DRIVERS OF THE IOMP EFFECTIVENESS AND VISIBILITY DURING THE PERIOD JUNE 2015 – JUNE 2018 : CONTINUATION OF PREVIOUS ACTIVITIES AND INTRODUCTION OF NEW INITIATIVES

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Abstract— The paper describes the main activities of IOMP during the period June 2015 - June 2018, driven by the need of significant increase the medical physicists as part of the global healthcare workforce. These activities are separated in three main areas: Further expanding of professional growth through education; Quick translation of research into education and practice; Recognition and visibility of medical physics and engineering; Other ongoing activities. The paper underlines the role of IOMP for the global development of medical physics, especially in Low and Middle Income countries.

Keywords— IOMP, Medical physics professional development; Healthcare Workforce.

I. Introduction and main areas of activites (june 2015 – June 2018)

The International Organization for Medical Physics (IOMP) was established in 1963, 55 years ago. During this time the Organization has been pivotal for the global development of the profession, and supporting healthcare delivery in various parts of the world. The impact of IOMP has been felt most strongly in the Low and Middle Income (LMI) countries by supporting their professional growth. The IOMP has stimulated links within and among LMI countries with the development of National Societies and International Institutions, who have provided educational courses and other support.

The history of the Organization [1,2] shows constant growth of membership, parallel with the growth of the profession [3,4]. However the ever increasing application of medical technology in contemporary healthcare demanded more and more specialists dealing with it. During the past decades we have seen shortage of medical physicists in many places. This was documented by the Report of the Global Task Force on Radiotherapy for Cancer Control [5], predicting the need of almost tripling the medical physics global workforce by 2035. The global need of more medical physicists shaped significantly the activities of the IOMP in the term of office June 2015 – June 2018, and will certainly influence the IOMP activities ahead.

Based on these documented needs, I as IOMP President in the period June 2015 – June 2018, prepared a plan creating a framework of activities. These activities were discussed, supported and executed by us - all colleagues in ExCom, and created the background for future development. The IOMP Executive Committee (ExCom) in this period included: S Tabakov (President), V Tsapaki (Secretary General); M Rehani (Vice-President); A Krisanachinda (Treasurer); KY Cheung (Past-President); G Ibbott (SC Chair); J Damilakis (ETC Chair); Y Pipman (PRC Chair); T Suk Suh (PC Chair); S Renha (AHC Chair); M Stoeva (MPWB Chair). Together with the ExCom there were about 100 colleagues from 43 countries who took part in the various IOMP Committees and actions during this period.



Fig. 1 IOMP ExCom (June 2015 - June 2018) and Regional Coordination Board, meeting at ICMP2016, Bangkok, Thailand

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An outline of the activities of this plan was presented in the President's Report [6] at the end of the term and at the Plenary talk at the World Congress 2018 in Prague [7]. The plan had three main areas (hosting the activities to be described):

- 1. Further expanding of professional growth through education
- 2. Quick translation of research into education and practice
- 3. Recognition and visibility of medical physics and engineering

This paper presents the above activities in more detail, both as record and as presentation of the vector of movement of the Organization during the period. I cordially acknowledge the feedback and gratitude from many colleagues at the end of this IOMP term, emphasizing the fact that the ExCom worked very well as a team to meet the challenges ahead.

Before describing the main areas of the plan and its activities, I would like to mention one new activity, which supported all others – the creation of the Regional Coordination Board (RCB). It was obvious that the support for various international initiatives required strengthening the cohesion between IOMP and its Regional Organizations (the Continental/Regional Federations). For this reason I proposed the creation of a new IOMP structure – the RCB [8]. The structure was approved both by the previous ExCom (June 2012-June 2015) and the IOMP Council at its meeting at our World Congress 2015 in Toronto.

Activity: Regional Coordination Board

This new IOMP Board, headed by the IOMP President, and including all Presidents of Regional Organizations (RO) had its first meeting immediately after the Council meeting in Toronto at WC2015 [9]. Its main aim is to increase the cohesion and coordination between all IOMP Regional Organizations (Federations). During the term of Office the Board had 4 meetings and agreed and supported all strategic activities of the IOMP, including the themes of the International Day of Medical Physics, the History project, the IOMP legal representation and other activities (to be listed below). The Presidents of AAPM, CAMP and IPEM (hosting IOMP) were also part of the RCB meetings. The Board was active in the provision of inter-continental coordination and support of various professional activities and quickly established itself as an important vehicle of the IOMP activities and a think-tank of the Organization [10] (Fig. 1). RCB continues its activities and a number of its members take part in other IOMP initiatives.

Here below the many activities during the term will be described, as part of the three main areas in the plan.

