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## EAMBES 2019: State of the Alliance

### Dear Members of EAMBES, and all European Biomedical Engineers and Scientists,

EAMBES has seen a full year of activities and events. All council members and Fellows have, as always, given selflessly their time for EAMBES and for that, we sincerely thank them. In March, we had our Council and Fellows meeting in Brussels. The events were a great success. There have been discussions and decisions for our next strategic approaches towards our lobbying in the European Parliament. We welcomed our new Fellows and enjoyed with a very pleasant dinner together with Council members and Fellows. This year we had our General Assembly, Council meeting and Fellows Roundtable during the International Conference on Medical and Biological Engineering (CMBEBIH 2019), in Banja Luka, Bosnia and Herzegovina. EAMBES has also been active on preparatory work for our flagship European conference EMBEC to be organized in Portorož, Slovenia. More details on the recent activities of EAMBES are presented below.

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### WHAT IS EAMBES?

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#### European Alliance for Medical and Biological Engineering & Science

**A nonprofit scientific society to promote Biomedical Engineering (BME) and Biological and Medical Engineering and Sciences (BMES) with a focus in Europe.**

Members are Scientific Societies, Universities or research institutions across Europe. Today EAMBES represents 27 national & transnational societies and 36 academic and research institutions, and through them a vast number of biomedical engineers and scientists working primarily in research and higher education. EAMBES is also affiliated to the International Federation of Medical and Biological Engineering (IFMBE).

#### EAMBES aspires to:

- Support and promote BME and MBES research and development, education, training and accreditation of scientific programmes
- Recognize individual and group achievements and contributions to the field of BME and MBES
- Become a strong one voice for academic/research MBEs at EU level
- Position Biomedical Engineering (BME) on the EU research and policy agenda
- Develop a dialogue between EAMBES & key policy makers in biomedical engineering and related fields.

EAMBES finds itself as a significant player in this arena, with a focus on Europe. Some might say, what can EAMBES do and what are the challenges? There are a number of key priorities for the Alliance to address over the next few years.

- Primarily we must grow as a community of people with common interests, engaging with colleagues and organisations from many professions and forming a voice which speaks with authority on the status of the profession and its future.
- Continue our efforts to create awareness and “educate” people, that are in key policy making positions within Europe, on the nature and remit of the profession and its contribution to society.

- Bring together professionals from both medicine and life sciences and STEM (Science, Technology, Engineering and Mathematics) subjects to discuss the latest advances and challenges to influence decision and policy making within the EU (i.e. Horizon 2020 funding).
- Enable networking among different academic, industry and policy leaders, and encourage best practice across Europe.
- Engage with governments, academia, healthcare providers, industry and the wider public to build bridges across all sectors.
- Lastly, we have a unique opportunity to truly promote the impact of physics and engineering in Healthcare through the organisation of National, European and International conferences, symposia and other scientific meetings with the collaboration of all our members and other Societies.

I hope this is an agenda we can all embrace. It will only be through our own actions and determination that these opportunities can be grasped.

### **In memoriam – Niilo Saranummi 1946-2018**

Our colleague and friend Niilo Saranummi passed away in Autumn 2018. Niilo made a great contribution in the field of Biomedical Engineering and ICT for Health in the European level and globally. He was serving the BME community as president of IFMBE, IUPESM, EAMBES and IAMBE. He was the key person in the establishment of EAMBES, leading an ad hoc committee looking for the possibilities of establishing a European umbrella organization for the European medical & biological engineering community. This process resulted in the foundation of EAMBES in 2003, and Niilo was nominated as the first president of EAMBES. We remember and miss his warmth, open-mindedness and exceptional ability to motivate people to work together. He gave his full commitment to serve the BME community at the European level, and globally. His memory will remain in our minds.

During the MEDICON2019 Conference in Coimbra, September 27, 2019, we organized the Memorial Session of Niilo Saranummi jointly with IFMBE and IUPESM.

### **EAMBES Elections 2020**

Volunteers play a crucial role in the success of EAMBES; council members work throughout the year across a range of committees, projects and educational outreach activities, providing invaluable expertise, experience and enthusiasm and at the same time contributing to their own professional development and bringing useful new skills back to the workplace.

We now have a range of exciting vacancies within EAMBES, with opportunities across several roles. There is a common misconception that you have to be a 'senior' professional with many years' experience to apply for these roles - but many of the roles are open to all members, and we would welcome applications from early to senior career professionals.

**Watch out for the election call for new councilor positions. The deadline for nominations will be 15<sup>th</sup> of March 2020.**

To those who are completing their terms of office and those who will continue - thank you for your on-going support and commitment to the Alliance. And to those considering applying for the vacant roles: please do. We need as wide a cross-section of members as possible to ensure that the Alliance continues to thrive - now and in the future.

