

Editorial

Magdalena Stoeva, PhD
Editor IOMP Medical Physics World



Dear Colleagues and Friends,

Welcome to the June 2022 issue of the IOMP Medical Physics World!

This is the review of a 4-year term of IOMP ExCom we started in 2018 in Prague 2018 and despite all the global challenges successfully completed at Singapore 2022. The

issue contains IOMP ExCom reports covering the period 2018-2022.

This is also my last issue as Editor-in-Chief of the IOMP Medical Physics World. Being an Editor-in-Chief for two consecutive terms has been more than responsibility for me.

During these two terms I have worked closely with IOMP officers, chairs, regional organizations, partner organizations and the industry, to achieve and maintain the highest level of visibility of our profession.

A lot has been achieved for MPW - increased visibility, new layout, ISSN registration, special issues dedicated to Marie Curie's 150th Anniversary and MPW 35th

Anniversary, which were written in close collaboration with some of the world's leading organizations like WHO, IAEA, ICTP, National Geographic.

Now it is time for me to step-down and welcome Dr Chai Hong Yeong as the new Editor-in-Chief. I am turning towards a new challenge – the position of IOMP Secretary General which I am convinced will provide me even further opportunities to serve our international community.

It has been a pleasure and honor to be the Editor-in-Chief of IOMP Medical Physics World! Looking forward to meeting you all in our future ventures!

Medical Physics World
MPW/eMPW
ISSN 2313-4712
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President's Report

Madan M. Rehani, PhD
President of IOMP



Dear Council members,

Once again, let me take this opportunity to thank whole heartedly each and every member of the ExCom and of the Council for the excellent cooperation that I received during the past one year which was an extended period of term due to pandemic. My report of the three-year period (June 2018-May 2021) is appended below which was presented at the Council meeting on 1 June 2021.

I present here a brief report of the past one year following the last Council meeting of 1 June 2021. Full information is available from the respective ExCom member's report. We had several items that required our attention which are presented by each member of the ExCom. This overview is by no means complete and comprehensive.

1. Bylaws Amendment

It was observed that the Bylaws are silent on what happens to the status

of the IOMP national affiliate member society after completion of 5-years of initial membership. Therefore, an amendment to Bylaws was prepared in Feb 2022 for decision by the Council on approval of an amendment allowing for a new term of 5-years. The Council approved the proposal. I wish to thank Rules Committee, all ExCom and Council members for this amendment which will allow continued existence of the national affiliate member societies.

2. IOMP ExCom Elections

Elections for the new ExCom were organized as per terms and procedure specified in the Statutes & Bylaws and in timely manner. The election results were communicated to the Council on 3rd March 2022 and new ExCom announced in April issue of the IOMP Newsletter. We have highly competent officers and Chairs of committees. I have no doubt that the team under the leadership of the new President Prof. John Damilakis will take IOMP forward for the benefit of the members and the profession. Thanks to the Nominating Committee and to candidates who came forward to serve IOMP.

3. IOMP Awards

World congress is the special time for Awards and Honors Committee (AHC) to act to decide on major awards of IOMP which are: Marie Sklodowska Curie Award and Harold Johns Medal. In addition, the International Union of Physical and

Engineering Sciences in Medicine (IUPESM) Award of Merit for Medical Physics is also deliberated and decided by AHC of IOMP. All these awards are presented triennially. The winners of these three awards were declared in early February and shall be presented awards at the World Congress in Singapore. Other awards include new Honorary members of IOMP and Fellows of IOMP. While Fellows of IOMP shall be presented during the World Congress, the honorary members who are outside the field of medical physics were presented the award during a virtual celebration on 11 Jan 2022. AHC also decided winners for the IUPAP (The International Union of Pure and Applied Physics) Young Scientists awards as also International Day of Medical Physics (IDMP) 2021 awards. Thanks to all members of AHC for handling this very important work of IOMP and in particular to its chair Simone Kodlulovich Renha.

4. Theme for IDMP (International Day for Medical Physics) 2022

The ExCom deliberated on the theme for the next IDMP scheduled for 7th Nov 2022 and decided it as "Medical Physics for Sustainable Healthcare". Thanks to John Damilakis for steering actions on this.

5. International Medical Physics week (IMPW) 2022 on 9-13 May 2022

IOMP School organized daily webinars during the IMPW 2022 week which were delivered by highly accomplished scientists from various countries. In addition, a large number of countries organized educational events and provided feedback to IOMP which were made available on IMPW2022 page. Thanks to all who organized IMPW activities.

6. Global Medical Physics Workforce survey

The online forms for global medical physics workforce survey were finalized and ethics clearance sought by Eva Bezak from Human and Research Ethics Committee of her institution which was granted. The survey was finally sent out to member countries in April 2022. It is hoped that this will provide nice update to previous two surveys which were published in Eur J Med Physics in 2015 and 2018.

7. New National member organization

Jamaican Association for Physics in Medicine (JAPM) became a new national member of IOMP. They submitted application in Feb 2022, which was processed by PRC, approved by ExCom and then by the Council in April 2022. Welcome JAPM to IOMP and thanks to PRC (and chair Yakov Pipman), ExCom and Council members.

8. Bids for future conferences

Following the procedure as determined for calling of bids, the decision was made for organizing 25th International Conference on Medical Physics, 2023 in India. Thanks to John Damilakis for leading actions on this. The contract was signed in Nov 2021. Actions on bids for World Congress 2028 (originally 2027) are ongoing and final decision shall be made at WC 2022.

9. IOMP Company tax status

We have been dealing with HM Revenue and Customs (HMRC) of UK for tax waiver in IOMP company accounts through a consultant company. We have been able to manage no tax payment so far. This action is a continuing one though. Sally Hawking from IOMP Headquarter has been instrumental and her contributions is gratefully acknowledged.

10. Endorsement of IAEA Publication

IOMP's endorsement of revision of IAEA Publication TCS 56 on Postgraduate medical physics academic programmes was provided. Thanks to the Chair, Science Committee, Geoffrey Ibbott for steering actions on this.

11. Ukraine War

Much as we are a scientific and professional organization, the war and its aftermath will continue to cause disruption of scientific work, clinical activities, and infrastructure in Ukraine. IOMP took a series of steps that included preparing a statement, supporting statement of International Science Council, informing IOMP Council of our actions and asking Association of Medical Physicists of Russia to join thousands of Russian scientists in deploring war.

12. IOMP School Webinars

This has been a very important activity of IOMP. During the last one year 14 webinars involving 21 speakers were organized. The median attendance has been around 1000. There has been increasing number of new registrants added to our mailing list with each webinar adding 300-1400 new persons. This indicates widespread coverage of audience based on diverse topics covered.

Thanks to all organizers involved and to participants from more than 100 countries, despite extreme time zones varying from 5 am on one side and 10 pm on the other side of the globe, when we start webinar at 12 noon GMT.

13. CPD points for webinar

An independent group of specialists from different parts of the world with no overlap with IOMP ExCom was established in fall of 2021 to develop norms for functioning and awarding Continuing Professional Development (CPD) points for educational activities conducted by the IOMP. It must be stated that IOMP already has Accreditation Board that accredits medical physics degree programs, education and training institutions/centres and awards CPD points for training events organized by member countries. The new independent group started providing CPD points for IOMP webinars starting March 2022. We are going through initial learning experience with the process and intend to review it in August 2022. Thanks to the group that includes Natalka Suchowska, Australia (Chair); Jing Cai, Hong Kong (Secretary); Kiki Theodorou, Greece; Jacqueline Gallet (CAMPEP), USA and Maria Ester Brandan, Mexico.

14. Interactions with international organizations

IOMP has official relations with international organizations like IAEA, WHO, IUPAP and ICRP and attended their regular meetings last year. IUPAP provided young scientists award and assistance for participation in WC2022. A joint IOMP-ICRP webinar was held in April 2022 which attracted nearly 2000 participants. IOMP participated in about half a dozen

meetings of WHO and IAEA last year.

15. Continuation of activities

Publications:

Six issues of the IOMP Newsletters were brought out after the 1 June 2021 meeting of the Council and seventh issue is due for release in first week of June 2022. Information about eMPW (chaired by Magdalena Stoeva) and MPI (managed by Slavik Tabakov) can be found in their respective reports. Thanks to them and the team involved in these publications.

New journals were added under the umbrella of IOMP under MoU with these journals. Thanks to the Chair, PC, Paolo Russo for steering actions. These are:

- Radiological Physics and Technology (Japan Society of Medical

Physics and Japan Society of Radiological Technology)

- Physical and Engineering Sciences in Medicine (PESM), Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM)

Accreditation activities

The CPD accreditation activities of IOMP accreditation board under ETC continued providing CPD credits to several educational activities. Thanks to the Chair, ETC, Arun Chougule and members of the accreditation board for their contribution. Please see ETC report for full information.

