



IFMBE News

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IFMBE News

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- 7th International Conference on Appropriate Healthcare Technologies for Developing Countries (9/18-9/19,2012)
- International Symposium on Biomedical Engineering and Medical Physics(10/10-10/12,2012)
- 2012 International Conference on NeuroRehabilitation (11/14-11/16,2012)

EDITORIAL

Transition of IFMBE

The 2012 World Congress on Medical Physics and Biomedical Engineering will be held on May 25th. I hope that all of you will be able to attend this conference.

In this issue of IFMBE News, we provide the latest news regarding the field of medical and biological engineering from different regions of the world. Since the IFMBE is transitioning right now, we focus mainly on the innovation and advancement in parts of the Medical Physics and Biomedical Engineering fields.

We thank Prof. Vo Van Toi for providing IFMBE with the Fourth report of International Conference on Biomedical Engineering in Vietnam. We also thank Dr. Yadin David (Chairman of the Clinical Engineering division), who has once again provided us with information regarding the developments in Clinical Engineering in Brazil.

In this issue we provide information regarding the 2012 IUPESM Award of Merit Nomination and the abstracts of three award winners who will be giving lectures at the WC2012: Prof. Joachim Nagel, Prof. Damijan Miklavcic and Prof. Zhi-Pei Liang.

Last, but not least, we would like to encourage all of you to visit our website <http://ifmbe.org/index.php> for the latest news in Medical and Biological Engineering.

Thank You!



Kang-Ping, Lin
Editor, IFMBE News



IFMBE EXPRESS

Words from the President

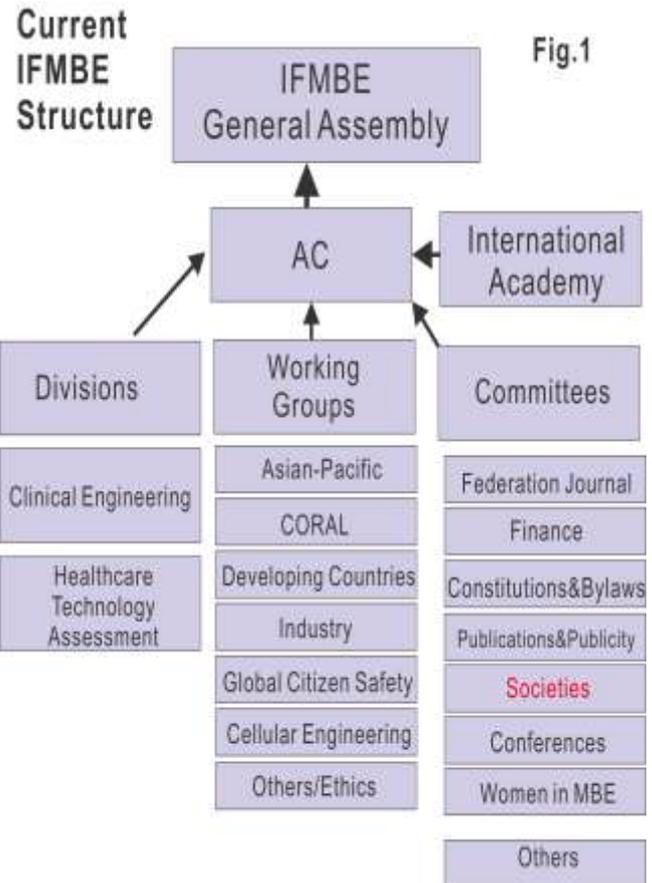
The IFMBE President's Remarks on a new Proposed IFMBE Structure

- Herbert F. Voigt, Ph.D. 15 April 2012

Greetings:

I wish to let you know that the IFMBE Strategic Planning Committee is recommending some changes to the structure of the federation. If approved by the IFMBE AC and recommended to the IFMBE GA by April 27th, these changes could be voted on at the May 28th General Assembly in Beijing, China and take effect immediately.

These proposed changes began with discussions within several meetings of the so-called IFMBE Secretaries Committee starting a few years ago. There were concerns regarding the name of the committee, its relative role within the Federation and the apparent lack of ownership of the Committee's important activities by the Presidents of the IFMBE's constituent Societies. A first attempt to remedy some of these concerns was to rename the Secretaries Committee to the **Societies Committee**. A call was then issued that the Society Presidents participate directly; this was only partially successful. Additional discussions by the IFMBE Officers and the Chairs of several IFMBE Committees culminated in a Special Strategic Planning Committee meeting in March 2012 in Brussels, Belgium. At that meeting a plan was made to make a few structural changes to the IFMBE. These are discussed here. The current structure of the IFMBE is seen in Figure 1.



As you see, the IFMBE is embodied in its General Assembly (GA). The Administrative Committee (AC) acts when the GA is not in session. The IFMBE is organized into Divisions, Working Groups and Committees. In addition we have an International Academy. These are all described on our webpage and within our Constitution. The Societies Committee (in red) takes the place of the former Secretaries Committee. It is widely believed, however, that the Societies Committee should not be considered on the same level as the other IFMBE Committees because of its essential role in effecting the IFMBE's overall mission. Therefore the recommendation is to dissolve the Societies Committee and create a Council of Societies, which would not be an IFMBE Committee at all, but a new structural entity (see Figure 2).



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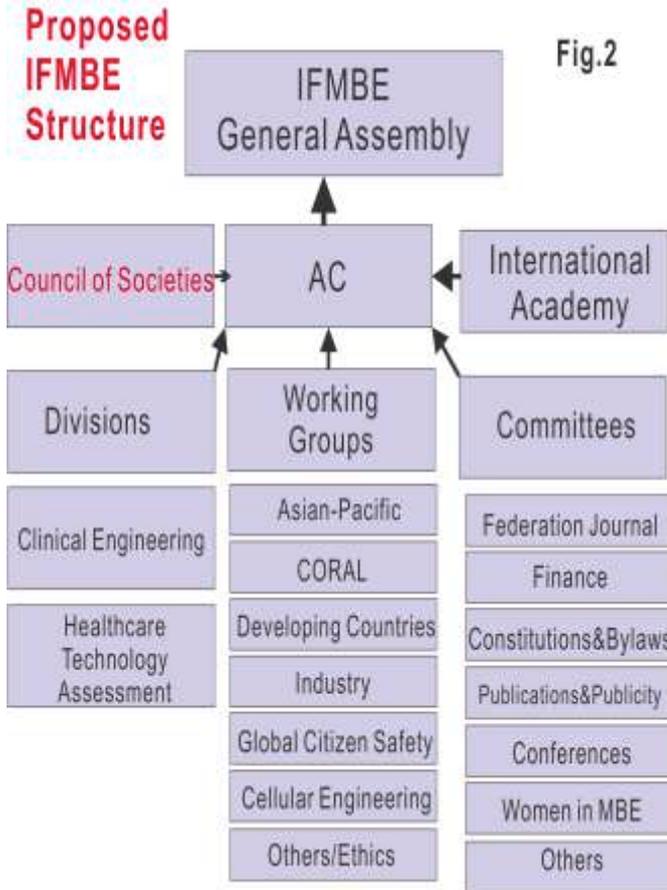


Figure 2 shows the new proposed IFMBE structure. In addition to the International Academy, Divisions, Working Groups and Committees, there is a new **Council of Societies**. Figure 3 shows the constituents of the Council of Societies and the proposed reconstituted Administrative Council (AC).

Specifically, the proposal is to:

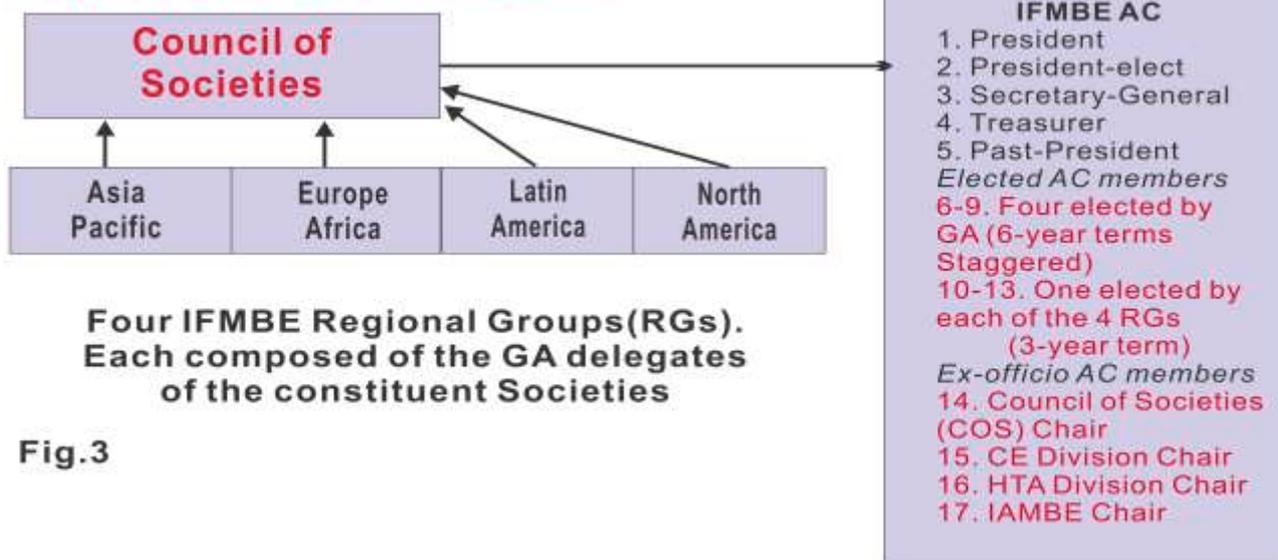
remove Article 12(c) of the IFMBE Constitution, and establish a **Council of Societies** consisting of Four Regional Groups (Rgs):

1. North America,
2. Asian Pacific,
3. Europe/Africa, and
4. Latin America.

• Also we will enable the creation of additional Regional Groups by decision of the Council of Societies under defined requirements for a critical mass and with required minimum activities.