II. FURTHER EXPANDING OF PROFESSIONAL GROWTH THROUGH EDUCATION

It is obvious that the rapid expansion of the profession ahead will be based on creating more medical physics educational courses and associated training. The established societies could do this with their current resources, but special support is necessary for the LMI countries.

One very important element in this area was further stimulation of e-learning inclusion in the education. Our profession is one of the pioneers in this activity and one of the goals of the MPI Journal is to provide a platform for exchange of resources and experience in this field. This overarching activity was supported by including elearning related sessions in all Conferences and Congresses during the period and publishing in the MPI Journal a number of examples of e-Learning use in practice.

Another very important element in this area was to support the establishment of international educational and training courses in medical physics. An outstanding example is the International MSc in Advanced Medical Physics (Directors R Padovani and R Longo) formed between ICTP, Trieste and the University of Trieste, with the strong support of the Italian Association of Medical Physics and IAEA [11]. The course produced its first graduates in 2015 and it was only natural for the first IOMP international accreditation to be associated with this MSc.

Activity: IOMP International Accreditation of Educational Courses

The need of an accreditation process was seen early on and initial steps were made back in 2006 [12]. The first implementation was during the term of office 2015-2018. The accreditations visits were performed by S Tabakov and J Damilakis in 2015 and 2016 with the support of the MSc team in Trieste and the IAEA. What followed was the preparation of the Accreditation Manual, a task headed by J Damilakis with the full support of all ETC and ExCom [13]. These activities continue in the current ETC, headed by A Chougule.

The accreditation was in close contact with the activities of the International Medical Physics Certification Board (IMPCB), headed by C Orton and R Wu. IMPCB was formed as an independent body (with IOMP support) during the IOMP term June 2012- June 2015. At the end of this term a Memorandum of Understanding was signed between IOMP and IMPCB at the Council meeting in Toronto, WC2015 [14], where the IOMP has the role of Principal Supporting Organization

with three representatives on the IMPCB Board of Directors (the current such Directors being: KY Cheung, J Damilakis and P Russo). Other IOMP ExCom members (T Kron and T Suk Suh) also took part in the IMPCB activities. The first IMPCB certification of National Boards were in Hong Kong and South Korea and currently they also provide certification for the colleagues from the International MSc in Trieste. This collaboration between IOMP and IMPCB also continues and strengthens.

Activity: IOMP collaboration with IAEA, WHO and other International Organizations

This activity is ongoing for all previous IOMP offices and continued with the same strength over the past term of office. As an example almost all IAEA publications related to medical physics have been developed in cooperation with and endorced by the IOMP. These publications, as well as various courses, have educational purposes. It will be impossible to list all publications where all ExCom IOMP members contributed (in this and in the previous terms) [15]. However I shall mention the large International Conference on Radiation Protection in Medicine (Vienna, December 2017) [16], headed by the IOMP ExCom members G. Ibbott and M Rehani, who also supported effectively the links of IOMP with IRPA.

The highly effective work during the past term with the WHO resulted in the confirmation of our NGO status with the WHO in 2018 (what was a continuation of the activity from the last term, led by KY Cheung, S Tabakov and M Rehani) - this will be described further down. A relatively new activity was also initiated — the collaboration with the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), where G Ibbott and V Tsapaki are involved in the important new Report of UNSCEAR.

The links with our sister Organization – IFMBE were also strengthened through KY Cheung, who from June 2015 became the President of IUPESM - the Union of IOMP and IFMBE. For the first time we conducted a joint leadership meeting between medical physicists and engineers under the umbrella of IUPESM at the MEDICON2016 Conference in Cyprus. These meetings continue and plans are made for the joint celebrations in 2020 of the IUPESM 40th anniversary.

Activity: IOMP School

This was a new activity, which I proposed in 2015 primarily as a vehicle to help our young colleagues in LMI countries and to increase the IOMP visibility. The idea was supported by ExCom and introduced at the ICMP 2016 in Thailand as a Satellite event. The First IOMP School in Bangkok included 42 educational mini-Symposia [17,18]. It was mostly repeated at AOCMP

2017, Jaipur and a new IOMP School was also conducted at WC2018 in Prague. These Schools were mainly organized by J Damilakis, S Tabakov, M Stoeva, A Krisanachinda and A Chougule. The initiative expanded and now continues in the new ExCom, headed by a topical Work Group. The intention for the future is also to make the IOMP School as an established resource-generating activity, however its most important element will continue to be supporting our young colleagues from LMI countries.