I am highly grateful to the ExCom for their full cooperation and support, and to you all – the Council members, who showed full faith in

what we are doing and approved all our proposals. I must add special words of thanks to the SG (Eva Bezak) who really has worked hard during the last year to cope up with immense work. It is comforting that the upcoming SG (Magdalena Stoeva) already has had experience of two terms in ExCom and in fact has contributed immensely to very many actions in my report above. Thanks to Ibrahim Duhaini for his contributions as Treasurer. Prof. John Damilakis who will take over as President is highly experienced individual having been in ExCom for almost a decade and in addition, he has been President of the EFOMP. I wish the new team great success.

Vice President Report

Prof. John Damilakis,
IOMP Vice President and President-elect



Main activities

IOMP Elections

In my capacity as Chair of the IOMP Nominating Committee, I coordinated the procedure for the IOMP elections organized during January and February 2022. The Nominating Committee consisted of the President and Vice-President of the IOMP and representatives from all regions. The process was completed successfully, and no issues were reported.

Rules Committee

According to the previous version of the IOMP's bylaws, the affiliate membership was expiring after 5 years. Bylaws did not mention what happens after 5 years. To enable the Affiliate National Members to continue their IOMP membership, we proposed, and the Council approved the change of the article 2.5.2.1 of the Bylaws from:

"2.5.2.1 A national organization whose field of activity is within

medical physics, which does not qualify as full member, and which seeks for closer cooperation may apply for IOMP membership as an Affiliate Member for up to 5 years."

to

2.5.2.1 A national organization whose field of activity is within medical physics, which does not qualify as full member, and which seeks closer cooperation, may apply for IOMP membership as an Affiliate Member for up to 5 years. During the last year of a term of membership, an Affiliate Member may apply for a new term of up to 5 years. To avoid a lapse in membership, the application should be submitted no less than 3 months before the end of the term.

World Congress on Medical Physics and Biomedical Engineering (WC2022)

As member of the WC2022 'Education and Professional Standards' Committee, Prof. J. Damilakis has submitted a preliminary list of topics based on IOMP School Board members' feedback. Despite various difficulties related to covid pandemic, 2 IOMP School sessions will be organized during WC2022.

International Conference of Medical physics (ICMP 2023)

Two bid proposals were received to hold ICMP 2023, from India and Poland. As Chair of the IOMP ICMP review committee J.

Damilakis worked with Prof. E. Bezak, Prof. M. Stoeva and Prof. G. Ibbott to evaluate the 2 applications. The IOMP Council decided to organize the ICMP 2023 in India.

International Medical Physics Week (IMPW) 2021 and 2022 webinars

The main purpose of the International Medical Physics Week (IMPW) is to motivate organization of activities in a defined week that result in the promotion of the subject of medical physics globally. IOMP celebrates the International Medical Physics Week by organizing a series of webinars dedicated to various professional, educational and organizational aspects of Medical Physics. The 2020 webinars were organized by Prof. J. Damilakis. Prof. John Damilakis co-organized the 2021 and 2022 webinars with the IOMP President Dr. Madan Rehani.

International Union of Pure and Applied Physics (IUPAP)

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).

IUPAP sponsors 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). Moreover, IUPAP supported the International Conference on Medical Physics 2019 and the IOMP scientific activities during the 19th Asian Oceania Congress of Radiology 2021.

In the beginning of November 2019 (November 1 and November 2, 2019), the IUPAP Council and Commission Chair meeting was organized in Vilnius, Lithuania. The Chair of the AC4, Prof. J. Damilakis, presented the activities of IOMP. The 2019 IUPAP Council and Commission Chair meeting was organized in London in the beginning of October (October 2 and October 3, 2019). The IUPAP Young Scientist Prizes were awarded to Mr. Kuo Men (2018) and Mr. Mitsuhiro Nakamura (2019).

The 2020 IUPAP Council and Commission Chair annual meeting was held virtually from the 13th – 21st of October 2020. The 2020 Young Scientist Prize was awarded to Dr Jaydev K Dave. Another matter of interest for IOMP which was discussed during the meeting was the 100th centenary of IUPAP. The IUPAP secretariat is working with one of the Vice Presidents at Large, Dr. Monica Pepe-Altarelli, to develop and print materials for the 100th centenary. A poster has been created to promote Medical Physics and the excellent relation between IOMP and IUPAP.

The 2021 IUPAP Council and Commission Chair annual meeting was held virtually from the 15th – 22nd of October 2021. The 2021 Young Scientist Prize

was awarded to Dr Chai-Hong Yeong.

Collaboration with the World Health Organization (WHO)

The IOMP has been in official relations with WHO as a non-State actor. The President and Vice-President of IOMP discussed with WHO representatives the future collaboration workplan for the period 2021-2023. A template with current and future activities was completed and online meetings were organized. Both parties decided to further continue with official relations. J. Damilakis has attended all major relevant meetings organized by the WHO during 2018-2022.

The projected shortfall by 2030 of 18 million healthcare workers globally is a priority for all nations. Health professional organisations have a role to play in helping to address the projected shortfall by coming together and collaborating to address workforce challenges in their countries.

A WHO call to action has stimulated collaborative actions of healthcare professional associations and youth organisations with member states. The call for action asked for examples of solutions to the 2030 projected shortfall at country level that could be implemented by 2023 being the target.

Drawing on the experience of the Global Health workforce Network hubs currently supporting WHO priorities around gender (Women in Global Health) and youth (Global Health Workforce Network Youth Hub) a 'health workers hub' with a shared aim and share commitment could be a way for

the health professions to take forward work on solutions to the projected shortfall in health workers.

A t-con was organized to discuss the aims of the hub and share views on this matter.

This hub would allow to:

- bring together a critical mass of organizations and agents for change across all health professions
- learn from each other and identify areas of perspective, priority and expertise
- identify and share practice across professional associations, employers, unions regulators and other key stakeholders

During the meeting, the difficulties many imaging and radiotherapy facilities have in hiring new medical physicists were discussed. This clearly indicates a shortage in the production and supply of clinically qualified medical physicists. It was proposed that we start with the health professional associations that we already have to contribute to the hub and then stimulate other groups to engage.

Secretary General Report

Eva Bezak

IOMP Secretary General



The report on the three-year period (June 2018-May 2021), presented at the Council meeting on 1 June 2021, is appended below. A brief report on the activities in the past one year, following the last Council meeting of 1 June 2021, is presented here.

Member communication

In the last year, while preparing for WC2022, 30-70 emails were received daily from NMOs, ExCom, individual members, WC2022 organizers and partner organizations (i.e. internally and externally) that often required prompt response and action. WC2022 preparation also included organization of ExCom meetings, Council meetings, General Assembly, IOMP committee meetings, partner meetings with IAEA, ICRP, WHO, AAPM and others. Other actions included award notifications, conference endorsements, serving as a liaison for the task group on CPD assessment of

IOMP events and many others. I trust that my work contributed to smooth delivery of IOMP activities, engagements and processes.

Member Status Changes:

1. The removal of the NMO status of the Association of Medical Physicists of Georgia (AMPG) was approved by the Council at the Council meeting, June 2021 - as the organization was confirmed defunct. An NMO application from the new organization in Georgia has not been received.
2. No further updates were received from Sri Lanka.
3. Jamaican Association for Physics in Medicine (JAPM) was approved by the Council to become a National Member Organization of IOMP in April 2022. The president of JAMP is Mr Sanchez Palmer. We warmly welcome JAPM to IOMP.

Meetings

1. The IOMP ExCom meeting was held in July 2021 to discuss accreditation of educational events organized by IOMP. This was in response to frequent requests from members for Continuing Professional Development (CPD) points when attending IOMP webinars and similar. A resolution was proposed to form a group that would not include any members of ExCom and its committees and that will develop norms for evaluating and awarding CPD

points for IOMP events. This set up would avoid the potential conflict of interest. More information on the group is provided in the President's report.

2. Additional IOMP ExCom Meetings (1 and 2) will be held during the WC2022 in Singapore where, in addition to standard reporting items, a handover will be conducted to the newly elected ExCom that will serve IOMP during the 2022-2025 term.
3. Business meetings with the IOMP Regional Coordination Board, IAEA, ICRP, WHO, AAPM and IUPESM will also be held during WC2022, Singapore.
4. IOMP Presidential reception is planned for 15 June, 2022, during which award presentations to our latest IOMP fellows and IUPAP awardees will take place.

Conference endorsements and support

The following meeting endorsements were given since the last Council meeting. All without funding:

- a) The 123rd meeting of the Japan Society of Medical Physics (JSMP), Pacifico Yokohama Congress Center, Japan, April 2022.
- b) Medical Physics Education Forum (Virtual), the Hong Kong Polytechnic University, Department of Health Technology and Informatics, August 14-15, 2021, Hong Kong

c) 4th Summer School in Medical Physics 2022: Radiobiology and Radiobiological Modeling for Radiotherapy, September 2022, online and onsite in Heidelberg, Germany

Global workforce survey

The National Member Organization (NMO) were invited to participate in a survey about the current numbers of medical physicists in their countries as well as about their medical physics training and accreditation pathways (UniSA Ethics Protocol 204527). The data will allow IOMP to identify medical physics workforce status, training diversity and future demands around the world. It will only take ~15-20 minutes to complete. Analyzed data will be presented at relevant professional conferences and in a publication.

