgaria	Panama
Cameroon	Peoples Rep. of China
Canada	Peru
Chile	Philippines
Colombia	Poland
Croatia	Portugal
Cuba	Qatar
Cyprus	Rep. of China - Taiwan
Czech Republic	Rep. of Macedonia
Denmark	Rep. of Moldova
Ecuador	Romania
Egypt	Russia
Estonia	Saudi Arabia
Finland	Singapore
France	Slovenia
Georgia	South Africa
Germany	Spain
Ghana	Sri Lanka
Greece	Sudan
Hong Kong	Sweden
Hungary	Switzerland
India	Tanzania
Indonesia	Thailand
Iran	Trinidad & Tobago
Iraq	Turkey
Ireland	Uganda
Israel	Ukraine
Italy	United Arab Emirates
Japan	United Kingdom
Jordan	United States
Korea	Venezuela
Kuwait	Vietnam
Lebanon	Zambia
Lithuania	Zimbabwe
Malaysia	Bangladesh - AFFILIATE
Mexico	
Mongolia	

President's Report

Madan Rehani
President of IOMP



Dear Medical Physics Colleagues
around the Globe,

Greetings to you all through this medium of eMPW. Only a few amongst you were present at the last meeting of the Council in Prague where I took over as your President. I expressed it as my true honor to be your President and want to devote to upliftment of the profession and would like to be in touch with each and every one of you. The medium provided by publications such as eMPW may typically be one way, but we plan to make it two-ways soon. We are planning to start a newsletter by which we shall have further and more frequent interactions with you. We want to hear from you and thus you may please keep your success stories ready. We want others to learn from your success stories. Be it at the day-to-day level of solving a technical issue or at the

national level in success with authorities in getting medical physics recognized. Thus, at every level a success that can motivate others will be useful. The newsletter starting early in 2019 will provide you all a forum to let your work be known and learn from others. There is too much information around in modern time but the time to sieve information is limited. As a result, short, crisp note with credibility is what everyone is looking for.

During the past few months, we had International Day of Medical Physics (IDMP) as an important activity in which many countries participated. Seventy-two Letter of Understanding (LoU) were signed. A large number of countries have provided report of their celebrations and are available at: <http://www.iomp.org/idmp/index.php/activity>. A Nobel Laureate Professor Arthur B McDonald from Canada [provided a message](#), in addition to messages provided by [IAEA and WHO](#). Ibrahim Duhaini, Virginia Tsapaki and Magdalena Stoeva worked hard We encourage you to send report of your celebrations for adding on IDMP website.

The International Commission on Radiological Protection (ICRP) is a prime body that enriches our professional life with

recommendations on radiation protection. We all use principles set forth by the ICRP and the recommendations. ICRP publications are expensive and not affordable by most in low-and-middle income countries. ICRP has launched [a Free the Annals drive](#). You are encouraged to donate to ICRP in your personal capacity. I have done so myself. We are making some contribution on behalf of IOMP too.

We are looking forward to next [International Conference of Medical Physics](#) (ICMP2019) to be held in Santiago, Chile on 8-11 Sept 2019. You should plan to attend.

We are actively cooperating with IAEA and WHO. IOMP has endorsed IAEA's Guidance for Medical Physicists in Support of Nuclear or Radiological Emergencies, after review by the Science Committee of IOMP. The comments of draft report of ICRP on Effective dose were provided by a Task Group of IOMP headed by Virginia Tsapaki.

The IOMP has an agreement with AAPM for 100 free electronic subscription to Medical Physics journal. Invitations were sent to all countries for seeking interest and names of 100 medical physicists were forwarded to AAPM for free subscription.

Members are encouraged to utilize this generous offer and keep a watch on email from the Secretary General, IOMP for further update in the list which will be sent every year in first quarter of every year.

The Awards and Honors Committee (AHC) under the chairmanship of Simone scrutinized nominations for IDMP Award and declared winners as described in report of AHC.

A Task Group was created for IOMP School consisting of Madan Rehani, John Damilakis,

Geoffrey Ibbott, Arun Chougule, Yakov Pipman and Ibrahim Duhaini. The TG is working on a number of new proposals which will mature in early 2019. IOMP has endorsed a series of training events in recent months.

Magdalena Stoeva is working on a new website for IOMP.

The ExCom is working on Strategic Plan for IOMP.

General Data Protection Regulation (GDPR) created the need to develop of adapt norms. It was decided to have consistency between norms with IPEM and EFOMP.

The procedure for having Oman as a new member of IOMP was completed and Oman became a member of IOMP. Welcome Oman.

IOMP became a Special Liaison Organization (SLO) of ICRP.

This is a partial list of activities being pursued by IOMP. Please have a look at the report of different committees and of Officers to get full picture.

I take this opportunity to wish you all Season's Greetings and best wishes for a Very Happy New Year 2019.



International Union of Pure and Applied Physics (IUPAP) Affiliated Commission 4 (AC4): Medical Physics

Prof. John Damilakis,
IOMP Vice President, Chair of the IUPAP AC4 on Medical Physics



Introduction

The International Union of Pure and Applied Physics (IUPAP) was established in 1922 in Brussels. The mission of IUPAP is to assist in the worldwide development of physics, to foster international cooperation in physics, and to help in the application of physics toward solving problems of concern to humanity. The Union is composed of members representing identified physics communities. At present 60 members adhere to IUPAP. IUPAP commissions promote the objectives of the Union within their areas of expertise and provide advice to IUPAP on the activities and needs of the subfields of physics they represent. To strengthen Medical

Physics science within IOMP and to link IOMP to IUPAP the International Commission on Medical Physics (ICoMMP) has been established which has been approved as IUPAP Affiliated Commission 4 (AC4).

Objectives of AC4

- (1) to promote medical physics in its scientific and professional aspects in the physics community by interaction with the IUPAP commissions,
- (2) to specifically link to IUPAP commissions
- (3) to apply for support of the ICMP congress series,
- (4) to participate in the IUPAP Young Scientist Award program

Mission of AC 4

The mission of IOMP is to advance medical physics practice worldwide by disseminating scientific and technical information, fostering the educational and professional development of medical physicists, and promoting the highest quality medical services for patients.

IUPAP Congress Sponsoring Program

IUPAP sponsors and contribute to the support of important scientific events related to its mission. The IUPAP funding has been used to organize a series of

World Congresses and International Conferences on Medical Physics (World Congress in Toronto 2015, International Conference in Bangkok 2016, World Congress in Prague 2018). An application was submitted some months ago to IUPAP to financially support the next International Conference on Medical Physics (ICMP) which will be held in 2019 in Santiago, Chile. During its recent meeting in Vilnius, Lithuania, IUPAP decided to sponsor this important Medical Physics event.

IUPAP Young Scientist Medal

This is an award established and funded by the IUPAP and awarded by the IOMP as the IUPAP affiliated International Commission for Medical Physics. The announcement for the 2018 award describing the procedure, selection criteria and other information will be uploaded on the IOMP website and other communication channels soon. The IUPAP Young Scientist awardee for 2018 will be presented at the 2019 ICMP in Santiago, Chile. Previous winners of this award have been G. Massillon, Mexico (2015), F. Hasford, Ghana (2016) and A. Nashirudeen Mumuni, Ghana (2017).

From the desk of the IOMP Secretary General

Virginia Tsapaki
Secretary General of IOMP



The first 6 months of the new International Organization for Medical Physics (IOMP) Executive Committee (ExCom) have almost passed. We are coming to the end of year 2018 with a number of new initiatives from the desk of the Secretary General but also all Committee chairs. They have now set their members which you can find at the IOMP website (<http://www.iomp.org/>).

A number of initiatives of the new chairs are discussed in the first virtual meeting of the IOMP ExCom held in late August 2018. The strategic plan is being prepared and you will soon receive more information. Due to the new European Directive related to Protection of personal

data we had to **define the IOMP Privacy Policy**. This privacy notice explains how IOMP and IOMP Company will use any personal information we collect from you. We may amend this privacy notice from time to time to keep it up-to-date or to comply with legal requirements without any prior notice to you. You can find more info at the following link: <http://www.iomp.org/?q=content/privacy-policy>

The long collaboration of IOMP with American Association of Physicists in Medicine (AAPM) has given our organization the opportunity to name up to 100 people from developing countries around the world (with valid email) to **receive Medical Physics Journal Online free of charge**. This is done every calendar year so we ask you to stay tuned with IOMP to receive the new invitation for the 2019 subscription. In case we cannot accommodate all, the colleagues will be given the chance next year.

As you may remember, International Commission on Radiological Protection (ICRP) had made available for public consultation the **Draft report on**

Effective Dose “The Use of Effective Dose as a Radiological Protection Quantity” at: <http://www.icrp.org/page.asp?id=382>. IOMP had formed a group of experts to provide feedback on the document. Additionally, IOMP asked for the IOMP Council members feedback on the subject as well. You can find the submitted document at the following link as well: http://www.icrp.org/consultation_viewitem.asp?guid={C9B084B-A-1758-4E8E-ABEE-2F64EC60A334}. At this stage IOMP would like to thank the group of experts but also the Council members that provided comments and facilitated the formation of the text document submitted to ICRP public consultation.

On November 7, 2018 we celebrated the International Day of Medical Physics (IDMP). IDMP was established by IOMP in 2013 and every year the theme for IDMP is chosen by the Executive Committee (ExCom) of IOMP. For 2018 IDMP, the theme was **“Medical Physics for Patient Benefit”**. The events are important in our efforts to raise awareness about “How medical physicists contribute to improve

the quality and safety of patientcare around the world and enhance the competence level of medical physicists". This year we had a NEW initiative : **"The Letter of Understanding"**. This Letter of Understanding (LoU) between International Organization of Medical Physics (IOMP) and National Member Organization (NMO) of IOMP and/or Medical Physics course programs aimed at increasing participation of all in the organization of activities on IDMP. It is most encouraging that the celebration took place in all continents around the world and a big number of LoUs were signed. There were numerous events ranging from Australia and Africa to Asia, North and South America, We certainly hope to have more of such events in the near future. You can find more information at the IDMP webpage : <http://www.iomp.org/idmp/index.php/activit>

y. Hope next year we will have even more LoU signed.

There were several requests from National Member Organizations (NMOs) to update the IOMP survey related to the number of medical physicists (MP). IOMP is proud to announce the **publication of this new updated survey** at the European Journal of Medical Physics (Physica Medica). A link was provided to all to download for free the article for a limited period of time of 50 days: <https://www.sciencedirect.com/science/article/pii/S1120179718312997?dgcid=author> .

The main highlights of the survey were:

1. Global medical physicists production does not meet global clinical needs
2. Approximately 58,950 medical physicists will be required by 2035
3. Women representation is far from United Nations and European Commissions goals

4. Women representation in higher hierarchy position is low

IOMP is currently taking several actions based on the results of the survey. Hope we will be able to tell you more about this in the near future.

Last but not least, we are delighted to welcome the **Oman Medical Physics Association (OMPA) as a new member of IOMP**. OMPA is now part of the big IOMP family of over 90 organizations. We hope that we all work together for th advancement of the profession. As IOMP is continuously trying to update all NMOs information you are kindly asked to update your information at the following link:

https://docs.google.com/forms/d/e/1FAIpQLSc6aOY5O5vNxq08yD9ynfJE_k6dHY51nO2Xs2XZdPnl_aBASzg/viewform?c=0&w=1

The screenshot shows the ICRP website interface. At the top, the ICRP logo and name 'INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION' are visible, along with 'SUBSCRIBE' and 'MEMBER LOGIN' links. Below the navigation menu (NEWS, WORK, ORGANISATION, SUPPORT, ICRPAEDIA), the main heading reads 'The Use of Effective Dose as a Radiological Protection Quantity'. Underneath, it identifies the document as a 'Draft document: The Use of Effective Dose as a Radiological Protection Quantity' submitted by Virginia Tsapaki, International Organization for Medical Physics, on behalf of the organisation. A section titled 'International Organization for Medical Physics (IOMP) has formed a group of experts to provide feedback on the document.' lists the following group of experts: Maria-Ester Brandan (Mexico), Olivera Ciraj Bjelac (Serbia), Nadia Khelassi Toutaoui (Algeria), Mika Korteniemi (Finland), Ehsan Samei (USA), and Virginia Tsapaki (Greece, Chair).

IUPESM – the Union of IOMP and IFMBE

Slavik Tabakov

IUPESM Vice-President and IOMP Past-President



IUPESM was formed in 1980 with the aim to provide a very important link between the two professions – medical physics and biomedical engineering. One of the main goals of the Union was to include the professions in the International Council of Scientific Unions (ICSU), now International Council for Sciences (ICS) and in the International Labour Organization (ILO). The first goal was achieved in 1999 and the second one in 2012 (in fact the professions were listed from 2008). This collaboration between the two professions

continues with the join World Congresses.

One specific activity initiated in the past term of office was to have regular meetings between the IUPESM Officers and the Officers of the two constituent bodies. The first such meeting was organised during the MEDICON 2016 Conference in Paphos, Cyprus. It was followed by a meeting at ICMP 2016 in Bangkok, Thailand, and during the World Congress WC2015 in Prague. As a result more activities were initiated for the support of the Union’s Journal “Health and Technology” and plans were made for further join activities.

The collaboration of medical physics and biomedical engineering is very important for contemporary healthcare, where medical technology now plays pivotal role, and where this technology has to be seen from the perspective of both sister-professions. The collaboration is also very important for our

colleagues from Low and Middle Income (LMI) countries, where often one specialist fills both roles due to workforce shortages. In order to further strengthen these join activities a special IUPESM Workshop was planned as a Satellite to the ICBHI 2019 in Taipei, supported also by the IUPESM President J Goh. This great initiative of KP Lin and M Stoeva gains excellent momentum, and IUPESM already discussed with the colleagues from MEFOMP to have a similar Collaborative Workshop during their next meeting in Kuwait.