Activity: IOMP incorporation

The activities, described above, prepared a very good background for the expansion of the profession. However, a problem the Organization had for many years was related to the fact that IOMP was not a legal body. Hence it cannot bid for projects and external funding for our future professional activities. Arranging the legal status of the IOMP was a main task over the past term of office. A Work Group was formed to explore this, including S Tabakov (Chair), S Keevil and S Hawking, with the strong support of the UK Institute of Physics and Engineering in Medicine (IPEM), who is hosting IOMP. The very important question about IOMP incorporation was discussed at each ExCom meeting.

The Work Group had a number of meetings with Law and Finance Companies for the purpose of finding a suitable legal status for incorporation. The subject was very complex, as IOMP has 86 national member organizations. The solution, which was found, and supported both by the IOMP ExCom and the IOMP Regional Coordination Board, included forming a specific IOMP Company to represent legally the IOMP Organization. The Board of Directors of the IOMP Company consists of the five elected Officers of the IOMP Organization - i.e. President, Vice-President, Secretary-General, Treasurer and immediate Past-President. The Directors plus the elected Committee Chairs form the Company membership. The members of the Company represent the interests and fulfil the objectives of the IOMP Council. The Company objectives are the IOMP Organization objectives. The IOMP Statutes and Bylaws remain in place to govern the way the Organization operates.

The major step of IOMP incorporation was completed at the end of 2017 and the IOMP Company was registered in the UK Companies House on 21 Dec 2017 under Registration No. 11119605 (Fig.2). The Company began its activities on 1 January 2018 [19]. This was one of the most important steps in the IOMP History and continues with the full support of the current ExCom and Council and plans are made for the first projects to bid for.



Fig.2 Installation of the IOMP Company Registration Plaque, with IPEM staff: M Tooley IPEM President, R Cook, IPEM Chief Executive and S. Hawking, IPEM, York, UK, April, 2018

III. TRANSLATION OF RESEARCH INTO PRACTICE AND EDUCATION

Medical Physics is an extremely dynamic profession. The changes and improvements of various types of medical technology and methods and its clinical applications occur with such speed, making it difficult to follow with clinical introduction and current education systems. It was necessary to create an environment which encourages our researchers to think about the implementation of their results in both clinical practice and educational programs.

This translation of research into practice was another important area of the tasks ahead, which was supported by a number of activities.

Activity: IOMP Award for Invention and Introduction in practice

IOMP introduced in 2016 a special Award for colleagues who invented AND translated their results into practice: The John Mallard Award. This Award is planned for presentation at each ICMP (International Conference of Medical Physics, which is normally between the World Congresses) and honors a medical physicist who has developed an innovation of high scientific quality and who has successfully applied this innovation in clinical practice. John Mallard, one of the main scientists behind the development and introduction of MRI and PET, is also one of the Founders of IOMP (the first IOMP Secretary General and the first President of IUPESM). I was assisted in this activity by S Renha and P Smith and travelled to Aberdeen, where J Mallard still lives for an interview before the inauguration of the Award at the ICMP2016, Bangkok [20,21].

Prof. John Mallard is also the founder of the MSc in Medical Physics in Aberdeen, UK and this award links well innovation with its implementation in education. The next such Award will be presented at ICMP2019 in Chile.

Activity: IOMP cooperation with CRC Press

The publications of high quality textbooks has always been a priority of the IOMP, handled by the Publication Committee (headed by T Suk Suh) [22]. The period June 2015 – June 2018 was very active for the CRC Series in Medical Physics and Biomedical Engineering (Editors: J Webster, R Ritenour, S Tabakov, K Ng). After 2009 the Series work resulted in 37 textbooks commissioned and published by CRC Press, about 45% of these – during the period 2015-2018. Among these publications were books edited by M Stoeva and P Russo, both members of the current ExCom.

Alongside these Series activities a new CRC Focus series was launched aiming at quick publications related to the newest development of the profession. Very active in this initiative were T Suk Suh and M Stoeva, who became the first Editors of the CRC Focus Series.

Activity: Journal Medical Physics International (MPI) expanding audience

The professional development of medical physics in many countries and the implementation of various methods and equipment in clinical practice were the main reason for the creation of the MPI Journal during 2013. As promoters of the idea, S Tabakov and P Sprawls were appointed as Founding Co-Editors of MPI. The continuation of MPI during this period expanded the focus on practical applications and links with the industry. A number of new educational initiatives were also included, as well as co-Editorials with the other Journals in the profession. MPI quickly established itself as an imperative online publication, free for all, focused towards our colleagues from LMI countries. The MPI fulfills a very special need by publishing articles to support education and the ongoing development of the medical physics profession and its organizations. collaboration with the other medical physics journals, the MPI is with internal reviewing and does not publish research reports. The MPI statistics from this period showed that the number of readers per month reached 10,000. On this high note MPI Journal completed its first term in 2017 and the Co-Editors were approved for continuing another term [23].

