



## Minutes of the European Society of Biomechanics General Assembly

Vienna – 9<sup>th</sup> July 2019

Meeting Chairman: Maria-Angeles Perez Anson, President

Meeting Secretary: Markus Heller, Secretary-General

### 1. Welcome by the Secretary General

The Secretary-General, Markus Heller, welcomed all participants attending the General Assembly. Over 100 members attended the General Assembly.

#### *a. Approval of the previous GA minutes*

The Secretary-General asked for approval of the minutes of the previous General Assembly, held in Dublin, Ireland, on 10<sup>th</sup> July 2018. The minutes were approved.

#### *b. Matters arising*

The proposed agenda was approved, without any request for additional matters to be discussed.

### 2. Council reports

#### 2.1 Report from the president

##### 2.1.1 Presidential Address

The president, Maria-Angeles Perez Anson, reported on how the ESB was moving forward, as an established society with over 1,300 members from diverse backgrounds. Maria-Angeles pointed out the vibrant annual meetings showcasing excellent science with the now 25<sup>th</sup> congress taking place in Austria for the first time. These developments are indicative of the wider development of the society across Europe, supported by the formation of national ESB chapters. The president briefly explained a change in relation to EAMBES, the European Alliance of Medical and Biological Engineering and Science of which ESB is no longer member, as over the years the activities from EAMBES were not seen sufficient to justify in any way their now considerable membership fees. The president closed with highlighting the exciting new means for dissemination and education which include a new ESB YouTube channel through which e.g. key note and award lectures recorded at ESB conferences are available but also the new ESB webinar series, a new tool to offer education in addition to the workshops offered at the annual ESB congress.

#### 2.2 Report from the Secretary General

The Secretary General, Markus Heller, reported on the development of the Society and reported that a substantial number of applications were received since the last GA. Markus reminded the membership that all applications are scrutinised by the council and as a result of the process and proposed to ratify a total of 179 new members (76 active, 103 student members), the list of whom having been circulated by email before the GA and being presented on screen during the GA. The



Secretary General then asked for a formal vote. The present members voted unanimously in favour of accepting all proposed candidates as new members of the ESB.

The Secretary General further presented the evolution of membership numbers since 1991, with the current membership at time of the conference of 1360 members. The Secretary General presented the geographical distribution of the membership and clarified that the ESB continues to be a society with an internationally diverse footprint, with recent relative increases in membership primarily from Italy, Austria, Australia, USA and Germany whilst a slight decline in relative numbers was observed for the UK, France and Spain. The Secretary General also provided some insight into the gender balance across the ESB. Though age and gender data is not consistently available for the entire membership database, there is a clear trend for those members with available data to be more likely of male gender (29% females cross all members), but that trend is clearly different in the student membership where conditions are much close to parity and more aligned with expectations for our society going forward as a whole.

## **2.3 Report from the Treasurer**

The treasurer (Harry van Lenthe, HvL) reported.

The total assets of the Society on 31<sup>st</sup> December 2018 were close to 180,000 Euro. Incomes resulted mostly from membership fees and journal subscriptions. The transfer of the WCB 2018 Dublin flat rate was also completed in 2018. Expenses were mostly related to the awards, website maintenance, and EAMBES membership. Finally, HvL presented the budget estimates for 2019. With increased flat rates an increased return from the ESB2019 conference was expected and a positive balance of about 11,000Euro was estimated for 2019. The financial report for 2018 was submitted to the two auditors Monique Donckerwolke and Paulo Fernandes who scrutinised the report in detail. Both auditors reported that the financial report of 2018 was correct and in a good state.

The treasurer asked the membership for approval of the 2018 report. It was approved.

## **2.4 Report on Awards**

Luca Cristofolini (LC), Vice-President of the ESB, reported on the awards procedures and presented the recipients of the awards for the 2019 congress:

- Huiskes Medal: Prof. Dr. Ralph Müller (ETH Zurich, Switzerland), for his lifetime achievement in Biomechanics
- Best Doctoral Thesis in Biomechanics: Tomasso Ristori (TUE Eindhoven, The Netherlands) PhD Title: Computational analysis of cell-mediated remodelling of collagenous tissues”.

Runners up for Best Doctoral Thesis in Biomechanics:

Marta Peña Fernandez (University of Portsmouth, UK), PhD Title: “X-ray biomechanical imaging and digital volume correlation of bone: from regeneration to structure“

Maarten Afschrift (KU Leuven, Belgium), PhD Title: “Identifying the limitations in balance control of elderly using predictive simulations of human posture and gait“



- Student Award finalists:

Martin Frank: “Tensile mechanical properties of human individual trabeculae of non- and osteoporotic fracture donors”.

Graeme R Paul: “Early stage habitual loading is correlated with fracture callus stiffness progression in individual mice”.