Collecting this type of information allows IOMP to analyze trends and statistics and provide better service to medical physics community worldwide. Please use the following link to participate:

https://docs.google.com/forms/d/e/1FAIpQLSfHwaS4nQTHQqNo8lxT2p2ZapfPmLlRnlqoTJi_QzDyyYlv1Q/viewform?usp=sf_link

Other activities: In addition to member communication I was actively involved in extensive preparations for IUPESM WC2022, Singapore, including business meetings, presentations, special symposia, etc. My work included participation in the processes surrounding the IOMP elections, e-ballots (IOMP By-laws amendment in regard to Affiliate Membership term, Jamaica admission to NMO status of

IOMP), organization and moderation of IOMP webinars, participation in the IMPW activities, applications for CPD assessment of IOMP webinars, stakeholder communication, and many others.

IUPESM/IOMP/IFMBE Covid Survey results:

The second paper from the international survey on the effects of COVID-19 pandemic on medical physics and biomedical engineering workforce has recently been published: Bezak, E.; et al: The Biggest Challenges Resulting from the COVID-19 Pandemic on Gender-Related Work from Home in Biomedical Fields—World-Wide Qualitative Survey Analysis. *Int. J. Environ. Res. Public Health* 2022, 19, 3109. <https://doi.org/10.3390/ijerph19053109>

Past President Report

Slavik Tabakov

IOMP Past-President



In a summary the duties of the Immediate Past-President of IOMP (June 2018 – June 2022) included the following activities (some are supported by separate reports):

1. As IOMP Past-President and member of the Executive Committee I took part in all Virtual meeting and supported the IOMP activities during this period.

2. Vice-President of the IUPESM and Chair IUPESM Awards and Honours Committee – in this position I introduced a new honour – Fellow of IUPESM (FIUPESM) and with the IUPESM Awards and Honour Committee selected and awarded the first FIUPESM colleagues - *see my separate report from IUPESM Vice-President*

3. Vice-President of the IUPESM and Chair IUPESM Rules Committee – in this position I worked on the update of the Contract for the World Congress, and also on the revision of the IUPESM Statutes and Bylaws, which were approved by the IUPESM General Assembly in Dec 2021 - *see my separate report from IUPESM Vice-President*

4. Vice-President of the IUPESM and Chair WG on IUPESM legal status establishment – in this position I worked for the formation of the new IUPESM Company, which was registered on 5 May 2022 – *see my separate report from IUPESM Vice-President.*

5. Founding Co-Editor-in-Chief of the IOMP Journal Medical Physics International (MPI) – during the period MPI published 8 Regular Issues and 7 Special Issues. The MPU Journal now celebrates its 10th Anniversary of support for the educational and professional activities in the global medical physics community – *see the separate MPI report.*

6. Chair of the IOMP History Sub-Committee (HSC) – In this period a full update of the IOMP History Tables was made twice and an MPI Special Issue History of IOMP was

published – *see the separate HSC report*

7. Took part in the BoD of the IOMP Company – represented the IOMP Company at its regular audit and taking part in all its meetings - this is within the IOMP Company Report

8. Attended on behalf of IOMP the AAPM-ISEP course at Slovenia, 2-4 July 2018, with report on Medical physics global workforce

9. Attended on behalf of the IOMP a meeting in the European Parliament, 11 Oct 2018 Belgium, to request the inclusion of specific medical engineering and physics project in the EU research activities

10. Attended on behalf of IOMP the International Conference ICBHI in Taiwan, 17-19 April 2019 with report on medical physics education development

11. Attended on behalf of IOMP the International Conference on Clinical Engineering in Italy, 20-22 October 2019, with report on collaboration between medical physicists and engineers

12. Delivered on behalf of the IOMP a Virtual seminar in Oct 2019, part of the IOMP School, on levels of e-learning effectiveness

13. Attended on behalf of IOMP the IDMP Virtual Conference of AMPI in India, 7 Nov 2020, with a report on history of medical physics

14. Attended on behalf of IOMP the Virtual Conference AOCMP in Thailand, 3-5 Dec 2020, with a report on medical physics e-learning development

15. Prepared a report on behalf of IOMP about the activities of medical physics journals during the current pandemic, published by CRC in February 2021

16. Co-Editor of the CRC Series of Textbooks on Medical Physics and Biomedical Engineering in the period 2009-2021 (together with Kwan Ng and Russel Ritenour) commissioned, assessed and led to publication about 60 text books – *see the separate CRC Editors report.*

It was an honour to serve the international development of my profession as a member of various IOMP Committees for 25 years, of which 22 years as member of the IOMP Executive Committee and 10 years of those as IOMP Officer. During this period, I did my best to

establish and support various activities, educational projects, e-learning materials, Medical physics e-Encyclopaedia and Scientific Dictionary. These I reported over the years through various publications. I am very grateful to all colleagues and friends with whom we collaborated on these activities and wish wholeheartedly success and continuing progress to all my fellow colleagues medical physicists in service to the global healthcare delivery.

IOMP Financial Report

Ibrahim Duhaini
IOMP Treasurer



Presented is a summary of IOMP's income and expenditure for the four years 2018 to 2021 inclusive, together with a balance sheet comparing the opening and closing position across the period. All figures are expressed in US Dollars. 2018 was the first year for IOMP operating as a limited company.

Profit and Loss Account

Income

Subscription income was \$65,707 (plus \$2,291 from Corporate Members) in 2018, \$66,621 (plus \$2,245 from CM) in 2019, \$69,229 (no CM's) in 2020 and \$73,059 (plus \$4,732 from CM) in 2021. Two new NMO's and one

affiliate member have joined IOMP over this period and the increasing member numbers within the NMO's has helped with income, overall we are seeing a very positive response rate from the NMO's.

Total income was \$103,045 in 2018, \$113,613 in 2019, \$72,855 in 2020 and \$80,437 in 2021. 2018 and 2019 saw high income levels due to the World Congress and ICMP events respectively, plus the introduction of the Accreditation Board in 2019. Understandably, income dropped in the last two years due to reduced activity because of the global pandemic.

Expenditure

Total expenditure was \$97,564 in 2018, \$79,718 in 2019, \$45,651 in 2020 and \$49,496 in 2021. The expenditure increase in 2018 was largely due to costs associated with the World Congress in Prague. Low expenditure figures in 2020 and 2021 are mainly due to the lack of officer travel expenses, event sponsorship and reduced activity, again because of the pandemic. Increased

accountancy fees have been necessary due to the work IOMP has undertaken to secure its tax-exemption status; the high figure for 2021 is a one-time cost. An amount was set aside for tax in 2020 while the situation was still being addressed although the tax actually paid was significantly less as a result of the work by the accountants, this is reflected in the 2021 tax figure as a positive value.

The overall retained surplus was -\$37 in 2018, \$33,217 in 2019, \$31,573 in 2020 and \$28,206 in 2021. Currency exchange rates have fluctuated extensively over the period leading to both gains and losses between Sterling and the Euro against the US Dollar.

Balance Sheet

IOMP held a final balance of \$413,036 in 2018, \$446,253 in 2019, \$477,826 in 2020 and \$506,032 in 2021, therefore showing an overall increase of \$92,996 across the four years.

Science Committee Report

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.

The current Committee membership is shown below:

Geoffrey Ibbott, Chair, USA
Abdalla Al-Haj, Saudi Arabia/MEFOMP
Sha Chang, USA
Lawrence Dauer, USA

XiaoWu Deng, China
Benedick Fraass, USA
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

As most people know, the World Congress was postponed a year and now will be held in Singapore in June, 2022. Members of the SC have contributed to the program committee for the WC 2022.

Several members of the SC have contributed to preparation of a report by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). The final report has undergone extensive review by the Expert Group on Medical Exposures and by national

contacts, and aspects of the work have been presented in several venues, including the ICARO-3 conference. The final report is expected to be published soon.

The SC regularly reviews applications to the IOMP for sponsorship or support of educational and professional development conferences. Before recommending support or endorsement of a conference, the committee considers the quality of the program and proposed speakers, and the potential benefit to be derived by the intended audience.

During the past six years, the SC has reviewed twenty-eight such requests for sponsorship or endorsement, originating from twenty different countries. These requests were all approved, although modifications to the program or budget were suggested for several.

The chair is greatly indebted to the committee for their work and support during the past two terms.

Report of Professional Relations Committee

Yakov Pipman

Chair Professional Relations Committee



It was a pleasure and an honor to serve as Chair of the PRC during the 2015-2018 term and again from 2018 to 2022.

During the 2018 to 2022 period the PRC contributed to the goals of the IOMP through:

1) Evaluated the applications from:

a. The Medical Physics Division of the Mexican Physics Society (DFM-SMF) to become Affiliate National Organization.

b. The Jamaican Association for Medical Physics (JAPM) as NMO Both were endorsed by the PRC and submitted to EXCOM.

2) Supported professional and educational activities in various regions. Among them:

- Course on Dosimetry of Small Fields in External Beam Therapy, at SCMPCR and the National

Institute of Cancer Research and Hospital (NICRH) in Dhaka, Bangladesh, October 2-4, 2019. This was the first CPD activity to receive accreditation from the IOMP under the new Accreditation program.

