



# Newsletter

*of the European Society for Artificial Organs*

## Letter from the President

ESAO Newsletter

**February  
2023**

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### **Edited by:**

Pedro M. Baptista

Dear Members of the European Society for Artificial Organs,

Please find enclosed the first issue of the ESAO Newsletter in 2023, which was edited by Pedro Baptista, our Secretary General.



After one year without Annual ESAO Conference and an online Annual ESAO Conference 2021, we were very happy to finally meet in person again for the 48<sup>th</sup> Annual ESAO Conference, which took place from September 6 - 10, 2022 in Krems, Austria. The participation of 215 researchers, engineers, clinicians and industry partners, including 80 yESAO members and representatives from our sister societies, allowed for an inspiring scientific and personal exchange on an international level. We thank Ulrich Steinseifer, President Elect of the ESAO, who chairs the ESAO Awards Committee for organizing the SAGE Research Award and the ESAO PhD Award. We are indebted to Marcus Granegger and Sebastian Jansen for organizing the Poster Awards. Furthermore, we thank all members of the Scientific Board for their contributions in organizing sessions and symposia, and SAGE Publishing for sponsoring the ESAO SAGE Research Award. We hope that you all enjoyed a high-level scientific meeting as well as the social events. It was a pleasure welcoming you all in Krems, and I would like to express my personal thanks to the ESAO office and to my whole team for their great support in organizing ESAO 2022.

Shortly after the Annual Conference, the Summer School of the ESAO EUTox Working Group was held in Skopje, Republic North Macedonia, from September 21 to 23, 2022. The program was dedicated to approaches tackling cardiovascular complications in kidney failure. We heartily thank Joachim Jankowski and his team for the organization of this event.

Last September, Marcus Granegger and Marc Müller were elected for their second term, and Thomas Lenarz for his first term as Governor of the ESAO Board. We look forward to our collaboration and are confident that the members of the ESAO Board will all contribute new ideas and energy to the Society's activities. We would like also sincerely thank Gloria Gallego-Ferrer, who finished her second term, for her valuable contributions – especially for her activities as Chair of the Working Group Education, where she co-initiated the ESAO-IFAO webinars.

As agreed in the last Board Meeting, the statutes of ESAO have been changed to enable future online elections of members of the ESAO Board and the Executive Committee. Furthermore, Governors and Coopted Board Members can be dismissed when they miss more than two Board Meetings in a row without justification or timely communication.

The year 2023 will start with the ESAO Winter School on “Artificial Organs and Tissue Engineering - From Basics to Clinical Application”, taking place in Lutherstadt Wittenberg, Germany, from February 15 - 18, 2023. The event is organized by Thomas Groth on the occasion of his retirement. We sincerely thank Thomas and his team for the organization of this event, but more than that, for his great dedication and commitment for ESAO over the years.

Our ESAO-IFAO Webinar series was continued with contributions from Chiara Emma Campiglio & Michela Bozzetto, Cristiano Amarelli, as well as Seraina Anne Dual & Thomas Gwosch, and will be further continued. We thank Marc Müller for the organization.

The preparations for the joint 49<sup>th</sup> ESAO and IFAO Conference, which will take place from August 29 to September 1, 2023, in Bergamo, Italy, by Andrea Remuzzi and his team have already started. All current information is available at [www.esao2023.com](http://www.esao2023.com). It is now time to submit abstracts and suggestions for scientific symposia ([Abstract Submission 2023](#)). We do hope to meet many of you in Bergamo in September to make this event a great success!

For the next term, four positions in the Board of Governors are vacant. Please consider applying. The ESAO welcomes all interested persons who wish to become involved in its future development and to promote ESAO activities. The call for applications will follow in March.

Finally, we would like to encourage all ESAO members to consider the International Journal of Artificial Organs as a medium for disseminating their research results or review papers to the scientific community. Andrea Remuzzi, the Editor-in-Chief of IJAO together with the Editorial Board are doing their best to maintain high quality and improve the standing of the journal. However, good quality submissions are prerequisite for their efforts to be effective.

With that, let me conclude and express my deep hope that science and the ESAO community will continue to contribute to bringing people together to work for progress and for a peaceful future, which is more than ever needed.

