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Reader in Medical Physics, King's College London, UK

Personal Statement in support of the Nomination for Vice-President of IOMP for 2012-2015

I have been privileged to serve IOMP for 15 years, especially after the Council elected me as Treasurer at WC2009, and am honoured to be nominated for the post of IOMP Vice-President for the upcoming 2012-2015 term.

I have been an active member of IOMP since 1997 and have served as Chair of Education and Training Committee (2000-06), Chair of Awards and Honours Committee (2006-08) and Treasurer (2009-present). In these positions I gained valuable experience and understanding of IOMP and took active part in numerous IOMP discussions/initiatives and managerial decisions related to current activities and future development of our profession. Additionally during these years I took active part in the organization of 4 International Conferences and more than 30 Professional, Education / Training and Scientific activities in Medical Physics with attendees from c. 50 countries.

I truly believe that the profession of Medical Physics has enormous potential for development. My credo is that the corner stone of this is the education and training of the new generation of specialists. In this connection I helped the establishment of many MSc courses and developed and managed 7 large International projects (1994-2010). Some of these (EMERALD and EMIT) paved the way for e-Learning in the profession. The results of these projects are now used in more than 70 countries around the world and received the inaugural EU Leonardo da Vinci Award (2004).

During the last years I developed and managed the project EMITEL, in which I included IOMP as a project partner. This first acceptance of IOMP as a partner will pave way for further external funding. EMITEL project itself is one of the largest international projects in the profession. Currently it has some 300 contributors from 36 countries. Its result – the first e-Encyclopaedia of Medical Physics with Multilingual Medical Physics Dictionary (in 29 languages) is a major reference resource of the profession, used by 7000+ colleagues each month.

I live and work in the UK, but was born and started my career in Bulgaria, and know what difficulties small countries have in their professional development. Due to this reason I have always tried to help small and developing countries. From 2000 I am Co-Director of the International College on Medical Physics at ICTP, Trieste, Italy. With the help of the other fellow College Co-Directors there we train biannually young colleagues from approximately 50 countries and supply them with professional teaching materials. Some of those colleagues started such courses in their own countries

Through my activities above I gained valuable experience in leading projects and delivering results. My contribution to the profession was recognized by the IOMP Harold Johns Medal, which I received at WC2006.

As IOMP Treasurer, together with fellow Officers and Committee members, I worked hard toward the achievements of IOMP objectives for global development of our profession. One of our main achievements was the inclusion of our profession in the International Standard Classification of Occupations (ICSO). This result, a product of more than 15 years work under the previous Presidents and Executive Committees, paves the way for further expansion and recognition of our profession in many countries. If elected, my activities will aim at continuing the previous goals.

The cohesive work of the fellow IOMP Officers and Committees (SC, PRC, ETC, PC, IAC, etc) is very important. In this line, if elected, I shall discuss and agree with them long and short term priorities particularly in these main areas:

1. Increasing the visibility of our profession and of IOMP through our Web presence and use of media resources, incl. eMPW, to disseminate the need and importance of Medical Physics and Technology for contemporary medicine;
2. Stimulating the dialogue and exchange of expertise between National Member Organisations, in particular by facilitating use of existing AAPM, IPEM, etc courses by less developed countries and by expanding the ICTP College;
3. Continuing to strengthen the collaboration with various organizations with aims similar to ours, in particular through joint projects with WHO, IAEA, IRPA, ICSU, IUPAP, etc, and of course with IFMBE under the IUPESM;
4. Increasing the profile of our National/Regional Conferences and our World Congresses through our SC by inclusion of focused sessions, aimed to exchange cutting-edge information, and increase the citation of submitted materials;
5. Providing help to developing countries to strengthen the profession and its standards through our ETC and PRC by International Validation of Education courses & Professional Certification, for which special Guides will be developed
6. Developing of new Medical Physics Education and Training materials/books/courses through PC starting own ISBN publishing activities and disseminating these materials globally by the means of e-Learning, for which we are pioneers
7. Creating conditions for increased income for our Organisation through forming a business company of the IOMP, taking part in projects and strengthening our links with the industry through IAC and our Corporate members;
8. Stimulating ideas and discussions within IOMP for new areas of development though regular Webinars, etc.

During my work in the IOMP over the past years I took active part in many activities, supported many initiatives, led a number of projects and learned a lot. If elected for IOMP Vice-President I shall do my best to continue the activities of our predecessors, shall initiate new activities and, together with the IOMP Executive Committee and all colleagues, shall engage all efforts for the global development of Medical Physics.