- Multi-institutional Medical Physics Lecture tour, various hospitals and Fudan University Shanghai, September 12-22, 2018

- 18th Asia-Oceania Congress of Medical Physics and 16th South-East Asia Congress of Medical Physics (AOCMP-SEACOMP 2018), 11-14 Nov, 2018, Malaysia

- Medical Physics Workshop in Diagnostic Imaging and Radiotherapy- Dec 1-4, 2018, Beirut, Lebanon

- International Conference on Nuclear and Radiological Emergency Management (ICON-RADEM2019), Feb 1-4, 2019, Jaipur, India, 9th - 11th February 2019

- XIV Congresso Brasileiro de Física Médica- August 21– 24, in Santos, SP, Brazil (XIV Brazilian Congress of Medical Physics) and 50th ABFM Anniversary.

3) AAPM/IOMP ISEP courses:

- ISEP-D, “Imaging Physics Course” Depok, West Java, Indonesia , 3- 7 October 2018.

(https://w3.aapm.org/newsletter/posts/2019/jan-feb/4401_16.php)

- ISEP-T, "Challenges in Modern Radiation Therapy Physics" with Workshop on TG-100”, University of Ljubljana and Institute of Oncology, July, 3-7, 2018.

- ISEP-D, “International Symposium on Medical Imaging Physics and Image Guidance in Radiotherapy”, in conjunction with AMPI, Dec 14-16, 2019, New Delhi, India.

<https://www.iomp.org/wp-content/uploads/2019/08/ISEP-AAPM-meeting-India.pdf>

- ISEP-D/T, “Advances in Radiotherapy and Diagnostic Physics”, Amman, Jordan, April 21-24, 2019, in collaboration with King Abdullah University Hospital (KAUH) Ramtha, Jordan.

4) Evaluated applications for Travel Grants from LMICs, resulting in 16 Travel awards for the ICMP in 2019, including three Young Investigators awarded for their oral presentations.

5) Organized two workshops on Capacity Building in LMICs - in Bangkok (2019) and at the ICMP in Santiago (2019).

6) Supported activities for the development of medical physics in Central America and the Caribbean Region, in collaboration with ALFIM and

with the International Center for Theoretical Physics (ICTP), in the context of an IAEA regional project “Strengthening Human Capacities of Caribbean Countries in Radiation Medicine”

7) Cooperated with Medical Physicists in Jamaica – in collaboration with MPWB - to establish the Jamaican Association for Medical Physics in 2021 and the subsequent inclusion of JAPM as the newest NMO of IOMP in 2022.

8) As part of the AAPM’s Equipment Donation Program (EDP) we helped define the scope and function of the program by focusing on Medical Physics and QA equipment, improved the procedures for donations and the visibility of the program, combining the donations with training of the recipients, in collaboration with AAPM and MPWB volunteers. The first project was implemented during the ICMP in Chile, in 2019.

9) Represented IOMP in the XIV Congresso Brasileiro de Física Médica- August 21 – 24, in Santos, SP, Brazil (XIV Brazilian Congress of Medical Physics) and the celebration of the 50th ABFM Anniversary. Session on Professional status of Medical Physics and Certification with the President of the ABFM.

10) Participated in the VI Conference on Medical Physics at University of La Frontera (JFMF-2018), November 4–7, 2018 in Pucon, Chile, presenting about the professional relevance of Accreditation, Certification and Licensure. A second contribution was to lead the celebration of the IDMP.

My greatest thanks go to the PRC team which made my work a joy: George F. Acquah (Ghana), Whitney Coulor (Surinam), Shigekazu Fukuda (Japan), Rabih Hammoud (Lebanon), Xiance Jin, (P R China), Dimitris Mihailides, USA, Howell Round (New

Zealand) and Dario Sanz (Argentina), as well as Subcommittee members: Allan Wilkinson (USA), Derek M. Liu (Canada), Charles Shang (USA), Raymond K Wu (USA), Derek Brown (USA), Laurence E. Court (USA), Alana Hudson (Canada), Dustin Jacquemin (USA), Stephen Kry (USA), Stephanie Lampe (USA), Aaron Odom (USA), Stephanie Parker (USA) and Jacob (Jake) VanDyk (Canada).

I am also grateful to my colleagues at the IOMP’s leadership, to the efforts of all our volunteers in the regional and national member organizations, as well as the council members.

In completing my second term as PRC Chair, I look forward to continued and successful efforts with the new team under the leadership of Dr Simone Kodlulovich Renha, the new PRC Chair, and our incoming President, Professor John Damilakis.

Report of Education and Training Committee

Arun Chougule

Chair Education and Training Committee



The Education and Training Committee [ETC] of IOMP is entrusted with development of programs related to education and training of medical physics, to promote internationally sponsored education and training programs, consider application from national and regional organisation for IOMP endorsement and funding, to harmonise and standardize medical physics education program, accreditation of educational, residency and CPD program. The member of ETC and Accreditation Board [AB] are working hard to fulfilling the aims and objectives of ETC and contributing for betterment of medical physics education & training in IOMP member countries.

During last year [May 2021- May 2022] IOMP ETC has done following tasks

1. The report until April 2021 is already submitted and approved
2. The Medical Physics Education programs being conducted in all the regions of IOMP are updated and the IOMP website is updated with the updated list of MP education programs.
3. The IOMP accreditation Board has accredited four educational programs and granted CPD- CME points during the period and received fees of US\$ 600 to IOMP
4. ETC IOMP has published article, reports in eMPW on education, training, accreditation
5. With efforts ETC IOMP, we could get a session– IOMP session on IOMP accreditation program during JSMP2022 meeting at Yokohama [14-17 April 2022] and got an opportunity to popularize IOMP accreditation programs.
6. During JSMP2022, addressed the General body meeting of JSMP and talked about IOMP activities, opportunities
7. ETC has reviewed three applications received from the conference organizers for IOMP endorsement and/or funding and the report submitted in time for approval to IOMP EXCOM.

8. ETC is decimating all the publications. Announcement and activities of IOMP to its member countries so that medical physicists get benefitted

9. ETC has actively participated in programs on IMPW 2022 and supported the IOMP Schools through webinars. Delivered lecture regarding IOMP and AFOMP activities.

10. Working closely with WC2022 organizers for sessions on Education and Training of Medical Physics

11. Encouraged IDMP2021 celebrations

12. Encouraging institutes/Universities and the medical physics educators for supporting the accreditation program of IOMP. Delivered invited talks on various platforms on benefits of IOMP accreditation of education program, CPD programs and residency programs.

13. The personal visit to ICTP, Trieste University, Trieste, Italy for IOMP reaccreditation of MMP program is planned in July 2022.

14. Article titled “Medical Physicist Certification and Training Program Accreditation” is published in Health and Technology, April 2022

15. Due to COVID pandemic in person visits/assessment of accreditation applications are on hold and/or delayed.

Report of Awards & Honours Committee

Simone K. Renha

Chair Awards & Honours Committee



In this last report of this committee, we would firstly like to thank all national member organisations and regional organisations for their nominations for the various awards, plus the nominees who

deserve all recognition for their outstanding contributions to advancement of the discipline of medical physics and the well-being of their patients. The contribution of all societies is what motivates this committee, driving us to repay the trust placed in us by you.







In the final period of this AHC, we had the pleasure and the honour to link IOMP awards to 50 medical physicists from across the world.

Also, this committee which is committed to transparency and legitimacy of the evaluation process, sought to further enhance it. We are aware that there must be a culture of continuous improvement and we








are sure that the next committee, to be chaired by Emeritus Prof. Dr Kwan-Hoong Ng, will drive these processes; bringing further innovations to refine and strengthen our purpose. Besides being an outstanding professional, he is also a very special person.

AHC members are delighted that this year it will be possible to personally honour this year's winners in a face-to-face format during the World Congress in Singapore, as well as hearing most of them present their works.

The AHC would like to congratulate all this year's award winners.

<p><i>Marie Skolodowska-Curie award</i></p> 	<p><i>Harold Johns Medal</i></p> 	<p><i>IUPESM Award</i></p> 
<p>Prof. Ehsan Samei</p>	<p>Dr. Prof. George Starkchall</p>	<p>Prof. Xie George Xu</p>
<p><i>IUPAP Award</i></p>	<p><i>Honorary member award</i></p>	
		
<p>Dr. Chai Hong Yeong</p>	<p>Prof Dr. Al Hammadi, MD</p>	<p>Prof. Dr Donald L. Miller.</p>

In addition, our congratulations to the new Fellows of IOMP:

Prof. Arun Chougule 	Prof. Freddy Haryanto 	Dr. H.Z.H. Kharita 
Prof. Taofeeq Ige 	Prof. Xiaowu Deng 	Prof. Steve Balter 
Prof Habib Zaidi 		

Not the least, I would like to thank all AHC members for their efforts, dedication and friendship. Sharing the AHC experience with you certainly helped me grow as a professional. Thank you very much!

Finally, I would like to thank all ExCom members for their constant support of our activities.