The technical editing of MPI, as well as the editing of the IOMP Newsletter Medical Physics World, were expertly performed by the ExCom member M Stoeva. Both publications continue strongly in the current term of office.

Activity: Project History of Medical Physics

The foundations of this project were laid down in 2007, as part of the project EMITEL. Based on this I prepared the idea in 2015 as an international IOMP-led

project [17, 24]. The project was discussed and approved both by Publication Committee and the ExCom. Its purpose is to show the creation and evolution of different equipment and methods, as well as their clinical application; the overall development of the profession and the main contributors in the various topics in medical physics. The first chapters of the History project were prepared by 2018 and published in the first Special Issue of MPI [25]. This project will continue its development over many years ahead and will be left with open end in order to be constantly updated in future.

The History of Medical Physics project is also related to the visibility of medical physicists, as it will show the contribution of many colleagues to the overall development of contemporary healthcare.

IV. RECOGNITION AND VISIBILITY OF MEDICAL PHYSICS AND ENGINEERING

The visibility of our profession is directly related with the recognition which our colleagues all over the world receive in their Hospitals, Universities and Institutions. This underpins the ongoing expansion of the profession. IOMP, IFMBE and IUPESM did a lot in previous periods to include our professions into the International Classification of Standard Occupations (ISCO-08) [26]. This work further continued in the activities bellow.

Activity: International Day of Medical Physics (IDMP)

This activity was also a continuation of the excellent

work of the previous two terms of offices. The idea was introduced by S Renha and F Nuesslin in 2012 (based on suggestion of J Pinuela). The initially discussed IDMP date (30 August, establishing of IOMP) was not convenient, hence J Damilakis proposed several other dates. During the EMPEC2012 in Sofia an ad-hoc meeting of J Damilakis, S Tabakov, M Rehani and V Tsapaki agreed on 7 November (the birthday of Maria Sklodowska-Curie) as the IDMP date, what was approved by the then ExCom, headed by KY Cheung, and J Damilakis was appointed Coordinator of this activity. Since the first IDMP in 2013 almost all colleagues in the profession took most active part in celebrating our professional day and promoting the contribution of medical physics in medicine [27]. Over all year the overall IDMP coordination was done very well by the ExCom member J Damilakis and his team. Topical conferences were made in many countries and a dedicated website was created for the IDMP. All these activities continue in the new term of office, led by a new Work Group.

The 150th birthday of Marie Curie was celebrated with an additional dimension – Women in Medical Physics. It was web-casted globally and most ExCom celebrated it with our colleagues from Asia, at the AOCMP in Jaipur, India (Fig.4) [28]. The activities, aimed at encouraging women to enter the profession.

The work of the IOMP Women Sub-Committee, led by the Secretary General V Tsapaki, was very successful and resulted in a proposal to IOMP to form a full committee on the subject – an activity to be continued in the next term of office [29, 30].



Fig. 3 First introduction of IDMP Awards and Honorable plaques, ICMP2016, Bangkok, Thailand

Fig. 4 Join celebrations of IDMP 2017 (Theme: Women in Medical Physics) at the Asia Oceania Congress of Medical Physics, Jaipur, India

Activity: Increasing the number of IOMP Awards

Acknowledging the contribution of various colleagues to our profession is another vehicle for its visibility. During the period 2015-2018 we continued and further expanded the acknowledgement of medical physicists with the IOMP Fellowship (FIOMP). This initiative was developed over the past years by S Tabakov, D Frey and T Kron and introduced during the celebrations of the IOMP 50th anniversary at ICMP2013, Brighton, UK [31,32]. During the past period we honored with the FIOMP leaders of our Regional Organizations (Federation) and other colleagues with significant contribution to the international development of the profession.

In this connection IOMP introduced also a new annual award – The IDMP Award. It recognizes excellence in Medical Physics with a particular view of promoting medical physics to a larger audience and highlighting the contributions medical physicists make for patient care. The first IDMP Awards were presented at the ICMP2016 in Bangkok and are now a regular IOMP activity (Fig.3).

As a whole the Awards and Honors Committee, headed by S Kodlulovich-Renha, had a very busy and productive period, which continue in the same way at present [33].

Additionally I ordered new Honorable Plaques, a new IOMP Gavel, and Folders with new design for the IOMP Diplomas and Awards.