A very important activity, initiated by the IUPESM Secretary General Dr L Pecchia, was related to inclusion of our professions in the current research projects of the European Union. The meeting for this activity (October 2018, European Parliament, Brussels), included specialists from IFMBE and IOMP.

IOMP Treasurer Report

Ibrahim Duhaini
IOMP Treasurer



Since IOMP is now a company registered in UK, we in the IOMP council had new strategy in dealing with this new status. We are planning to have some activities that may increase the revenue of IOMP so that we can promote our activities worldwide.

During the period from June 2018 since the WC2018 in Prague till date, the following tasks have been accomplished:

1. Receiving and reviewing the previous IOMP Financial Documents.
2. Processing and paying claims of the WC2018 Participants and other conferences (ExCom members, Awardees, invites,...)
3. Processing and paying invoices related to IOMP Administration fees.
4. Proposing a new strategy for ExCom conference participation and financial coverage.
5. Establishing a new Yearly Budget Excel Sheet showing all income and expenses projected for the year (see adjacent sample).

6. Suggesting new ways to generate revenues from IOMP School, Workshop, Accreditation, and other means.

7. Following up new requirements of IOMP as a company with the Directors and our consulting agency.

8. Reviewing and preparing the NMO yearly membership invoices for collection.

9. Preparing the IOMP Budget for 2019.

10. Execution of other related tasks requested from IOMP President.

In the next issue of eMPW a complete end of year report will be revealed and other relevant issues will be exposed.

IOMP Budget Plan for 2018 Prepared by Ibrahim Duhaini (IOMP Treasurer)	
Starting Balance as of December 31, 2017	
Total Income	
Total Expenses	
NET (Income - Expenses)	
Projected End Balance as of December 31, 2018	
Anticipated INCOME	
Subscription from National Organizations	
Subscription from Corporate Members (Varian+PTW)	
Medical Physics World	
Interest estimate	
World Congress	
IUPAP Support Funding	
Educational activities	
Accreditation Activities	
Other Income (Royalties and Funding)	
Total Anticipated INCOME	
Expected Expenses: Medical Physics World & Softwares	
Design	
Printing	
Postage	
Other including softwares	
IDMP	
Other Event	
Total Expected Expenses: ICMP/ World Congress/ IDMP/ Other	
Expected Expenses: Support Costs	
Website hosting AAPM	
Accountant Fees	
Legal Fees	
Bank Charges	
Transfers	
Administration	
Other	
Total Expected Expenses: Support Costs	
Expected Expenses: Marketing	
Advertisement	
Booth Participation Costs	
Travel Costs	
Other	
Total Expected Expenses: Marketing	
Currency adjustment and contingency expenses:	
Currency Adjustment	
Contingency	
Other	
Total Currency adjustment and contingency	
Total Expected Expenses	
Total Expected Expenses: Medical Physics World & Softwares	
Expected Expenses: Committees (non-travel)	
Education and Training	
Science	
Professional Relations	
Award and Honor	
Publication	
Rules	
Nominating	
Sub-Committees	
All Committees and Sub-Committees	
Total Expected Expenses: Committees (non-travel)	
Expected Expenses: Travel Costs	
ExCom members & experts	
Supporting Staff (Prague)	
Awardees or Invited Committee Members (Prague)	
Other	
Total Expected Expenses: Travel Costs	
Expected Expenses: Subscription to IUPESM	
Annual Dues	
Other Incidentals	
Total Expenses: Subscription to IUPESM	
Expected Expenses: ICMP/ World Congress/ IDMP/ Other Events	
World Congress	

Report of Science Committee

Geoffrey S. Ibbott
Chair Science Committee



The IOMP Science Committee is responsible for disseminating current information to medical physicists; assisting in the planning and conduct of regional meetings on medical physics; contributing to and reviewing scientific documents prepared by organizations such as the ICRP, the WHO, and the IAEA; and participating in various forums for the generation of scientific information in medical physics.

During 2018 the Science Committee thanked George Kagadis of Greece for his service of two complete terms on the

committee. The committee also welcomed Mahadevappa Mahesh of the USA and Abdalla Al-Haj of Saudi Arabia and MEFOMP to the committee. As of this report, the Committee membership is shown below:

- Geoffrey Ibbott , Chair, USA
- Abdalla Al-Haj, Saudi Arabia/ MEFOMP
- Facundo Ballester, Spain/EFOMP
- Sha Chang, USA
- Lawrence Dauer, USA
- XiaoWu Deng, China
- Benedick Fraass, USA
- George Kagadis, Greece/EFOMP
- Reinhard Loose, Germany/ EFOMP
- Mahadevappa Mahesh, USA
- Malcolm McEwen, Canada
- Hossein Mozdarani, Iran/ MEFOMP
- Wilbroad E. Muhogora, Tanzania/ FAMPO
- Hugo Palmans, United Kingdom
- Mark Rivard, USA
- Maria Elisa Rostelato, Brazil/ ALFIM
- Ferid Shannoun, Austria
- Vellaiyan Subramani, India
- Yoshiharu Yonekura, Japan

Earlier this year, the Science Committee reviewed and made recommendations on several applications for support of educational programs around the world, as well as proposals for the 2019-2020 ICMP. The proposals were of high quality, and as is now known, the proposal from the Chilean Society of Medical Physics (SOFIMECH) was selected, meaning that the 2019 ICMP will be held in Santiago, Chile, 8-11 September 2019.

Again this year, several members of the Science Committee contributed to the Expert Group on Medical Exposures; a project of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). A first draft of the report was reviewed at a recent meeting of the UNSCEAR General Assembly.

It is a great honor for me to have been nominated and elected to serve as chair of the Science Committee for another term.

Report of Education and Training Committee

Arun Chougule

Chair Education and Training Committee



I took charge of Education and Training committee [ETC] chair on 5th June 2018 during WC 2018 at Prague for 2018-21. I thank all the member medical physics organization of IOMP and IOMP Excom for the opportunity and responsibility given to me. I will try to best of my abilities to contribute to welfare of medical physics. Immediately after my appointment, I started to update the information about the medical physics education programme in all the regions across the globe and the updated information for AFOMP, MEFOMP, EFOMP, FAMPO, ALFIM, USA and Canada is available on IOMP website [<http://www.iomp.org/?q=node/41>]. You are requested to kindly

communicate me for any further corrections/updates.

Further with approval of IOMP Excom the ETC committee and accreditation board is formed with inclusion active professional experts from all regions. The ETC is functioning effectively with following broad scope and objectives of

- To improve medical physics worldwide by disseminating systemized knowledge through education and training of medical physicists especially in developing countries.
- To advance the practice of physics in medicine by fostering the education, training and professional development of medical physicists, and by promoting highest quality medical services for patients worldwide.
- To promote internationally sponsored education and training programs sponsored or endorsed by IOMP, National Member Organizations and Regional Organizations.
- To identify the need for international education and training activities, prioritizes and assesses the applications, and recommends to the IOMP EXCOM the method of support. The ETC will also assist with the organization of the event and suggest suitable changes in the

curriculum and faculty of the activity.

- To consider applications from national and regional organizations for sponsoring or endorsing meetings. Applications to be considered in accordance with the document 'IOMP policy on Scientific, Educational and Professional Meetings'.
- To consider requests for review, comment or endorsement of documents in accordance with the policy and procedure document 'Documents Submitted to IOMP by External Organizations for Review, Comment or Endorsement'.
- To work on evaluation and promotion of medical physics education and training programs and on any alternative mechanisms supporting international cooperation addressing the education/training needs of medical physicists.
- To stimulate the foundation of regional centers for education and training in collaboration with IAEA, WHO and other agencies.
- To compile and update listings of medical physics educational opportunities worldwide for posting on the IOMP web page.
- To support and collaborate with the education and training committees of Regional Organizations on matters relating to education and training, including development

of training materials and training methodology.

Up till now new ETC committee has recommended 05 educational/scientific programs for IOMP endorsement. Further the IOMP accreditation board with its following objectives is functioning and makes IOMP accreditation programme effective, we have approached the medical physics education institutes for IOMP accreditation for IOMP accreditation. The CPD document is being prepared and we will start IOMP CPD accreditation soon.

Accreditation is the means by which IOMP assesses the quality of medical physics postgraduate degree programs and CPD courses and keeps the medical physics community informed. The IOMP Accreditation Board has been set up to ensure that accredited medical physics programs satisfy the highest standards established by IOMP in collaboration with other international organizations. The IOMP Accreditation Board accredits medical physics degree programs, medical physics education and training

institutions/centers and education and training events.

Benefits of IOMP accreditation:

- Reputation of accredited programs and courses which will result in more demand for these education and training activities
- Provision of an international dimension to an education event that will attract participants from other countries
- Evidence of highest teaching standards and best preparation of medical physicists for the work environment
- Publication of accredited programs and courses on the IOMP website

The procedure for IOMP accreditation of postgraduate degree courses is as follows

1. Potential applicants are encouraged to contact the Chair of the IOMP Accreditation Board to discuss in advance details of their program and decide if IOMP accreditation is suitable for their program.
2. The applicant institute submits the completed application form to accreditation board. This application form will be used as a guide for the self-assessment procedure.
3. The application is scrutinized and after all documentation

done, an assessment team visits the institute and evaluates the application.

4. Based on fulfillment of criteria accreditation board recommends IOMP Excom for granting the IOMP accreditation.

5. The forms, procedure and guidelines for IOMP accreditation are available on [IOMP website](#).

Further as IOMP representative I participated in the IAEA Consultants meeting to define the contents of a guidance document on certification of medical physicists, identify drafters and reviewers, and agree on a road map to finalize and publish the guidelines as an IAEA report endorsed by all relevant professional organizations, the task is progressing satisfactorily.

In short span of about 06 months we are moving ahead to achieve our goals and objectives. I need your input, guidance and support for fulfilling the task.

Wishing you all very happy, healthy and prosperous New Year 2019.

Report of Awards & Honours Committee

Simone Kodlulovich Renha
Chair Awards & Honours Committee



In 2018, after the elections of the officers and chairs of IOMP, a new Awards and Honours Committee was established. I have the honour and the privilege to be chair of this committee for one more term. The committee is formed by outstanding medical physicists from different regions of the world. Their expertise in the different areas of medical physics is recognized worldwide. The A&H committee has the responsibility of continuing to carry out with excellence the work begun by IOMP in 1998 when this committee was first established. Our commitment is to honour medical physicists who dedicated their lives in the development of medical physics, improving diagnostics and treatments, developing new

technologies and practices for the benefit of patients. For all these medical physicists, IOMP wants to demonstrate the immense respect and gratitude for their contributions in education and training, science and in the promotion of the medical physics profession.

Along these years, IOMP has granted more than thirty medical physicists the follow distinguished awards: Maria Sklodowska-Curie Award, Harold Johns Medal, John Mallard Award, IUPAP Young Scientist Award in Medical Physics, IUPESM Award of Merit and IDMP Award. Besides, since 2013 IOMP has awarded medical physicists in the category of Fellow of IOMP (FIOMP), to recognise significant activities for the international development of medical physics and outstanding contributions to IOMP and its regional organisations over a significant period of time. Also, IOMP recognises other professionals that contributed to the medical physics by grating them as honorary members. The complete list of recipient can be found in IOMP webpage.

This year, the committee had the challenge to elect the winner of the International Day of Medical

Physics Award – IDMP Award. The committee received three nominations from each regional organization: EFOMP, AFOMP, SEAFOMP, MEFOMP, ALFIM, FAMPO and North America. The excellence of the medical physicists nominated made our work very hard. The evaluation considered significant contributions to promoting medical physics, including active participation in medical physics societies, development of scientific work and publications, improvements in patient care and/or contributions for education and training in medical physics. The award, announced on the occasion of the celebration of IDMP, includes an IOMP certificate and a publication of a short biography of the awardees in the IOMP newsletter Medical Physics World.

Very soon, the announcement for the IUPAP Award will be published. We expect to receive many nominations from the regional organizations. Please stay alert with the deadlines!

This Committee, aware of the importance and responsibility to give to the dedicated medical physicists the deserved recognition, is committed to

improve even more all the process that we have now, to disseminate these awards worldwide to reach medical physics from any part of the world, and to develop new awards and honours offered, trying this way to look for the future, follow the technological

developments and advances, new discoveries and changes in the field of medical physics. The plans and ideas will be present very soon. However, I would like to remind you all that the effective participation of all medical physics is essential for

the success of any plan of this committee. In this opportunity, I would like to welcome the new members who have accepted to be part of this committee, giving their time and the responsibilities and challenges of this important mission for IOMP.

Members of Awards and Honours Committee



Simone
Kodlulovich
Renha
Brazil



Cyril
Schandorf
Ghana



Pedro Ortiz
Austria



Steve
Balter
USA



Patricia
Mora
Costa Rica



Eliseo Vaño
Spain



Leif Schröder
Germany



Keiichi
Akahane
Japan



Huda M. Al-
Naemi
Qatar



Jim
Thruston
England



Tomas Kron
Australia



Melissa Carol
Martin
USA

Awardees of IDMP 2018



Jamila Salem
Humaid Ali
MEFOMP



Renato
Padovani
EFOMP



Kavuma Awusi
FAMPO



Hasin Anupama
Azhari
AFOMP



María Ester
Brandan
ALFIM



Caridad
Borrás
AAPM

Report of the IOMP-W Subcommittee

Virginia Tsapaki
Chair Women Subcommittee



A new term has started for the IOMP Women Subcommittee. The new members can be found at the IOMP website (<http://www.iomp.org/?q=content/women-subcommitteemembership>). A lot of information of the work done since the first year of its establishment can be found within the dedicated webpage of IOMP-W: <http://www.iomp.org/IOMP-W/>

The main activities of IOMP-W after June 2018 were related to the recent Women Symposium held during the latest 18th Asia-Oceania Congress of Medical Physics (AOCMP) in Conjunction with the 16th South-East Asia Congress of Medical Physics (SEACOMP) at Connexion

Conference & Event Centre (CCEC), Bangsar South City, Kuala Lumpur, Malaysia from 11th to 14th November 2018. During the plenary session 3.3, preliminary results of a recent detailed survey conducted in Malaysia, Thailand and Philippines were presented (picture 1).