Each RG will be composed of the GA delegates of the constituent Societies within the defined region. For the Transnational Societies, each of their delegates will vote with the RG delegates of their geographical region, (e.g., an IEEE/EMBS delegate from China will vote with the Asian Pacific RG delegates, while an IEEE/EMBS delegate from Canada will vote with the North American RG delegates).

Proposed IFMBE Structure



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The Reconstitution of the IFMBE AC:

All IFMBE Officers will remain on the AC as before; these will be elected (or will ascend to office) at the General Assembly as before.

Four AC members (instead of 8) will be elected for overlapping 6-year terms at the General Assembly.

RG Chairs will be elected by the regional IFMBE GA delegates before the General Assembly and become *ex officio* AC members with vote for a 3-year term for a maximum of two terms at the following General Assembly.

The Council of Societies' Chair is elected by the GA delegates at a Council of Societies Meeting or at the GA for a 3-year term for a maximum of two terms; this Chair is an *ex officio* AC member with vote.

Divisions – CE/HTA Division Chairs are *ex officio* AC members with vote.

IAMBE – The Chair of the Academy is an *ex officio* AC member with vote.

IFMBE Regional Working Groups:

The primary purpose of IFMBE Regional Working Groups will be to organize activities for their regions, including conferences, research networking, maintenance of list of academic programs, etc.

Existing IFMBE Regional Working Groups are:

1. the CORAL Working Group, and
2. the Asian Pacific Rim Working Group.

Proposed is the formation of a Regional European Working Group, including activities in organization of MEDICON, Nordic-Baltic and European Conferences.

This set of proposals is now under consideration of the IFMBE AC. Please contact AC members or IFMBE Officers with concerns/suggestions. It is our intention to make the IFMBE a more effective and representative organization so that it can effectively carry out its Mission efficiently.

Best wishes,
Herb



Herbert F. Voigt, Ph.D.
President, IFMBE



IFMBE EXPRESS

IUPESM Award of Merit 2012

Professor Herbert F. Voigt, Ph.D.
IFMBE President
Department of Biomedical Engineering
Boston University
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USA

Prof.dr.sc. Ratko Magjarevic
Chairman of the IFMBE Awards Committee
University of Zagreb
Faculty of Electrical Engineering and Computing
Unska 3
HR-10000 Zagreb
Croatia

Ref: Nomination for IUPESM Awards of Merit

Nominee: Prof. Dr. ret.nat. Joachim H. Nagel, IUPESM Immediate President and IFMBE Past President, Professor and Chairman of the Biomedical Engineering Program, Director of the Institute of Biomedical Engineering, University of Stuttgart, Germany

Prof. Nagel has been leading or actively involved in different initiatives, activities and projects which resulted in increasing of visibility and importance of biomedical engineering and medical physics in medicine and health. Through his achievements, IUPESM and IFMBE at large, to their affiliated societies and individual members of the affiliated societies gained a large number of benefits. I will mention some of them later in the nomination.

Prof. Joachim Nagel has been and still is devoted to the interests of the biomedical engineering and medical physics community in a large part of his life as scientist and professional. He has successfully representing the interests and achieving the aims of IUPESM and IFMBE during his terms of office. Therefore, I think that he is most appropriate candidate for the highest award presented by biomedical engineers and medical physicists umbrella organization, IUPESM Award of Merit.

Prof. Nagel's contribution to biomedical engineering and medical physics can be seen from the following:

IUPESM Health Technology and Training Task Group

Together with Prof. Barry Allen, Prof. Joachim Nagel established the IOMP/IFMBE Task Group for Health Technology and Training in Developing Countries later called "Health Technology and Training Task Group". They started to develop policies and a program in accordance with WHO approaches, involving WHO and the governments and health care systems of the countries with which IFMBE and IOMP are cooperating. Such a program is a milestone in developing healthcare around the world, especially in developing countries.

Health Technology, official journal of IUPESM

Prof. Nagel is the Founding Editor of Health Technology, the official journal of IUPESM. Health Technology is published by Springer as a printed and electronic journal. It is the first cross-disciplinary journal for the professional groups involved into health technologies. As such, it represents a platform for communication for the health work force, health and hospital management, health care providers and regulatory agencies, the medical technology industry, patients' associations, universities and research institutes and professionals, scientific and technical organizations. Prof. Nagel's initiative is a result of his understanding of health care as a complex problem involving many professions and the need for their close cooperation in solving health problems.

Collaboration with WHO

Prof. Nagel has considerably increased the cooperation of IUPESM and IFMBE with WHO. As the president of the IFMBE he has participated in WHO General Assemblies in Geneva during his term of office and continued to represent the IFMBE at general assemblies also after 2006. It is Prof. Nagel's achievement that IFMBE is included into the WHO's World Alliance for Patient Safety. Prof. Nagel has proposed that IUPESM also applies for official NGO status at WHO.



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Other NGO activities

Prof. Nagel re-established IFMBE's status of an NGO at United Nations and included IFMBE into the initiative "Information Society of the UN". Prof. Nagel also initiated the cooperation of IFMBE with international standardization organizations (ISO, IEC and ITU). IFMBE has meanwhile been accepted as member of the World Standards Cooperation.

Publications

Prof. Nagel recognized the value of IFMBE publications, mainly its Journal MBEC and its potentials. Therefore, he was leading negotiations with the most significant publishers in the field of biomedical engineering and together with other members of the Journal Committee decided to sign a contract with a new publisher, Springer. He achieved three major successes for the IFMBE:

1. Dramatical increase of distribution and circulation as well as of the Journal's volume which brought to a significant increase in visibility of biomedical engineering and IFMBE.
2. Excellent services for IFMBE members (each of 120.000 individuals from the IFMBE affiliated societies) who can free of charge access electronic copies of Federation's Journal MBEC and another three BME journals published by Springer. In addition, IFMBE conference proceedings from the IFMBE proceedings series and the IFMBE newsletter can be accessed under the same conditions. Up to my knowledge, this is a unique service in biomedical engineering community.
3. In addition to the above-mentioned achievements, the income from the Journal has significantly increased, enabling the Federation to start new projects, programs and initiatives.

Education

Prof. Nagel is working actively in biomedical engineering and medical physics education not only as a university professor and Head of the BME department, but he also initiated a series of workshops on biomedical engineering and founded a European project BIOMEDEA in 2004. The BIOMEDEA project gathered BME societies and BME university programs. This initiative resulted in a number of documents (criteria, guidelines and protocols) for harmonization and accreditation of biomedical engineering and science programs. The project has also dealt with training, certification and continuing education of biomedical and clinical engineers working with the healthcare system.

During the realization of this project it became evident that this project is interesting not only for Europe but also for the BME community worldwide, so that at the III BIOMEDEA meeting, representatives from all over the world were present. The success of the BIOMEDEA project encouraged Prof. Nagel to continue it with a strong support of the IFMBE.

Conferences

Prof. Nagel has found it his professional obligation to attend and to communicate with IFMBE members at all possible levels and in all regions. Such an open and friendly approach resulted in the increase of applications for IFMBE co-sponsorship and endorsement of worldwide BME conferences. Prof. Nagel continued this policy also as IUPESM president.

Positions held in IUPESM

IUPESM President, 2006-2009
Member of Congress Coordinating Committee, 2006-2009
Nominating Committee since 2006
ICSU Liaison Committee since 2006-2009
Member of the Administrative Council of IUPESM since 2000
Positions held in IFMBE
Member of the Administrative Council since 1997-2009
President-Elect and Vice-President, 2000-2003
President, 2003-2006
Immediate Past President, 2006-2009
Chairman of the Federation Journal Committee, 2004-2007
Chairman of the Publications and Publicity Committee, 2000-2007
Chairman of the Awards Committee, 2000-2003
Co-Chairman of the Awards Committee, 2003-2006
Member of the Education and Accreditation Committee since 2000-2009
Member of the WHO Committee since 2003
Member of the EAMBES Executive Board, 2003-2004
Editor of the IOPP/IFMBE/IOMP book series since 2002-2006
Editor of Springer biomedical engineering book series since 2006
Co-Founder and Coordinator IFMBE Proceedings Series since 2001-2006
Co-editor of IFMBE Proceedings Series, 2006-2008



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Prof. Nagel has also held a number of positions in many other learned societies and organizations. Prof. Nagel is a distinguished scientist who contributed to biomedical engineering and science and published a large number of scientific publications.