Activity: Medical Physics World (MPW) Newsletter, IOMP Web site and other visibility

The new design of the MPW was made in the previous term (immediately after the World Congress in Beijing), this was the work of the MPW Editor at the time V Tsapaki and the Technical Editor M Stoeva [34], who became MPW Editor in 2015. Their very effective collaboration continued and MPW became an excellent epublication, distributed globally [35]. During 2015-2018 MPW also pioneered special issues, specifically mentioning the one about Women in Medical Physics (in 2017) [36].

To further enhance IOMP visibility among the young colleagues, the MPW Board included activities related to expanded use of Social Media, what continues and expands at present. Also news were sent to all IOMP Member Societies by the Secretary General V Tsapaki, who worked relentlessly in handling very effective links with the IOMP Members worldwide.

The IOMP Web site Group was headed by the ExCom member M Stoeva. They handled very well the site and included in it new sub-sites for IDMP and for Women. An important activity during the period was the renovation of the IOMP Web site. The overall development and its funding were approved [30] and it was decided the activity to expand also in the coming

period in order to collect better feedback from the new ExCom. The renewed IOMP web site (as before: www.iomp.org) will be announced soon.

Activity: Confirming the IOMP status as Non-Governmental Organization (NGO) to WHO

After the initial acceptance of IOMP as NGO by the World Health Organization (WHO) in 2015, we had regular meetings and projects with the respective officers of WHO. Due to space limitations I could not list all these, but would mention our input to the WHO List of Priority Medical Devices for Cancer Management, WHO Global Strategy for Health Workforce [37] and many joint activities related to Patient Safety. The confirmation of our NGO status with WHO required IOMP to be a legal body, thus as soon as we incorporated IOMP, we prepared our documents to WHO and our status was approved at the beginning of 2018 [38]. The Task Group of this activity included M Rehani, S Tabakov, V Tsapaki, KY Cheung. M Rehani was very active in these activities, and also in our links with IRPA, IAEA and other related International Organizations.

V. OTHER ONGOING ACTIVITIES

In parallel to the above three areas in the plan, which included mainly new activities, we continued with the well-established activities of IOMP, related to support for our National Member Societies in various countries:

Activity: Scientific, Professional, Educational and other activities

These activities are continuation of all previous years of IOMP existence and they were greatly handled by the Scientific Committee (headed by G Ibbott), Professional Relations Committee (headed by Y Pipman) and Education and Training Committee (headed by J Damilakis). These Committees approved applications for endorsement or co-sponsoring, what helped the professional development and visibility of our colleagues in many LMI countries. These activities were included in the specific reports from the Committee Chairs [39, 40, 41]. Special mentioning requires our collaboration with the ISEP Programme of AAPM, supported by our colleagues from the USA, with whom we developed excellent collaboration over the past period (Fig. 5). Another mentioning is related to our collaboration with the IUPAP. S Tabakov and the Chair of AC4 (F Nuesslin), applied successfully for sponsorship of 3 Workshops related to Capacity Building in Developing Countries (the one from WC2015, Prague, features in this issue).

The work for the Scientific Congresses and Conferences was also very active. I shall mention some: The ICMP 2016 in Bangkok, Thailand (Organized by A Krisanachinda with support from T Suk Suh and S Tabakov), its Abstracts were published by MPI, co-edited additionally by G Ibbott, M Stoeva and V Tabakova [42]: The First European Congress on Medical Physics, 2016, Athens, Greece (Organized by J Damilakis and V Tsapaki), and the Latin American Congress on Medical Physics (organized by G Sanchez and S Renha, IOMP representative Y Pipman); at both of which IOMP started acknowledging the Presidents of Federations with special Plaques. Similar mentioning requires the Asia Oceania Congress of Medical Physics, 2017, Jaipur, India (Organized by A Chougule), from where IDMP 2017 was web-casted. The other Conferences and Congresses are in the respective reports in the Medical Physics World [43].

During this period the IOMP encouraged the development of several new societies. The PRC assessed positively their applications, among them specially mentioning the first Affiliated member.

The active work of these committees included also re-

structuring of the Library program, initial steps for creating Emergency Response Sub-Committee and organizing a new Digital Library of educational resources. All these activities will continue in future.

Financially IOMP completed the term with a surplus, specially noting the work of the Treasurer A Krisanachinda, the Finance Sub-Com and specially H Hawking for their activities in arranging the taxation status of the Organization.