Report of Publications Committee

Paolo Russo

Chair Publications Committee



IOMP Publications Committee 2021-2022

Chair

Paolo Russo - Editor of *Physica Medica – European Journal of Medical Physics* (EFOMP Official Journal)

Editor Members

Jamie Trapp - Editor of *Physical & Engineering Sciences in Medicine* (proposed)

Jong Min Park - Editor of *Progress in Medical Physics*

Ambika Pradhan - Editor of *Indian Journal of Medical Physics*

Magdalena Stoeva (Secretary) - ETechnical editor of *Medical Physics International* (IOMP Official Journal), Editor of *eMPW*

Jeffrey Williamson - Past Editor of *Medical Physics*

John M. Boone - Editor of *Medical Physics* (proposed)

Katia Parodi - Editor of *Physics in Medicine and Biology* (proposed)

Michael David Mills - Editor of *JACMP*

E. Ishmael Parsai - Past Editor of *e-Medical Physics World Newsletter*

Simone Kodlulovich Renha - Editor of *Revista Latinoamericana de Física Médica*

Nobuyuki Kanematsu - Editorial Board for *Radiological Physics and Technology*

IOMP Related Members

Slavik Tabakov - Past immediate President of IOMP

Virginia Tsapaki - Past immediate editor of *e-MPW / SG of IOMP*

John Damilakis - Vice President of IOMP

Siyong Kim - Representative of IOMP PRC

The following tasks are assigned to the Publications Committee (PC):

1. To improve medical physics worldwide by providing or supporting appropriate publications or knowledge generated as a result of research, education and professional

programs of the organization. The focus of the Committee includes both printed and electronic documents.

2. To manage the operation of *Medical Physics World*

3. To oversee the publication agreements with publishers of the official IOMP journals

4. To make nominations of editorial board members and other such appointments as necessary to the IOMP Executive Committee

5. To identify the need for international scientific, research and professional publications through consultation and cooperation with other committees and task groups of the Organization

6. To assist Regional and National Organizations of medical physics to prepare proposals for publication of new materials in traditional or new formats as necessary to extend the international medical physics knowledge base.

Following the Guidelines for becoming an IOMP official journal, prepared by PC in the previous year, the PC analysed the application of the *Radiological Physics* and

Technology (RPT) to become an official publication of IOMP: ExCom has approved this request. The corresponding MoU with the Japan Society of Medical Physics (JSMP) and of the Japanese Society of Radiological Technology (JSRT) was signed by IOMP President in July 2021. Consequently, IOMP PC proposed to the Editor of RPT two members of the Editorial Board: dr. Osvaldo Rampado (Turin, Italy) and dr. Kai Yang (Boston, MA, USA): this indication was approved by ExCom.

In Nov. 2021 IOMP received the application by the Editor of the Journal Physical and Engineering Sciences in Medicine (PESM) and by the President of the ACPSEM, for approving PESM as a scientific publication of IOMP.

The application was discussed by PC and then approved by ExCom and the MoU signed by IOMP President in Dec. 2021. The actions consequent to the approval of this agreement by all parts (nomination of Editorial Board members and usage of logos) were postponed to the approval of a new agreement proposed by the Journal Publisher (Springer). This last agreement has been examined by the PC Chair and in May 2022 sent for discussion to IOMP President and SG, and set for discussion with the incoming PC Chair during WC2022.

As regards the CRC Press Series in Medical Physics and Biomedical Imaging, a publication series coordinated with IOMP which represents the official book series of IOMP, a

new agreement was signed in 2020. The PC President, after discussion with the PC Chair and the IOMP Vice-President, decided to proceed with the nomination of the new Editorial Board at the end of the term of the present Board. The PC Chair will discuss with the incoming Chair for finalizing this aspect of the agreement, in June 2022.

The PC also collaborated with the President for organizing IOMP webinars during IWMP May 2021.

With the help of the President and the SG, in 2021 the PC Chair prepared a new list of free annual subscribers to Medical Physics Journal.

The PC Chair held a first online meeting with the new-term elected PC Chair in May 2022.

MPI Report

Slavik Tabakov & Perry Sprawls
Founding MPI Co-Editors-in-Chief



Medical Physics International journal (MPI) was established by the IOMP in 2012 specifically to provide free support to all medical physicists in fields related to educational and professional issues. As per the agreement with the other Medical Physics Journals, MPI does not publish research papers. It is a valuable supplement to the other medical

physics journals that publish peer-reviewed research reports. This free IOMP e-Journal (www.mpijournal.org) has two regular issues per year plus Special Issues dedicated to the History of Medical Physics.

In the period June 2018 – June 2022 the MPI Journal published:

8 Regular Issues with c.190 papers, totalling about 1800 pages

5 Annexes, including abstracts from 2 International Conferences, totalling about 800 pages

7 Special Issues with 28 History articles, totalling about 900 pages

One specific activity which the MPI Journal initiated in this period was including of issues focussing on the IOMP Regional Organisations. The MPI Regular Issues included focussed publications from: ALFIM (2019, No.1 - 6 papers from the Latin America region); FAMPO (2019, No.2 - 10 papers from the African Region); SEAFOMP (2020 No.1 - 10 papers from the South-East Asia Region); AFOMP (2020 No.2 - 14 papers from the Asia-Oceania region), MEFOMP (2021 No.1 - 13 papers from the Middle-East region), EFOMP (2021 No.2 – 12 papers from the

Europe Region). This activity, coordinated by S Tabakov, shows the remarkable progress of medical physics in these Regions over the past years. The activity was also supported with some papers about achievements and PhD abstracts from the Regions.

Several specially commissioned papers were published showing the activities of colleagues during the pandemic. Together with these, a number of papers related to educational resources and innovative practices, as well as book reviews, were also published.

The History-related Special Issues also made good progress. These MPI Special Issues are now edited by S Tabakov, P Sprawls and G Ibbott. The papers in these issues will be listed in the report of the History Sub-Committee. The latest Special issue focusses on the IOMP History Other History related Special Issues are in preparation for 2022.

During the difficult global period, associated with the Covid-19 pandemic, the MPI Journal continued to provide the profession with information related to the ways our colleagues cope with the situation in different countries. MPI also led an initiative, including most Editors of medical

physics journals, aiming to show the continuing support of these journals for the profession during the pandemic. The overall conclusion is that the journals have even increased their productivity during this period and all published topical papers on the subject. This survey was published as a separate chapter in the recently printed CRC book *Medical Physics During the COVID-19 Pandemic* (Editors Kwan Ng and M Stoeva).

The number of readers of the MPI Journal and its History

Special Issues continue to be around 6000-8000 per month, showing the popularity of the Journal. This consistently high number of readers underlines the importance of the free MPI Journal aim – support to the global professional and educational development of medical physics, plus showing its important place within the development of medicine over the years.

In 2017 the Founding Co-Editors-in-Chief S Tabakov and P Sprawls

were re-elected to lead the MPI Journal.

We would like to thank the Editorial Board and especially the Technical Editor Prof. Magdalena Stoeva, and also all authors who contributed papers during this period.

The figure below shows the global distribution of MPI web site visitors for 1 week in January 2022 for a new MPI issue (official server statistics).



Report of IOMP Medical Physics World Board and Web Subcommittee

Magdalena Stoeva

Chair IOMP Medical Physics World Board and Web Subcommittee



IOMP Medical Physics World Board & Web subcommittee are dedicated to ensure the communication between IOMP and our members worldwide. The 2018-2022 term presented great global challenge turning the online resources into the main communication channel and tool to reach-out to Medical Physics societies and individual MPs worldwide.

IOMP Medical Physics World Board's is charged with the following:

- To contribute to the advancement of medical physics worldwide by providing a bulletin to all members covering IOMP activities and matters of interest to medical physicists.
- To disseminate information, promote communication and provide news of use for all countries but especially in developing countries.
- To seek out information of use to IOMP members from the Officers, Committee Chairs, World Congress Presidents, Regional meeting Organizers and other representatives of IOMP functions and communicate such information to the worldwide membership.
- To assist the IOMP Officers to improve communications by suggesting publication alternatives and preparing proposals for improved methods of achieving MPW goals.
- To seek advertising support for MPW to achieve self-funding of the bulletin.