## **EAMBES Fellows**

EAMBES fellows have selected the Class of 2019 of new Fellows: out of 18 nominations 15 new Fellows received 2/3 of the votes to be eligible for nomination. Now, EAMBES Fellows include 80 prominent individuals who have distinguished themselves by identifiable contributions or accomplishments in Medical and Biological Engineering and Science. *The new 2019 EAMBES fellows are: Laura ASTOLFI, Giuseppe BASELLI, Anastasios BEZERIANOS, Aurelio CAMPILHO, Gabriele DUBINI, Dimitrios FOTIADIS, Birgit GLASMACHER, Christian HELLMICH, Paolo Antonio NETTI, Blanca RODRIGUEZ, Michael TANTER, Marcy ZENOBI-WONG, and Philippe ZYSSET*

EAMBES Fellows had two meetings during 2019. The Fellows Seminar introducing the 2019 class of new fellows, *Biomedical Engineering Challenges in Europe*, was organized on March 11-12, 2019 in Brussels. A Roundtable discussion organized by the fellows was held at the International Conference on Medical and Biological Engineering (CMBEBIH 2019), 17 May 2019 in Banja Luka, Bosnia and Herzegovina. The Roundtable discussed on the directions of activity EAMBES and especially the Fellows' division should take in the new European landscape. EAMBES fellows also took part on the EAMBES parliament event on EPIG BME (see below for details on the event) with active participation by many fellows. Jari Hyttinen gave a talk on how to improve the Horizon Europe framework health calls by integrating there the BME view including also promotion of fellows as source of top experts e.g. for EU review panels and expects.

The Fellows committee for 2019-20 consists of Francois Peyrin (Chair), Jari Hyttinen (Past-Chair), Karin Wårdell (Past-Past Chair), Constantinos S. Pattichis (deputy-chair), and Olof Lindahl. More information on EAMBES Fellows webpages: <http://eambes.org/Fellows>

## **Policy Affairs Working Group (PAWG)**

In October 2018, the EAMBES Policy Affairs Working Group (PAWG) organised the second meeting of the European Parliament Interest Group on BME (EPIG BME), in collaboration with the IFMBE, IUPESM, and WHO, and with representatives of the African Community of BMEs. The meeting's main focus was to discuss with the European Parliament how to create awareness on the following:

- recognise BME as an independent profession, including BME as an independent discipline in the ESCO database
- to provide an independent space for research in biomedical engineering creating a BME panel in the 3 European schemes for excellent science (e.g., ERC, FET and MSCA)
- establish stable collaboration with Africa Union in order to help them harmonizing their regulations on medical devices and medical locations among different African Countries and Europe, in the best interest of African citizens and also European medical device manufactures (mainly SMEs).

The meeting was very well attended, with 7 MPs participating to the meeting: Nicola Caputo (Italy), Lara Comi (Italy), Neena Gill (UK), Lojze Peterle (Slovenia), Marijana Petir (Croatia), Davor Škrlec (Croatia), Cécile Kyenge (Italy). From the European Commission, Bernd Rainer, DG Research also attended the meeting. More information and the meeting agenda are available at the EAMBES website <http://eambes.org/Activities/2-EPIG-Activities>.

Regarding the recognition and classification of BME as an independent profession, we raised the same issue in 2015, during the first EPIG BME meeting. During that meeting we have prepared a Parliamentary question which was tabled by the EPIG BME Chair (MEP Nicola Caputo) in collaboration with MEP Lara Comi. During that time BME was not listed in the ESCO database. Following that action BME is now listed, although under 'other engineering not elsewhere listed'. Our efforts to achieve even better results will continue.



Figure 1 Delegation for the 2nd EPIG in BME Meeting, representing EAMBES, IFMBE, IUPESM and MedTech Europe

Prof. Jämsä, President of EAMBES, is also Chair of the IFMBE Council of Societies Europe-Africa Regional Group. There have been active discussions on joint efforts of EAMBES and IFMBE in promoting BME in Europe and worldwide as well as scheduling of future regional conferences. IFMBE Council of Societies has made initiative for collecting best practices in Biomedical Engineering.

### **EAMBES activities during the last year**

EAMBES organized the Council meeting together with the EAMBES Fellows Seminar, on 11-12 March 2019 in Brussels. EAMBES General Assembly and Council meeting were held during the International Conference on Medical and Biological Engineering (CMBEBIH 2019), on 17 May 2019 in Banja Luka (Bosnia and Herzegovina)

Prof. Timo Jämsä represented EAMBES in the Members Workshop of Health First Europe (HFE, <https://healthfirsteurope.eu/>) in Brussels, October 12, 2018. He presented the recent activities and perspectives of EAMBES, including the outcome of the EPIG Meeting in the European Parliament. The workshop discussed on building synergies in European programmes and brainstormed future priorities within HFE. Prof. Jari Hyttinen participated the HFE Working Group dedicated to profile the health care workforce of the future as well as the HFE campaign #Digital4Care on the reflections on digital health.