Activity: Support for the professional development in Africa and Latin America with Caribbean Region

This activity was a main focus of IOMP for the past three terms of offices. IOMP worked very closely with IAEA on the subject and supported their large Regional projects in these geographical regions, aiming at creating Regional educational and training activities. The Leadership of the respective Regional Organizations (FAMPO and ALFIM) were very active. As a result the coming ICMP2019 was selected to be in Chile. During this period ALFIM opened their Newsletter in Spanish



Fig. 5 Meeting of IOMP ExCom with the AAPM Officers, Denver, Colorado, USA, 2017

Fig. 6 Presenting the IUPAP Young Scientist Medal to Dr F Hasford in Vienna with colleagues from the IOMP RO in African (FAMPO) and colleagues from the IAEA, Vienna, Austria, 2016

"Revista Latino Americana de Física Médica".

A Pan-African Conference was prepared to be in Nigeria, but was postponed. However, new FAMPO web site was developed and plans were initiated for opening a regular publication of FAMPO for medical physicists in Africa. In this line it was very good to see the IUPAP Young Scientist Medal being presented for the first time to a colleague from Africa, F Hasford, who was later elected Secretary General of FAMPO (Fig. 6).

VI. CONCLUSION

The activities described above created a good environment and background for further developments addressing the need for the rapid expansion of medical physics — by 2035 and beyond. The increased membership over the past 20 years confirms that this expansion, although challenging, is possible to achieve [3]. At the end of the term June 2015-June 2018 we created a Work Group to discuss the strategy of professional development in the next 6 years (S Tabakov, M Rehani, J Damilakis, KY Cheung), which drafted some long terms tasks [44], but left this to be completed in the new ExCom, having the input of the newly elected Chairs and Officers.

In the present paper I traced most of the activities, which IOMP continued from the previous successful period, as well as showed the new initiatives, which the tradition of our Organization will carry forward. More importantly, the paper presented an overview and a vision, which the IOMP ExCom followed during the term of office.

Over the many years of its existence IOMP achieved much for the profession and often these activities took very long time. For example more than 10 years work went into the inclusion of our profession in the ICSU/ICS (International Council for Sciences), and even longer time was spent to include medical physicists and biomedical engineers in the ISCO-08 of the ILO (International Labour Organization). However these activities were pivotal for opening new working places globally, for funding of new projects, for new research and clinical activities, for starting new educational classes, etc., etc. These achievements contributed to considering our profession among the main factors of contemporary healthcare. This work has been done by many of the past IOMP Executive Committees - i.e. continuity has been essential for the success.

The work of the IOMP ExCom and Committee members is made by colleagues who contribute voluntarily to the benefit of thousands medical physicists all over the world. On a personal level my activities in IOMP started in 1997 (when I was elected member of the Education and Training Committee), and for more than 20 years I was witness and contributor to various such initiatives. In 1997 there were about 14,000 medical physicists around the world (starting from 6,000 in 1963). Now we are more than 28,000 – doubling in just 20 years (very much underpinned by introducing e-learning). What is more important – we achieved increased visibility in all hospitals and universities. IOMP, its Regional Organizations (EFOMP, AFOMP, SEAFOMP. MEFOMP, ALFIM, FAMPO) and large societies with international activities as AAPM, IPEM, COMP and others, have worked very hard for this growth and success. It has to be underlined again that all this work was performed by colleagues alongside their clinical. academic, administrative or other duties. For me in particular the past 6 years were the period when my students in King's College London grew from 30 to 120, and this had to be handled with the same resources.

In the past period (June 2015-June 2018) IOMP had 14 meetings of ExCom and many other topical meetings (most - virtual). The atmosphere of these was one of collaboration and friendship, what was important for the effective progression and completion of the many tasks described here. I expressed in my official report cordial gratitude to the colleagues in the IOMP ExCom and Committee members [6], and sent Letters of Gratitude to each Committee member. Here I would like to again thank all colleagues who worked in IOMP in this period, also thanking my wife and colleague V Tabakova for her constant support. I would also like to wish all the best to our new IOMP ExCom toward the benefit of our profession: M Rehani (President), V Tsapaki (Secretary General); J Damilakis (Vice-President); I Duhaini (Treasurer); S Tabakov (Past-President); G Ibbott (SC Chair); A Chougule (ETC Chair); Y Pipman (PRC Chair); P Russo (PC Chair); S Renha (AHC Chair); M Stoeva (MPWB Chair).

Finally, I would like to complete this paper with the slogan, I used in the Plenary Speech at the WC2018 Prague to encourage all colleagues to work together for meeting the challenge ahead: "United We Are Strong".