Membership

IOMP MPWB 2018-2022 members:

- Magdalena Stoeva, Chair
- Ibrahim Duhaini, Calendar Editor
- Madan Rehani (IOMP P)
- John Damilakis (IOMP VP)
- Eva Bezak (IOMP SG)
- Slavik Tabakov (IOMP PP)
- Paolo Russo (PC)
- Simone Kodlulovich Renha (AHC)

IOMP Web Sc 2018-2022 members:

- Magdalena Stoeva, Chair
- Madan Rehani (IOMP P)
- John Damilakis (IOMP VP)
- Eva Bezak (IOMP SG)
- Slavik Tabakov (IOMP PP)
- Geoffrey Ibbott (ScC)
- Arun Chougule (ETC)
- Yakov Pipman (PRC)
- Paolo Russo (PC)
- Simone Kodlulovich Renha (AHC)
- Johnson Darko (North America)
- Rajni Verma
- Francis Hasford (Social Media)
- Chai Hong Yeong (Newsletter)

IOMP MPWB and Web subcommittee major activities in the period:

- 8 regular issues of Medical Physics World
- Special issue of Medical Physics World, November 2019, dedicated to IDMP and MPW 35th anniversary – contributions from IOMP ExCom, WHO, IAEA, IDMP, MPI & history papers by Colin Orton, Azam Niroomand-Rad, Kwan Ng
- Special issue of Medical Physics World, June 2022, dedicated to IOMP Webinars activity
- Design, release and regular support for the new IOMP website and social media – activities schedule, reports, video messages, stats and analysis.
- Designed posters representing IOMP at various events – WC 2018, WC2022, ICMP 2019, AAPM 2018-2021, IDOS 2019, ECR 2019, IDMP 2018-2021 IMPW 2020-2022, etc.
- Designed flyers representing IOMP Strategic plan, IOMP Accreditation and IOMP IMPW

- Events calendar
- Provides technical support for the development and dissemination of the IOMP Newsletter (bi-monthly), including setup of Mail Chimp platform, production of regular newsletters, statistics and analysis.
- Provides support for the production of the MPI journal, inc. the SI on History of Medical Physics and the ICMP 2019 abstracts book
- Provides technical and marketing support the IOMP Webinars
- Regular social media and MEDPHYS lists related activities
- Support for IMPW 2020, 2021 & 2022 – web presence, webinars, marketing, analysis

Financials:

- Cost avoidance for IOMP - providing internal support (technical, programming, design and pre-press) for IOMP website, IOMP Medical Physics World, IOMP Newsletter, IOMP Webinars, conference materials
- Direct income for IOMP-conducted successful advertizing campaigns with Varian and Sun Nuclear

After chairing the IOMP MPWB and Web Subcommittee for two consecutive terms I am happy to announce the immense expansion of the activities of both IOMP Structures. Far beyond our regular activities, we increased outreach and coverage as well as expanded collaboration. The new website attracted over 5 times larger audience, our mailing list increased nearly 10 times reaching out to over 20,000 individuals worldwide, several thousand medical physicists joined the extremely successful webinars series, collaboration with other committees contributed to enhance IOMP's global visibility.

Finance Committee Report

Ibrahim Duhaini

Chair Finance Committee



IOMP has grown up to be one of the biggest Medical Physics organizations Worldwide. As a non-profit organization, IOMP does not require from its members' huge financial commitment yearly, on the contrary, IOMP charges small fees compared to other similar organizations. The reason is that IOMP wanted global societies to actively participate in the development and growth of our profession without the financial burdens on its members. IOMP main contributions are from the

International Conferences on Medical Physics (ICMP) and World Congress Conferences. The duties and job of the finance committee are summarized below:

- To advise ExCom on all the monetary affairs of the Organization.
- To prepare the annual budget for approval by ExCom.
- To prepare financial procedures as set out in the Bylaws for approval by ExCom.
- To prepare any other guidelines concerning the Organization's income and expenditure.
- To formulate and keep under review a dues structure for the national organizations in accord with the structure specified in the Bylaws. Recommend to ExCom the actual dues to be paid by the various categories of member.

- To prepare and recommend the overall financial plans for the Organization.

Due to Covid-19, many of IOMP activities has been affected as in most other organizations. Partners and Corporate members are invited to contribute financially to IOMP so that to elevate activities and programs of medical physics development, training and education for all its members. To cope with demanding duties and continuation, IOMP main achievements during the last 5 years was establishing an IOMP Company for the best interest of expansion and prolongation of the organization. IOMP is looking ahead to be self-sustained to explore more financial resources to fulfill its duties and obligations Worldwide.

Report of IOMP Women Subcommittee

Magdalena Stoeva

Chair IOMP Women Subcommittee



IOMP Women Subcommittee's objective is in compliance with the main IOMP mission 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.

We are focused on various types of activities re to assisting women MPs with their professional development and attracting more women to medical physics and STEM in general.

IOMP Women subcommittee is charged with the following:

- Develop, implement and coordinate tasks and projects related to the role of females in medical physics scientific, educational and practical aspects.
- Popularize the role of the women in medical physics and encourage female medical physicist to advance in the profession.
- Provide regular status/progress updates to the IOMP on all tasks and projects related to the IOMP Female Group.
- Promote the contribution of female medical physicists at major scientific conferences such as WC and ICMP

Membership

IOMP Women Subcommittee
2018-2022 members:

- Virginia Tsapaki, Greece – Chair (June 2018 – March 2020)
- Magdalena Stoeva, Bulgaria – Chair (April 2020 – June 2022)
- Laura Cervino, USA
- Simone Kodlulovich, Brazil – SG
- Anchali Krisanachinda, Thailand
- Hasin Anupama Azhari, Bangladesh
- Rajni Verma, India
- Nadia Octave, Canada
- Eva Bezak, Australia
- Huda Al-Naemi, Qatar
- Chai Hong Hong, Malaysia
- Zakiya Al-Rahbi, Oman
- Elina Samara, Switzerland
- Savanna Nyarko, Ghana
- Hanan Aldousari, Kuwait
- Lucie Sukupova, Czech Republic

IOMP Women subcommittee major activities in the period:

The COVID-19 pandemic changed not only everyone's daily routines, but also the way we work. Unfortunately this had negative effect over the activities of the IOMP Women Subcommittee which rely mainly on in-person meetings/event and networking. Regardless of these limitations IOMP Women Subcommittee can report a number of activities:

- Webinar: Challenges and Contribution of Women in STEM: Medical Physics, December 1, 2020, Organized by BMPS, IOMP-W, AFOMP
- Publication

Yeong, C. H., Azhari, H. A., Parveen, S., Juyena, N. S., Nahar, N., Islam, M. A., Mysore Kempegowda, S., Karmaker, N., Mumtaz, T., & Stoeva, M. (2021). Health management during COVID-19 pandemic-contribution of women health informaticians, medical physicists and veterinarians from Bangladesh

and Malaysia during the world crisis. Health and technology, 11(5), 1149–1163. <https://doi.org/10.1007/s12553-021-00588-w>

- Contribution to IUPESM WiMPBME publication

Barabino, G., Frize, M., Ibrahim, F. et al. Solutions to Gender Balance in STEM Fields Through Support, Training, Education and Mentoring: Report of the International Women in Medical Physics and Biomedical Engineering Task Group. Sci Eng Ethics 26, 275–292 (2020). <https://doi.org/10.1007/s11948-019-00097-0>

- Contribution to IUPESM WiMPBME publication

Frize, M., Lhotska, L., Marcu, L. G. et al. The impact of COVID-19 pandemic on gender-related work from home in STEM fields—Report of the WiMPBME Task Group. Gender, Work & Organization (2021). <https://doi.org/10.1111/gwa>

- Contribution to IUPESM WiMPBME publication

Bezak, Eva, Kristin V. Carson-Chahhoud, Loredana G. Marcu, Magdalena Stoeva, Lenka Lhotska, Gilda A. Barabino, Fatimah Ibrahim, Eleni Kaldoudi, Sierin Lim, Ana M. Marques da Silva, Peck H. Tan, Virginia Tsapaki, and Monique Frize. 2022. "The Biggest Challenges Resulting from the COVID-19 Pandemic on Gender-Related Work from Home in Biomedical Fields—World-Wide Qualitative Survey Analysis" International Journal of Environmental Research and Public Health 19, no. 5: 3109. <https://doi.org/10.3390/ijerph19053109>

- Regular activities related to International women's day

- Special symposium organized by IOMP-W as part of IUPESM World Congress 2022 "Science Diplomacy for Future Advancement in Medical Physics"

- Contribution to two special symposia organized by WiMPBME as part of IUPESM World Congress 2022

History Sub-Committee Report

Slavik Tabakov

Chair History Sub-Committee



During the period June 2018 - June 2022 the members of the IOMP History Sub-Committee (HSC) included:

Slavik Tabakov – Chair

KY Cheung

Colin Orton

Madan Rehani (Ex-Officio)

John Damilakis (Ex-Officio)

Paolo Russo (Ex-Officio)

The history of the IOMP shows the contribution of the Organisation to the global development of medical physics and the colleagues who have taken part in it. During the

period 2018-2022 the History Sub-Committee (HSC) revised and updated four times all existing IOMP History Tables. Information was collected from all IOMP Committees. Three new History Tables were added.

The final result is 35 tables with a volume of c.180 pages. The revision included consolidating tables and adding tables related to various IOMP activities during the past 10 years. The History tables were initiated in 2012 under the leadership of A Niroomand Rad. During this period the History Tables were updated in 2018, 2019, 2021 and 2022 and uploaded to the IOMP website.