For the members of IOMP-W that were present at the conference, an excellent lunch networking meeting was kindly organized by Prof Chai Hong, member of IOMP-W and one of the conference chairs (picture 2).

The IOMP-W group will plan similar events and survey in various regions of the world in order to identify reasons for these differences. The next survey is planned for the Middle East region and hopefully will be presented at the coming AFOMP-MEFOMP Joint Conference on Medical Physics to be held in Kuwait Foundation of Scientific Research Auditorium, KFAS Headquarter, Ahmad Al Jaber St. Sharq, State of Kuwait, 10-13 November 2019.

A very important activity related to IOMP-W was the recent publication of the IOMP survey in

the European Journal of Medical Physics (Physica Medica). The points related to the women medical physicists were the following; As far as gender distribution is concerned, women representation is still far from the 50 % UN Sustainable Development Goal and the 40 % European Commission target. Women representation seems to be low in higher hierarchy position. More studies will be needed in order to identify the reasons for the disproportionality at senior level positions. Whether this is the result of a loss of interest or a less positive environment remains to be seen. Whatever the reason is, however, actions towards a more inclusive environment and culture for women medical physicists would certainly facilitate their involvement for the best benefit of our profession. Thus, the current IOMP Executive Committee decided to encourage a 30 % women representation in all its committees. Further actions are expected in the near future.

Time	Title	Speaker
11:30 – 11:50	Women Medical Physics: A Global Perspective	V Tsapaki
11:50 – 12:10	How to Improve Engagement of Women in Science and Medicine	E Bezak
12:10 – 12:20	Women Medical Physics in Malaysia	J HD Wong
12:20 – 12:30	Women Medical Physics in Thailand	A Krisanachinda
12:30 – 12:40	Women Medical Physics in Philippines	A Peralta
12:40 – 12:50	Panel Discussion	Panel

Picture 1. The plenary session during the recent AOCMP 2018 in Kuala Lumpur, Malaysia.



Picture 2. From left to right: Prof Kwan Ng (Malaysia), Dr Anchali Krisanachinda (Thailand), Prof Chai Hong Yeong (Malaysia), Dr Hanan Aldousari (Kuwait), Prof Eva Bezak (Australia), Dr Virginia Tsapaki (Greece) and Dr Jennie HD Wong (Malaysia).

Participation of IOMP in the International Conference on the Security of Radioactive Material: The Way Forward for Prevention and Detection

Pedro Ortiz

Former Associated Professor of Medical Physics at the University of Madrid

Former Member of ICRP Committee on Radiation Protection in Medicine

Former Head of Radiation Protection of Patients at the IAEA

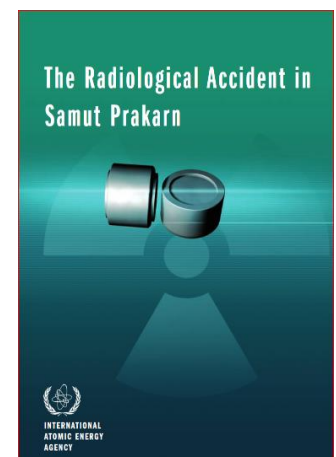
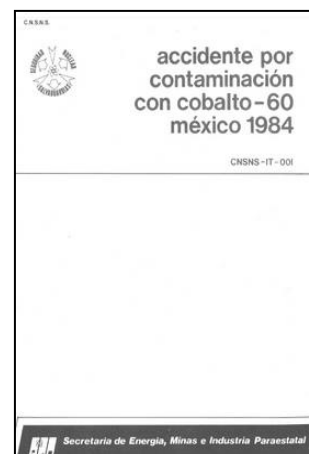
1. Introduction

During the week of 3 to 7 December 2018 an International Conference on the Security of Radioactive Material has been held by the International Atomic Energy Agency. The purpose of the Conference to provide a forum for Member States to share their experiences, including difficulties encountered, lessons learned and good practices adopted, in the implementation of the security Code of Conduct on the safety and Security of Radiation Sources and of the Security Recommendations. The Conference provided an opportunity to outline the way forward. The IOMP was invited to participate in the Conference and to make a presentation at the Session on the Main Technical Panel: International Organizations - Roles and Initiatives in Prevention and Detection.

The Conference identified common areas requiring attention as well as areas needing specific attention. One of the statements in the concluding remarks is that prevention of malicious acts applies not just to nuclear materials and activities but to other uses of radioactive sources in medicine, industry and research. There is a need to strengthen the so called “three Cs” (cooperation, coordination and communication) as well as sustainability. The coordination is needed between prevention and detection, between safety and security and among all stake holders.

Security concerns disused radiation sources in medicine

Disused sources from radiotherapy have been involved in catastrophic events resulting in tremendous suffering, including deaths, and a huge amount of resources wasted. Past examples from are given in the figure 1. The common cause was that these sources had been unsecurely stored for long periods of time.



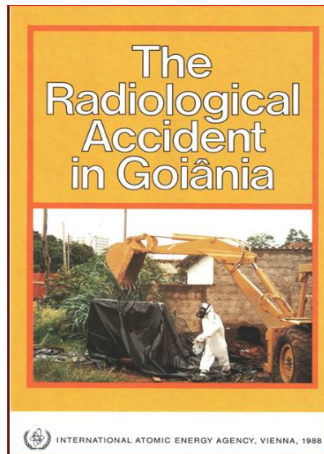


Figure 1 Examples event reports on devastating consequences caused by unsecurely stored external beam radiotherapy sources

In first event, the event in Mexico, a second hand external beam radiotherapy equipment was illegally imported and stored insecurely waiting for a decision to install. The unsecured device was disassembled and taken for sale as scrap metal. The cobalt 60 source ended up in a melting facility and contaminating rods for buildings. About 80 persons received doses greater than 250 mSv. Around 800 buildings had to be partially or totally demolished.

In the second event, an external beam radiotherapy source was left behind when moving a radiotherapy department to new premises. Source stolen and as a result people died and 112,000 persons were monitored; 249 persons were contaminated either internally or externally. Four persons died from radiation within four weeks of admission to hospital. Aerial surveys were conducted over 67 km². Of 159 houses were monitored, 42 requiring decontamination. The final volume of waste stored was 3500 m³.

In the third event, a disused external beam source and equipment was sold without authorization and moved to an unsecured location. The unsecured device was disassembled and taken for sale as scrap metal. 10 persons were severely injured from radiation and received extensive treatment and follow up. Three of them died from radiation.

Attention is, therefore, required to the security of disused radioactive sources from radiotherapy. In addition, attention is also required to the prevention

of malicious acts involving radiotherapy sources, whether in use or disused. Medical physicists and medical physics societies are in an unique position to contribute to prevent or detect source security events from medical uses of radioactive sources.

2. Possible contribution by medical physicists to reduce vulnerability of radiation sources

The following actions are recommended to medical physicists and the national societies for medical physics

- 1) Reviewing procedures of quality control for closing gaps in radiation source control in order to reduce opportunities for unauthorized access to sources in use.
- 2) Preventing radiation sources from becoming orphan, especially by securing storage rooms of sources waiting to be installed or for disposal of disused sources or their return to the supplier.
- 3) Considering historical uses and activities of radiotherapy departments in the country and finding out about the legacy of disused sources that may have become orphan
- 4) Notifying the outcome to hospital management with the recommendation to report to the regulatory body

There is a number of programmes of international collaboration and assistance with regard to locating and securing disused or orphan sources. The regulatory body in each country is aware of international efforts and assistance on orphan source recovery.

3. Potential contribution of medical physicists to threat assessment

There is a wealth of experience by some pioneers medical physicists, who collaborated in a multidisciplinary team of regulators, radiation safety experts, radiation oncologists, medical physicists, radiotherapy technicians, manufacturers and maintenance engineers, who performed systematic safety assessments. An example of this experience is the application of the risk matrix approach by the Ibero American Foro of Radiological and Nuclear Regulatory Bodies and by the Task Group 100 of the American Association of Physicists in Medicine.

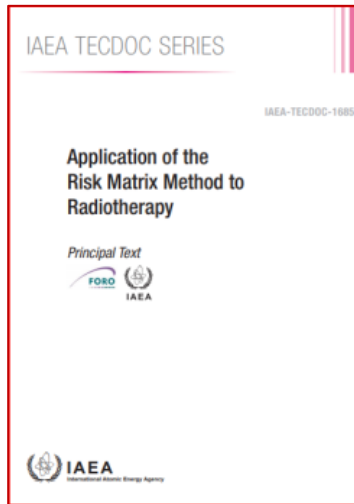


Figure 2. Example of anticipative methods used for unintended exposures, which can also be used for malicious acts

The anticipative methodology used for safety assessments and for prevention of unintended events in radiotherapy, can be also be applied to threat assessments of malicious actions intended to cause harm. This includes intrusion into computers and cyber attacks to treatment planning systems and software that controls irradiation parameters.

4. Potential contribution of medical physicists to developing guidance on security

Medical physicists should be involved in the development of guidance and training material on securing sources in hospitals and the could IOMP can facilitate this involvement.

Important remark

Medical physicists and medical physics societies are encouraged to contribute to source security in their countries as described in sections 3 and 4 and to publish their achievements (excluding classified information).

Security guidance and training material

E-learning on source security can be found in <http://elearning.iaea.org/m2/course/index.php?categoryid=53#>

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The Institute of Physics and Engineering in Medicine's 'Little Linac' project

David Brettle

Past President, Institute of Physics and Engineering in Medicine

Head of Medical Physics and Clinical Engineering, Leeds Teaching Hospitals NHS Trust, United Kingdom



I launched the 'Little Linac' project when I became President of the Institute of Physics and Engineering in Medicine three years ago.

The aim of the project is simple: To give every child having radiotherapy in the UK a free kit of play bricks which, when built, make a model of a linear accelerator to help ease their anxiety around having radiotherapy, through play.

The project was not without its 'difficulties' so I was very proud when I was finally able to officially launch the Little Linac during the MPEC conference in York back in September. This was almost three years to the day since I made the promise at the MPEC conference in Liverpool, as incoming president, to give every child in the UK undergoing radiotherapy a model toy linac.

Anyone who knows me will know I'm a fan of model bricks, and I've spent hours and hours building all sorts of things over the years at home with my children, so to me a model linac was just a natural thing to produce to help children. I made sure the kit could make more than one model out of the same set of bricks - an MRI scanner, a gamma camera and CT scanner - which are all potentially used in a patient's cancer journey.

Every year between 1,500 and 1,700 children under the age of 16 develop cancer in the UK. My hope was that by producing a model of the machine which treats our young patients it would help reduce their anxiety, through play, by allowing them to see and understand what the machine looks like and how it moves around them during their treatment.

In the same way I wanted to bring to life the *Science for Patient Benefit* campaign, I had a burning desire to make the model linac a reality. I thought this would be something the market leader would want to get involved with but sadly this was not to be.

I then came across a charity providing model bricks to children in hospitals and thought I had found the solution. By that stage, IPEM had brought some partners on board, namely, the British Institute of Radiology, the Royal College of Radiologists, and the Society and College of Radiographers, to ensure all the professionals involved in children's cancer treatment were engaged.

Once again, though, my hopes were dashed as the charity also had difficulties in fulfilling the kits.

I'm nothing if not determined (I think my wife would call me stubborn!) and I didn't give up. I eventually came across another model brick company called Best-Lock. A meeting at IPEM's office in York was arranged and it quickly became clear they were keen to help us. I could suddenly see my dream was within touching distance of becoming reality. Within a few weeks I had a fully working prototype of the newly-named 'Little Linac' model delivered to me by Best-Lock.

I then tested it at a patient evaluation day held at my Trust in Leeds with play therapists, paediatric radiotherapy radiographers, the patients' families and most importantly, the children themselves. The feedback was overwhelmingly positive; everyone loved the Little Linac and thought they were a fantastic way to help our young patients.

I was delighted to see everyone's reaction to the Little Linac at MPEC and, more importantly, to know

that it is now making a real difference to children's lives. I am truly grateful IPEM could see the value in this project, got behind it and gave it their full backing.

This, however, is only the beginning and in order to make this initiative sustainable we need to raise more funds. IPEM bought 3,000 Little Linac kits and donated 100 kits to each of the 16 paediatric radiotherapy centres across the UK. The remainder are being sold to generate funds to buy the next 3,000 kits, so the project becomes self-sustaining. Every model sold enables IPEM to donate two more kits to children undergoing radiotherapy treatment. For more on the project and to order a kit or make a donation visit www.tinyurl.com/LittleLinac.

1. Through the power of social media, IPEM's Little Linac has become known across the world in a very short space of time. The office has received orders for the kits from far and wide, including Australia, New Zealand, Mexico and even Peru, so our Little Linac is not only helping children in the UK but is making a difference to children's lives right around the world.



MEFOMP Report



Middle East Federation of Organizations of Medical Physics

Lebanese Medical Physics Society celebrated IDMP 2018

On 8 Nov 2018 the Lebanese Medical Physics Society celebrated the medical physics day with something original, where it was organized in coordination with Lebanese University and Rafik Hariri Hospital in Beirut.



Medical specialists in the hospital were represented by Dr. Ibrahim Duhaini at the hospital with the presence of 16 LU students from different Lebanese cities and provinces participating the activities of this day.