Brief biography

Prof. Joachim Nagel received his Diploma in Physics from the University of the Saarland, Germany, in 1974 and his D.Sc. in Medical Engineering Physics from the University of Erlangen-Nuremberg, Germany, in 1979. Following appointments in industry and as a faculty member at the Department of Biomedical Engineering of the University of Erlangen-Nuremberg, he joined the University of Miami, Florida, USA, in 1986, where he served as a Professor of Biomedical Engineering (1986-96), Professor of Radiology (1990-96), and Professor of Psychophysiology (1988-96), Director of the Medical Imaging & Instrumentation Lab (1986-1996), and Director of Biomedical Engineering at the Behavioral Medicine Research Center (1986-1996). In 1996, he accepted his current position as Professor (Chair) of Biomedical Engineering and Director of the Department of Biomedical Engineering at the University of Stuttgart with appointments as Adjunct Professor of Biomedical Engineering and Radiology at the University of Miami. He is the Immediate Past President of the International Union for Physical and Engineering Sciences in Medicine (IUPESM), Past President of the International Federation for Medical and Biological Engineering (IFMBE), a member of the Administrative Council of the International Union for Physical and Engineering Sciences in Medicine (IUPESM). He is a member of the Scientific Council of the International Centre for Biocybernetics of the Polish Academy of Science, a Fellow of the Institute of Physics (IOP), a Fellow of the American Institute of Medical and Biological Engineering (AIMBE) and an Academician Member of the UNESCO/UATI World Academy of Biomedical Technologies. He has served on the IEEE/EMBS Administrative Committee as a European and as a US representative, and he was a member of the IEEE Engineering Research & Development Committee (Technology Policy Council). Joachim Nagel was an editor of the IOPP Book Series in Medical Physics and Biomedical Engineering and the IFMBE Book Series in Biomedical Engineering, he has served as an Editor for the BMES journal Annals of Biomedical Engineering (1989-94), the IOPP journal Physiological Measurement (1994-98), and he was a member of numerous Editorial and Review Boards.

He served as a consultant to NIH, NHLBI, the Scientists' Institute for Public Information, the American Cancer Society - ACS/NASA Subcommittee, and numerous companies. He has been funded by NIH and the DFG, and he has taken part in EU-funded projects. His main research interests are in the fields of cardiovascular monitoring, instrumentation and physiology, medical image acquisition and image processing, physiological signals, MEMS, and biological effects as well as therapeutic applications of ultrasound. He has published more than 200 scientific papers, books, book chapters, patents, and conference papers. Joachim Nagel is the coordinator of the European project BIOMEDEA (Biomedical Engineering Preparing for the European Higher Education Area). The objective of the project is to develop and establish consensus on European guidelines for the harmonization of high quality MBES programs, their accreditation and for certification and continuing education of professionals working in the health care systems.

Address:

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I kindly ask you to review my nomination of Prof. Joachim Nagel to be awarded IUPESM Award of Merit for a recognized Biomedical Engineer who has established a distinguished career in Biomedical Engineering, respectively.

Boston, 14 May 2011
Sincerely,
Prof. Herb Voigt



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Letter of Interesting in Hosting the 2018 World Congress



INTERNATIONAL UNION FOR PHYSICAL AND ENGINEERING SCIENCES IN MEDICINE

Union member of the International Council for Science

Office of the Secretary General/Treasurer:

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Karolinska University Hospital, Huddinge, SE-141 86 Stockholm.
Tel.: +46-8-585 808 52, Fax.: +46-8-585 862 90, e-mail: heikki.terio@karolinska.se

25 August 2011

Dear Colleagues,

Past world congresses of medical physics and biomedical engineering have solidified the unifying concepts of physical and engineering sciences in medicine. The next two Congresses in Beijing 2012 and Toronto 2015 will strengthen the co-operation within IUPESM.

At this time the Congress Coordinating Committee invites interested countries to submit the enclosed information: "**Letter of Interest in Hosting the 2018 World Congress**" and return it to the **Chair of Congress Coordinating office of the Secretary General. The deadline for receipt of this letter is 1 March 2012.**

Upon receipt of the letter of interest we will place your country on the list of applicants to host the 2018 World Congress. You may then submit an application with a complete proposal to organize the 2018 World Congress. The documents for this are attached with this letter and they are also available on the IUPESM home page <http://www.iupesm.org/>. Note that applications to host the Congress must represent both the biomedical engineering and the medical physics National Members from the host country. **The deadline to submit a complete proposal is 1 May 2012.**

The IUPESM Administrative Council expresses concern with the amount of work associated with planning, preparation and management of a World Congress. To address this problem and give "smaller National Members" the opportunity to host Congresses in the future, IUPESM is preparing to develop capacity to offer support if required. Such support could be in the form of IUPESM organization of the scientific program, help in preparation and running of the Congress, proactive financial support and/or other assistance as requested. Alternatively, groupings of National Members may wish to consider submission of collaborative bids to share the extent of the workload. The level of support, if needed, will be negotiated between the host country and the IUPESM Congress Coordinating Committee prior to the selection voting process in Beijing. The written procedures for the selection of the World Congress site are enclosed.

The Committee eagerly awaits your letter of interest and stands prepared to assist you in preparing a proposal that clearly highlights the advantages and potential of your setting for the triennial Congress.

Heikki Terio, Ph.D.
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Announcement of Working Group on Asia Pacific Activities' Asia Pacific Research Networking (APRN) Fellowship

The four APRN Fellows 2012 have been selected they are:

1. Dr Sierin Lim, Nanyang Technological University, Singapore
2. Dr Ryoichi Nakamura, Chiba University, Japan
3. Dr Ting Hua-Nong, University of Malaya, Malaysia
4. Dr Chih-Kuang Yeh, National Tsing Hua University, Taiwan

The four of them will travel to Taiwan and Japan to visit BME facilities, give seminars and interact with members of the respective societies.

Their travel itinerary is as follows:

	Day	Date	Activities
1	Sat	19-May-12	Arrive in Chinese Taipei
2	Sun	20-May-12	Free day
3	Mon	21-May-12	Activities in Chinese Taipei
4	Tue	22-May-12	Activities in Chinese Taipei
5	Wed	23-May-12	Leave Chinese Taipei and arrive in Japan
6	Thu	24-May-12	Activities in Japan
7	Fri	25-May-12	Activities in Japan
8	Sat	26-May-12	Arrive in Beijing for WC2012
9	Sun	27-May-12	WC2012
10	Mon	28-May-12	WC2012
11	Tue	29-May-12	WC2012
12	Wed	30-May-12	WC2012
13	Thu	31-May-12	WC2012

When in Beijing for the WC2012, the four APRN fellows will make presentations at the "IFMBE Asia-Pacific Research Networking Fellows" session. You are most welcome to attend the presentations.

The details are as follows:

Session Title: IFMBE Asia-Pacific Research Networking Fellowship

Moderator: Prof Ichiro Sakuma, Chairman, IFMBE Asia-Pacific Working Group

Date: 28th May 2012 (Monday)

Time: 16:00 to 17:30hrs

Venue: Meeting Room 牡丹 (Mudan), North Star Continental Grand Hotel, Beijing Convention Center, Beijing, China

Program:

- 1) Background on Asia-Pacific Research Networking Fellowship - SL Toh, Secretary, IFMBE Asia Pacific Working Group
- 2) Introduction of APRN Fellows - SL Toh
- 3) Scientific Presentations by IFMBE Asia-Pacific Research Networking Fellows:
 - (a) "Protein Cages as Theranostic Agent Carriers", Sierin Lim, Nanyang Technological University, Singapore
 - (b) "Automatic measurement, analysis, and prediction method for surgical procedure and environment using surgical navigation information", Ryoichi Nakamura, Chiba University, Japan
 - (c) "Applications of Microwave in Breast Cancer and Gender Identification" Ting Hua-Nong, University of Malaya, Malaysia
 - (d) "Aptamer-Conjugated and Drug-Loaded Droplets for Ultrasound Theranosis", Chih-Kuang Yeh, National Tsing Hua University, Taiwan
- 4) Overview, Benefits and Recommendations of APRN Fellowship 2012 - to be presented by the Team Leader
- 5) Round-up of APRN Fellowship 2012: Ichiro Sakuma

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E A M B E S General Assembly (13 March 2012)

EAMBES GENERAL ASSEMBLY
13 March 2012

KoWi Conference room, floor 8

Rue du Trône
98,
1050 Bruxelles



PRESENT

Marco Viceconti (MV): **President** – University of Sheffield and European Society of Biomechanics

Birgit Glasmacher (BG): **President Elect** – European Society Artificial Organs

Nicos Maglaveras (NC): **Past President** – Aristotle University, Greece

David Simpsons (DS): **Secretary General** – Institute of Physics and Engineering in Medicine, United Kingdom

Keita Ito (KI): **Treasurer** – Eindhoven University of Technology, Netherlands

Christopher James (CJ): **Councillor** – IEEE EMBS

Karin Lohmann (KL): **Councillor** – Deutsche Gesellschaft für Biomedizinische Technik im VDE, Germany

Maria Siebes (MS): **Councillor** – Academic Medical Center, University of Amsterdam; and Netherlands Society for Biophysics and BME

Jari Hyttinen (JH): **Councillor** – Finnish Society for Biomedical Engineering and Medical Physics

Damien Lacroix (DL): **Councillor** – European Society of Biomechanics



Marco Viceconti and MARTINA CONTIN at the EAMBES AC meeting in Brussels March 2012.