Alex Whelan: “Bovine pericardium leaflet failure: investigating the relationship between damage and calcification” (student award winner).

Paola Tasso: “Helical flow as possible mechanism of migration risk reduction in evar-treated patients”.

19 travel awards:

De Nisco, Giuseppe; Boyle, Liam A; McGuire, Jeffrey Allen; Kaya, Cemre Su; Trepczynski, Adam; Colombo, Monika; Rapagna, Sophie; Peña Fernández, Marta; Meilak, Erik A.; Luraghi, Giulia; Shirazi Beheshtiha, Alireza; Zengerle, Laura; Coppel, Ricardo; Wang, Wei; Palomar, Marta; Castilho, Miguel; Cavinato, Cristina; Pitocchi, Jonathan; Karali, Aikaterina

LC thanked all members of the respective award committees for their hard and most essential work in the evaluations for the awards.

LC further clarified that with the aim to encourage continued affiliation with the ESB the following specific new requirements for the student award, the poster award, and the travel grant were introduced: only applicants that are members in good standing by the submission deadline will be considered. In a similar way, new requirements for the Best Doctoral Thesis and Mobility Award are: only applicants that are members in good standing by the submission deadline and who have joined the ESB at least 6 months before the deadline will be considered.

## **2.5 Report from the Committees**

### **2.5.1 Publication Committee**

The chair of the publication committee, Dieter Pahr (DP), reported on the activities carried out in the previous year, which included the spring and autumn newsletters as well as focussed monthly mailings on important matters. DP pointed out the clean-up in the webpage design and the weekly news update feature available through the site. DP closed their report by informing the membership about the publication of the ESB2018 Clinical Biomechanics award by P. Damm et al. in the Clinical Biomechanics Journal.

### **2.5.2 Scientific Communication Committee**

The chair of the publication committee, Sara Checa (SC), explained the aims of the newly formed committee and focused her report on activities from the previous year. SC noted the new ESB YouTube channel that presented plenary and ward lectures from ESB conferences as well as webinars. SC reported that the channel had obtained over 100 subscribers, provided the personalised URL for the channel, and encouraged all members to subscribe. SC explained the future plans to develop the YouTube channel to include keynote lectures and award presentations from upcoming ESB congresses but also reports from the mobility awardees and more webinars. SC



clarified that the channel presents an opportunity for members more generally to disseminate their scientific videos and encouraged all to provide feedback on these matters to the committee chair.

SC also advised the membership on the implementation of a conference survey for the ESB congress starting from ESB2020 Milan to more formally and consistently collect input to e.g. monitor the effect of new features and more generally on how to further improve scientific communication through the congress itself.

### **2.5.3 Meeting Webportal Committee**

The chair of the publication committee, Mark Thompson (MT), reviewed the aims of their committee and reported on the activities carried out to that end in the previous year. Notable changes to previous years for the ESB2019 conference included the transition to using a WordPress landing site for the conference itself, integrated into the ESB website. In addition, abstract submission and review and program layout are now handled through conftool, a commercial offering that provides amongst others more options and improved ease-of-use to both end users but also conference host compared to the previously utilised Open Source solution. A new offering for the ESB2019 conference to improve the experience while attending was provided through Conference4Me, which offers an efficient way for attendees to organise their individual schedule on mobile devices.

MT reminded the membership regarding the criteria for Perspective Talks (PTs) clarifying that the specific format which is substantially different from a standard scientific abstract does not allow downgrading to such a standard abstract. MT closed the report noting that a total of 19 PTs were to be presented at ESB2019 across 12 tracks (3 women).

### **2.5.4 Education and Student Committee**

The chair of the education and student committee, Enrico Dall' Ara (EDA), provided an overview over the members of the committee and started to explain their activities in the previous year with relation to social media, noting links and respective membership/follower numbers (Facebook: 146 ESBiomech, 132 ESBiomech. Students; LinkedIn 205; twitter 550). EDA further highlighted the committee's engagement to develop the seminar series where a first seminar on SimVascular in June 2019 attracted about 50 participants and received already over 200 views on the ESB YouTube channel. EDA reported on ESB 2019 activities which included an extremely well subscribed student lunch with industry on the topic of "What to do after the PhD in biomechanics: conversation with industry" an event supported by 5 participating companies and to which 170 students were registered. Finally, EDA presented the Mobility Award 2019 winners, where 6 reviewers selected 2 awardees out of 5 eligible applications:

- Ehsan Soodmand, from the Julius Wolff Institute at the Charitè Berlin, Germany will be supported in their move to TU Eindhoven, Netherlands, for a project entitled "Mechanically Driven Cellular Self-Organization and Soft Tissue Patterning in Bone Defect Healing".
- Amelie Sas, from KU Leuven, Belgium, will be supported in their move to ETH Zurich, Switzerland, for a project entitled "The mechanical behavior of PMMA augmented bone specimens extracted from human femoral heads".