Dr. Duhaini started the day with an opening speech and congratulations for all medical physicists and specialists all around the world, specifically in Lebanon.

He spoke about the importance of such domain and aimed on the benefits of the Physics in the medical fields where it achieves noticed advantage in treatment of dangerous diseases and cancerous cases

The celebration included many lectures in the domain of radiation diagnosis beginning from the CT simulation in the hospital focusing on the accuracy of the machine and the high precision of the scanner and the role of the supervision room that monitors the scanning process. These lectures were given to the students regarding the importance of the precision of reading the images and making a plan how to treat the cancer after this step has been done.

Qatar Medical Physics Society (QaMPS) celebrate IDMP 2018



Qatar Medical Physics Society (QaMPS) celebrated the International Day of Medical Physics together with the International Organization of Medical Physics (IOMP) and the regional federations. Dr. Huda Al Naemi attended the celebration with group of society members, the team discussed the theme of IOMP celebration and all agreed that (medical physics for the patient benefit) is expressing the physicist's rules in medical field.

As QaMPS does every year, the society ex-com chose one of the members to be awarded as "physicists of the year". This year Mrs. Abeer Al Attar was awarded

physicist of the year 2018, Mrs. Abeer graduated from Jordon/Amman in the year 2000. She played basic role in the first radiation protection unit in the hospital. Since then she is responsible for occupational monitoring for all radiation medical workers in the government hospitals. She is always motivated and hard working. All members congratulate Mrs. Abeer for the award and the celebration ended by cutting a cake with QaMPS logo.



The radiation oncology medical physics team in Qatar also celebrated the IDMP 2018 with colleagues from other departments and hospitals. It was a happy gathering for everybody to celebrate this occasion every year since IOMP started 6 years ago. All the physicists were wearing the T-shirt made for the occasion by MEFOMP.

Iraqi Medical Physics Society (IMPS)

The Iraqi Medical Physics Society (IMPS) organized the annual IDMP celebration in coordination with Continuous Medical Education (CME) unit of Mustansiriyah medical college, where 125 medical specialists represented by the dean and the vice dean of Mustansiriyah medical college, the head of the CME unit in this college, medical physicists and MS postgraduate students from different Iraqi provinces have attended and participated in the activities of this day. The vice president of the IMPS Dr. Mustafa Al-

Musawi started the ceremony with an opening speech and congratulations for the medical physicists in Iraq and the world in this occasion, and he presented the history of this day.



Moreover, Dr. Mustafa reviewed the establishment steps of IMPS and the most important achievements that have been taken place from the date of its establishment and the future projects.

The IDMP celebration in Iraq included the presentation of lectures in the fields of radiation therapy IMRT, PET scan, the influence of He-Ne laser irradiation in wounds healing, and a research in the field of molecular oncology that was introduced by the president of the Iraqi national center of the cancer research about the effect of irradiation cancer development and the role of PALB2-BRCA1 interaction on tumor suppression.



Participation and attendance certificates were signed by the presidency of IMPS and the college of medicine and provided to the attendees. This event was documented by a local and Arabic media, <http://www.alkawnnews.com> , <http://www.arabsolaa.net>, <http://www.uomustansiriyah.edu.iq>

Saudi Medical Physics Society



Hours

The International Organization of Medical Physicists (IOMP) has been celebrating annually the International Day of Medical Physics (IDMP) since 2013. The celebrations are held on 7th Nov – birthday of Marie Curie, whose contributions to Medical Physics have been remarkable. The purpose of the celebration is to promote the profession of Medical Physics and to raise awareness of the role of Medical Physicists in patient care.

The Saudi Medical Physics Society would like to invite you to celebrate with us the 6th IDMP. The theme of IDMP2018 is 'Medical Physics for Patient Benefit'. To allow for a wide participation, full day programs will be hosted in Riyadh, Jeddah, and Dammam on November 10, 2018.

This year's programs will be divided into two sessions (Morning and Afternoon) with talks given by many professionals working in the health sector and governmental institutions. The program is not yet complete and you are welcomed to participate in our programs. Please do not hesitate to contact our organizers if you wish to do so.

Kuwait Association of Medical Physics



KUWAIT ASSOCIATION OF MEDICAL PHYSICS

Introduction

Kuwait Association of Medical Physics (KAMP) in coordination with the Middle East Federation of Organization of Medical Physicist (MEFOMP) together with the International Organization of Medical Physics (IOMP) has celebrated the International Day of Medical Physics (IDMP 2018) in Kuwait.



The program included the following:

Opening Ceremony

The opening of the Radiation Physics workshop attended by the president of Al Sabah Medical Area, Dr. Abdel Aziz Al-farhod, Dr. Saud Alanazi the chairman of Nuclear Medicine Department Council, Dr . Khaled Al-Salah , President of the Kuwait Oncology Society , Dr. Meshari Al Nuaimi , Head of Radiation Physics Department at Kuwait Cancer Control Center and President of the Kuwait Association of Medical physics (KAMP) , Prof. Madan Rehani , President of International organization of medical physics (IOMP), Prof. Abdalla Alhaj , Past president of Middle East Federation of Organization of Medical Physics (MEFOMP).

Closing of the workshop

Dr. Meshari Al Nuaimi Head of Radiation Physics Department in Kuwait Cancer Control Center and President of the Kuwait Association of Medical



Physics thanked all the participants and the lecturers. And, He declared of the next big conference (AOMP 2019)

Asia-Oceania Medical Physics will take place in Kuwait 10 to 13 of November 2019.

Below are some Photos of the occasion:



Full Congress Report

18th AOCMP and 16th SEACOMP Successfully Held at Kuala Lumpur, Malaysia on 11 – 14 November 2018

Chai Hong Yeong¹, Noriah Jamal² and Kwan Hoong Ng³

¹*School of Medicine, Faculty of Health and Medical Sciences, Taylor's University, 47500 Subang Jaya, Malaysia*

²*Planning and International Relations Division, Malaysian Nuclear Agency, 43600 Kajang, Selangor, Malaysia*

³*Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia*

The combined 18th Asia-Oceania Congress of Medical Physics (AOCMP) and the 16th South-East Asia Congress of Medical Physics (SEACOMP) were successfully held at the Connexion Conference & Event Centre (CCEC), Nexus, Bangsar South City, Kuala Lumpur, Malaysia from 11 to 14 November 2018.

AOCMP and SEACOMP are both important annual events in medical physics. The congress aimed to gather medical physicists and allied health professionals in the regions for the sharing of knowledge, expertise, scientific discussions, cultural exchange and medical technologies updates. Malaysia last hosted this event in 2004. The theme for this congress is **“A Sustainable Future for Medical Physics”**. It resonates with the United Nation Sustainable Development Goals. According to the organizing chairs, a sustainable future of medical physics will be built on these three connected concepts: teamwork, adaptability and leadership. It is important that the medical physics organizations work together, be relevant to current development and constantly train and foster new leaders.

The congress has attracted more than 529 delegates from 40 countries around the world. A whopping 68 renowned speakers from 21 countries spoke at the congress and 300 proffered papers were presented. The congress was well supported by eight international organizations including International Organization for Medical Physics (IOMP), International Union for Physical and Engineering Sciences in Medicine (IUPESM), International Atomic Energy Agency (IAEA), American Association of Physicists in Medicine (AAPM), Institute of Physics and Engineering in Medicine (IPEM), Middle East Federation of Organizations of Medical Physics

(MEFOMP), Asian Oceanian Society of Radiology (AOSR) and Japanese Society of Radiological Technology (JSRT); several local organizations and government agencies, universities as well as 32 healthcare industrial partners. Among all, 21 vendors including book publishers have participated in the onsite trade exhibitions. The Congress also supported charity activities whereby the profits made from selling of hand-made souvenirs by the Mon Refugee Organization will all be donated to the refugees in Malaysia.

The Congress is CME-approved by the Ministry of Health, Malaysia. Participants who attended the 4-day Congress are entitled to claim for 26 CPD points and 9.83 MPCEC points accredited by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP).

The first day of the Congress (11th November 2018, Sunday) was designated as the Pre-Congress workshops. A total of 6 workshops were conducted by various organizations, namely AAPM/Asia-Oceania Workshop on Radiotherapy (on the theme of “3D Treatment Planning Image-Guided Radiation Therapy”), IPEM Workshop on Nuclear Medicine (on the theme of “Radiopharmaceutical Therapy in the Era of Precision Medicine”), SEAFOMP Workshop on Medical Internal Radiation Dosimetry, the 9th ACOMP Workshop on Patient Dose Management and Monitoring in Diagnostic Radiology, JSRT CT Technology Workshop and Radiomics and Artificial Intelligence Workshop.

The Opening Ceremony was held on 12 November 2018. It was preceded by the Presidential Symposium followed by the John Cameron Memorial Lecture. During the Presidential Symposium, the Presidents of

AFOMP (Prof Dr Tae Suk Suh from South Korea), SEAFOMP (Dr James Lee from Singapore) and MEFOMP (Dr Abdalla Al-Haj from Saudi Arabia) delivered their 10-min speech on “The Role and Vision in Development of Medical Physics in AFOMP”, “The Role of SEAFOMP in Growing Medical Physics in ASEAN Countries” and “Establishment of Diagnostic Reference Levels (DRLs) in Paediatric CT in Saudi Arabia: Lessons Learnt”, respectively. This year, the invited speaker for the John Cameron Memorial Lecture was Dr Colin Martin, the Vice Chairman of the International Commission on Radiological Protection (ICRP) Committee 3. Dr Martin delivered his lecture entitled “The Role of the ICRP in Medicine: Past, Present and Future” (**Figure 1**). According to Dr Martin, the ICRP is an independent, non-governmental body made up of experts from 30 countries that is supported by charitable donations. The ICRP prepares comprehensive reports that set out fundamental recommendations, describing the overall system of radiological protection. These are used as the basis for radiological protection standards, legislation, guidelines, programmes, and practice world-wide. The recommendations are based on the current understanding of the science of radiation exposures and effects, combined with value judgements taking into account societal expectations, ethics, and experience gained in application of the system.

The Opening Ceremony started at 9.15 am with welcoming speech by the organizing chairpersons, Dr Chai Hong Yeong and Dr Noriah Jamal, followed by welcome remarks by the Presidents of IOMP (Dr Madan Rehani via a pre-recorded video), AFOMP (Prof Dr Tae Suk Suh) and SEAFOMP (Dr James Lee). Dato' Dr Dionysius Sharma, Chairman of Malaysian Wildlife Conservation Foundation was the Guest of Honour officiating the ceremony (**Figure 2**). His address entitled “Creation, Humanity, Science and Sustainability” aptly highlighted and encapsulated the theme of this congress.

“It is increasingly important for everyone to understand and appreciate the immense biological diversity of planet Earth (our natural capital), the ecosystem services humans depend upon and the impact or footprint we have on the planet. It is our social and moral obligation to care for the environment, as we advance ourselves in the field of science and technology. The future of humanity lies in sustainable development and societies living sustainably,” said Dr Sharma.

Following Dr Sharma’s speech, the Presidents of AFOMP, SEAFOMP and MEFOMP, accompanied by the organizing chairs were invited to go on stage for the opening launch gimmick. In line with the “sustainable” theme, the launch gimmick was in digital format to minimise the use of unsustainable paper or plastic-based materials (**Figure 3**). A video montage produced by the local organizing committee was then presented. The montage recorded the history of AOCMP and SEACOMP, as well as the development of medical physics in the region. The Opening Ceremony ended with a cultural performance by the undergraduate students from the University of Malaya (**Figure 4**) and group photo (**Figure 5**).

The four-day Congress was successfully executed with 12 symposiums, 13 invited lectures, 2 round table forums, 2 update lectures, 300 proffered papers presentations (149 oral and 151 poster presentations) and 3 sponsored Tech Talks. In addition, the first AFOMP Oration in the Memorial of Professor Kiyonari Inamura was also held in this Congress. We were honoured to have Prof Dr Tomas Kron, the recipient of the Order of Australia Medal (OMA) for Services to Medicine, Research and Education as the orator. Prof Kron delivered his oration on the topic of “Paediatric Radiation Oncology: Can We Translate All the Technological Advances from Adults to Kids?” (**Figure 6**). The presentation demonstrated how technology and techniques have changed over the last 20 years making paediatric radiation oncology safer and the use of modern approaches more effective. Prof Kron highlighted that the objectives in paediatric radiotherapy are often different than in adults where growth retardation or IQ reduction are less frequently taken into consideration. He also gave examples of an emerging stereotactic ablative body radiotherapy (SABR) program for children at the Peter MacCallum Cancer Centre, Australia, proving that children can benefit from many technological advances as long as the particular needs of these patients are considered. Other highlights of the Congress are as following:

- Round table forum on “Medicine in the Era of Artificial Intelligence”, moderated by Prof Dr Kwan Hoong Ng, a medical physicist and Dr Raja Rizal Azman, a radiologist. The multidisciplinary panellists comprised of Prof Dr Basri Johan Jeet Abdullah (interventional radiologist), Dr Lye Mun Tho (clinical oncologist), Prof Dr Tomas Kron (radiotherapy physicist), Prof Dr Eva Bezak (radiation

physicist) and Prof Dr Arimura Hidetaka (biomedical engineer and medical physicist). Refer **Figure 7**.