Another activity closely related to the history of the profession was the growth of the project History of Medical Physics, associated with the IOMP Journal Medical Physics International. This activity, launched in 2016, has now three Co-leads: S Tabakov, P Sprawls and G Ibbott. During the period 2018-2022 seven Special Issues on History of Medical Physics were published. These included 28 articles with a volume of c.900 pages. The final MPI Special issue (No.7, May 2022) was dedicated to the History of IOMP (with all History Tables in an Annex). The List of

topics covered in the MPI Special Issues on History includes:

MPI Special issue 1: *X-ray Tubes Development; *Film-Screen Radiography Receptor Development; *History of Medical Physics e-Learning Introduction and First Steps

MPI Special issue 2: *Fluoroscopic Technology from 1895 to 2019; *The Scientific and Technological Developments in Mammography; *Review of the Physics of Mammography

MPI Special issue 3: *History of Dental Radiography; *The History of Contrast Media Development in X-Ray Diagnostic Radiology; *Medical Physics Development in Africa

MPI Special issue 4: *A Retrospective of Cobalt-60 Radiation Therapy; *The Many Steps and Evolution in the Development of Computed Tomography; *Medical Physics Development in South-East Asia; *History of Medical Physics Education and Training in Central and Eastern Europe

MPI Special issue 5: * Ultrasound - the First 50 Years; *Measurement of Acoustic Pressure and Intensity Using Hydrophones; *Measurement of Acoustic Power and Intensity Using Radiation Force; *Thermal

Methods for Ultrasound Measurement development

MPI Special Issue 6: *History of Medical Ultrasound -Imaging; *The Dasonograph Story; *Hewlett Packard - Innovations that Transformed Diagnostic Ultrasound Imaging; *History Of

Doppler Ultrasound; *A History of HIFU Therapy

MPI Special Issue 7: History of IOMP (including all History Tables).

The HSC expresses its gratitude and appreciation to all colleagues who contributed to the collection and preservation the history of the profession.



IUPESM Vice-President Report

Slavik Tabakov

IUPESM Vice-President



The International Union for Physical and Engineering Sciences in Medicine (IUPESM) unites the International Organization for Medical Physics (IOMP) and the International Federation for Medical and Biological Engineering (IFMBE). The Union leadership is shared between senior colleagues from IOMP and IFMBE. The web site www.iupesm.org lists the current members of the IUPESM Administrative Council. Currently IUPESM has over 150,000 members in about 100 countries. The aim of IUPESM is to contribute to the advancement of physical and engineering sciences in medicine for the benefit and wellbeing of humanity.

During the term 2018-2022 the IUPESM President was Prof. James Goh (Past President IFMBE) and Vice-President was Prof. Slavik Tabakov (Past President IOMP). The role of the Vice-President includes also Chairing the IUPESM Awards Committee. In this period the Vice-President also Chaired the ad-hoc IUPESM Rules Committee (from January 2022 – a standing Committee) and also the Work Group on IUPESM Incorporation (establishment of its Legal status).

As IUPESM Vice-President I attended all Council meetings and took part in the discussions and approvals of all IUPESM activities in the period June 2018 – June 2022. I also published several papers related to IUPESM, the latest one, in co-authorship with the President J Goh and the Past President KY Cheung, lists the main moments of IUPESM activities since its creation: S Tabakov, J Goh, KY Cheung, 2022, “IUPESM Milestone Developments and Achievements During 1980–2022 - A Tribute to the Contributors”, J Health and Technology.

Related to the **IUPESM Awards Committee (AHC)**, which the Vice-President chairs (AHC members: S Tabakov - Chair, KY Cheung, R Magjarevic, S Renha, J

Goh). The AHC developed and introduced a new honour – IUPESM Fellowship. The honour is connected to a specially designed Point-system and in future will be introduced regularly for each World Congress. This Fellowship was launched in 2020, to celebrate the IUPESM 40-th Anniversary. As inaugural Fellows (FIUPESM) were elected 58 colleagues from 26 countries. The Fellowship virtual ceremony was held in November 2020. Following this in 2022 another group of Fellows were elected. This Fellowship Ceremony will be on 15 June 2022.

Related to the ad-hoc **Rules Committee (RC)**, which the Vice-President chairs (RC members: S Tabakov-Chair, C Orton, KY Cheung, R Magjarevic, J Goh). The RC we revised the Contract for the World Congress on Medical Physics and Biomedical Engineering. This document was not reviewed for over 10 years. The new revised Contract was discussed and agreed both by IOMP and IFMBE. In 2020 it was signed with the WC2021 hosts from Singapore. Due to the Covid19 pandemic, WC2021 was postponed for June 2022.

Another activity performed by the Rules Committee was the revision of the IUPESM Statutes

and Bylaws. These have not been reviewed for 30 years. This activity was completed in mid-2021 and approved with virtual vote by the IUPESM General Assembly. The **new IUPESM Statutes and Bylaws** came in force from 1 January 2022.

The new IUPESM Statutes and Bylaws **included the establishment of the IUPESM**

Legal status through forming an IUPESM Company – a historic milestone for the Union.

Related to **the Work Group on IUPESM Incorporation** (WG members: S Tabakov - Chair, L Pecchia, S Keevil) – this WG worked on the establishment of IUPESM Legal status. we worked with a lawyer to select the type of the company incorporated in

the UK (where the IOMP is incorporated and where the office of IUPESM is hosted). The WG discussed internally and with the Council the Articles of Association of the IUPESM Company. These were approved and the Company was registered on 5 May 2022 (Company Number 14088859).

CRC Series on Medical Physics and Biomedical Engineering

Kwan-Hoong Ng, Russell Ritenour and Slavik Tabakov

IOMP – appointed Editors, CRC Series on Medical Physics and Biomedical Engineering



The CRC Series on Medical Physics and Biomedical Engineering (CRC Press, Taylor and Francis) has been created in 1985 in association with IOMP and IFMBE. Several voluntarily contributing Editors of the Series have been involved in the soliciting, assessment and moving to publication of textbooks for the profession.



The CRC Series Editors in the period June 2009 - June 2021 were: Kwan-Hoong Ng (Malaysia), Russell Ritenour (USA), Slavik Tabakov (UK) and John G. Webster (USA), IFMBE representative, who retired in 2017.



In 2017 the Editors created a new CRC sub-Series (Focus Series) to deal with quick publications of new methods and activities in medical physics. Its Editors are Tae Suk Suh (S.Korea) and Magdalena Stoeva (Bulgaria).

From 2021 the CRC Series is based on a new CRC - IOMP agreement with new editorial structure.

Since 1985, when the CRC Series on Medical Physics and Biomedical Engineering was established, about 85 textbooks

have been commissioned, selected and approved for publication by the Series Editors. The period from commissioning to publishing a book is roughly 2-3 years. The current team of Editors have commissioned, approved and moved to publication about 60 books

TEXTBOOKS published in the CRC Series from 2011 to 2022 under the Reported Editorship

-Physics for Diagnostic Radiology, Third Edition, 2011, Philip Palin Dendy, Brian Heaton

-Practical Biomedical Signal Analysis Using MATLAB®, 2011, Katarzyn J. Blinowska, Jaroslaw Zygierewicz

-Stem Cell Labeling for Delivery and Tracking Using Noninvasive Imaging, 2011, Editors: Dara L. Kraitchman, Joseph C. Wu

-Physiology, Biophysics, and Biomedical Engineering, 2012, Editor: Andrew W Wood

-Correction Techniques in Emission Tomography, 2012, Editors: Mohammad Dawood, Xiaoyi Jiang, Klaus Schäfers