London, 6 Jan 2012

Slavik Tabakov – Brief Curriculum Vitae (2011)



SUMMARY

Programme Director of MSc courses: MSc Medical Engineering and Physics; MSc Clinical Sciences (Medical Physics); MSc Clinical Sciences (Clinical Engineering) of King's College London (KCL) - School of Medicine; Consultant Medical Physicist at the Dept. Medical Engineering and Physics, King's College Hospital London, UK

Active participation in 10 International projects. Co-ordinator of 7 International projects, including the projects EMERALD and EMIT – awarded with the inaugural EU Award for education - Leonardo da Vinci Award (2004).

Leading Organiser of 4 International Conferences (incl. the first International Conferences on Medical Physics Education/Training) and more than 30 International Workshops and Seminars (venues in 20 countries) on Medical Physics Education/Training, Professional and Scientific topics, with participants from c. 50 countries. Chair of IOMP ETC (2000-06) and current Chair of IOMP Validation and Accreditation Panel. Advisor for the development of Medical Physics Education courses in 15 countries. Co-Director of the International Medical Physics College, ICTP, Trieste, Italy (UNESCO/IAEA). Taking part as expert in a number of IAEA projects.

Leading developer, with project co-authors, of the concept of e-Learning in Medical Physics, the first educational Image Databases, the first e-books (currently used in 70+ countries) and the first e-Encyclopaedia of Medical Physics with related Multilingual Dictionary of Terms in 29 Languages (both with 7000+ users per month). Awarded with the IOMP Harold Johns Medal for Excellence in Teaching and International Education Leadership.

Active member of the International Organization for Medical Physics (IOMP) since 1997. In 2009 elected Officer of IOMP (Treasurer) and of International Union for Physics and Engineering Sciences in Medicine (Treasurer).

Personal details:

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British citizen, born in Plovdiv, Bulgaria (1953). Married with one daughter. E-mail: slavik.tabakov@kcl.ac.uk & slavik.tabakov@emerald2.co.uk; Web sites: www.emerald2.eu (e-Learning), www.emitel2.eu (e-Encyclopaedia)

Education, Training and Academic appointments:

MSc (1973-1978), Technical University Sofia, Bulgaria;
Industry Training courses (1981-1990) in: USA (Technicare Corp.), Germany (CGR Koch&Sterzel Co) and France (CGR Thompson and General Electric Co.);
PhD (1988) in Medical Radiation Physics (CT Densitometry), Bulgaria;
Habilitation (1990) Assoc. Professor in Medical X-ray Eng. and Physics, Medical University Plovdiv, Bulgaria
Visiting Professor (1996), University of Plovdiv, Bulgaria
Reader in Medical Physics (2007), King's College London, UK

Main professional appointments:

1980-1991 - Research associate, progressing to Associate Professor, Medical University Plovdiv, Bulgaria;
1991 - pres - Principal Med. Physicist, progressing to Consultant Med. Physicist, King's College Hospital London
1996 - present - Honorary Lecturer, progressing to Reader in Medical Physics, King's College London (KCL), UK
2001 - present - Programme Director of MSc in Medical Engineering and Physics and MSc Clinical Sciences at King's College London – School of Medicine (Division Imaging Sciences and Biomedical Engineering), UK

Scientific and Professional Societies Membership/Appointments:

Bulgarian Scientific Societies of Biomedical Physics and Engineering, and of Radiology (1983);
British Institute of Radiology (1992); Institute of Physical Sciences in Medicine (IPSM/IPEM) & Hospital Physicists Association, UK (1992); Fellow of IPEM (1998); Register of Scientists in Health Care, UK (1995);
Clinical Scientists Board of CPSM, UK (2000); Institute of Learning and Teaching, UK (2001); American Association of Physicists in Medicine, AAPM (2003); Association for Learning Technology, UK (2004);
Chartered Scientist, UK (2005); Fellow of the Higher Education Academy, UK (2007).

Nationally I have been appointed to a number of professional Committees, including: Member of the UK DfES Steering Com for the UK involvement in the new EU Programmes related to education and training (2007-2013); Subject Advisor (Medical Eng. and Medical Physics) to the Health Sciences & Practice Subject Centre, Higher

International Professional Standing (Societies Elections/Appointments):

