Tuesday 11 September

11:00 - 12:00: Registration
12:00 - 12:30: Welcome by the yESAO Organisation A. Molteni, M. Mueller, L. Gullón, J. Gutiérrez, R. T. Sánchez del Arco
12:30 - 13:00: Lunch
13:30 - 15:00: Workshop part A: Lights, camera, ACTION! M. Bozzetto, S. Liao, A. Wisniewski, E. Wu
15:00 - 16:30: Session I: Computational Modelling M. Bode, B. Thamsen

Keynote lecture:
*The Open Heart Project*
Dr J. Pauls, University of Queensland, Australia

Oral presentations:
*Innovative ventricular assist device – concept, design and prototyping*
A. Plesoianu, University of Medicine and Pharmacy “Gr. T. Popa”, Iasi, Romania

*Blood Pumps, Computational Fluid Dynamics, LES, URANS, Ventricular Assist Device, Viscous Shear Stress*
B. Torner, University of Rostock, Germany

*The problem with the physiological interpretation of model parameters: an example*
M. Pietribiasi, Institute of Biocybernetics and Biomedical Engineering, Warsaw, Poland

*Does the plasma refilling coefficient change during hemodialysis sessions?*
M. Pietribiasi, Institute of Biocybernetics and Biomedical Engineering, Warsaw, Poland

16:30 - 17:00: Coffee break
17:00 - 17:30: CORIFY - Medical device startup solving cardiac arrhythmias
Dr A. M. Climent, Hospital General Universitario Gregorio Marañón & Universidad Politécnica de Valencia, Spain

17:30 – 18:45: CORIFY lab and experimental surgical unit tour L. Gullón, J. Gutiérrez, R. T. Sánchez del Arco
19:30 – 21:30: Madrid city tour Starting point: Plaza Mayor, Madrid
21:30: Dinner Museo del Jamón, Calle Gran Vía, 72, Madrid

Wednesday 12 September

09:45 - 12:00: Workshop part B: Lights, camera, ACTION! M. Bozzetto, S. Liao, A. Wisniewski, E. Wu
12:00 - 12:30: yESAO projects A. Stecka, T. Vollmer

*yESAO Exchange Awards:*
*Immobilization strategies with glycosaminoglycans- polymeric drug conjugate on biomaterials for anti-inflammatory purposes*
H. Al-Khoury, Biomedical Materials Group, Halle, Germany
E. Espinosa-Cano, Biomaterial group, Madrid, Spain
**Left ventricular volume measurement from a VAD cannula perspective**
S. Dual, Product Development Group ETH, Zurich, Switzerland
L. Korn, Helmholtz-Institut für Biomedizinische Technik RWTH, Aachen, Germany

**yESAO collaborations:**
EYEC – European Young Engineers Conference
I. Szczur, A. Dmowska, J. Szczepanska

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yESAO meeting free to attend for ESAO congress attendees or 20€ meeting registration fees including yESAO membership registration on site from Tuesday 11th at 11 am

**Fee includes:**
- Admission to all yESAO scientific sessions and workshop which will be held in the Auditorium of Hospital General Universitario Gregorio Marañón
- Coffee on Tuesday 11th
- Lunch only offered to yESAO attendees who are also ESAO members

**yESAO coordinators:**
Alessandra Molteni and Marc Mueller

**yESAO local organising committee for the ESAO - Congress 2018:**
Lucía Gullón, Robert Torres and Judit Gutiérrez

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**12:30 - 13:30: Lunch**

**13:30 - 15:00: Session II: Experimental data S. Boes, M. Maw**

**Keynote lecture:**
Medical devices and ATMPs on the run: Current concepts and their disqualification by "Floppy Science & Fake news"
Prof. J. Vienken, TH Mittelhessen University of Applied Sciences, Germany

**Oral presentations:**
Multiphysics System Design of a Fontan Pump in an Early Development Stage
E. Hubmann, University Children’s Hospital, University of Zurich, Switzerland

The use of a virtual patient to follow changes in arterial blood gases associated with therapeutic thoracentesis
A. Stecka, Nalecz Institute of Biocybernetics and Biomedical Engineering, Warsaw, Poland

Impact of setup orientation on blend electrospinning of Poly-ε-caprolactone-Gelatin scaffolds for vascular tissue engineering
S. Suresh, Leibniz University Hannover, Germany

Validation of in vitro assays in three-dimensional 1 (3D) human dermal constructs
A. Idrees, Universitaetsklinikum Knappschaftskrankenhaus Bochum, Germany

Comparison between three in vitro methods to measure magnesium degradation and their suitability for predicting in vivo degradation
S. Knigge, Leibniz University Hannover, Germany

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**15:00 - 16:30: Session III: Bio-interaction, in vivo data P. Aigner, L. Wiegmann**

**Keynote lecture:**
Development and implementation of medical technology. Are we lost in translation?
Dr. J. Barea Mendoza, Hospital Universitario 12 de Octubre, Madrid, Spain

**Oral presentations:**
Biochemical changes in an ex vivo hemoperfused porcine heart model
B. Kappler, LifeTec group, Netherlands

Development of an automated liver perfusion system. The benefit of a hemofilter
L. Gullon, Hospital General Universitario Gregorio Marañón, Madrid, Spain

Towards longitudinal studies of hemodynamically induced vessel wall remodelling
M. Bozzetto, Istituto di Ricerche Farmacologiche Mario Negri Bergamo, Italy

In-vitro-study for the evaluation of transluminal aspiration as a novel treatment option for thrombosis in ventricular assist devices
T. Gaerdner, Medical School Hannover, Germany

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**16:30 - 17:00: yESAO Closing Session**
A. Molteni, M. Mueller, L. Gullon, J. Gutiérrez, R. T. Sánchez del Arco

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