Maria Siebes and Joe Barbenel at the EAMBES AC meeting in Brussels March 2012



Group Photo of newly installed EAMBES Fellows March 2012 in Brussels.



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Michael Imhoff	Councillor – Deutsche Gesellschaft für Biomedizinische Technik im VDE, Germany
Heinrich Schima (HS):	Delegate – European Society for Artificial Organs and Österreichische Gesellschaft für Biomedizinische Technik, Austria
Andre Linnenbank (AL):	Delegate – Netherlands Society for Biophysics and Biomedical Engineering
Jose Feliz Rodriguez:	Delegate – University of Zaragoza, Spain
Dan Adam (DA)	Delegate – Israel Society for Medical & Biological Engineering/Technion
Herbert Voigt (HV)	Visitor – IFMBE President
Ratko Magjarevic (RM)	Visitor – IFMBE President elect
Kang- Ping Lin(KPL)	Visitor – IFMBE, Editor, IFMBE News
Guy Cazuguel (GC)	Delegate – French Society for the Development of Biomaterials, Tissue Engineering and Regenerative Medicine
Joe Barbenel (JB)	Fellow - EAMBES
Jos Spaan (JS)	President EAMBES
Leire Solis (GA):	Fellow Committee External Consultant – Rohde Public Policy – No Voting Right
Martina Contin (MC):	EAMBES Manager – No Voting Right

- Decision taken by the Council
- Actions

Presidential address and Presentation of the General Council

The President (MV) presents the meeting agenda and asks if there are any other business items to be discussed. **As there are no additional topics to table the agenda is approved.**

The President gives a presentation of the activity and of the major achievements of EAMBES for the year 2011 and presents the newly elected Council members, their roles, and the new President Elect. The presentation can be found [here](#).

Financial report

KI, in his function as Treasurer, presents the 2011 financial report. The presentation can be found here. A formal vote is requested to approve the financial report: **all the EAMBES delegates with a voting right are in favour, so the document is approved.**

RM highlights that IFMBE never uses the word “lobbying” as in the USA it has a bad connotation, and “lobbying” is also forbidden by law for such non-governmental organizations. For the future and especially for the common activities of IFMBE and EAMBES he requests that a more suitable expression is used. MV and KI propose “policy consulting” instead.

This (or equivalent) will be substituted in all official documents.

Policy Affairs Work Group report

KL and LS give a presentation on the policy affairs activities undertaken in 2011. The presentation can be found [here](#).

A comment is made in regard to the relationship EAMBES has with industry: considering that a large number of health companies are based in the EU, they should also be represented through the Alliance. In this way EAMBES could play a better role in representing the BME in Europe. In response it was highlighted that this issue has been extensively discussed in the past:

- In 2011, with a limited Council composed of only 8 representatives there was simply not enough time/energy to tackle this issue, while next year having a Council of twelve there should be more time.
- without any commercial companies in its membership, EAMBES can claim not to have any vested interests, and this is a crucial point in its relationship with the European Commission.



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HV informs that IFMBE recently signed a contract with EUCOMED and this could be a good starting point for EAMBES to establish collaboration with them in the future.

The IFMBE president also takes the opportunity to invite the representatives of the EAMBES policy affairs working group to Beijing for the next IFMBE General Assembly: this could be a good occasion to table the discussion on common policies.

Manager's report

MC, EAMBES Manager, presents the activities undertaken during the past year. The presentation can be found [here](#).

MC requests the formal ratification of the inclusion of the Moldovan Biomedical Engineering Society as member of the Division of Society. [Everybody is in favor: the new member is ratified.](#)

EAMBES and IFMBE

CJ presents the terms of the agreement recently established between IFMBE and EAMBES, which are reported below:

- a) *Ideally, all EAMBES member-societies should also be IFMBE members, and all European IFMBE member-societies should also be EAMBES members.*
- b) *Once per year, the Secretary Generals of EAMBES and IFMBE will check the situation, and jointly invite members that do not fit this ideal profile to join the other organization.*
- c) *While double membership is promoted, no organization will be forced to oblige. Organizations are free to be a member of only EAMBES or IFMBE.*
- d) *Because there is the possibility that not all IFMBE European member-societies will join EAMBES, and because not all EAMBES member-societies will join IFMBE, EAMBES members may pay their IFMBE dues directly. Alternatively, IFMBE dues can be collected together with EAMBES fees and then forwarded to IFMBE once per year. In any case, periodically, our Secretary Generals would exchange the list of society-members in good standing to ensure no one pays twice by mistake.*

The full presentation can be found [here](#). There follows the presentation of the IFMBE President, HV, who expresses his pleasure at being present at the meeting and for having being able to re-established a relationship with the Alliance after a long time. HV briefly presents IFMBE, its structure and its main role in acting as a Policy Umbrella.

IFMBES is strongly involved in science, education and regulatory affairs. IFMBES has a strong connection with WHO, IUPESM (International Union for Physical and Engineering Sciences in Medicine) and hence ICSU (International Council of Science). HV points out that thus EAMBES also has a voice at WHO through IFMBE.

Presentation of the Fellows Division

JS gives a presentation of the Division of Fellows. The Council of EAMBES decided at its meeting in Budapest in September 2011 to revitalize the Division of Fellows. The following Fellow's Committee was established: Jos AE Spaan (chair), Niilo Saranummi, Sergio Cerutti, Ákos Jobbágy.

The EAMBES Fellows committee produced a list of 34 Founding Fellows which it now presents to the General Assembly.

EAMBES Founding Fellows selected for 2012

name	first_name	country	gender
Adam	Dan	IL	m
Bajd	Tadej	SI	m
Barbenel	Joe	UK	m
Bianchi	Anna	IT	v
Black	Norman	UK	m
Bouten	Carlijn	NL	v
Carson	Ewart	UK	m
Cerutti	Sergio	IT	m
Coatrieux	Jean-Louis	FR	m
Ditmar	Andre	FR	m
Einav	Shmuel	IL	m



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Haar Romeny	Bart	NL	m
Hinrikus	Heii	EE	v
Holzapfel	Gerhard	GE	m
Hutten	Helmut	AT	m
Jobbagy	Akos	HU	m
Kirkpatrick	James	GE	m
Laguna	Pablo	ES	m
Malmivuo	Jaakko	FI	m
Nagel	Joachim	GE	m
Nikita	Konstantina	GR	v
Pallikarakis	Nicolas	GR	m
Popovic	Dejan	DT	m
Prendergast	Patrick	IE	m
Riener	Robert	CH	m
Roa	Laura	ES	v
Saranummi	Niilo	FI	m
Schima	Heinrich	AT	m
Siebes	Maria	NL	v
Sloten	Jos	BE	m
Spaan	Jos	NL	m
vanHuffel	Sabina	BE	v
Wojcicki	Jan	PL	m
Wårdell	Karin	SE	v

MV clarifies that it was agreed that the fellows decide on the fellows to be appointed and that the Council simply should ratify, or not the entire list.

A formal vote is requested:

- one abstention
- everybody else is in favour

The list of fellows is thus formally ratified.

The full report can be found [here](#).

Activity plan 2012

MV presents the EAMBES Activity Plan for the next year. The presentation can be found [here](#).

Presentation of each Council member's activity plan

Each Councillor introduces him/herself and explains the activities he/she will undertake during his/her mandate.

President Elect: Birgit Glasmacher

Secretary General: David Simpson

DS will concentrate on extending the membership, especially targeting the medical societies; the first step will be exploring interest through personal contacts of Council members.

Treasurer: Keita Ito

Communication: Damien Lacroix

DL will concentrate on improving the internal communication, especially with the members of our member societies and institutions. A direct contact mechanism has to be implemented. Every member should send us a list with the contacts of the members they represent, to which we send a single email to register to the website. DL will also concentrate on the external communication with non member institutions

External Relationships: Christopher James

Regulatory & Industrial Affairs: Michael Imhoff

Policy Affairs: Karin Lohmann, Jari Hyttinen

The PAWG will mainly concentrate in influencing the parliament and horizon 2020.