- Round table forum on “Creating a Balanced View of the Risks from Radiation”, moderated by Prof Dr Colin Martin and Prof Dr Kwan Hoong Ng. The panellists were Prof Dr Virginia Tsapaki from Greece, Prof Dr Eva Bezak from Australia and Prof Dr Magdalena Stoeva from Bulgaria. Refer **Figure 8**.
- 11 symposiums: AAPM Symposium on Radiotherapy, IPEM Symposium on Nuclear Medicine, Radiomics Symposium, 3D Printing in Medicine, IAEA Symposium on Radiotherapy Safety, MEFOMP Symposium on Diagnostic Reference Levels, SEAFOMP Symposium on Small Field Dosimetry based on IAEA TRS483, Mammography Symposium, IOMP Symposium on Women in Medical Physics, AFOMP Symposium on Education and Training, and IAEA Symposium on Education and Training.
- Update Lecture on “Molecular Biology for Physicists” by Dr Deming Chau, a biologist from the Universiti Putra Malaysia.
- Update Lecture on “ICRP Proposals for Use of Effective Dose in Medicine” by Prof Dr Colin Martin, the Vice Chairman of ICRP Committee 3.

On social programmes, a Gala Dinner was held on 12 November 2018, from 7.00 pm to 11.00 pm at The Straits Estate, VE Hotel & Residence. Multiple cultural performances were presented by delegates from Malaysia, South Korea, Taiwan, Thailand, Indonesia, Middle East, Philippines, Australia, New Zealand. The organizer has also arranged multiple lucky draw sessions to give away a total of 33 prizes. The dinner has set a good example on how medical physicists from different countries can unite together via cultural exchange.

In the spirit of sustaining the future of the profession, 22 travel awards were given out. These awards were funded by the Malaysian Convention & Exhibition Bureau (MyCEB), Asia-Oceania Federation of Organizations for Medical Physics (AFOMP) and Southeast Asian Federation of Organizations for Medical Physics (SEAFOMP). In addition, 18 best oral and poster awards were given out to acknowledge outstanding research works presented by young researchers and students. **Table 1** shows the awardees of these awards. A special mention on

Young Leader Awards given by the SEAFOMP in recognition of the outstanding achievement of young medical physicists in the region. Among the five recipients were Assoc. Prof. Dr Chai Hong Yeong from Malaysia, Mr. Sornjarod Oonsiri from Thailand, Mr. Randal Zandro Remoto from Philippines, Mr. Wahyu Edy Wibowo from Indonesia and Dr. Mohd Hafiz bin Mohd Zin from Malaysia.

During the Closing Ceremony (14 November 2018), the new elected President of AFOMP, Prof Dr Arun Chougule and the President of SEAFOMP, Dr James Lee were invited to give their closing remarks. The ceremony was continued with awards presentation, promotional presentation of AOCMP 2019 (Kuwait), promotional presentation of SEACOMP 2019 (Indonesia), promotional presentation of World Congress 2021 (Singapore) and finally the closing speech by the Congress chairpersons. The ceremony was ended with group photo and tea refreshment. The organizing committee of the 18th AOCMP and 16th SEACOMP 2018 would like to take this opportunity to thank all the supporting organizations, government agencies, industrial partners, universities, invited speakers, foreign and local delegates for making this Congress a great success. The 19th AOCMP will be held at Kuwait and the 17th SEACOMP will be held at Bali, Indonesia. We hope to see all of you there.

Table 1: Awardees of Travel Grants/Awards and Best Oral and Poster Presentations.

Awards	Awardees Names	Country
MyCEB Travel Grants (USD500, waived registration fee and Certificate)	Jae Inamarga	Philippines
	Fatimah Kunti Hentihu	Indonesia
	Mary Joan	India
	Md Akhtaruzzaman	Bangladesh
	Moulay Ali Youssoufi	Morocco
	Trong Hung Le	Vietnam
AFOMP Travel Awards (USD 500 and	Dhokal Sandip	Nepal
	Delmar Arzabal	Philippines

Certificate)	Md Shakilur Rahman	Bangladesh
	Oanh Luong	Vietnam
	P Mohandass	India
	Rajni Verma	India
	Senthi Kumar	India
	Thu Nguyen	Vietnam
SEAFOMP Travel Awards (USD500 and Certificate)	John Paul O Bustillo	Philippines
	Juthamat Khaophonng	Thailand
	Natnapa Pinsaitong	Thailand
	Princess Jara F Manalo	Philippines
	Putthipong Chanwichu	Thailand
	Rasalin Thana	Thailand
SEAFOMP Special Travel Grants for Laos and Cambodia (USD500, waived registration fee and Certificate)	San Sokheam	Cambodia
	Viphaphone Inphavong	Laos
Best Oral Presentation Awards - Therapy (USD100 and Certificate)	James Rijken	Australia
	Takuya Uehara	Japan
	Tran Thi Thao Nguyen	Japan
Best Oral Presentation Awards - Imaging (USD100 and Certificate)	Wirunpatch Buratachwatanasir	Thailand
	Thunyaluk Sawatnatee	Thailand
	Tuyen Nhu Pham	Malaysia

Best Oral Presentation Awards – Radiobiology, Radiation Protection and Others (USD100 and Certificate)	Chryzel Angelica Gonzales	Japan
	Rajni Verma	India
	Mohammed Alaswad	Ireland
Best Poster Presentation Awards - Therapy (USD100 and Certificate)	Nurul Hashikin Ab. Aziz	Malaysia
	Irena Koniarova	Czech Republic
	Hwee Shin Soh	Malaysia
Best Poster Presentation Awards - Imaging (USD100 and Certificate)	Nurain Borhan	Malaysia
	Kannikar Kanyakham	Thailand
	Kensuke Hori	Japan
Best Poster Presentation Awards - Radiobiology, Radiation Protection and Others (USD100 and Certificate)	Shin Yanagisawa	Japan
	Wan Nordiana W Abd Rahman	Malaysia
	Chaisunthorn Wisetnan	Thailand



Figure 1: Prof Dr Colin Martin delivered the John Cameron Memorial Lecture entitled “The Role of the ICRP in Medicine: Past, Present and Future”.



Figure 3: The launching gimmick during Opening Ceremony. From left to right: Dr Noriah Jamal (organizing co-Chair), Dr James Lee (President of SEAFOMP), Prof Dr Tae Suk Suh (President of AFOMP), Dato’ Dr Dinonyisium Sharma (Chairman Malaysian Wildlife Conservation Foundation), Dr Abdalla Al-Haj (President of MEFOMP), Prof Dr Kwan Hoong Ng (President Emeritus of SEAFOMP), Dr Chai Hong Yeong (organizing co-Chair).



Figure 2: Dato’ Dr Dinonyisium Sharma, Chairman of Malaysian Wildlife Conservation Foundation delivered his speech on “Creation, Humanity, Science and Sustainability” during the Opening Ceremony.



Figure 4: Multi-culture performance, *Kita Malaysia*, presented by the undergraduate students from the University of Malaya during Opening Ceremony.



Figure 5: Group photo taken during the Opening Ceremony (11 November 2018). More than 529 delegates from 40 countries have attended the 18th AOCMP and 16th SEACOMP at Kuala Lumpur, Malaysia.



(a)



(b)

Figure 6: (a) Prof Dr Tomas Kron delivered the first AFOMP Oration in the Memorial of Prof Kiyonari Inamura on the topic of “Paediatric Radiation

Oncology: Can We Translate All the Technological Advances from Adults to Kids?” (b) Prof Dr Tae Suk Suh (right) and Dr Howell Round (left) presented certificate and plaque to Prof Dr Tomas Kron as a token of appreciation.



Figure 7: Round table forum on the theme “Medicine in the Era of Artificial Intelligence”. Left to right: Prof Dr Basri Johan Jeet Abdullah (interventional radiologist), Dr Lye Mun Tho (clinical oncologist), Prof Dr Eva Bezak (radiation physicist), Dr Raja Rizal Aman (radiologist), Prof Dr Kwan Hoong Ng (medical physicist), Prof Dr Tomas Kron (radiotherapy physicist) and Prof Dr Arimura Hidetaka (biomedical engineer and physicist).



Figure 8: Round table forum on the theme “Creating a Balanced View of Risks from Radiation”. Left to right: Prof Dr Magdalena Stoeva (Bulgaria), Prof Dr Colin Martin (United Kingdom), Prof Dr Kwan Hoong Ng (Malaysia), Prof Dr Virginia Tsapaki (Greece), Prof Dr Eva Beazk (Australia).

Report on the 15th South East Asian Congress of Medical Physics (SEACOMP)

Agnette Peralta¹ and Dan Joseph Manlapaz²

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The 15th SEACOMP was held in Iloilo City, Philippines, on 1-3 December 2017 with the theme “Medical Physics towards Health for All”. The host society was the Society of Medical Physicists in the Republic of the Philippines, Inc (SMPRP), which is a member-organization of the Southeast Asian Federation of Organizations for Medical Physics (SEAFOMP). The co-chairpersons of the Organizing Committee were Mr. Norberto Abella, the former president, and Mr. Dan Joseph Manlapaz, the current president of SMPRP.

The John Cameron Memorial Lecture speaker was Dr. Anchali Krisanachinda of Chulalongkorn University who spoke on “Optimization: The Role of Medical Physicists in Diagnostic Radiology”.

There were four invited speakers for the plenary sessions: Prof. Kwan-Hoong Ng of the University of Malaya whose talk was entitled “Onward Medical Physics in South East Asia – The Journey”, Dr. Bernhard Egwolf of the University of Santo Tomas (UST) in Manila who lectured on “Molecular Docking”, Dr. Nikolai Tokarev of the Federal Siberian Research Clinical Center who shared his “Experience in Cyclotron Production of Radionuclides for Nuclear Medicine”, and Mr. Jonathan Corpuz of the Southern Philippines Medical Center in Davao City who talked on “The Application of Risk Analysis Methods – AAPM TG100 as a Guide for Starting Up a Radiotherapy Facility”.

There were also four different commercially-sponsored lectures with six speakers, one of whom was Dr. Ikuo Kobayashi.

There were 177 delegates from ten countries, of which 132 were from the Philippines, nineteen from Indonesia, fifteen from Thailand, one from Malaysia, three from Singapore, one from Australia, three from Japan, one from Germany, one from Russia, and one from Sweden.

There was a total of 51 proffered papers presented during the thirteen parallel sessions on radiation oncology medical physics, diagnostic radiology medical physics, health physics, and biophysics.

The Proceedings of the 15th SEACOMP was published by the SMPRP, Inc with ISSN 2012-2888.

For the Congress opening ceremony, the guest of honor was the former Secretary of the Department of Health, Dr. Paulyn Jean B. Rosell-Ubial. The welcome dinner held in the historic former provincial Capitol was hosted by the Provincial Government of Iloilo. The guest of honor was Governor Arthur D. Defensor, Sr. That evening, **Mrs. Eulinia Mendoza Valdezco**, one of the pioneer Filipino medical physicists, received the **SMPRP Lifetime Achievement Award**. To cap the night, a cultural show was presented by the Layog National High School of Maasin, Iloilo.

The Fellowship Night dinner on the second evening was hosted by the City Government of Iloilo City. The Iloilo City Mayor Atty. Jose S. Espinosa was represented by the City Administrator Atty. Hernando C. Galvez. A band entertained the delegates and guests during the dinner. The participants from Thailand, Indonesia, and the Philippines also gave exuberant and highly appreciated performances.

During the closing ceremony on the third day, the best paper awards were given to Rachitha Antony of Australia, Choirul Anam and M Fadli of Indonesia, Vanessa Destura, Shalaine Tatu, and John Paul Bustillo of the Philippines, and Utumporn Duanganan and Sammueel Mamesa of Thailand.

Afterwards, in the afternoon, there was a free city tour hosted by the Department of Tourism Regional Office based in Iloilo City and the Iloilo City Government.

On 4 December 2017, the ASEAN College of Medical Physics held the post-Congress course on

“Radiofrequency Radiation Protection ” with Ms. Agnette Peralta of UST Graduate School and Ms. Ma Gladys Cabrera of the Center for Device Regulation, Radiation Health, and Research of the FDA of the Department of Health as lecturers.

Two historic events occurred during SEACOMP 2017.

The first event was the release of **The Iloilo Declaration** shown below which was signed on 3 December 2017 by the SEAFOMP officers and representatives of the member – organizations.

The South East Asian Federation of Organizations for Medical Physics (SEAFOMP)

DECLARATION ON SEAFOMP MOVING FORWARD hereinafter called the ILOILO DECLARATION

We, the representatives of the member societies and the officers of the South East Asian Federation of Organizations for Medical Physics, on the occasion of the 15th South East Asian Congress of Medical Physics held in Iloilo City, Philippines on 1- 3 December 2017;

CONSIDERING the strong friendship among South East Asian countries as it celebrates in the Philippines this year the 50th anniversary of the founding of the Association of South East Asian Nations;

AFFIRMING the importance of cooperation in ensuring success and solidarity in any endeavor;

ACKNOWLEDGING the extremely important role of medical physicists in the delivery of quality and safe health care services and in radiation protection, especially in such fields as diagnostic radiology medical physics, nuclear medicine medical physics and radiation oncology medical physics;

RECOGNIZING the importance of education and training in ensuring the availability of qualified medical physicists; and

TAKING INTO ACCOUNT the current situation of a lack of qualified medical physicists and of the non-existence of appropriate positions for medical physicists in some ASEAN countries;

Do hereby agree to:

- 1. Promote cooperation in the development and implementation of capacity-building programs and sharing of best practices in critical areas of concern such as radiation dosimetry, quality assurance, radiation protection, risk management, and professional skills enhancement;*
- 2. Raise the professional standards and competency of medical physicists in the region through quality-driven, knowledge-based and value-enriched education; and*
- 3. Strengthen the leadership qualities among members through role models, mentoring and empowerment.*

Done in Iloilo City, Republic of the Philippines, on the second day of December in the Year Two Thousand and Seventeen, in a single original copy in the English Language.

The second historic event was the **establishment of the SEAFOMP Young Leaders’Award**. The first awardees were Dr. Yeong Chai Hong from Malaysia, Dr. Supriyanto Ardjo Pawiro from Indonesia, Mr. Dan Joseph Manlapaz from the Philippines, Mr. Nguyen Tan Chau from Vietnam, and Dr. Taweap Sanghangthum from Thailand.