With warm regards,

Viktoria Weber

## **ESAO 2023 Upcoming Elections**

Last September, the ESAO members reelected Marcus Granegger and Marc Müller for their second term, and Thomas Lenarz for his first term as Governor of the ESAO Board. This year, Nuno Neves and Simon Sonntag are ending their second term and leaving the ESAO Board as Governors. We want to thank them for their work at ESAO. Dimitrios Stamatialis and Krzysztof Zielinski are equally ending their first term, and are eligible to run for a second term, if they wish to do so. Hence, on this year elections there are 4 vacant Governor positions available.

Due to this, we want to invite all our eligible members that have the energy, drive and will to help ESAO grow and keep developing into new realms to submit their candidacy for this upcoming

election for the 4 positions available for Governors of the Board. We can use all your help to keep fulfilling our missions at ESAO, and persevere in the creation of hope to the patients in need of new therapies.

Pedro M. Baptista

### **ESAO Meeting 2023 in Bergamo, Italy**

We are glad to announce the 49th Annual Congress of the European Society for Artificial Organs, which will take place in Bergamo, Italy, from August 29<sup>th</sup> to September 1<sup>st</sup>, 2023. This edition of the Annual Congress will be held in conjunction with International Federation of Artificial Organs.

The meeting will be organized on-site by the University of Bergamo, in collaboration with Mario Negri Institute, Bergamo Hospital and Politecnico of Milano. We are looking forward to sharing the progress in the field of Artificial Organs at experimental and clinical level, as well as the medical technology in support of this field. The Congress will provide the opportunity for personal interaction, that we missed in the last years.

The scientific program includes topics such as apheresis and adsorption, artificial kidney and liver, heart support mechanical systems, bioprinting and additive technology, biomaterials and tissue engineering, blood compatibility as well as organ-on-chip. We are pleased to invite you to join ESAO 2023 Congress and are confident that your participation will stimulate the exchange of experience between researchers, engineers, industry, and clinicians on an international level and will inspire innovation in the field.

You can visit the Congress website for details ([www.esao2023.com](http://www.esao2023.com)). Please take note that Abstract submission already started, and that the online registration is now open. We ask you to support the ESAO meeting with your contributions on your experimental and clinical research.

ESAO 2023 will continue to build connections between basic research and clinical applications, between academia and industry, between scientific disciplines, between young and senior scientists and clinicians, and, most important of cooperation between people, that we need to reinforce to continue the mission of scientific research among the international scientific community.

We are committed to make this conference an unforgettable and valuable experience for all participants.



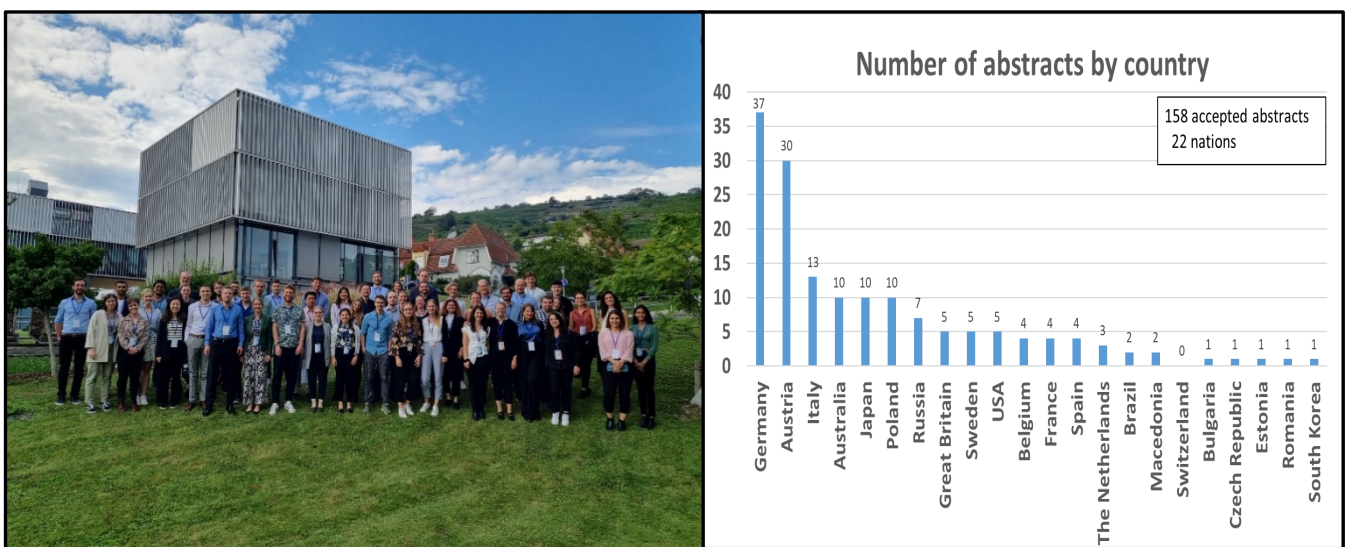
### **Report of the ESAO Meeting 2022 in Krems, Austria**