## 2.5.5 Membership and External Affairs Committee

The chair of the membership and external affairs committee, Jerome Noailly (JN), reported on the activities carried out in the previous year. JN firstly presented an overview over current corporate members and highlighted noteworthy news related to these including the Mimics Innovation Award session at the ESB2019 and the reduced fees (50%) agreed with Taylor & Francis for publication in their International Biomechanics Journal.

JN further clarified the multiple benefits of ESB membership (also clarified on the website) to active members including amongst many others e.g. free online posting of the job adverts and participation in e.g. Clinical Biomechanics Award as well as the many activities and awards open to student members. In a similar way, JN highlighted the multiple attractive benefits to corporate members that include e.g. a 20% discount for exhibition booth at ESB meetings, opportunity to make a 10-15 min presentation in a dedicated parallel session “ESB Corporate Session: Technology for Research” at the ESB Congress (only for Corporates having a congress booth), opportunity to organise a parallel user or award session at the ESB congress, and a personal subscription to Journal of Biomechanics for the respective contact person.

JN further explained the details and process through which members from low income countries can be granted a reduction in membership fees. Here, upon explicit request members affiliated to an institution that resides in a low-income country as defined by the world bank can obtain up to 80% reduction in membership fees. Such members need to contact the membership committee chair and treasurer directly with such a request and necessary proof, and the request needs to be made every year.

JN also reviewed key activities in the national chapters from Spain, Italy and Austria highlighting the new Open Access Journal Biomechanics & Mechanobiology Community Bulletin associated to the Spanish chapter. JN reported regarding further news on affiliated societies including the recently formed Swedish Society of Biomechanics which has been affiliated to ESB since December 2019, the VPH (Virtual Physiological Human) Institute with whom affiliation agreement was to be signed and July 2019 and recent activities in the affiliated French Société de Biomécanique.

## 2.5.1 Meetings Committee

The chair of the meetings committee, David Mitton (DM), gave an overview over the activities in their committee from the previous year.

An essential novelty just introduced in relation to bids for ESB conferences highlighted by DM is the new stage process, with a call going out every year by the 1<sup>st</sup> October with a deadline for a concise, 4 page bid due on the 15<sup>th</sup> December the same year. A selection of bids to be taken forward to the second stage will be completed by 30<sup>th</sup> January in the subsequent year, where full bids by 1 to 2 selected pre-bids are to be submitted by 30<sup>th</sup> April with subsequent presentation during the annual ESB conference (July, 3 years before the even the applicants bid for).

With respect to ESB endorsed meetings DM noted that a total of 14 such meetings were endorsed since WCB2018 in Dublin, noting a selection of (upcoming) meetings.

DM then proceeded to the matter of future ESB meetings, reminding the membership about the previously selected bids for ESB2020 (Milan, 12<sup>th</sup> - 15<sup>th</sup> July 2020 Politecnico di Milano) and ESB2021 (Maastricht). Subsequently, the Milan2020 team provided a more detailed overview of essential aspects of the congress including location, organising and scientific committees, planned schedule, tracks and pre-courses. Here, the organisers highlighted a novelty in that an early call for Perspective Talks would go out with the aim to be able to announce presenters and topics well



before the actual standard abstract deadline to provide further motivation to attend the congress and submit abstracts.

In a similar way, local organisation team of the ESB2021 provide a concise overview of people, location and science as planned for the 2021 conference (11<sup>th</sup> – 14<sup>th</sup> July 2021, Maastricht, The Netherlands).

Finally, DM was able to reveal the outcome of the bid for the ESB2022 conference, for which the application from Porto, Portugal was selected as winner based on a convincing and overall rounded proposition by a strong team.

### **3. New Honorary Member**

The President proposed to appoint Prof. Marie-Christine Ho Ba To as Honorary Member. The President supported their nomination by acknowledging the substantial contribution of Prof. Ho Ba Tho to the field of Biomechanics more generally and the ESB in particular.

The president asked the General Assembly for a formal vote on the proposition. The present members vote all in favour. Prof. Marie-Christine Ho Ba Tho is elected as Honorary Member.

### **3. Matters Arising**

In relation to membership, the Secretary-General raised the matter of Senior Membership conditions. Based on the development of demographics and work force developments, council discussed that modification of requirements for being granted Senior Membership to be revised to who has attained the age of 65y (currently: 60) or to who has been a member of the Society for at least 30 years (currently: twenty years) would be more appropriate. The suggestion was discussed with the General Assembly.

The Secretary-General asked the membership for approval of the suggested changes to Senior Membership. They were approved.

### **5. Closure**

The president thanked all members for attending and their contribution to the General Assembly.

As no other matters arose at this point, the President closed the meeting.

Signed

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President

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Secretary-General

Date: Tuesday, 9<sup>th</sup> July, 2019