- 1997 – present: Member of IOMP Education & Training Committee (ETC),
- 2000 – 2006: Elected and re-elected Chair of the IOMP Education & Training Committee,
- 2006 – present: Chair of the IOMP ETC Validation and Accreditation Panel;
- 2000 – present: Member of IOMP Awards and Honours Committee (AHC),
- 2006 – 2008: Chair of the IOMP Awards and Honours Committee;
- 2003 – 2009: Elected member of the IFMBE Division for Health Care Technology Assessment
- 2006 – present: Chair of the IUPESM Education and Training Committee
- 2007 – present: Member of the MSc Accreditation Sub-Committee of the UK IPPEM
- 2009 – present: Elected Officer of IOMP (Treasurer)
- 2009 – present: Elected Officer of IUPESM (Treasurer)
- 2000 – present: Co-Director of the International Medical Physics College at ICTP (UNESCO/IAEA), Trieste, Italy

International Medical Physics Activities:

A. Developing and Coordinating the following international projects:

1. EC project 162-504 *EMITEL* (Coordinator), countries: UK, Sweden, Italy, Bulgaria, IOMP – 2006 to 2010 - developed the first e-Encyclopaedia of Medical Physics (web and paper c. 2100 pages) plus Medical Physics Thesaurus with Multilingual Dictionary of Medical Physics terms (29 languages completed). This project attracted c.300 leading specialist from 36 countries, making it one of the largest international project in Medical Physics. This is the first project to include IOMP as a full member (and to attract external funding for IOMP). Its web site www.emitel2.eu has currently 7000+ users per month;
2. IOMP Model Curriculum for Medical Physics Education (Coordinator) – 2005 to 2011 – a project of the IOMP and the World Conference for Physics and Sustainable Development (UNESCO), supported by IUPAP
3. EC Project 129-308, *EMIT - European Medical Imaging Technology Training* (Coordinator), countries: UK, France, Sweden, Italy, EFOMP – 2001 to 2004 - produced 2 e-books and 3 CDs in MRI and Ultrasound Imaging currently used in 50+ countries. The project was awarded with the first EU Prize for education Leonardo daVinci Award. This is the first project to include EFOMP as full member of a project (+to attract external funding for it);
4. EC Project 80502, *EMERALD 2 - Internet Issue* (Coordinator), countries: UK, Sweden, Italy, Portugal, France, Ireland, Czech Rep. – 1999 – 2001 produced training web sites for EMERALD (www.emerald2.eu, widely used);
5. EC Project 02620, *EMERALD - European Medical Radiation Learning Development* (Coordinator), countries: UK, Sweden, Italy, Portugal – 1996 – 1998 developing original e-training materials in Medical Radiation Physics (Guide, 3 e-books, 3 Image databases, on 3 CDs) on Diagnostic Radiology, Nuclear Medicine and Radiotherapy – these materials are now used in c. 70 countries;
6. EC Project 9826, *Post-graduate Course in Medical Radiation Physics* (Coordinator), countries: UK, Italy, Ireland, Bulgaria – 1995 – 1998 - founding an International Medical Physics Centre in Bulgaria with own Medical Physics MSc programme. The lecture notes (in English) from this course are also used in 6 other countries;
7. EC Project CIPA 2623: *European Conference on Post-graduate Education in Medical Radiation Physics* (Coordinator), 20 countries, 1993-1995, organising the first International Conf. on Medical Physics Education

B. Active participation in the international/national projects (selected):

1. EC project 12402, *Baltic Biomedical Engineering and Physics Courses*, (countries: UK, Sweden, Estonia, Latvia, Lithuania) – establishing a Joint Medical Physics/Engineering education course for the Baltic states;
2. EC project EN01-05, *Radiation Protection and Safety at the Medical Use of Ionising Radiation*, (countries: Germany, UK, Bulgaria) – introducing legislation and training in Bulgaria as per the EU Euratom Directives;
3. IAEA training projects in: Malaysia, Brazil, Czech Rep., Armenia, Thailand, Macedonia, Bulgaria, Belarus.
4. In the period 1997-2009 I have trained IAEA scholars (through the British Council) on the subjects of X-ray QC and Medical Physics curricula development. These were from: Malaysia, China, Thailand, Iran, Armenia, Bulgaria, Macedonia, Lithuania, Belarus, Slovakia, Czech Republic, Saudi Arabia, Brazil.
5. EPSRC/Wellcome UK project *Medical Engineering Centre*, KCL, London, UK, 2009-pres
6. FAPESP-KCL project “*Development of Adapted Modules for e-Learning Training on Medical Physics*”, 2011-present, cooperative project between King’s College London and University of Sao Paulo, Brazil

C. Organising or active participation in organisation of Medical Physics Seminars/Conferences:

Budapest, Hungary, 1994 (first International Conference on Medical Physics Education); Krakow, Poland, 1995; Kuala Lumpur, Malaysia, 1997; Campinas, Brazil, 1997; ICTP, Trieste, Italy, 1998 (first International Conf. on Medical Physics Training); Nottingham, UK, 1999; Kaunas, Lithuania, 1999; Dublin, Ireland, 2000; Lille, France,