VII. REFERENCES

- 1. Azam Niroomand-Rad, C Orton, P Smith, S Tabakov (2013), A History of the International Organization for Medical Physics 50 Year Anniversary Part I, Journal Medical Physics International, vol. 1, No.2, 2013, p.113-115, available free from: http://www.mpijournal.org/pdf/2013-02/MPI-2013-02-p113.pdf
- 2. Azam Niroomand-Rad, C Orton, P Smith, S Tabakov (2014), A History of the International Organization for Medical Physics 50 Year Anniversary Part II, Journal Medical Physics International, vol. 2,

- No.1, 2014, p.7-17, available free from: http://www.mpijournal.org/pdf/2014-01/MPI-2014-01-p007.pdf
- 3. Tabakov S (2016), Global Number of Medical Physicists and its Growth 1965-2015, Journal Medical Physics International vol.4, No.1, 2016, p. 78-81, available free from http://www.mpijournal.org/pdf/2016-02/MPI-2016-02-p078.pdf
- 4. Tsapaki V, Tabakov S, Rehani M (2018), Medical physics workforce: A global perspective, Physica Medica 55, 2018, p.33-39
- 5. Rifat Atun, D A Jaffray, M B Barton, F Bray, M Baumann, B Vikram, T P Hanna, F M Knaul, Y Lievens, T Y M Lui, M Milosevic, B O'Sullivan, D L Rodin, E Rosenblatt, J Van Dyk, M L Yap, E Zubizarreta, M Gospodarowicz (2015), Expanding global access to radiotherapy, Lancet Oncol 2015; 16: 1153–86
- 6. Tabakov S (2018), President's Report, Medical Physics World, vol.34 No.1, June 2018, p.4-8, available free at: http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 7. Tabakov S (2018), Global distribution of medical physicists, their growth over the past 50 years and future development, Plenary talk, World Congress of Medical Physics and Biomedical Engineering, Prague 3-8 June 2018, available at: http://www.iupesm2018.org/programme-presidents-keynote.page
- 8. IOMP Virtual Meeting July 2014, Minutes
- 9. Tabakov S (2015), IOMP Regional Coordination Board, Medical Physics World, vol.6 No.1, June 2015, p.7, available free at: http://www.iomp.org/sites/default/files/empw-2015-01.pdf
- 10. Tabakov S (2018), Regional Coordination Board (RCB) Report, Medical Physics World, vol.34 No.1, June 2018, p.47, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 11. Calhoun C (2018), Celebrating New Medical Physicists at ICTP: 20 Graduates from 20 countries, Journal Medical Physics International, vol. 5, No.2, 2017, p.177-178, available free at http://www.mpijournal.org/pdf/2017-02/MPI-2017-02-p177.pdf
- 12. Tabakov S, Sprawls P, Krisanachinda A, Podgorsak E, Lewis C (2011), IOMP Model Curriculum for Post-graduate (MSc-Level) Education Programme in Medical Physics, in Medical Physics and Engineering Education and Training part I, ISBN 92-95003-44-6, ICTP, Trieste, Italy, p.8-24, available free at: http://www.emerald2.eu/mep/e-book11/ETC_BOOK_2011_ebook_s.pdf
- 13. IOMP Accreditation Manual (2017), Medical Physics International, vol. 5, No.2, 2017, p.163-166, available free at http://www.mpijournal.org/pdf/2017-02/MPI-2017-02-p163.pdf 14. IOMP Council meeting June 2015, Minutes
- 15. G. Loreti, H. Delis, B. Healy, J. Izewska, G.L. Poli, A. Meghzifene (2015), IAEA Education and Training Activities in Medical Physics, Journal Medical Physics International, vol. 3, No.2, 2015, p.81, available free qt: http://www.mpijournal.org/pdf/2015-02/MPI-2015-02-p081.pdf
- 16. Rehani M (2017), Report of the IAEA International Conference on Radiation Protection in Medicine: Achieving Change in Practice 11-15 Dec. 2017, IAEA, Vienna, Medical Physics World, vol.33 No.3, Dec 2017, p.7, available free at http://www.iomp.org/sites/default/files/empw-2017-03.pdf
- 17. IOMP Virtual Meeting Dec 2015, Minutes
- 18. Krisanachinda A, Tabakov S, Suk Suh T, Lee J (2016), The 22nd International Conference on Medical Physics (ICMP2016) and the