Dr. Anchali Krisanachinda, John Cameron Memorial Lecture speaker (seated front center) surrounded by some SEAFOMP and SMPRP current and former officers and board directors, at the 15th SEACOMP in Iloilo City.

2018 IUPESM World Congress on Medical Physics and Biomedical Engineering in Prague, Czech Republic

Savanna Nyarko

Department of Imaging Technology and Sonography, College of Health and Allied Sciences, University of Cape Coast, Cape Coast-Ghana

1. Introduction

My journey to Prague, Czech Republic began when my abstract submission was selected for e-poster presentation (Figure 1) at the 2018 IUPESM World Congress on Medical Physics and Biomedical Engineering. I then started preparations for my trip to the venue for the presentation. At the core of my trip to Prague for this event was the element of funding. The International Organization for Medical Physics (IOMP) and the International Union of Pure and Applied Physics (IUPAP) – Women in Physics Group jointly offered me a Travel Grant to enable me attend the Conference.



Fig 1. Ms Savanna Nyarko standing next to her e-poster at the 2018 World Congress in Prague

2. What I accomplished from attending the 2018 IUPESM World Congress in Prague, Czech Republic

I consider the following as my most significant accomplishments from attending WC 2018:

1. I had the opportunity to physically engage with colleague Medical Physicists (and Biomedical Engineers) in discussing my e-poster, and what other researchers were working on; we also discussed future collaborations. The audience were from many different countries (affiliated to IOMP, IUPAP, IUPESM, and IFMBE), and so I am confident that those engagements have helped widen my circle of research collaborators for the future.

2. Having my abstract and e-poster available online facilitates my web presence, recognition and readership scope of my research. I have since received a number of emails from authentic prospective academic journals and publishers inviting manuscripts from me for publication.

3. I attended the *IOMP/IUPAP Workshop on Medical Physics Partnering with the Developing World*. This workshop precisely covered all the challenges there are in Medical Physics practice and training in the developing world. There were also discussions about the way forward and opportunities for collaboration with advanced countries towards increasing Medical Physicists in countries needing support.

4. My visit to the Advanced Preclinical Imaging Centre (Figure 2) exposed me to a wide range of

imaging techniques and research possibilities I can explore in collaboration with the Centre. Indeed, delegates who visited the Centre were encouraged to get back in touch from their home countries if they needed research collaborations in the future. This was an exciting opportunity for me, and I hope to make good use of that collaboration in the near future.

5. In addition to the Opening and Closing Ceremonies, I also attended 32 Scientific Sessions, including a short FAMPO meeting on June 7, 2018. The Scientific Sessions were an opportunity for me to learn more about a number of new techniques and advances in Medical Physics research. The FAMPO meeting on the other hand presented me with an opportunity and inspiration to serve sub-Saharan Africa in the advancement of Medical Physics, after submissions were made by the FAMPO President, Dr. Taofeeq Ige.



Fig 2. Ms Savanna Nyarko in the MRI room of the CAPI

3. Benefits of attending WC 2018 to the Ghana Society for Medical Physics

As an active and dedicated member of the Ghana Society for Medical Physics (GSMP), whatever

knowledge and exposure I have had from my attendance at the World Congress will impact positively on the quality of service I will render to the Society.

All collaborations I have established at the Conference were done with an ultimate motive of enhancing and advancing Medical Physics education and practice in Ghana and sub-Saharan Africa. This will, over time, lead to an increase in the number of GSMP and FAMPO members who will serve the continent better. The result is that GSMP will grow bigger, better and be sustained.

4. Conclusion

In general, I consider all events I engaged in at the World Congress life changing and a turnaround of my future as a young Medical Physicist. The set of skills, knowledge, collaborations and general exposure to the international research community resulting from my attendance at the Congress are invaluable to my career advancement and by extension, to the GSMP. It is also my belief that the objectives of the funding support I received from IOMP, IUPAP-Women in Physics Group towards my participation at the Congress have been met.

Acknowledgements

I thank the International Organization for Medical Physics (IOMP) and the International Union of Pure and Applied Physics (IUPAP)-Women in Physics Group for the financial support I received from them to enable me attend the 2018 IUPESM World Congress on Medical Physics and Biomedical Engineering in Prague, Czech Republic.

2018 IUPESM World Congress on Medical Physics and Biomedical Engineering in Prague, Czech Republic

Abdul Nashirudeen Mumuni

Department of Biomedical Laboratory Sciences, School of Allied Health Sciences, University for Development Studies, Tamale-Ghana

1. Introduction

My journey to Prague, Czech Republic began when I was nominated by the Ghana Society for Medical Physics (GSMP) through Dr. Francis Hasford for the 2017 IUPAP Young Scientist Award. On December 4, 2017, I received an official notice from the GSMP about me emerging as the winner of the prestigious Award for 2017 (*Section 2.1*). I then started preparations for my trip to the venue for the Award, including submission of an Abstract for e-poster presentation (Figure 1) at the 2018 IUPESM World Congress on Medical Physics and Biomedical Engineering where I was to receive the Award. At the core of my trip to Prague for these events was the element of funding. The International Organization for Medical Physics (IOMP) stepped in to offer me a Reduced Registration Fee Award (*Section 2.2*) for the Conference.



Fig 1. Dr. Abdul Nashirudeen Mumuni standing next to his e-poster at the 2018 World Congress in Prague

2. Awards received from the IOMP

2.1 IUPAP/IOMP 2017 Young Scientist Award in Medical Physics

I was invited by the IOMP to attend the Presidential Reception on June 5, 2018 at the Corinthia Towers Hotel (in the Let's Eat Restaurant) in the City of Prague, where the Award was presented to me (Fig 2-5) jointly by Prof. Slavik Tabakov (*Past President, IOMP*), Prof. Madan Rehani (*President, IOMP*) and Virginia Tsapaki (*Secretary General, IOMP*). At this ceremony, Dr. Taofeeq Ige (Fig 5) also received the IDMP Award for 2017. I was accompanied by Miss Savanna Nyarko (Fig 6) to the Presidential Reception; she also received the IOMP Travel Award to the 2018 IUPESM World Congress.



Fig 2. Presentation of the 2017 IUPAP Young Scientist Medal and Certificates to Dr. Abdul Nashirudeen Mumuni by Prof. Slavik Tabakov (*Past President, IOMP*), assisted by Prof. Madan Rehani (*President, IOMP*)

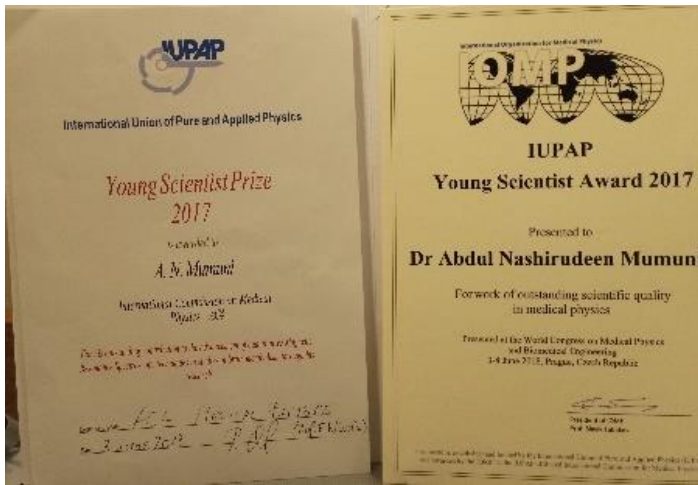


Fig 3. The IUPAP/IOMP Certificates



Fig 5. Dr. Abdul Nashirudeen Mumuni (holding the certificates and medal) with Prof. Fridtjof Nüsslin (right), Prof. Slavik Tabakov (left) and Dr. Taofeeq Ige (extreme left)



Fig 4. The IUPAP Medal



Fig 6. Dr. Abdul Nashirudeen Mumuni and Miss Savanna Nyarko (both Ghanaian delegates who benefited from the IOMP Travel Grant)

At the Presidential Reception, I had the opportunity to chat one-on-one with other delegates of the 2018 World Congress and established long-term collaborations with them. It was also an opportunity for me to relax after a long day at the Conference venue.

2.2 IOMP Reduced Registration Fee Award

At the time of my registration for the 2018 IUPESM World Congress, the fee I was to pay as a delegate from a middle-income country (Ghana) stood at €520.

However, through the IOMP reduced registration fee award, I paid a registration fee of €240. My Award was therefore worth €280, which enabled me to pay for up to 5 nights of my stay at the B & B Hotel Prague during the Conference. Indeed, this significantly reduced the financial burden on me having to take care of other expenses in attending the Conference. My IUPAP cash prize of €1000 plus funding support from my employer (University for Development Studies) also took care of my air tickets and other expenses (including a Scientific Visit to the Centre for Advanced Preclinical Imaging (CAPI) – Fig 7). My attendance at the Conference was therefore one free of financial burden, and so I had a sound mind to concentrate on all engagements at the Conference.



Fig 7. Dr. Abdul Nashirudeen Mumuni in the MRI room of the CAPI

3. What I accomplished from attending the 2018 IUPESM World Congress in Prague, Czech Republic

Since my return to Ghana from the United Kingdom in December 2013 after completion of my PhD research, the 2018 IUPESM World Congress in Prague was my very first international conference. I therefore looked forward to the trip and the entire program with so much enthusiasm. Therefore, having my conference paper accepted for e-poster presentation was in itself a great accomplishment to me. In no particular order, I consider the following as my most significant accomplishments from attending WC 2018:

6. I had the opportunity to physically engage with colleague Medical Physicists (and Biomedical Engineers) in discussing my e-poster, other studies I have carried out in the past, and what other

researchers were working on; we also discussed future collaborations. The audience were from many different countries (affiliated to IOMP, IUPAP, IUPESM, and IFMBE), and so I am confident that such engagements have widened my scope/circle of research collaborators whom I have established contacts with.

7. Having my abstract and e-poster available online facilitates my web presence, recognition and readership scope of my research. I have since received a number of emails from authentic prospective academic journals and publishers inviting manuscripts from me for publication.

8. My full conference paper presented at the Conference was also accepted and published as a Book Chapter (**Mumuni, A. N.**, McLean, J., Krishnadas, R., Lopez-Gonzalez, M. R., Cavanagh, J., Condon, B. *Assessment of Brain Water Content in Peripheral Inflammation by an Optimized Single-voxel MR Spectroscopy Quantitation Technique*. In: Lhotska L., Sukupova L., Lacković I., Ibbott G. (eds) *World Congress on Medical Physics and Biomedical Engineering 2018*. IFMBE Proceedings, vol 68, no. 1 (2019): pp. 91-96. Springer, Singapore). This will contribute a significant point towards my next promotion as a University teacher and enhance my prospects towards winning research grants in the future.

9. I attended the *IOMP/IUPAP Workshop on Medical Physics Partnering with the Developing World*. This workshop precisely covered all the challenges there are in Medical Physics practice and training in the developing world. There were also discussions about the way forward and opportunities for collaboration with advanced countries towards increasing Medical Physicists in countries needing support. At this workshop, I met other people including Dr. Delis Harry of IAEA with whom I discussed a research idea about bone thickness and mineral measurements. We exchanged contacts and planned taking the discussion towards implementation after the Conference. This was one of my main accomplishments because I have been challenged (for about 2 years now) by the absence of a Dual Energy X-ray Absorptiometry (DEXA) machine in Ghana as a validation tool for conventional X-ray as my technique of focus in that study. The study has since been stalled, but I hope to get a head way from the established collaboration with Dr. Delis Harry.

10. My visit to the Advanced Preclinical Imaging Centre exposed me to a wide range of imaging techniques and research possibilities I can explore in collaboration with the Centre. Indeed, delegates who visited the Centre were encouraged to get back in touch from their home countries if they needed research collaborations in the future. This was an exciting opportunity for me, and I hope to make good use of that collaboration in the near future.

11. In addition to the Opening and Closing Ceremonies, I also attended 32 Scientific Sessions, including a short FAMPO meeting on June 7, 2018. The Scientific Sessions were an opportunity for me to learn more about a number of new techniques and advances in Medical Physics research. The FAMPO meeting on the other hand presented me with an opportunity and inspiration to serve sub-Saharan Africa in the advancement of Medical Physics, after presentations made by the FAMPO President, Dr. Taofeeq Ige.

4. Benefits of attending WC 2018 to the Ghana Society for Medical Physics

As an active and dedicated member of the Ghana Society for Medical Physics (GSMP), whatever knowledge and exposure I have had from my attendance at the World Congress will impact positively on the quality of service I will render to the Society.

Firstly, the GSMP in collaboration with other institutions within Ghana and Norway held a Summer School for Medical Physicists and Radiographers. Participants were selected from Ghana, other African countries, and Norway to attend the training programme. As a facilitator in the Summer School, one of my lectures was on *NMR Physics and Imaging Principles*. Participants found my lecture very insightful and comprehensive despite the complexity of the *Nuclear Magnetic Resonance* theory I presented. Thanks to Prof. David Lurie for his presentation on *MRI Physics for the non-specialist: understanding the basics to appreciate current advances* at the WC 2018 on June 7, 2018 which I attended. I wish to acknowledge his presentation as my source of revision, deeper knowledge and more understanding which enabled me to transfer

knowledge effectively to the participants of the Summer School in Ghana.

Secondly, all collaborations I have established at the Conference were done with an ultimate motive of enhancing and advancing Medical Physics education and practice in Ghana and sub-Saharan Africa. This will, over time, lead to an increase in the number of GSMP and FAMPO members who will serve the continent better. The result is that GSMP will grow bigger, better and be sustained.

Finally, the nature of the challenges facing Medical Physicists in developing countries were made clearer to me by various presenters at the *IOMP/IUPAP Workshop on Medical Physics Partnering with the Developing World* than I have ever imagined. Nonetheless, the opportunities presented inspired me and provided me with ideas to implement within GSMP in the few years to come.