The 48<sup>th</sup> annual congress of the ESAO took place from September 6-10, 2022, at the Campus Krems, Austria. The event started on September 6 and 7 with the yESAO Conference, followed by the ESAO

Conference from September 7 to 10. While a total of 80 participants were registered for the yESAO congress, 215 participants attended the main congress.

As at previous congresses, yESAO organized interesting hands-on workshops, such as artificial skin stitching and microscopy sessions with the scanning electron microscope and the confocal laser scanning microscope of the Core Facility Campus Krems. For the ESAO congress, a total of 158 accepted abstracts from 22 nations were submitted and covered a wide range of topics in the field of artificial and bioartificial organs in 14 symposia - each of them started with a keynote lecture - and 7 sessions. To increase the attractiveness of poster presentations, 20 of the total 75 posters were presented in the form of short flash talks.

The event included an opening lecture and three plenary lectures by internationally renowned scientists. In addition to the networking events during the opening and the closing ceremonies, an Austrian Heurigen evening and a Wine & Cheese evening took place to bring scientists together for stimulating discussions in the pleasant atmosphere of the UNESCO World Heritage Site Wachau.



## yESAO news and congress 2022

### Report on yESAO Meeting 2022

In September 2022, the annual meeting of the yESAO was finally held in person again. As part of the 48th Annual Congress of the ESAO, the meeting took place at a picturesque venue, the University Campus in Krems.

The scientific program on the first day started with the keynote lecture by Teodora Konach, who discussed the topic of research integrity and engaged the participants in an interactive case study. The subsequent yESAO Workshop Session provided hands-on training on state-of-the-art core facility devices, as well as the opportunity for participants to practice stitching, puncturing and cannulating vessels on an artificial skin model. In the evening, the first day was completed by the yESAO conference dinner and the yESAO Party sponsored by enmodesGmbH.

On the second day, the scientific program began with keynote lectures by Dr. Michael Simmonds and Dr. Kate Fraser talking about blood rheology, blood trauma and respective numerical modeling. The subsequent Pitch Session allowed participants to showcase their research and work on their public speaking skills. After lunch, Dr. Shaun Gregory promoted international collaborations with his Total Artificial Heart Hackathon pitch, which then led to the yESAO Networking Session. Here, participants

worked together to create a title for a research proposal that may serve as a starting point for future collaborations, e.g. in the form of a yESAO Exchange Award.

The high number of registrations for the yESAO meeting as well as the active participation during both the scientific and social programs demonstrated the eagerness of the yESAO community to connect with peers, share scientific finding and create lasting memories and friendships. We would like to thank all the participants for their great contributions, and the ESAO board for the wonderful support.

Jana, Andi & the yESAO core team

## **yESAO News**

### **Reorganization of the yESAO Core Team 2023**

We are happy to announce that this year we can once again count on our experienced members who decided to stay in the yESAO Core Team 2023:

Tim Bierewitz, Femke Cappon, Mario Diedrich, Marie Ebeyer-Masotta, Andreas Escher, Vera Froese, Kristin Hugenroth, Jana Korte, Estela Sanchez, Ben Schürmann and Anna Steck, while the former yESAO Coordinators Martin Maw and Ben Torner will remain available in advisory function.