Educational Affairs: Patricia Lawford

Research Affairs: Maria Siebes

Plenary discussion

Main issues:

- Regulatory affairs: considering the importance of this topic and the up-coming recast of the Medical Devices Directive, EAMBES could consider to create a WG on this issue. Initiatives to increase EAMBES visibility and promote its activities:



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- EAMBES should showcase its work at its members' annual conferences. This may be in the form of discussion on research directions/horizon scanning, reflecting the wider policy concerns of EAMBES and its Fellows.
 - As members of IFMBE, EAMBES members have access to three Springer on-line publications. An online access to these publications could be set up in a private area of the EAMBES website and widely advertised.
 - EAMBES should write a good position paper to be published as an editorial in one of the BME scientific journals. IFMBE could publish the paper in one of its journals.
 - EAMBES should have a link on the IFMBE website.
 - EAMBES should establish a communication channel with the national contact point for each Nation in which it has a member.
 - EAMBES should leverage the prestige of its fellows.
- IFMBE offers its WebEx teleconferencing account and also training session on how to use this tool, so to be able to organize better teleconferences and decrease the travelling costs.

Date of the next meetings

From next year, the annual meeting will be condensed in a 2 days event which will include:

1. General Council
2. General Assembly
3. Fellow Symposium

The meetings have been already scheduled for March 11th/12th, 2013.

=> **Please note:** the presentation files are contained in a private repository which is located in the delegates' workspace of the EAMBES website. To access this, you first need to log into the website (please make sure you are registered; if you have not done so yet, please use [this registration link](http://www.eambes.org/createMember): <http://www.eambes.org/createMember>). As the permission assignment process is managed manually, it may take up to one day to get this done. Thank you in advance for your patience!

Call for Regional Deputy Editors for the IFMBE Proceedings Series

The IFMBE Publicity and Publications (P&P) Committee invite nominations for Regional Deputy Editors for the IFMBE Proceedings Series. Appointments will be made in time for the upcoming World Congress on Medical Physics and Biomedical Engineering in Beijing, China in May 2012.

The IFMBE Proceedings Series is a periodic publication of the IFMBE published by Springer and cited by several bibliographic databases (Scopus, Springerlink, Google Scholar etc.). Within the IFMBE Proceedings Series, the Proceedings of major IFMBE scientific events (e.g., World Congress in Medical Physics and Biomedical Engineering) are published. For more information, please visit <http://www.springer.com/series/7403>. Online access to IFMBE Proceedings Series is free of charge to all registered members of national or transnational societies affiliated to IFMBE.

A team of four (4) regional deputy editors for the IFMBE Proceedings series are being sought. There are currently three (3) IFMBE co-sponsored conferences in Europe, one in Asia and one in Latin America; in the steady-state, these are on a three year schedule. The World Congress and the Cellular Engineering conference change venue-continent every three years.

The IFMBE officers have recently appointed Prof. Igor Lackovic from the University of Zagreb to the position of IFMBE regional deputy editors for the IFMBE Proceedings with immediate effect.

In nominating or applying for the position of deputy editor, from Europe, Asia-Pacific region and Latin America, please provide the candidate's biography and bibliography to the Chair of the P&P Committee, Prof. KP Lin, kplin@cycu.edu.tw, by 25 April 2012 for consideration of the P&P Committee.



IFMBE EXPRESS

Congratulations to the 2012 EMBS Distinguished Lecturers

Congratulations to the following EMBS Members who were selected to represent EMBS as the 2012-2013 Distinguished Lecturers!

EMBS Distinguished Lecturers travel the world providing lectures to local EMBS Chapters and Conferences. They are the Ambassadors of the Society sharing knowledge about technical areas and EMBS. Please join us in congratulating the newest group of EMBS Distinguished Lecturers.



Atam Dhawan, Ph.D., IEEE Fellow
Distinguished Professor of Electrical & Computer Engineering
Associate Dean, Albert Dorman Honors College
New Jersey Institute of Technology
Technical areas: Biomedical imaging and image processing



Anthony Guiseppi-Ellie, Ph.D., AIMBE Fellow
Dow Chemical Professor of Electrical and Computer Engineering
Clemson University
Technical areas: Biosensors



Dorin Panescu, Ph.D., IEEE Fellow
Senior Director, New Product Development, Intuitive Surgical, Inc.
Technical areas: Medical devices



Herbert Voigt, Ph.D., AIMBE Fellow
Professor of Biomedical Engineering
Boston University
Technical areas: Biosystem modeling and biosignal processing



Guang-Zhong Yang, Ph.D., IEEE Fellow; Royal Academy of Engineering Fellow
Director, Robotic Assisted Microsurgery Lab
Deputy Chair, Institute of Global Health Innovation
Imperial College, London
Technical areas: Body sensor networks; robotically-assisted minimal invasive surgery



IFMBE EXPRESS

Prof. Joachim Nagel Abstract for the Lecture at WC 2012

Health, Technology, Policy and the MBE Professions

Joachim H. Nagel, DSc
Institute of Biomedical Engineering,
University of Stuttgart

Though the biomedical engineering professions are the only ones involved in the whole loop of health and health care delivery from basic research to the development, assessment, production, distribution, management and application of medical technologies and play an important role in the health care systems, we normally do not call much attention to the important professional issues of biomedical and clinical engineering nor to the societal implications of our work which are essential for the development and recognition of these professions and the professionals dedicating their work to the health and well-being of mankind.

Once infected by the idea not to limit oneself to work in just a few research areas, developing fabulous new medical devices and passing on our knowledge and experience to a new generation - as important as this work is - looking beyond the personal impact factor of scientific publications and striving to have an impact on global health and well-being of the people on a much larger scale, a whole new world opens for exciting activities.

If you want to become involved, our professional and scientific organizations, the United Nations system, primarily through the World Health Organization, the national health care systems, academia and our new journal Health and Technology offer the platform and plenty of opportunities.

Recent important achievements have been in the promotion of patient safety, all aspects of safe and efficient health technology in industrialized as well as developing countries, including economic issues, the perspectives that advanced technologies and innovations in medicine and health care offer for the patients and the development of societies, disaster preparedness, the advancement of the medical and bioengineering professions, including their roles within the health care systems and with regard to health policy, their classification by the International Labour Organization as health professions, and the need for their regulation, including individual certification and educational issues.

IFMBE EXPRESS

Prof. Damijan Miklavcic Abstract for the Lecture at WC 2012

Electrochemotherapy – electric pulses increasing effectiveness of cancer drugs

Damijan Miklavcic, University of Ljubljana



When a cell is exposed to an electric field of sufficient amplitude its membrane becomes permeable for molecules that otherwise are deprived of transmembrane transport mechanisms. If electric pulse parameters are selected in a way to increase membrane permeability only transiently, the membrane reseals and the cell survives. Some

chemotherapeutic drugs which have intracellular target but lack efficient transport across the membrane (e.g. bleomycin, cisplatin) can greatly benefit from membrane permeabilization (electroporation). Bleomycin cytotoxicity has been demonstrated to be increased 1.000-10.000 times, whereas for cisplatin this potentiation in vitro was 10-100 times. This potentiation of drug cytotoxicity was effectively translated from in vitro to in vivo preclinical trials and finally introduced into clinical practice as electrochemotherapy.

In 2006, a clinical device for electrochemotherapy was put on the market and standard operating procedures have been published for treatment of cutaneous and subcutaneous tumors. The metastases of different origin have responded locally to electrochemotherapy with complete response rate of 74% and objective response rate of 85%. Since 2006, electrochemotherapy has been introduced into 100 clinical centers in 20 countries around Europe and is paving its way into standard clinical use. Every year more patients are being treated by means of electrochemotherapy with comparable results as in initial clinical trials. The procedure is efficient, safe, well tolerated by patients and can be performed on an outpatient basis.

As electroporation of membranes of cells is achievable also in tissue and its efficiency depends predominantly on local electric field, it is possible to treat with electrochemotherapy also deep seated tumors. Local electric field can be established by inserting electrodes into the tissue. The “shaping” of the field by using multiple electrodes in combination with treatment planning procedures and image guided insertion of electrodes allows treating of solid tumors irrespective of their location. Recent clinical trials in treating colorectal liver metastasis, metastasis in bone, and soft tissue sarcoma by means of needle electrodes proved feasibility of electrochemotherapy for deep seated tumors making this new treatment modality a promising new tool in armamentarium of oncologists.

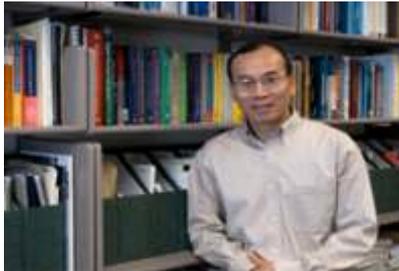
IFMBE EXPRESS

Prof. Zhi-Pei Liang Abstract for the Lecture at WC 2012

High-Speed MRI with Sparse Sampling: Overcoming the Nyquist Barrier

Zhi-Pei Liang
Department of Electrical and Computer
Engineering, and
Beckman Institute for Advanced Science
and Technology
University of Illinois at Urbana-Champaign

Conventional imaging methods are based on Shannon sampling theory. As such, the number of Nyquist samples (or measurements) grows exponentially as the physical dimension of the underlying imaging problem increases (the so-called curse of dimensionality), rendering it difficult to achieve high spatiotemporal resolution for high-dimensional imaging. Sub-Nyquist sampling is possible for sparse and/or partially separable signals and is providing a powerful way to speed up various imaging experiments. This talk will provide an overview of recent sparse sampling methods based on compressed sensing theory and partial separable functions theory. An emphasis will be placed on discussing the issues of image reconstruction from sub-Nyquist data with sparsity and partial separability constraints and demonstrating their potential applications.