5. Conclusion

In general, I consider all events I engaged in at the World Congress life changing and a turn around of my future as a young Medical Physicist. The set of skills, knowledge, collaborations and general exposure to the international research community resulting from my attendance at the Congress are invaluable to my career advancement and will benefit the GSMP (a member society of the IOMP) that created the opportunity for me in the first place. It is also my belief that the objectives of the two Awards I received from the IOMP and the funding support by UDS towards my participation at the Congress have been met.

Acknowledgements

I thank the International Organization for Medical Physics (IOMP) and the International Union of Pure and Applied Physics (IUPAP) for the Awards and financial support to enable me attend the 2018 IUPESM World Congress on Medical Physics and Biomedical Engineering in Prague, Czech Republic. Many thanks also go to the University for Development Studies, UDS (*Tamale-Ghana*) for the additional funding support.

I also wish to thank the following people for their contributions in various ways towards the two Awards I received and for facilitating my trip to the Czech Republic:

1. Dr. Francis Hasford (*Secretary General, FAMPO*)
2. Prof. John Amuasi (*Past President, GSMP*)
3. Prof. Mary Boadu (*Chair, Ethical/Disciplinary Committee of GSMP*)
4. Mr. Eric Addison (*President, GSMP*)
5. Dr. Stephen Inkoom (*Medical Physicist, Ghana Atomic Energy Commission*)
6. Dr. Taofeeq Ige (*President, FAMPO*)
7. Prof. Nafiu Amidu (*Dean, School of Allied Health Sciences, UDS*)
8. Prof. Seidu Al-hassan (*Pro-Vice-Chancellor, UDS*)
9. Prof. Gabriel Ayum Teye (*Vice Chancellor, UDS*)
10. Mr. Abdulai Abubakari (*Internal Auditor, UDS*)
11. Dr. Lawrence Quaye (*Head, Department of Biomedical Lab Sciences, UDS*)
12. Prof. Slavik Tabakov (*Past President, IOMP*)
13. Prof. Fridtjof Nüsslin (*Technical University Munich*)
14. Dr. Yakov Pipman (*Professional Relations, IOMP*)
15. Miss Sally Hawking (*IOMP Administration*)
16. Miss Maitri Bobba (*IUPAP Secretariat, Singapore*)
17. Dr. Virginia Tsapaki (*Secretary General, IOMP*)
18. Dr. Tanko Iddrisu (*Head, Human Resource Department of UDS*)

Oskar Adolf Chomicki



Oskar Adolf Chomicki (20.05.1931-25.10.2018) in 1949 was a school leaving at the secondary school Staszic's in Warsaw. Then he did his MSc diploma at the Faculty of Physics and Mathematics, University of Warsaw. He was employed at the Institute of Experimental Physics, University of Warsaw in years 1952-1957 and founder of the Radioisotope Laboratory. He was senior lecturer at the Bielanski Hospital in Warsaw and at the Postgraduate Medical Education Center in Warsaw as well as at the Higher Banking and Insurance School. He was one of the creator of the Polish Society of Medical Physics and multiple years Secretary of the General Board of the PSMP. He was Member of the American Society of MP, President of IOMP (2000-2003), Fellow of the IOMP, Honorary Member of EFOMP and of the PSMP. Oskar Chomicki was author and co-author of many scientific papers. He was a Cavalier of the Gold Merit Cross and of the Medal Well Deserved for Warsaw.

Fight against breast cancer: Let's think what we can do to minimize risks!

Simone Kodlulovich Renha
WIOMP

In the last decades, we are experiencing the impact of the new technologies for diagnosis and treatment of cancer. As a result, there is nearly 40% reduction in breast cancer deaths since 1989 through 2015 in US [1]. In many countries, the five-year survival rate of early stage breast cancers is 80-90 %, falling to 24 % for breast cancer diagnosis at a more advanced stage [2]. But, what can women do to reduce the risk of cancer?

The reality is that women have changed their life style, making all efforts to contribute to the workforce, committed to many home tasks and taking care of the children thus forgetting basic principles of health. The stressed life includes an unhealthy diet, alcohol consuming, smoking and avoiding physical exercise. Even health professionals, who are aware of the potential outcome of this kind of life, cannot avoid hospital shifts, irregular meal times and also many times have to compensate for the shortcomings of health systems through individual adjustments in detriment of their own health. According to World Health Organization (WHO), 60% of related factors to individual health and quality of life are correlated to lifestyle such as: metabolic diseases, joint and skeletal problems, cardio-vascular diseases, overweight and hypertension [3].

According to The American Cancer Society and the American Society for Clinical Oncology guidelines for cancer patients and survivors to prevent cancer: we must have healthy weight, stay active (150 minutes/week of moderate or 75 minutes/week of vigorous aerobic activity plus strength training twice a week and resume regular activity as soon as possible), eat well (vegetables, whole grains, legumes and low saturated fat) and limit alcohol consumption.

Several evidences demonstrate that higher levels of physical activity are linked to lower risk of several cancers. However, according to WHO, 31% of adults worldwide and 35% of adults in Europe are physically inactive [4]. On average, across European countries men are more physically active than women. In addition, physical activity decreases with age in both men and women.

This statistic result is worrying considering the importance of physical exercise to reduce the risk of different types of cancer. For breast cancer, for example, studies show that physically active women have a lower risk of breast cancer than inactive women; in a 2013 meta-analysis of 31 prospective studies, the average breast cancer risk reduction associated with physical activity was 12%. Women who increase their physical activity after menopause may also have a lower risk of breast cancer than women who do not. The excess of body fat increases risk cancer at nine sites: oesophagus, colerectum, gall bladder, pancreas, breast (postmenopausal), endometrium, ovary, kidney, and prostate (advanced stage). On the other hand, sedentary behaviour is a risk factor for developing chronic conditions, including cancer, cardiovascular disease, diabetes and premature death. Recurrence, progression and survival, being physically active after a cancer diagnosis, are linked to better cancer-specific outcomes for several cancer types.

For substantial health benefits, the U.S. Department of Health recommends that adults engage in at least 150 minutes of moderate-intensity aerobic physical activity, or 75 minutes of vigorous-intensity aerobic physical activity every week. Children and adolescents should dedicate at least 60 minutes of physical activity daily, including muscle and bone-

strengthening physical activity on at least 3 days/week [reference].

The results of physical activity as far as the risk of specific cancers is concerned include: 1) lowering the levels of hormones and of certain growth factors that have been associated with cancer development and progression, 2) decreasing harmful effects of obesity, particularly the development of insulin resistance, 3) reducing inflammation, 4) improving immune system function, 5) altering the metabolism of bile acids, resulting in decreased exposure of the gastrointestinal tract to these suspected carcinogens and 6) reducing the amount of time it takes for food to travel through the digestive system, which decreases gastrointestinal tract exposure to possible carcinogens.

The benefits of physical activity as far as cancer and cancer survival are related include:

Weight loss: Physical activity can reduce both body mass index and body weight. Reduced physical activity and cancer treatment effects can contribute to weight gain after a cancer diagnosis which is linked to worse survival.

Quality of life. Quality of life is improved. There are beneficial effects on overall health-related quality of life, self-esteem, emotional well-being, improvement of physical and social functioning, mental health, sexuality, elimination of sleep disturbance, anxiety, fatigue, depression and pain.

In conclusion, women should be aware of the benefit of physical exercises for the risk reduction of cancer. Participation in breast cancer screening is essential but we cannot forget to try to lead a healthier life contributing in this way to reduce the breast cancer risk.



The picture of the Hellenic Association of Medical Physicists won the first price in the related photo contest. 8th Greece race for the Cure event 25 September 2016

References

- [1] American Cancer Society. Breast Cancer Facts & Figures 2017-2018. Atlanta: American Cancer Society, Inc. 2017
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- [3] Gaining Health. The European Strategy for the Prevention and Control of Noncommunicable Diseases.WHO. 2006
- [4] European Code against Cancer 4th Edition: Physical activity and cancer. M. Leitzmann et al. Cancer Epidemiology 39S. S46–S55. 2015

Report of Professional Relations Committee

Yakov Pipman

Chair Professional Relations Committee (June 2015 - June 2018)



The goal of the PRC is to promote and support the status of the medical physics profession worldwide and to identify the need for international professional relations and professional standards. This is done in part through symposia, regional meetings or workshops, and assisting regional or national medical physics organizations to organize and prepare professional relations meetings.

I am grateful to the Council members for electing me to serve a second term as Chair of the PRC.

The PRC thanked George Kagadis of Greece, Anette Peralta of Philippines, William Rae from South Africa and Charles Shang from the US for their contributions through various terms on the committee, as well as to Ibrahim Duhaini and Arun Chougule upon moving up to serve in positions on EXCOM. We welcome the new members

joining those that continue for another term. The PRC team for 2018-2021 is:

Yakov Pipman, Chair
USA/ North America
George Felix Acquah,
Ghana/ West Africa
Whitney Coulor,
Surinam/Central America
/Caribbean
Shigekazu Fukuda,
Japan/ Asia
Rabih Hammoud,
Lebanon / Middle East
Xiance Jin,
PR China/Asia
Dimitris Mihailides,
USA/ North America
Howell Round,
New Zealand/ SE Asia
Dario Sanz,
Argentina/ South America

Among the activities of the PRC we can list the following:

1) IOMP- Affiliate and National Member Organizations (NMO) applications

During 2018, the committee evaluated, and recommended to EXCOM for approval, two more NMO applications:

- The Sociedad Paraguaya de Fisica Medica (SPFM) (Medical Physics Society of Paraguay) <https://www.fisicamedicaparaguay.org/>
- The Oman Medical Physics Association (OMPA)

Both recommendations were approved by EXCOM and subsequently by the Council members. We welcome the two new members to the IOMP family.

2) Support of conferences and events

The PRC reviewed and supported applications for the following events:

- The 3rd International Conference on Medical Physics in Radiation Oncology & Imaging organized by the Bangladesh Medical Physics Society (ICMPROI-2018) in Dhaka, March 10-12, 2018. The conference was organized by the Bangladesh Medical Physics Society (BMPS), the Department of Medical Physics & Biomedical Engineering (MPBME) of Gono University and the Bangladesh Cancer Society (BCS). It was also endorsed, among others, by AFOMP, the AAPM and MEFOMP. Pipman represented the IOMP and presented on “International Educational Resources” and on “Resources to Run an RT Department” and its implications for the professional status of Medical Physicists.

Following the event, the IMPCB administered parts 1 and 2 of the certification exams to more than a dozen attendees from the region.

A detailed account was included in the June-July 2018 issue of the AAPM Newsletter.

- The 2018 AAPM/IOMP - ISEP Therapy Course "Challenges in Modern Radiation Therapy Physics" which took place July 3-7, 2018 in Ljubljana, Slovenia with 80 participants from 20 different countries.

The course directors were Joanna Cygler, Božidar Casar, and Robert Jeraj. AAPM faculty included also Thomas Bortfeld, Rock Mackie, David Rogers and Saiful Huq. Huq gave a workshop on the AAPM's TG-100 report. Guest lectures were delivered by Stine Korreman (IGRT), Bert van der Kogel (Radiobiology) and Slavik Tabakov (Medical physics global workforce).

Ervin Podgoršak, currently a Professor Emeritus of McGill University in Montreal and the editor of the well-known "Radiation Oncology Physics: A Handbook for Teachers and Students" delivered a lecture on "Professional Issues in Medical Physics", as a special guest of honour.

A report about the course is available on the December 2018 issue of MPI.

- The 2018 AAPM/IOMP-ISEP "Imaging Physics Workshop", directed by Supryanto Pawiro (Universitas Indonesia) and Cheng Saw (AAPM), took place October 4-7, 2018 in Depok, Indonesia.

International faculty were Frank Dong, (Cleveland Clinic, USA), Osama Mawlawi (MD Anderson

Cancer Center), Kwan Hoong Ng, (University of Malaya Medical Center) and Douglas E. Pfeiffer, (Boulder Community Foothills Hospital, USA)

Local Faculty were Soehartati Gondowiadjo, MD, PhD (Cipto Mangunkusumo Hospital), Kardinah, MD (Dharmais Cancer Center), Husein MD, PhD (Padjajaran University), Lukmanda Lubis and Ika Bayuadi (Universitas Indonesia) and Choirul Anam (Diponegoro University)

There were 180 registered participants, including attendees from Philippines, Malaysia, and Vietnam.

A detailed account of the workshop will be published in the January 2019 issue of the AAPM Newsletter.

- Traveling Lecture Group – China

Following an initiative by a number of US based Chinese Medical Physicists, an Exchange Scientist Program travelling group was formed to share the latest theoretical and practical quality assurance concepts with Chinese medical physicists to help improve the quality of cancer treatment in the mainland. This activity, endorsed by the IOMP and the AAPM, spanned two weeks, 14 hospitals visited and 39 lectures given, is reported in a recent AAPM Newsletter. The lectures were recorded and broadcast for a wide audience.

- The International conference on Radiological Emergency and Management,

"ICONRADEM2019", organized by the Department of Radiological Physics, SMS Medical College and Hospitals Jaipur, India which will take place February 9-11, 2019.

- Participation in IAEA project to build capacities in radiation medicine of Caribbean countries.

The project (RLA6081), launched at a coordination meeting in Vienna, aims to build capacities in radiation medicine of Caribbean countries through enhancing continuous professional education and strengthening training programmes for current and new staff. The four-year project focuses on diagnostic radiology, nuclear medicine and radiotherapy, as important tools for the diagnosis, treatment and management of major illnesses, including non-communicable diseases. It will entail the identification of sub-regional centres as well as of clinical resources that can be supported and strengthened to become reference resource centres and contribute to building capacities in the region.

