Organizers

European Society for Artificial Organs (ESAO)
Fraunhofer Institute for Microstructure of Materials & Systems
Martin Luther University Halle-Wittenberg

Scientific Committee

Thomas Groth	Martin Luther University, Halle, Germany
Nuno Neves	University of Minho, Braga, Portugal
Viktoria Weber	Danube University Krems, Austria

Local Organising Committee

Sophie Bendix & Christian Willems
Martin Luther University, Halle, Germany
Christian Schmelzer, Fraunhofer Institute IWMS, Halle, Germany

Contact with local organiser

Sophie Bendix
Phone: +493455528451
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Registration & fees

Online by bank transfer only:
www.esao.org/registration-form-esao-winter-school-2020/
Anita Aichinger
ESAO Office
Danube University Krems
Dr.-Karl-Dorrek-Strasse 30
3500 Krems, Austria
phone: +43 2732 893 2633
email: anita.aichinger@donau-uni.ac.at

Registration fee	**before/after Jan. 10, 2020**
ESAO Member	€ 250,- / € 300,-
Non-Member	€ 300,- / € 350,-
Student	€ 150,- / € 200,-

On-site registration only by cash
Credit cards are not accepted

ESAO Winter School 2020
3rd Circular & Program

Materials, Surfaces & Cells:
Science & Technology for Bio Artificial Organs and Tissue Engineering

Leucorea
Lutherstadt Wittenberg, Germany
February 26-29, 2020
www.esao.org/winterschool

Venue

Leucorea
Collegienstraße 62
06886 Lutherstadt Wittenberg, Germany
https://leucorea.de/en/

The venue Leucorea
The Leucorea was founded 1502 as university and merged in 1817 with the Frederic University in Halle. Today Leucorea is part of Martin Luther University Halle-Wittenberg and used as venue of colloquia, congresses and other meetings. It has several lecture halls, seminar rooms and a cafeteria and is located in the old part of Wittenberg close to many historical sites.

Lutherstadt Wittenberg
Is a town in Saxony-Anhalt, Germany situated on the River Elbe. The town is famous for its close connection with Martin Luther and the Protestant Reformation. Several of Wittenberg's buildings associated with the events, including a preserved part of the Augustinian monastery in which Luther lived, considered to be the world's premier museum dedicated to Luther. Today, Wittenberg is a popular tourist destination, best known for its intact historic centre and various memorial sites dedicated to Martin Luther and Philip Melanchthon added to the UNESCO world heritage list in 1996.

Accommodation
Luther-Hotel Wittenberg
phone: +49 3491 4580
mail: info@luther-hotel-wittenberg.de
https://www.luther-hotel-wittenberg.de/en/
65,- € single room/ 85,- € double room
Keyword: “ESAO Winterschool”
Deadline for reservations January 29, 2020

Travel
By car
Lutherstadt Wittenberg is located 30 km from the A9 motorway, which connects Berlin with Munich using federal road No. 187.

By train
http://www.fahrplanauskunft.de/

By airplane
International airports Berlin Tegel (TXL) and Berlin Schönefeld (SFX) are located 90 km north from Wittenberg. Leipzig Airport is located 60 km south. There are train connections from either Berlin main station or Leipzig main station. Take ICE or RE trains from either city to Wittenberg that takes about one hour.
http://www.fahrplanauskunft.de/

Topics

- Biogenic biomaterials
- Engineering of biomaterial surfaces & 3D systems
- Hydrogels, scaffolds, bioprinting, Organ-on-a-Chip
- Stem cell biology and tissue engineering
- Translation from bench to bed site

Poster Sessions
Regular participants are invited to submit abstracts for a poster presentation of not more than 400 words to anita.aichinger@donau-uni.ac.at until February 3, 2020
Poster Awards will be given for best three posters

Social Program

- Get-together
- Guided city tours

Scientific & Social Program

Wednesday, February 26

13.30 – 16.30 **Registration**

16:30 - 16:40 **Welcome & Opening of Winter School**

16:40 - 17:30 **Opening Lecture 1**
The roles of materials, surfaces and cells on the engineering of different tissues and organs.
Rui Reis, University of Minho, Portugal