Iranian BME Society's Conference, ICBME 2011

The 18th Iranian Conference on Biomedical Engineering (ICBME 2011)

The Tarbiat Modares University
Tehran, Iran

By Kamran Hasani

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[k.hasani@srbiau.ac.ir]

The 18th conference on Biomedical Engineering of the Iranian Society of Biomedical Engineering was started on 14 December 2011 at 8:30 AM. Following the opening ceremony, which included a written welcome from Professor Herbert Voigt, IFMBE President, researchers, from all over Iran, presented their papers during the 2 day conference. Included were 56 oral presentations and 24 posters in biomechanics, bioelectrical engineering, biomaterials, and clinical medicine.

The Keynote speaker was Professor Hossein Esteky who spoke on "Brain Internal State Predicts Perception and Behavioral Decision."

The third day of the conference was dedicated to the workshops and included: dental equipment, Calibrating, and end note & RefViz.

The closing ceremony was held at noon of December 16th. The total attendees included 121 professors, students and researchers.



IFMBE EXPRESS

Message to Iran from Prof. Voigt

The following is a message conveyed to the participants of the 18th International Conference on Biomedical Engineering (ICBME 2011) held at Tarbiat Modares University, Tehran, Iran from 14 to 16 December 2011:

Dear Participants of the 18th International Conference on Biomedical Engineering (ICBME 2011) here at Tarbiat Modares University, Tehran, Iran.

My name is Herbert Voigt, I am the President of the International Federation for Medical and Biological Engineering (IFMBE) and a Professor of Biomedical Engineering at Boston University in Boston, Massachusetts, USA. I wanted to be here in person to wish you all a successful conference and to offer the assistance of the IFMBE in promoting Biomedical Engineering in your country. The IFMBE is an non-governmental organization to the WHO - the World Health Organization of the United Nations. It is there that we have the potential to affect global health care policy. I have provided information about our organization to Professor Hassani and I invite the Iranian Society of Biomedical Engineering to submit an application for membership in the IFMBE. We can work together to bring affordable health care to the world through engineering and technology. I am sorry that I cannot be with you now. I was looking forward to making new friends. I hope you have a successful conference and I hope we will meet in the near future.

With warm wishes,

Herbert F. Voigt, Ph.D.
Professor of Biomedical Engineering
Boston University
44 Cummington Street
Boston MA 02215
617 353-2817
President, International Federation for Medical and Biological Engineering (IFMBE)



FROM THE SOCIETIES/COMMITTEES

-Clinical Engineering Division- A Bit of Clinical Engineering From Brazil

Professor Saide Calil and Yadin David

One of the purposes of the Clinical Engineering Division (CED) is to promote networking and collaboration among clinical engineers around the world. To do that we publish information about people and clinical engineering academic programs like the one in Italy and about other global clinical engineering activities. To be able to carry out the goals of the CED, a Board of directors and faculty of collaborators have volunteered their expertise and time. These important individuals serve the community for specific duration. At the end of last year we posted "Call for volunteers" to fill those of the board positions that will become vacant. The response was excellent and provided the CED election committee the opportunity to submit recommendations for excellent list of volunteer candidates. Those who are not elected to the Board this time may select to work with CED in other capacity such as Collaborators. There is much work to be done and everyone will be important as we focus on making progress on our global clinical engineering mission.

This time, we chose to share with you the story about clinical engineering practices in Brazil. As the country is moving closer into the stage lights (including hosting the world soccer cup) so is its healthcare system and with it clinical engineering. Professor Saide Calil authored the following manuscript.

Clinical Engineering In Brazil, different from USA where the legend tells us that it was created due to safety issues, started aiming at maintenance and acquisition problems faced by the governmental healthcare enterprise.

In 1990, there were some small number of organized medical equipment maintenance groups around the country but just a tiny fraction could be qualified as Clinical Engineering Groups. Few have the knowledge on equipment management and almost none focused on equipment safety. So, the Ministry of Health decided to financially support the creation of four courses around the country to train and prepare Clinical Engineers; and this is how we started here.

From that beginning until the present there were several ups and downs along the way. In 1999 there was only one CE course in Brazil. However, from 2000 onwards, Clinical Engineering in Brazil started to grow very fast. The creation of National Health Surveillance Agency – ANVISA (a kind of Brazilian FDA) in the mid nineties obliged the health units to comply with several safety regulations that could only be accomplished by people trained as Clinical Engineers.

In 2003 it was possible to create the Brazilian Clinical Engineering Association (ABECLIN) that today has more than 400 members. There are today about six Clinical Engineering courses around the country placing around 70 specialists per year in the health market. Almost 80% are already working or will be hired by a health units or service company. The remaining 20% go to government agencies or industries.

Despite such good news, skepticism exists about quality of these specialists in Clinical Engineering. After years of struggle we managed in 2009 to have a common basic curriculum for Clinical Engineering courses though not obligatory. Schools offering such training courses choose the contents of the subjects according to the availability and academic background of teachers. Most of these courses have teachers with Biomedical Engineering background that think they understand about the needs of Clinical Engineering. Such teachers are more concerned on how to explain details involving mathematical concepts of Fourier analysis than safety and management issues involving the use of medical equipment.

Another big drawback is that Clinical Engineers need no certification or further practical training after school. Some are hired even before leaving the course; so if the market does not require quality, why bother with a certification test. As we say in my small home town "if the majority of the mangoes are in the low branches, why bother with the highest ones (normally the sweetest but difficult to pick). The consequence is that quality for the training courses is a coordinator preoccupation and not a market requirement.



FROM THE SOCIETIES/COMMITTEES

No one can deny that this last decade was excellent for the Clinical Engineering market in Brazil and I believe it will keep growing for quite sometimes. However, what really bothers me is where are we going? What will be the future for Clinical Engineering here? As a former Clinical Engineer now in the academy, I am always watching the trends of the health market and despite warnings in my many "preaching" on Clinical Engineering events I participate in Brazil, people seem to be quite happy where they are, happy with the steady state. This happiness already made them lose some important grounds to other professions eager to get their share in the Health Market and to find options for their own profession. I watched medical physics take over safety issues from Clinical Engineers. Despite my warnings, I saw medical informatics taking a huge chunk of issues that could be "eaten" by Clinical Engineers and now I am watching IT people slowly managing former managers. Sadly, I see no reaction from Clinical Engineers. They still seem to be happy to be called the "maintenance boys"; with few exceptions.



(From left to right) Professor Sadie Calil, Antonio Hernandez (PAHO) and Professor Yadin David

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For every new challenge that arises in the medical field, Brazilian Clinical Engineers seem to be shy to step forward and face the problem. I believe that part of this shyness is due to lack of a good academic background. Not only due to Clinical Engineering training courses but also due to a weak under-graduation formation, but this is a matter for another discussion.

This fact is happening not only in Brazil. Clinical Engineers in South America and most of Europe are facing the same problem due to different reasons. Service companies dominate on countries such as Greece, Portugal, Spain and Italy where there are few in-house Clinical Engineering services. I use to give lectures about Clinical Engineering for a Biomedical Engineering graduation course in Greece, attended by students from most countries in Europe. Despite their interest on this subject all of them have no hope in working as Clinical Engineers when returning home.

I do not wish to be the apocalyptic messenger of Brazilian Clinical Engineering. On the contrary, I do want to raise an old discussion about how we can motivate our professionals, Brazilian professionals, to face the challenges and not hide within the comfort zone. As a Clinical Engineering teacher I do know how to help them to grow upwards and not "sideways"

In one of his excellent articles, Steven Grimes quoted the late Darwin saying, "it is not the strongest that survives but the most adaptable species". My point is that if Brazilian Clinical Engineers keep adapting too much they can become an obsolete survivor. Let me know your opinion and how is it in your part of the world.

BME AROUND THE WORLD

Report of the 4th International Conference on the Development of Biomedical Medical Engineering in Vietnam

The Fourth International Conference on the Development of Biomedical Engineering in Vietnam organized by International University of Vietnam National Universities in Ho Chi Minh City, occurred in Ho Chi Minh City from Jan 8 to 12. Professor Vo Van Toi of this institution was the Conference General Chair. With the endorsement of different professional societies, this conference was organized as a mega-conference. It was kicked off by the Regenerative Medicine Conference (Jan 8-10, 2012) with the theme "BUILDING A FACE USING A REGENERATIVE MEDICINE APPROACH", endorsed mainly by the Tissue Engineering and Regenerative Medicine International Society (TERMIS) and co-organized by Professor Stephen E. Feinberg, University of Michigan Health System, USA, Professor Anh Le, University of Southern California, USA and Professor Vo Van Toi, International University-VNU HCM, Vietnam. The main keynote speaker was Professor Sylvie Testelin of the Service de chirurgie maxillo-faciale, Hopital nord in Amiens, France who performed the first face transplant in France.