The participants from the region were from Antigua and Barbuda, Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Saint Vincent and the Grenadines, and Trinidad and Tobago along with experts from Cuba, Saint Lucia and Surinam.

The IOMP, represented by Yakov Pipman, is one of six participating organizations in the project along with the Pan-American Health Organization (PAHO), ALFIM, the AAPM, and

the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR).

•During the IUPESM 2018 World Congress, in Prague, we participated in the fifth joint IOMP-IUPAP Workshop, dedicated to medical physics development in Low and Middle-Income Countries. Co-organised by S Tabakov, Y Pipman, L Judas and F Nuesslin, the workshop also included speakers from the International Atomic Energy Agency (IAEA) and the World Health Organisation (WHO). The Workshop discussed the current situation and professional development in all IOMP regions and included an overview of the current global situation and the demand for medical physicists. A detailed account is provided in the December 2018 issue of Medical Physics International, including the presentations delivered by senior colleagues from the six regions.

•The “VI Conference on Medical Physics at La Frontera”, sponsored by the Chilean Medical Physics Society (SOFIMECH) and ALFIM took place 4 – 7 November at the Pucon Campus of Universidad de la Frontera, in Chile.

National and international experts presented on Conventional Radiotherapy, Nuclear Medicine, Diagnostic Radiology, Medical Imaging, Radiation Protection, Non-Conventional Radiotherapy and Medical Physics Education and Professional themes.

On Nov 7, a special session was dedicated to the IDMP with

presentations about the contributions of Women to Medical Physics and about current challenges for the profession.

3)Travel awards

The PRC evaluated applications for Travel Grants from numerous colleagues from LMICs to attend the IUPESM world congress in Prague in 2018. Our recommendation to EXCOM resulted in nine IOMP Travel Grants being awarded to: Md Akhtaruzzaman (Bangladesh), Richard Ndi Samba (Cameroon), Savanna Nyarko (Ghana), Rajni Verma (India), Leni Aziyus Fitri (Indonesia), Khalid Iqbal (Pakistan), John Paul Bustillo (Philippines), Valerii Orel (Ukraine) and Donald Zenzo Ndlovu (Zimbabwe).

In addition, 36 applicants from LMICs were awarded reduced registrations to attend the world congress.

4)AAPM-IOMP programs

Two AAPM-IOMP programs are managed and operated by sub-committees that report to the PRC.

1) The International Libraries Sub-Committee (IL-SC)

The IL-SC has been facilitating and channeling donations of textbooks, reports and other publications from developed countries to selected libraries in LMICs, to provide local access for Medical Physicists and students in places where these materials are not available or are hard to come by.

The current team of the IL-SC is:
Allan Wilkinson, USA - Chair
Derek M. Liu, Canada
Xiance Jin, P R China
Charles Shang, USA
Raymond K Wu, USA
D. Allan Wilkinson, PhD (USA)

2) The Equipment Donation Program Sub-Committee (EDP-SC)

The EDP supported by the AAPM to facilitate the donation of Medical Physics equipment from donors in developed countries to institutions and recipients in LMICs. The AAPM has been providing funding to cover shipping and other costs when necessary.

The team of volunteers operates as a sub-committee of the International Affairs Committee of the AAPM and is chaired by Dr Derek Brown from the University of California in San Diego. The EDP has a formalized process for both donating and requesting equipment to increase the likelihood that available, working-order equipment is put to good use at functional and deserving clinics or educational institutions. The program description, including visual data about the geographical flow of donations can be accessed at: <http://www.aapm.org/international/EquipmentDonation.asp>

Currently there are several ongoing initiatives for expanding the reach and value of the program. These include:

- A formal process for facilitating the transfer, calibration and shipment of donated equipment
- Vetting of the recipient clinic or training entities

- Follow-up process to ensure that equipment is being put to good use and to gather feedback from recipients.
- Development and maintaining of the equipment/request database
- Identifying and pursuing opportunities for publicizing the equipment donation program, for example through the IOMP NMO's
- Providing training material for the donated equipment
- Collaboration with Accredited Dosimetry Calibration Laboratories (ADCL's) for equipment that requires calibration.

- MD Anderson, K&S Associates and U of Wisconsin have agreed to calibrate equipment free of charge
- K&S has agreed to perform some repairs where possible
- Donors to send equipment directly to ADCL who will provide calibration of donated chambers and electrometers en-route to recipient clinics.
- Collaboration with Radiating Hope on identifying equipment needs
- Collaboration with "Medical Physics for World Benefit" (MPWB) on initiatives for volunteers to deliver the equipment, provide initial training and advice to the

recipients of the equipment with an outlook for long term follow up and collaborations.

The members of the EDP-SC are:

Derek W. Brown, (USA) - Chair
 Laurence Edward Court, (USA)
 Alana D. Hudson, MSc (Canada)
 Dustin Jacqmin, (USA)
 Stephen Kry, (USA)
 Stephanie Lampe, (USA)
 Aaron Odom, (USA)
 Stephanie Parker, (USA)
 Yakov Pipman, (USA)
 Jacob (Jake) Van Dyk, (Canada)

Finally, I thank all the PRC members for their support and participation in various aspects of the committee's work..

ABSTRACT SUBMISSION

You can submit your abstract related to :

- Misadministration in nuclear medicine, radiotherapy and other radiation using departments.
- Accidents, emergency situations in radiation application in industry, agriculture, research
- Justification of Radiation use
- Radiation hazards, protection and radiobiology
- Epidemiology of cancer
- Role of professionals, media and stakeholders in creating awareness regarding safe use of radiation and mitigations in emergency situation
- Radiation emergency training and education
- Radioactive material transportation and accidents
- Radioactive waste disposal & management
- Radioisotope preparation, handling and managing accidents

The last date for submission of abstract is
30th November, 2018.

REGISTRATION DETAILS:

You can register yourself by visiting website:

www.iconradem.org

After adding personal details you will be redirected to the payment gateway. You can also submit abstract after logging into the website. Registration process will start on 20th August, 2018. Registration fee includes conference kit, tea, snacks, three lunches, two dinners, local transport, participation certificate etc.

FEE DETAILS:

Type/Before	Oct 31 st 2018	Jan 10 th 2019	On Spot
SAARC country delegate	₹3000	₹3500	₹4000
Associate/ Accompanying delegate	₹2000	₹2500	₹3000
Students/ Scholars	₹2000	₹2500	₹3000
AFOMP/MEFOMP Members	US\$ 200	US\$ 250	US\$ 300
Non Member	US\$ 250	US\$ 300	US\$ 350
Foreign Student/ Associate delegate	US\$ 150	US\$ 175	US\$ 200

BANK ACCOUNT DETAILS:

Account Name: **CONRAD**
Account No.: **0273104000198912**
Bank: **IDBI Bank, Vaishali Nagar Branch, Jaipur**
IFSC Code: **IBKL0000273**

ADDRESS FOR CORRESPONDENCE:
Department of Radiological Physics
SMS Medical College & Hospital, Jaipur
Rajasthan, India.
Email: iconradem2019@gmail.com



International Conference on

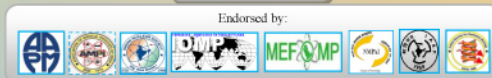


Radiological Emergency and Management ICONRADEM 2019

*'Better the awareness and preparedness:
better the emergency management'*

9-11 February, 2019
Jaipur, Rajasthan, India

Organized by:
Department of Radiological Physics
SMS Medical College & Hospital, Jaipur
Under the auspices of
Asia-Oceania Federation of Organizations for Medical Physics



Knowledge Partner- Department of Atomic Energy (DAE)



Dear Colleagues,
Greetings from Jaipur, Pink City of India!!!

It gives us immense pleasure to invite you to the International conference on Radiological Emergency and Management, ICONRADEM 2019 organized by the Department of Radiological Physics, SMS Medical College and Hospitals Jaipur, Rajasthan during 9th to 11th February 2019 at 'Sushruth Sabhagar' SMS Hospital Jaipur.

The theme of the conference is 'better the awareness and preparedness: better the emergency management'. There has always been concern, anxiety and fear regarding the use of ionizing radiation. This emphasizes the need for creating awareness and emergency preparedness amongst the professionals as well as the public.

Department of Atomic Energy (DAE) is our knowledge partner for this mega scientific event.

Please visit the conference website:
'www.iconradem.org' for details and updates.

On behalf of Organizing Committee, we welcome you all to this scientific bonanza at the 'Pink City' of India.
Padharo Mhare Desh (Welcome to my land)!!!

Organising Chairman
Prof Arun Chougule
Sr. Prof & Head
Department of Radiological Physics
SMS Medical College & Hospitals, Jaipur, Rajasthan, India

Organising Secretary
Rajni Verma
Assistant Professor



Padharo Mhare Desh

ESSENCE OF THE CONFERENCE

Radiation has proved itself to be a boon to mankind. Ionizing radiation has a significant impact on our day to day life by virtue of its applications in various fields of agriculture (Radappertization, Radicidation and Radurization), healthcare (Radiation therapy for malignant and non-malignant diseases, interventional and non-interventional diagnostic or therapeutic procedures, in vivo and in vitro studies), industry (sterilization, NDT and radiotracers) and research (genetic engineering of seeds, accelerators). With the use of radioactive isotopes of varying strengths and physical forms, though the spectrum of benefits widened, the probability of hazards also increased. This necessitates further development in teaching and training facilities. Though trained professionals deal with the safety and protection of the radiation sources and the personnel dealing with radiation, but human error, negligence or even ignorance can lead to a potential threat like the incident in Brazil (1987), Georgia (1997), Thailand (2000) and Mayapuri, New Delhi (2010). Moreover, the general public and also emergency workers could be exposed to radiation or be contaminated as a consequence of malicious acts involving radioactive material. Without adequate preparedness of the medical community for such radiation emergencies, medical management of the situation could be ineffective.

The need of the hour is to frame protocols under the supervision of experts of radiological emergency management. ICONRADEM-2019 focuses on bringing knowledgeable professionals from across the world under one roof to discuss, dispense and deliberate on radiological safety and protection. The conference will deal with the various myths and misconceptions surrounding the use of ionizing radiation; safety in the medical use; protection of the staff, patients and general public and emergency preparedness in case of a radiological emergency.

Currently the role of medical physicist is confined to radiotherapy, diagnostics and research; but this conference can serve as a platform to rekindle and reckon their role as radiation safety experts and shall be instrumental in dissolving the fear and stigma.

OBJECTIVES OF THE CONFERENCE

The conference aims to encompass all aspects of radiological emergencies including awareness, education and mitigation programs. The conference will serve as a forum:

- To create awareness amongst the professionals, the general public and the media; regarding radiological technologies and their justified use
- To strengthen the awareness regarding possible safety and security issues associated with these technologies
- To eliminate the stigma concerning radiological procedures and professions
- To prepare and train medical/ radiation physicists and medical professionals to support the response to radiological emergencies at the hospital or at a regional or national level
- To promote safe application of radiation in healthcare, industry and applications in other fields for the welfare of mankind
- To impart skills to hold responsibilities and be leaders in case of radiological accidents/ emergencies
- To increase the coordination between the various medical professionals and other communities in face of a radiological emergency
- To promote cooperation and sharing of knowledge and expertise amongst the various scientific communities and agencies

TARGET AUDIENCE

To increase the efficacy of the programme and make its effect widespread, all medical professionals, medical/ radiation physicists, radiation safety professionals, radiological emergency response professionals, radiobiologists, nursing and paramedical professionals, radiation & biomedical professionals, nuclear scientists, educationalists and esteemed scholars, students, volunteers, representatives of the public, media persons are welcomed to the conference.

Calendar of Events

10th Annual Winter School - Quality and Safety in MRI

When Feb 5 – 8, 2019

Where Ottawa, Canada

<http://www.comp-ocpm.ca/2019-winter-school/>

International Conference on Radiological Emergency and Management, 'ICONRADEM2019'

When Feb 9 – 11, 2019

Where "SHUSHURAT SABHAGAR" SMS Medical College and Hospitals Jaipur, India

Description Organised by: Department of Radiological Physics, SMS Medical College and Hospitals Jaipur, India.

<http://iconradem.org/>

12th Annual International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Radiosurgery

When Feb 22 – 24, 2019

Where Disney's Grand Floridian Resort, Lake Buena Vista, FL

Description 12th Annual International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Radiosurgery When: February 22-24, 2019 Where: Disney's Grand Floridian Resort Lake Buena Vista, FL

www.cfcme.org/SBRT19

2019 NACP-RPC CT optimization course

When Apr 3 – 5, 2019

Where Grand Hotel Terminus, Zander Kaaes gate 6, 5015 Bergen, Norway

ISMRM Annual Meeting - Montreal

When May 11 – 17, 2019

Where Montreal, QC, Canada

Description International Society for Magnetic Resonance in Medicine

<https://www.ismrm.org/>

3rd International Conference on Dosimetry and Applications (ICDA-3)

When May 27 – 31, 2019

Where Lisbon, Portugal

<http://www.ctn.tecnico.ulisboa.pt/icda-3/>

19th International Conference on the use of Computers in Radiation Therapy (ICCR) in partnership with the 2nd International Conference on Monte Carlo Techniques for Medical Application (MCMA)

When Jun 17 – 21, 2019

Where Montreal, QC, Canada

<http://www.iccr2019.org>

<https://www.facebook.com/iccr2019/>

CARS 2019 Computer Assisted Radiology and Surgery 33rd International Congress and Exhibition

When Jun 18 – 21, 2019

Where Le Couvent des Jacobins Convention Center Rennes, France

<https://www.cars-int.org>

International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS2019)

When Jun 18 – 21, 2019

Where Vienna International Centre, Wagramer Str. 5, 1400 Wien, Austria

<https://www.iaea.org/events/idos2019>