17:30 - 18:20 **Opening Lecture 2**
Elastic biomaterials and advanced wound repair
Anthony Weiss, University of Sydney, Australia

18:30 – 20.00 **Get together**

Thursday, February 27

Session 1 **Biopolymers I**

08:30 - 09:10 **Synthesis of stimuli-responsive bioactive compounds from polysaccharides**
Kai Zhang, University of Göttingen, Germany

09:10 - 09:50 **Polysaccharide chemistry and modification for chemical and photochemical cross-linking reactions**
Matthias Schnabelrauch, INNOVENTJena e.V., Germany

09:50 - 10:20 **Coffee Break**

Session 2 **Biopolymers II**

10.20 – 11.10 **From natural resources to engineered artificial matrices**
Antonella Motta, University of Trento, Italy

11:10 – 11:50 **Elastin analytics and electrospinning - Understanding the biomolecular world with the power of mass spectrometry**
Christian Schmelzer, Fraunhofer IWMS Halle , Germany

12:00 – 14:00 **Lunch Break**

14:00 – 16:00 **Guided Tour through Lutherstadt Wittenberg**

Session 3 **Engineering cellular microenvironments I**

16:30 – 17:20 **Engineering the cellular microenvironment with biomaterials and growth factors”**
Manuel Salmeron Sanchez, University of Glasgow, Scotland

17.20 – 18.10 **Programmable cell instructive materials to control cell morphogenesis in vitro**
Paolo Netti, University of Naples, Italy

18:00 -19:30 **Poster Session I with snacks, beer & wine**

Friday, February 28

Session 4 **Cellular microenvironments II**

08:30 - 09:20 **Immunological challenges in regenerative medicine**
Hans-Dieter Volk, Charité, Universitätsmedizin Berlin, Germany

09:20 - 10:00 **Extracellular vesicles and their roles in inflammation and regeneration**
Viktoria Weber, Danube University Krems, Austria

10:00 - 10:30 **Coffee Break**

Session 5 **Cells, Materials & Scaffolds I**

10:30 – 11:20 **Cell-rich microstructures in bottom-up tissue engineering**
João Mano, University of Aveiro, Portugal

11.20 – 12.10 **Application of improved gellan gum-based scaffolds for Tissue Engineering in vivo**
Gilson Khang, Chonbuk National University, South Korea

12.10 – 12:50 **The interplay between structural and transport properties of the scaffold and cells metabolism in bioengineered tissues**
Gerardo Catapano, University of Calabria, Italy

12:40 - 14:30 **Lunch Break**

14:30 – 16:00 **Guided Tour through Workshop of painter Lucas Cranach or Luther Museum**

Session 6 **Bioengineering cellular microenvironments II**

16.00 – 16:50 **Polymeric hydrogels: From fundamental physicochemistry to tissue engineering**
Gloria Gallego-Ferrer, Polytechnical University Valencia, Spain

16.50 – 17.30 **Biomaterials, Porous Scaffolds and Cells for Advanced Therapies**
Nuno Neves, University of Minho, Portugal

17:30 – 19:00 **Poster Session II**

Session 8 **Bioprinting and Organ-on-Chips**

10:20 - 11:10 **Bioprinting cell laden building blocks for Tissue Engineering applications**
Claudio Migliaresi, University of Trento, Italy

11:10 - 11:50 **Biology-inspired microphysiologial systems to advance medicines**
Eva Dehne, TissUse GmbH Berlin, Germany

11.50 – 12:30 **Additive manufacturing and bioprinting techniques for tissues and organs.**
Carlos Mota, University of Maastricht, The Netherlands

12:45 - 13:15 **Poster Award Ceremony and Closing remarks**
Thomas Groth, Martin Luther University Halle-Wittenberg, Germany

Saturday, February 29

Session 7 **Translation to clinical application**

08:30 – 09:10 **Pioneering solid organ bioengineering: past, present and future perspectives, and the politics within**
Pedro Baptista, University of Zaragoza, Spain

09:10 - 09:50 **Clinical translation of fibrin agarose-based artificial tissues**
Miguel Alaminos, University of Granada, Spain

09:50 - 10:20 **Coffee Break**