After the two years of virtual conferences and the long awaited yESAO meeting in Krems 2022, the yESAO was overwhelmed by the numerous applications of young researchers eager to contribute to the community by joining our Core Team. Together with the existing team, we evaluated their applications and just recently welcomed 8 new members:

Tom Bode, Isabell Esslinger, Gesine Hentschel, Flutura Hima, Nicolas Rivoallan, Maria Rocchi, Michela Sanguedolce and Lasse Strudthoff

This international and multidisciplinary team will be complemented by the local organizers in Bergamo to support our conference planning:

Chiara Emma Campiglio and Michela Bozzetto

Together with this team, we are excited to implement new yESAO activities and get ready for the upcoming yESAO meeting in Bergamo taking place from August 28th to 29th this year.

### **yESAO Exchange Awards 2022:**

The winners of the yESAO Exchange Award 2022 presented their findings in the Awards Session of the main ESAO. Once again, huge congratulations to the winners:

- Joseph Bornoff and Faisal Zaman:

'The influence of pumping parameters on haemolysis produced by positive displacement artificial hearts: a combined experimental and numerical study'

- Gesine Hentschel and Nicolas Rivoallan:



'Fabrication of graded polymer fibers for the use in the osteotendinous junction'

We are eager to observe the progression of these projects.

### **yESAO Exchange Awards 2023:**

The application for the yESAO Exchange Award 2023 is currently open (Deadline: 20.02.2023). Don't miss this opportunity and send in your application now! For further details, please check our website (<https://www.esao.org/young-esao/awards/>) or contact us via [yesao@esao.org](mailto:yesao@esao.org).

## **ESAO Winter School 2023 – Lutherstadt Wittenberg, Germany**

Organizers



**ESAO Winter School 2023**  
**& Thomas Groth Farewell Symposium**

**Artificial Organs and Tissue Engineering**  
**– From Basics to Clinical Application**

Lutherstadt Wittenberg, Germany  
February 15-18, 2023

Sponsors



This year, our ESAO Winter School 2023 is also Prof. Thomas Groth Farewell Symposium. As some years ago, it is organized in Lutherstadt Wittenberg in Germany, and will have the participation of speakers which will present their work on "Artificial Organs and Tissue Engineering – From Basics to Clinical Application". The program is quite rich and diverse ([https://www.esao.org/wp-content/uploads/2022/12/ESAO-Winterschool-2023\\_Program.pdf](https://www.esao.org/wp-content/uploads/2022/12/ESAO-Winterschool-2023_Program.pdf)) and this year the event has been able to attract 71 registered participants. We heartedly thank Prof. Thomas Groth and his team for the organization of this event, and above all, for his commitment and dedication for ESAO over the years.

## ESAO Members' Corner

We welcome the support of ESAO Members to provide information to our website ([www.icaot.org](http://www.icaot.org)). In particular, we would welcome contributions to our Milestones and Virtual Museum. We continue to look for a permanent site for our Artificial Organ Collection. The history and on-going developments in the fields of artificial organs and transplantation have made and will continue to make major contributions to medical science and the lives of millions worldwide.

Link to the article: Artificial Organ Museum looking for a new home:

<https://onlinelibrary.wiley.com/doi/10.1111/aor.14112>

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## Announcements

The banner features a scenic aerial view of Bergamo, Italy, with its historic city walls and towers. At the top left are the logos for the European Society for Artificial Organs (ESAO) and the International Federation for Artificial Organs (IFAO). At the top right is the logo for the University of Bergamo. The main text, overlaid on the image, reads: "49<sup>th</sup> ESAO and IFAO Congress", "August 29 – September 1, 2023", "Bergamo, Italy", and "Biomedical research to improve artificial organs".

European Society for Artificial Organs

INTERNATIONAL FEDERATION FOR ARTIFICIAL ORGANS  
IFAO

UNIVERSITÀ DEGLI STUDI DI BERGAMO

**49<sup>th</sup> ESAO and IFAO Congress**

**August 29 – September 1, 2023**  
**Bergamo, Italy**

*Biomedical research to improve artificial organs*

## Organizers



# ESAO Winter School 2023 & Thomas Groth Farewell Symposium

## Artificial Organs and Tissue Engineering — From Basics to Clinical Application

Lutherstadt Wittenberg, Germany

February 15-18, 2023

## Sponsors