- associated first IOMP School, Medical Physics World, vol.32 No.2, Dec 2016, p.18-19, available free at http://www.iomp.org/sites/default/files/empw-2016-02.pdf
- 19. Tabakov S, IOMP Company Report (2018), Medical Physics World, vol.34 No.1, June 2018, p.9-10, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 20. Kodlulovich Renha S (2016), Report from Awards and Honours Committee, Medical Physics World, vol.32 No.2, Dec 2016, p.11-12, available free at http://www.iomp.org/sites/default/files/empw-2016-02.pdf
- 21. Tabakov S (2017), Interview with Prof. John Mallard, Medical Physics International, vol. 5, No.1, 2017, p.70-72, available free at http://www.mpijournal.org/pdf/2017-01/MPI-2017-01-p070.pdf
- 22. Suk Suh T, (2018), Report of Publications Committee, Medical Physics World, vol.34 No.1, June 2018, p.20-21, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 23. Sprawls P, Tabakov S, (2017), Editorials, Medical Physics International, vol. 5, No.2, 2017, p.127, available free at http://www.mpijournal.org/pdf/2017-02/MPI-2017-02-p127.pdf
- 24. Tabakov S, (2017), History of Medical Physics A brief project description, Medical Physics International, vol. 5, No.1, 2017, p.68-69, available free at http://www.mpijournal.org/pdf/2017-01/MPI-2017-01-p068.pdf
- 25. Special Issue on History of Medical Physics, Medical Physics International, April 2018, available free at http://www.mpijournal.org/pdf/2018-SI-01/MPI-2018-SI-01.pdf
- 26. Smith P, Nusslin F (2013), Benefits to Medical Physics from the recent inclusion of medical physicists in the International Classification of Standard Occupations (ICSO-08), Medical Physics International, vol. 1, No.1, 2013, p.10-14, available free at http://www.mpijournal.org/pdf/2013-01/MPI-2013-01-p010.pdf
- 27. Damilakis J (2013), Did You Celebrate the First International Day of Medical Physics? If Not, Next Year You Should!, Medical Physics World, vol.4, No.2, Dec 2013, p.9, available free at http://www.iomp.org/sites/default/files/empw-2013-02.pdf
- 28. Chougule A (2017), 17th Asia Oceania Congress of Medical Physics (AOCMP) and 38th Annual Conference of Association of Medical Physicists of India (AMPICON) 2017, Medical Physics World, vol.33 No.3, Dec 2017, p.12-18, available free at http://www.iomp.org/sites/default/files/empw-2017-03.pdf
- 29. Tsapaki V (2016), IOMP WOMEN Subcommittee, Medical Physics World, vol.32 No.2, Dec 2016, p.7, available free at http://www.iomp.org/sites/default/files/empw-2016-02.pdf
- 30. IOMP Virtual Meeting Feb 2018, Minutes
- 31. IOMP Council meeting, Beijing 2012, Minutes
- 32. Kron T (2013), From the Awards and Honours Committee, Medical Physics World, vol.4 No.2, Dec 2013, p.11, available free at http://www.iomp.org/sites/default/files/empw-2013-02.pdf
- 33. Kodlulovich Renha S (2018), Report of Honours & Awards Committee, Medical Physics World, vol.34 No.1, June 2018, p.22-23, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 34. Tsapaki V (2012), Message from the Editor, Medical Physics World, vol.3, No.1, July 2012, p.4, available free at

http://www.iomp.org/sites/default/files/empw-vol3number1_july2012_.pdf

- 35. Stoeva M (2018), Report of Medical Physics World Board, Medical Physics World, vol.34 No.1, June 2018, p.24, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 36. Special Issue on Women in Medical Physics, Medical Physics World, March 2017, available free at http://www.iomp.org/sites/default/files/empw-2017-00.pdf
- 37. Tabakov S, Rehani M, Global Workforce in Medical Physics Status, Needs and Trends: View of the International Organization for Medical Physics (IOMP), presented at the WHO Fourth Global Forum on Human Resources for Health, Dublin, 13-17 Nov 2017, available at http://www.who.int/hrh/news/2017/Final-Poster-Abstracts.pdf
- 38. WHO Executive Board 142nd session (2018), Main Documents, EB142/29, p.3, p.4, p.19, available at http://apps.who.int/gb/e/e eb142.html
- 39. Ibbott G (2018), Report of Science Committee, Medical Physics World, vol.34 No.1, June 2018, p.15, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf

- 40. Pipman Y (2018), Report of Professional Relations Committee, Medical Physics World, vol.34 No.1, June 2018, p.16-17, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 41. Damilakis J (2018), Report of Education and Training Committee, Medical Physics World, vol.34 No.1, June 2018, p.18-19, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 42. ICMP2016 Abstracts, Journal Medical Physics International, vol. 4, No.2, Dec 2016, p.135-574, available free from: http://www.mpijournal.org/pdf/2016-02/MPI-2016-02-p135.pdf
- 43. Reports from IOMP Regional Organizations, Medical Physics World, vol.34 No.1, June 2018, p.30-46, available free at http://www.iomp.org/sites/default/files/mpw-2018-01.pdf
- 44. IOMP ExCom 1 Meeting, June 2018, Minutes

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