It was followed by the General Biomedical Engineering Conference, endorsed mainly by the International Federation for Medical and Biological Engineering (IFMBE) (Jan 10-11) organized by Professor Vo Van Toi, International University-VNU HCM, Vietnam. The main keynote speaker was Professor Frédéric Lesage of École Polytechnique de Montréal, Canada. Professor Lesage's research activities pertain to the development of novel imaging techniques for neuronal conditions. These techniques are tested with both, humans (diffuse optical imaging of the brain during cognitive tasks and study of the neuronal metabolism) and small animals (study of neuro-degenerative diseases by means of transgenic and molecular fluorescent probes).



Joyful moment among different generations of international BME researchers

The last conference was the Computational Medicine Conference (Jan 11), endorsed mainly by the Computational Surgery International Network (COSINE) and the Computational Molecular Medicine of German National Funding Agency co-organized by Professor Paolo Carloni, German Research School for Simulation Sciences GmbH, Germany and Professor Vo Van Toi, International University-VNU HCM, Vietnam. The main keynote speaker was Professor Michele Parrinello, Professor at ETH Zurich, Switzerland. Together with Roberto Car he introduced the ab-initio molecular dynamics method, which he is still developing and applying. This method, which goes under the name of Car-Parrinello Method, represents the beginning of a new field and has dramatically influenced the field of electronic structure calculations for solids, liquids and molecules. He is also known for the Parrinello-Rahman method of molecular dynamics, which permits the study of crystalline phase transitions under constant pressure. Parrinello's scientific interests are strongly interdisciplinary and include the study of complex chemical reactions, materials science and protein dynamics.

BME AROUND THE WORLD

The mega-conference was concluded on Jan 12 by a series of tutorial lectures on the applications of Stem Cell Research in Clinical Settings, Near Infrared Spectroscopy in Brain Imaging, Biomechanics and Bioinformatics.

Overall, the mega-conference featured the contributions of more than 430 scientists from 30 countries, including: Australia, Austria, Belgium, Canada, China, Finland, France, Germany, Hungary, India, Iran, Italy, Japan, Jordan, Korea, Malaysia, Netherlands, Pakistan, Poland, Russian Federation, Singapore, Spain, Switzerland, Taiwan, Turkey, Ukraine, United Kingdom, United States, Uruguay and Vietnam.



An oral presentation during the conference.

Besides the scientific presentations, two round table discussions organized by Professor Vo Van Toi have helped the Biomedical Engineering Department move to next level in its development. The first one on the Regenerative Medicine was participated by many researchers in the field including Prof. Stephen E. Feinberg: U Michigan, USA; Prof. Paul Krebsbach: U Michigan, USA; Prof. Anh Le: U Southern California, USA; Prof. Catherine Le Visage: INSERM, Paris, France; Prof. Susanna Miettinen, Tampere, Finland; Prof. Michael Raghunath: National University of Singapore (NUS), Singapore; Prof. Franz Weber: U Hospital Zurich, Switzerland; Prof. Pam Yellick: Tufts U, USA; Prof. Evelyn Yim: NUS, Singapore; and Prof. Hanry Yu: NUS, Singapore.

The second one on the Computational Molecular Medicine was participated by researchers including Prof. Michele Parrinello, Professor at ETH Zurich, Switzerland, Prof. Paolo Carloni, German Research School for Simulation Sciences, Jülich, Germany, Prof. Alejandro Giorgetti, German Research School for Simulation Sciences, Univ. of Aachen, Germany; Prof. Maria Joao Ramos, Chemistry Department, Faculty of Sciences, University of Porto, Portugal and Centre for Computational Drug Discovery at Oxford University, United Kingdom; and Prof. Ursula Rothlisberger, Chemistry and Chemical Engineering of the Faculty of Basic Sciences, Swiss Federal Institute of Technology in Lausanne (EPFL), Lausanne, Switzerland.

The social events were also organized to introduce to the international guests the Vietnamese culture. The Proceedings of the conference will be published by Springer in the "IFMBE Proceedings Series"

We would like to thank the following sponsors of those conferences: Vietnam National University-HCM city, International University of VNU-HCM city, US Office of Naval Research Global, US Air Force Office of Scientific Research, Asian Office of Aerospace Research and Development, US Army International Technology Center – Pacific, Vietnam National Foundation for Science and Technology Development, Computational Molecular Medicine of German National Funding Agency, Tissue Engineering International and Regenerative Medicine Society, International Association of Oral and Maxillofacial Surgeons, American Association of Oral and Maxillofacial Surgeons, International Federation for Medical and Biological Engineering, Springer, Quintessence Publishing, Korea United Pharm. Inc, Shimadzu, Trung Son, Roche, Quintec Life Sciences, and Life Cell.

More information on the Mega-conference can be found at: www.hcmiu.edu.vn/bme2012.

Notes:

Vietnam National Universities in Ho Chi Minh City (VNU-HCM) is one of the two leading university networks in Vietnam. It reports directly to the Prime Minister of the country. It was established in 1995 by merging the elite public universities in the city which have a long tradition and great reputation. It has more than 4,300 staff (2,400 teaching staff), and 51,000 full-time undergraduate, 5,900 Master and 420 PhD students.



BME AROUND THE WORLD

International University (IU) of VNU-HCM was established in 2003 to be a platform to promote the reform of higher education in Vietnam. It is the first public university that teaches all courses in English. It has extensive collaborations with many universities in Australia, New Zealand, Thailand, the United Kingdom and the United States of America. At IU there are almost 3,000 students, 200 faculty and more than 80 staff.

The Biomedical Engineering Department (BME) at IU was established in 2009. It is the first in the country that offers the accredited degree of Engineer in Biomedical Engineering (an equivalent of the BS BME in the U.S.). Its activities concentrate on the Design and Applications of Medical Devices to satisfy the urgent need of the country. It promotes the close relationship between Education, Research and Entrepreneurship. Its motto is: High Quality, Sustainability and Usefulness. It has more than 100 undergraduate students and 14 faculty and staff.

Professor Vo Van Toi, Chair of the BME Department, obtained his Ph.D in Micro-Engineering at the Swiss Federal Institute of Technology – Lausanne (EPFL), Switzerland in 1983. From 1983-1984 he was a Postdoctoral Fellow at the Health Science and Technology Division (HST), a joint program of Harvard-MIT (USA). From 1984 to 2009 he was a faculty of the School of Engineering at Tufts University. He was co-chair of the joint educational programs between the School of Engineering and School of Medicine, and between the School of Engineering and School of Dental Medicine. From 1991 to 1992 he was on sabbatical from Tufts to be a Research Professor at the Scheie Eye Research Institute of University of Pennsylvania (USA). From 1992 to 1994 he helped create and was the Vice-Director of the Eye Research Institute in Sion (Switzerland). He was instrumental in establishing the BME Department at Tufts in 2003. From 2004 to 2007 he was nominated by President G. Bush to be a member of the Board of Directors of the Vietnam Education Foundation (VEF), a U.S. federal agency established by the U.S. Congress to bring the U.S. and Vietnam closer through educational exchanges related to science, engineering, mathematics, medicine, and technology. From 2007 to 2009 he was on leave from Tufts to be the Executive Director of VEF.

In 2009 he resigned from VEF and took an early retirement from Tufts to go back to Vietnam to establish and chair the BME Department at IU. His research interests include: Design and Applications of Medical Devices, Mechanism of Human Visual System, Ophthalmology, and Telemedicine.

For more information, please contact:
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International University - Vietnam National Universities
Ho Chi Minh City, Vietnam
Tel: (84-8) - 37 24 42 70 Ext. 3237
Website: www.hcmiu.edu.vn/bme
Email: vttoi@hcmiu.edu.vn



BME AROUND THE WORLD

CED Accomplished Translation of Healthcare Training Books Series into Spanish

As the chairman of the Clinical Engineering Division (CED) of IFMBE it give me great pleasure to invite you to browse and learn from the newly posted Spanish translation of the Ziken books series. These healthcare technology guidance series consists of six (6) books that were all translated into Spanish through the efforts of the Biomedical Engineering faculty and students at the Tec de Monterrey medical school in Monterrey, Mexico. In particular, we would like to recognize the efforts of Dra. Gabriela M. Ruiz, Directora del Departamento de Ingeniería Biomédica ITESM Campus Monterrey, who volunteered to coordinate this first in-a-kind project, to mentor its progress and bring this tremendous work to a successful completion.

Following submission of the proposal to the IFMBE executives and securing approval – the search for adequate candidates started. This work has been funded by IFMBE/CED after the realization that priority should be placed on global sharing and exchange of healthcare engineering-related resources. This project will serve as a starting stage for more translation work in the future. The major goal of this project is to demonstrate the ability of CED to successfully complete complex project, to facilitate sharing of knowledge, to promote networking and help professionals in our field to grow further wherever they are around the globe.

We received much encouragement, in the short time since we announced the free availability of these books. In particular, we should mention the kind comments received from Rob Parson, Health Partners – UK, who stated “As far as I know, this is the first translation of the How To Manage guides into a language other than English. Health Partners International is Ziken's sister organisation, and now holds the copyright, and we are very pleased to see the translation.