-Webb's Physics of Medical Imaging, Second Edition, 2012, Editor: M A Flower

- Vibrational Spectroscopy for Tissue Analysis, 2012, Ihtesham ur Rehman, Zanyar Movasaghi, Shazza Rehman
- Monte Carlo Calculations in Nuclear Medicine, Second Edition: Applications in Diagnostic Imaging, 2012, Editors: Michael Ljungberg, Sven-Erik Strand, Michael A. King
- Quantifying Morphology and Physiology of the Human Body Using MRI, 2013, Editor: L. Tugan Muftuler
- Targeted Muscle Reinnervation: A Neural Interface for Artificial Limbs, 2013, Editors: Todd A. Kuiken, Aimee E. Schultz Feuser, Ann K. Barlow
- Medical Equipment Management, 2013, Keith Willson, Keith Ison, Slavik Tabakov
- Diagnostic Endoscopy, 2013, Editor: Haishan Zeng
- The Physiological Measurement Handbook, 2014, Editor: John G. Webster
- Radiosensitizers and Radiochemotherapy in the Treatment of Cancer, 2014, Shirley Lehnert
- Statistical Computing in Nuclear Imaging, 2014, Arkadiusz Sitek
- Graphics Processing Unit-Based High Performance Computing in Radiation Therapy, 2015, Editors: Xun Jia, Steve B. Jiang
- Radiation Protection in Medical Imaging and Radiation Oncology, 2015, Editors: Richard J. Vetter, Magdalena S. Stoeva
- The Practice of Internal Dosimetry in Nuclear Medicine, 2016, Michael G. Stabin
- Fundamental Mathematics and Physics of Medical Imaging, 2016, Jack Lancaster, Bruce Hasegawa
- Gamma Cameras for Interventional and Intraoperative Imaging, 2016, Editors: Alan C. Perkins, John E. Lees
- Environmental Radioactivity and Emergency Preparedness, 2016, Mats Isaksson, Christopher L. Raaf
- Emerging Technologies in Brachytherapy, 2017, Editors: William Y. Song, Kari Tanderup, Bradley Pieters
- A Brief Survey of Quantitative EEG, 2017, Kaushik Majumdar
- Advanced MR Neuroimaging: From Theory to Clinical Practice, 2017, Ioannis Tsougos
- Handbook of X-ray Imaging: Physics and Technology, 2018, Editor: Paolo Russo
- Quantitative MRI of the Brain: Principles of Physical Measurement, Second edition, 2018, Editor: Mara Cercignani, Nicholas G. Dowell, Paul S. Tofts
- A Guide to Outcome Modelling In Radiotherapy and Oncology: Listening to the Data, 2018, Editor: Issam El Naqa
- Problems and Solutions in Medical Physics: Diagnostic Imaging Physics, 2018, Kwan Hoong Ng, Jeannie Hsiu Ding Wong, Geoffrey D. Clarke
- Radiotherapy and Clinical Radiobiology of Head and Neck Cancer, 2018, Loredana G. Marcu, Iuliana Toma-Dasu, Alexandru Dasu, Claes Mercke
- Advances in Particle Therapy: A Multidisciplinary Approach, 2018, Editors: Manjit Dosanjh, Jacques Bernier
- Advanced and Emerging Technologies in Radiation Oncology Physics, 2018, Editors: Siyong Kim, John W. Wong
- Clinical Radiotherapy Physics with MATLAB: A Problem-Solving Approach, 2018, Pavel Dvorak
- Mixed and Augmented Reality in Medicine, 2018, Editors: Terry M. Peters, Cristian A. Linte, Ziv Yaniv, Jacqueline Williams
- Proton Therapy Physics, Second Edition, 2018, Editor: Harald Paganetti
- Ethics for Radiation Protection in Medicine, 2018, Jim Malone, Friedo Zölzer, Gaston Meskens, Christina Skourou
- Introduction to Megavoltage X-Ray Dose Computation Algorithms, 2019, Editor: Jerry Battista
- Problems and Solutions in Medical Physics: Nuclear Medicine Physics, 2019, Kwan Hoong Ng, Chai Hong Yeong, Alan Christopher Perkins
- The Physics of CT Dosimetry: CTDI and Beyond, 2019, Robert L. Dixon

- Advanced Radiation Protection Dosimetry, 2019, Editors: Shaheen Dewji, Nolan E. Hertel
- On-Treatment Verification Imaging: A Study Guide for IGRT, 2019, Mike Kirby, Kerrie-Anne Calder
- Modelling Radiotherapy Side Effects: Practical Applications for Planning Optimisation, 2019, Tiziana Rancati, Claudio Fiorino
- Ultrasound in Medicine, 2019, Francis A. Duck, A.C Baker, H.C Starritt
- Intelligent and Adaptive Systems in Medicine, 2019, Olivier C. L. Haas, Keith J. Burnham
- Achieving Quality in Brachytherapy, 2019, B.R. Thomadsen
- The Physical Measurement of Bone, 2020, C.M. Langton, C.F. Njeh
- Minimally Invasive Medical Technology (II Ed.),, 2020, John G. Webster
- e-Learning in Medical Physics and Engineering: Building Educational Modules with Moodle, 2020, Vassilka Tabakova
- Contemporary IMRT: Developing Physics and Clinical Implementation (II Ed.), 2020, S Webb
- A Practical Approach to Medical Image Processing (II Ed.), 2020, Elizabeth Berry
- Auto-Segmentation for Radiation Oncology: State of the Art, 2021, Jinzhong Yang, Gregory C. Sharp, Mark J. Gooding
- Clinical Nuclear Medicine Physics with MATLAB®: A Problem-Solving Approach, 2021, Maria Lyrá Georgosopoulou
- Practical Biomedical Signal Analysis Using MATLAB® (II Ed.), 2021, Katarzyna J. Blinowska, Jarosław Żygierewicz
- Electrical Impedance Tomography: Methods, History and Applications (II Ed.), 2021, Andy Adler, David Holder
- Introduction to Medical Physics, 2022, Ed: Stephen Keevil, Renato Padovani, Slavik Tabakov, Tony Greener, Cornelius Lewis
- Handbook of Nuclear Medicine and Molecular Imaging for Physicists: Instrumentation and Imaging Procedures, Volume I, 2022, Michael Ljungberg
- Handbook of Nuclear Medicine and Molecular Imaging for Physicists: Modelling, Dosimetry and Radiation Protection, Volume II, 2022, Michael Ljungberg
- Handbook of Nuclear Medicine and Molecular Imaging for Physicists: Radiopharmaceuticals and Clinical Applications, Volume III, Michael Ljungberg
- Calculating X-ray Tube Spectra: Analytical and Monte Carlo Approaches, 2022, Gavin Poludniowski, Artur Omar, Pedro Andreo

IDMP 2022 Message

Ibrahim Duhaini
IDMP Coordinator



Dear Medical Physics Colleagues
across the Globe,

It is my pleasure to announce to you the theme of this year to mark the celebrations of the International Day of Medical Physics (IDMP 2022):

“Medical Physics for Sustainable Healthcare”

Providing high quality healthcare services requires at least three important pillars:

1. Advanced Technology in the field of Healthcare.
2. Qualified Personnel with adequate education and training in healthcare and technology.
3. Intellectual System that links the above two pillars to provide a complete Pathway of Sustainable Healthcare Services.

We strongly believe that Medical Physicists across the globe furnished with these three pillars play an important and crucial role in offering a sustainable HealthCare service to humanity. The proof is evident since the discovery of X-Ray in 1895 where Radiation was and still an

essential entity in the diagnosis and therapy of many diseases. This system of healthcare services was sustained and developed during more than a century of advanced technologies and competent medical physicists. IOMP as well as many relevant organizations in Medical Physics fields, work together to achieve such noble cause and urge all its members to do so.

I wish all my colleagues around the World a Happy Medical Physics Day. Enjoy the celebrations of this day and make sure as a Medical Physicists to keep on going!

Report of the Regional Coordination Board (RCB)

Madan M. Rehani, PhD
President of IOMP



The Board consists of President IOMP, Vice-President IOMP, Secretary-General IOMP and the Presidents and Secretaries-General of all Regional Organizations - from Africa, Asia-Oceania, S-E Asia, Europe, Middle East, South America and North America (AAPM/COMP).

The in-person meeting of the Board was held at the International Conference of Medical Physics (ICMP) 2019 at Santiago, Chile. Those who attended included:

Present: Madan Rehani (RCB Chair), Rodolfo Alfonso (ALFIM), Huda Al Naemi (MEFOMP), Hassan Kharita (MEFOMP), Chris Trauernicht (FAMPO), John Damilakis (EFOMP/IOMP), Arun Chougule

(AFOMP/IOMP), Mahadevappa Mahesh (AAPM), Melissa Martin (AAPM), Dan Bourland (AAPM), Cynthia McCollough (AAPM), Jatinder Palta (AAPM), M. Saiful Huq (AAPM), Geoffrey Ibbott (IOMP), Eva Bezak (IOMP), Yakov Pipman (IOMP), Simone Kodlulovich Renha (IOMP), Ibrahim Duhaini (IOMP), Paolo Russo (IOMP)

There was emphasis on contribution by Regional Organizations (ROs) towards Strategic Plan of IOMP.

Another important point was that the representatives from all areas agreed in principle with joining hands with ICMPs and WCs if the event is in their region provided organizers are ready to accommodate the RO.

All ROs were invited to speak in the IOMP School webinar held on 7th November 2020 to commemorate International Day of Medical Physics (IDMP). This was a good activity all focused on the theme of the webinar "Communicating the role of medical physicist to the public".

All ROs have their own conferences periodically and their report provide further details.

All ROs have been invited to the lunch meeting at the World Congress on Medical

Physics being held at Singapore. This will provide great opportunity to discuss further collaborations.

I wish to thank all ROs for the cooperation they extended during my tenure despite great disruption of activities during the pandemic.

Calendar of Events

68th COMP Annual Scientific Meeting

Jun 22 – 25, 2022
Fairmont Frontenac, Quebec City, QC
<https://comp-ocpm.ca/asm-site/>

AAPM 64th Annual Meeting & Exhibition

Jul 10 – 14, 2022
Washington, DC
<https://www.aapm.org/>

4th European Congress of Medical Physics

Aug 17 – 20, 2022
Dublin, Ireland
<https://www.ecmp2022.org/>

RSS 68th Annual International Meeting

Oct 16 – 19, 2022
Waikoloa Village, Hawaii
<https://www.radres.org/>

ASTRO's Annual Meeting

Oct 23 – 26, 2022
San Antonio
<https://www.astro.org/Meetings-and-Education/Micro-Sites/2022/Annual-Meeting>

Fourth Geant4 International User Conference at the physics-medicine-biology frontier

Oct 24 – 26, 2022
Napoli, Italy
<https://agenda.infn.it/event/21084/>

Engineering & Physical Sciences in Medicine Conference

Nov 13 – 16, 2022
Adelaide, Australia
<https://www.epsm.org.au/>

RSNA Annual Meeting

Nov 28 – Dec 2, 2022
<https://www.rsna.org/annual-meeting>