Figure 2 Prof. Jari Hyttinen at the HFE Wish campaign

EAMBES has published EAMBES Code of Ethics, based on a document prepared by Prof. Helmut Hutten. EAMBES Ethics Committee has been nominated as follows: Prof Sergio Cerutti (chair), Prof Nicolas Pallikarakis, Prof Jari Hyttinen, and Dr Alessia Maccaro (secretary). The Code of Ethics can be found on the EAMBES web pages. It is a living document that will be updated when needed.

EAMBES was invited by the European Commission's Scientific Panel for Health (SPH) to participate in the consultation for the consensus document 'Building the future of health research'. EAMBES Councilor for Regulatory Affairs, Prof. dr. Almir Badnjevic, together with his team published a unique world book titled: "Inspection of Medical Devices - for regulatory purposes". The book is published by Springer. This book offers a guide to implementing inspection procedures for medical devices to ensure safety and performances in

accordance with regulations. The book primarily focuses on diagnostic and therapeutic medical devices and reflects the latest international directives and regulations. More about the book in EAMBES Newsletter and in Springer website.

EAMBES established Task Force on Regulatory Affairs, chaired by Prof. Almir Badnjevic, regarding the MDR implications on medical device R&D and the role of EAMBES in order to optimize our impact on the way of implementation of new MDR and design of the transition phase. EAMBES is offering consultation in the establishment of Notified Body in accordance with new MDR.

EAMBES endorsed third International Conference on Medical and Biological Engineering (CMBEBIH 2019) which was held in Banja Luka, Bosnia and Herzegovina from 16 to 18 May 2019. There was more than 500 participants from 45 different world countries. The Chair of the Conference was Prof. Almir Badnjevic. All accepted papers were published by Springer. During the Conference, EAMBES General Assembly, EAMBES Council Meeting and EAMBES Fellows Roundtable were held.

EAMBES also endorsed the International Clinical Engineering and Health technology Management Congress (ICEHTMC) held in Rome, Italy, on October 21-22, 2019. The conference was a great success with an excellent global attendance. The impact that health technologies have on healthcare quality and effectiveness was broadly discussed. The increasing importance of clinical engineers as experts in the future health care was well demonstrated.

EAMBES also established Constitution and Bylaws Committee, chaired by Prof. Jari Hyttinen, to analyze and update the existing documents.

EAMBES has obtained a PIC code to enable participation to European projects as an active member. This is a new opportunity to have EAMBES as a European level alliance to have involved in upcoming European projects.

### **Upcoming EAMBES activities:**

The 8<sup>th</sup> European Medical and Biological Engineering Conference, EMBEC2020, will be held in **Portoroz, Piran, Slovenia, June 14-18, 2020**. <http://www.embec2020.org/>. The EMBEC name and rights have been officially transferred to EAMBES. EAMBES will organize **EAMBES Fellows session** as well as the **EAMBES Council** and **EAMBES General Assembly** meetings during the EMBEC Conference. Please be all very welcome!

EAMBES is also co-sponsoring the 50<sup>th</sup> year anniversary event of the Nordic BME conferences, the 18<sup>th</sup> Nordic Baltic Conference on Biomedical Engineering and Medical Physics, NBC2020, to be held in **Reykjavik, Iceland, September 18-20, 2020**. <https://www.nbc2020.is/>.

Please consider the opportunity to apply for organizing the upcoming EMBEC Conferences in 2023 and 2026.

EAMBES has had a very active year and we are continuously preparing new activities to promote BME. Our aim is to continue to strengthen EAMBES policy work and collaboration with the European Parliament, the European Economic and Social Council, Scientific Panel for Health and other stakeholders on European BME schemes including MedTech Europe. Another goal is to strengthen the scientific scene by reinforcing the European conference series on BME and now with IFMBE we have achieved this status. We are convinced that our council with members from nine European countries and thirteen organizations has the expertise and energy to successfully tackle these goals. We would like to thank all our Council Members, especially our President Elect and chair of the PAWG Dr Leandro Pecchia, for their great contribution on EAMBES activities.

We would like to stress that our work depends on the continuing support and the resources provided by you - our members! We hope that our work is serving your needs as an EAMBES member.

We will warmly welcome all feedback and suggestions in order to improve our work further.

We are looking forward to your continued support to strengthen the Biomedical Engineering Community in Europe!

Finally, we would like to wish you all a Happy Christmas, and a peaceful and productive New Year 2020.



Timo Jämsä, President



Panayiotis Kyriacou, Past President