Let's hope it's the first of many”. Other feedback received echo similar excitement. While efforts were made to insure accuracy of the translation, we would like to encourage you to forward us any suggestions or comments regarding correction of errors you may find.

Please help disseminate access to the translation by promoting and posting the CED website - <http://health.groups.yahoo.com/group/CEDGlobal/> to all your colleagues. Finally, we will appreciate the conveyance of your appreciation of this important project directly to Professor Gabriela M. Ruiz at: gmrui@itesm.mx.

Thank you and Happy new year to all.

Yadin David

BME AROUND THE WORLD

2011 International Symposium on Clinical Engineering and Medical Informatics

Date: December 3, 2011

Place: Tainan, TAIWAN

Host Institutions:

Taiwanese Society of Biomedical Engineering (TSBME)

Department of Biomedical Engineering, National Cheng Kung University

The main theme of this symposium was to promote clinical engineering in order to employ and implement up-to-date medical technology to optimize healthcare service and exchange the cutting-edge IT technology applied in medical informatics. Several distinguished speakers from Hong Kong, Canada and United States were invited. Keynote speakers include Professor Yuan-Ting Zhang, the Chinese University of Hong Kong who is Director, CAS-SIAT Institute of Biomedical and Health Engineering and Editor-in-Chief, IEEE Transactions on Information Technology in Biomedicine, Director Shyue-Ling Chen, Rhode Island Hospital, who is an expert in Clinical Engineering, and Professors Anthony Chan and Ezra Kwok, University of British Columbia. In addition to podium sessions related to the development, operation and legislation of clinical engineering, a panel session was arranged for the participants including medical equipment manufacturers, biomedical engineers and the college staffs and students. Invited speakers took the opportunity to exchange their experiences in clinical engineering in US and Canada. In Taiwan, we learned to improve the process of certificate validation of TSBME. With the exchange of the state-of-art knowledge in clinical engineering among the experts, industrial practitioners and students, we expect to improve the level of our practical operations in clinical engineering in Taiwan.



Invited guests at the symposium

The symposium included the following keynote lectures:

1. Professor Yuan-Ting Zhang, "Development of Tele-medical Informatics and Clinical Engineering in Hong Kong", The Chinese University of Hong Kong, Hong Kong.
2. Director Shyue-Ling Chen, "A Day in the life of a Clinical Engineer in the United States-Practical Cases" " Safety, Quality and Cost Management of Medical Equipment Life Cycle" Lifespan - Rhode Island Hospital, The Miriam Hospital, Newport Hospital, USA
3. Professor Anthony Chan, "Medical Technology Management Practice" British Columbia Institute of Technology, Canada
4. Professor Ezra Kwok, "Development and Practice of Clinical Engineering in Canada" University of British Columbia, Canada

In conclusion, the symposium was of great success. It provided a very good opportunity for international communication and exchanges of experiences and knowledge. All the guests left with a deep impression on the success of this symposium. All sponsors and volunteers who make the symposium perfect were greatly appreciated.



EVENTS

World Congress on Medical Physics and Biomedical Engineering; May 26th- 31st, Beijing, China

The World Congress on Medical Physics and Biomedical Engineering in Beijing, China will be held from May 26 to 31, 2012.

During the World Congress 2012, participants will share the latest information on global health challenges, advanced technologies and innovative applications. It will be a window to show case up-to-date representation of research, education development and industrial contribution in the field of medical physics and biomedical engineering.

For further information, please log on: <http://www.wc2012.org/index.htm>

7th International Workshop on Biosignal Interpretation; July 2-4, Palace Hotel, Como, Italy

The International Medical Informatics Association (IMIA), the International Federation for Medical and Biological Engineering (IFMBE), the IEEE Engineering in Medicine and Biology Society (EMBS), as well as the IEEE Italian Chapter on BME, the Italian Bioengineering Group (GNB), the Italian Society of Electrical and Telecommunication Engineering (AEIT), the Department of Bioengineering of the Politecnico di Milano will organize the seventh International Workshop on Biosignal Interpretation which will be held in Como, Italy on July 2-4th 2012. The workshop aims at exploring the fields of biosignal interpretation including model based signal analysis, data interpretation and integration, medical decision making extending the existing signal processing methods and technologies for the effective utilization of biosignals in a clinical environment as well as for a deeper understanding of biological functions from the whole organism, system, to cellular, protein and gene scales. This Workshop was held basically every three years with a site rotation among Europe, Asia and America. The first one was held in Denmark in 1993 and the last one was in New Haven CT, USA, in 2009.

For further information, please log on <http://www.biomed.polimi.it/BSI2012/index.php>

The 30th World Congress of Biomedical Laboratory Science; August 18-22, Berlin, Germany

Welcome from dvta

Dear Colleagues and Friends,

After a period of more than 40 years it is time for German Association to host the IFBLS World Congress. On behalf of the Deutscher Verband Technischer Assistentinnen/ Assistenten in der Medizin e.V (dvta) - German Association of Biomedical Scientists – represented by the organizing committee it is a great pleasure and honor for us to invite you to the 30th World Congress of Biomedical Laboratory Science to be held in Berlin, Germany on 18th to 22nd August 2012.

Biomedical laboratory science plays an important role in the public and private health care system throughout the world, providing excellent clinical laboratory service for the wellbeing of patients. It is a great challenge to all biomedical scientists to further develop despite permanent changes (move along with constant changes) in medicine and public health areas and the constant threat of explosive increases in costs.

It is our primary common goal to develop the profession of biomedical scientists and to emphasize our role in the health care system. The 30th World Congress is a global event and hosts a large number of biomedical scientists, researchers, laboratory workers and business executives from around the world to discuss and share the latest knowledge in biomedical laboratory science. Furthermore the congress will strengthen co-operation between relevant organizations and built networks between colleagues, scientists and friends during this scientific gathering.

We, the organizing committee, will do our very best to provide an excellent scientific program for the benefit of all. But (despite the tight schedule) and besides all the hard work during our meetings there will be some spare time for social events and to experience historic Berlin with its rich culture and heritage.

We encourage you all to be part of this 30th Anniversary and are looking forward to welcoming you in Berlin, during the summer season of 2012.

Yours faithfully
Annette Artelt
Chair of Organizing Committee

For further information, please log on <http://www.ifbils-dvta2012.com/>



EVENTS

7th International Conference on Appropriate Healthcare Technologies for Developing Countries, September 18-19, 2012, Dexter House, London, UK

Extended to a two day conference for 2012, this must attend event brings together healthcare technologists, clinicians, researchers and public bodies from around the world to explore effective engineering solutions to meet the healthcare problems of developing countries.

With keynote presentations to support and introduce accepted submitted paper presentations from a wide range of industry sectors and academia, attend to share and learn from engineering ideas which have brought great benefits to healthcare provision in developing countries.

For further information, please log on: <http://conferences.theiet.org/aht/index.cfm>

International Symposium on Biomedical Engineering and Medical Physics, October 10-12, 2012, Riga, Latvia

The 2012 is the 150th year of Riga Technical University (RTU). It was established as the first technical university in the former Tsarist Russia. The university soon became the centre of science and exerted a tremendous influence on economy and life both in Tsarist Russia and the Baltic region.

Now RTU is the largest technical university in Latvia and has leader positions in different fields, biomedical engineering and medical physics being one of them.

The International Conference of RTU is a very important event dedicated to the 150th anniversary of the university and is aimed to emphasize the high role of academia in the modern economy and technical progress, as well as to assist in development and strengthening of international scientific, business and personal contacts and cooperation.

The International Symposium on Biomedical Engineering and Medical Physics is being organized under the umbrella of the International Conference of RTU.

The International Symposium on Biomedical Engineering and Medical Physics is being organized under the umbrella of the International Conference of RTU.

The previous similar international meetings provided in Riga (International Scientific Conference Biomedical Engineering and Microtechnologies dedicated to the 140 anniversary of RTU, 2002; the 14th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, 2008) demonstrated the great interest of the participants to visit the capital of Latvia with its deep scientific, historical and cultural traditions.

We believe that you will enjoy both the Symposium and stay in Riga.

Welcome to our City and the University!

Co-chairmen of the Symposium

Prof. Yuri Dekhtyar

Prof. Alexei Katashev

For further information, please log on: <http://www.bini.rtu.lv/isbemp/>

2012 International Conference on NeuroRehabilitation, November 14-16, 2012, Toledo, Spain

It is our great pleasure to invite you to the first International Conference on Neurorehabilitation, that will take place in Toledo, Spain, from November 14 to 16, 2012.

Restoring human motor and cognitive function has been a fascinating research area during the last century. Interfacing the human nervous system with mechatronic systems to restore neuromotor abilities is facing its crucial passage between research and actual clinical reality, enhancing the potentialities of therapists, clinicians and researchers to rehabilitate, diagnose and generate knowledge.

The 2012 International Conference on Neurorehabilitation will bring together researchers and students from the fields of Clinical Rehabilitation, Applied Neurophysiology and Biomedical Engineering in order to promote, feed and encourage this therapeutic global shift.

For further information, please log on: <http://www.icnr2012.org/>