2000; London, UK, 2001; Bangkok, Thailand, 2002; Yerevan, Armenia, 2002; Sofia, Bulgaria, 2003; ICTP, Italy, 2003 (first Intern. Conf. on e-Learning in Med. Physics Training); Durban, South Africa, 2005; ICTP, Italy, 2008;

D. Active participation in the organisation of IOMP endorsed activities (selected):

Tallinn, Estonia, 1999; Lisbon, Portugal, 2000; Prague, Czech Rep, 2000 (ETC in Eastern Europe); Belfast, UK, 2001; Moscow, Russia, 2001; Cairo, Egypt, 2003; Sydney, Australia, 2003 (ETC in Asia–Oceania, at WC2003); Seoul, South Korea, 2006 (ETC-global development at WC2006); Riga, Latvia, 2008; Munich, Germany, 2009; Moscow Russia, 2010 (III EuroAsian Conf), Porto Alegre, Brazil, 2011, Beijing, PR China, 2012.

Member of the Org. Com. of the World Congresses of Medical Physics and Biomedical Engineering: WC1997 (France, Nice), WC2000 (Chicago, USA), WC2003 (Sydney, Australia), WC2006 (Seoul, South Korea), WC2009 (Munich, Germany); 2012 (Beijing, PR China), and also of the International Medical Physics Conferences ICMP2011 (Porto Alegre, Brazil) and ICMP2013 (Brighton, UK).

E. Active participation and coordination of the International Medical Physics College ICTP:

1996, 1999, 2000, 2002, 2004, 2006, 2008, 2010, 2012 (Co-Director of the latest 6 Colleges 2002-12) This unique International College delivers intensive courses to young colleagues from approx. 50 countries (biannually). The College operates at ICTP, Trieste, Italy under the aegis of UNESCO/IAEA. So far c. 950 colleagues from less developed countries have attended it. Some of them started Medical Physics courses in their own countries.

Medical Physics/Eng teaching activities at King's College London and King's College Hosp

Since 1995 my main activities have been focused on development and delivery of high level education and training in Medical Physics and Engineering. In KCL I am Director of MSc Medical Engineering and Physics (MEP) since 2001. Since 2007 I re-organised the MSc MEP and later developed two further MSc programmes (based on MSc MEP): MSc Clinical Sciences (Medical Physics) & MSc Clinical Sciences (Clinical Engineering). I am also Director of these two new MSc programmes and am Deputy Chair of the TPG Exam Board of the KCL School of Medicine. During the past 10 years the students from my MSc Programmes received 11 external awards

Research Interest and overall Publications/Editorships

Main Research and development are in Medical Physics/Eng. Education and Training; e-Learning Development and Implementation; X-ray Diagnostic Radiology Quality Control;

Co-author of:

- 8 textbooks and e-books (including *EMERALD*, *EMIT*, *Medical Radiation Physics - A European Perspective* and *Medical Physics and Engineering Education and Training*);
- 5 CDs with Teaching Image Databases for Medical Physics Training (*EMERALD* and *EMIT*) – now used in c.70 countries;
- 3 Teaching Web sites with e-materials;
- 1 Medical Physics Thesaurus and Dictionary (in 29 languages);
- 1 Encyclopaedia of Medical Physics (now used by 7000+ colleagues per month) – the last two items are major reference resources in Medical Physics, for their development I attracted as contributors some 300 leading Medical Physics specialists from 36 countries.

- Approx. 100 papers published and presented at Conferences
- Invited Speaker at 21 International Conferences

- Guest-editor of the Special issue “e-Learning in Medical Engineering and Physics”, *Journal of Medical Engineering and Physics*, Elsevier, 2005.
- Co-Editor of the Series of Textbooks ‘Series in Medical Physics and Biomedical Engineering’, CRC Press, Taylor & Francis Publishing Group, London, Philadelphia, 2006-present;
- Member of the Editorial Board of the *IUPESM Journal “Health and Technology”*, Springer, 2011-present

Awards

1986 - Award of the State Committee for Research, Bulgaria;
1996 - Medals of the Bulgarian Biomedical Physics and Eng. Society and the Bulgarian Radiological Society;
2004 - EU inaugural prize for education - Leonardo da Vinci Award (as Coordinator of Project EMIT);
2006 - The IOMP Harold Johns Medal for Excellence in Teaching and International Education Leadership;
2009 - King's College London Teaching Excellence Award