



**ESAO/TERMIS WINTER  
SCHOOL 2021**

**ONLINE CONFERENCE**

**February 24-26, 2021**

[www.esao.org](http://www.esao.org); <https://termis.org>

***The Bionic Human:***

***Biomaterials, (Bio)Artificial and Bioengineered Organs, and Cybernetics for the  
Future of Regenerative Medicine***

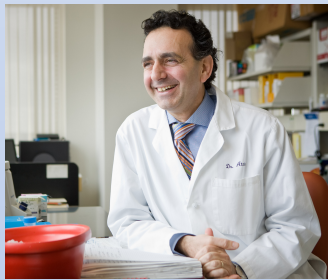
# ESAO/TERMIS Online Winter School 2021

## The Bionic Human: Biomaterials, (Bio)Artificial and Bioengineered Organs and Cybernetics for the Future of Regenerative Medicine

The next Winter School was initially planned to be held in the town of Jaca, Spain the first capital of the Kingdom of Aragon and a skiing hotspot in the Pyrenees. However, the current pandemic situation made us switch it to an ONLINE event.

This year's school is centered on *"The Bionic Human: Biomaterials, (Bio)Artificial and Bioengineered Organs, and Cybernetics for the Future of Regenerative Medicine"*. It will cover, in a bottom-up approach, 1) the fundamentals in biomaterial science, stem cells and organoids that are making possible the creation and implantation of more complex structures like 2) (bio)artificial and bioengineered organs, and 3) cybernetic parts, enabling the future of regenerative medicine and the generation of Bionic Humans.

As usual, we count with a strong and diverse program with internationally acclaimed scientists. As keynote speakers, we will have Dr. Anthony Atala from the Wake Forest Institute for Regenerative Medicine, a pioneer in translational regenerative medicine, and Neil Harbisson, the first legal human cyborg, from the United Kingdom.



Dr. Anthony Atala, WFIRM, USA



Neil Harbisson, UK

This is also the first Winter School co-organized by the European Society for Artificial Organs (ESAO) and the Tissue Engineering and Regenerative Medicine International Society (TERMIS), bringing together the prowess and unique perspectives of these two organizations into one single program, providing a broad view of regenerative medicine and implantable medical parts/devices/organs. There will be also a special session organized by KIDNEW, the Kidney Health Initiative and The European Kidney Health Alliance that will go in-depth into the need of new kidney dialysis innovations and implantable (bio)artificial kidneys.

The meeting will also provide a nice platform for the presentation of the participants' work during two online poster sessions. There will be 3 prizes for the best posters!

**The Winter School will take place from February 24-26<sup>th</sup> 2021.** Registration and abstract **submission will end on January 31<sup>st</sup> 2021** with reduced fees for yESAO and ESAO, and TERMIS members at our website <https://www.esao.org/events/winterschool/>. Registration with a higher fee will be available until the day before the event.

We invite you heartily to join our next ESAO/TERMIS Winter School 2021 and hope to see you soon in The Cloud!

With warm regards from the Scientific Committee,

*Pedro M. Baptista, Cecile Legallais, Piotr Ladyzinski, Bart Spee, Nuno Neves, Gloria Gallego-Ferrer, Heinrich Schima, Martijn van Griensven, Zuzana Koci and Fokko Wiering.*

# ESAO/TERMIS Online Winter School 2021

**The Bionic Human: Biomaterials, (Bio)Artificial and Bioengineered Organs and Cybernetics for the Future of Regenerative Medicine**

24<sup>th</sup> February

## Introduction

**Pedro M. Baptista**  
IIS Aragon, Spain

## Keynote Speakers

**Antony Atala**  
WFIRM, USA

**Neil Harbisson**  
World's First Legal Human Cyborg, UK

## Poster Session I

25<sup>th</sup> February

## Organoids and Stem Cells I

**Matthias Lutolf**  
EPFL, Switzerland

**Kerstin Schneeberger**  
Utrecht University, The Netherlands

**Jeffrey Beekman**  
Utrecht University, The Netherlands

## Organoids and Stem Cells II

**Michael Monaghan**  
Trinity College Dublin, Ireland

**Susan Kimber**  
University of Manchester, UK

## Biomaterials and Bioprinting

**Mario Barbosa**  
I3S, Portugal

**Nuno Neves**  
3B's, Portugal

**Lorenzo Moroni**  
Maastricht University, The Netherlands

## (Bio)artificial Organs

**Jean-Charles Duclos-Vallee**  
Hospital Paul Brousse, France

**Thierry Berney**  
Geneva University, Switzerland

## Poster Session II

26<sup>th</sup> February

## Cardiovascular devices and human integration

**Michael Lommel**  
Charite, Germany

**Libera Fresiello**  
KU Leuven, Belgium

**Martin Maw**  
Vienna University, Austria

**Thomas Schläglhofer**  
Vienna University, Austria

## Cybernetic technology and human integration

**Artur Lorens**  
Institute of Physiology and Pathology of Hearing, Poland

**Oskar Aszmann**  
Vienna University, Austria

## Bioengineered Organs

**Alejandro Soto-Gutierrez**  
Pittsburgh University, USA

**Giuseppe Orlando**  
Wake Forest University, USA

**Paolo De Coppi**  
University College London, UK

## Special session on (Bio)artificial Kidneys

**Roos Masereeuw & Karin Gerritsen**  
Utrecht University, The Netherlands

**Shuvo Roy & Bill Fissel**  
UCSF, USA  
Vanderbilt University, USA

**Dimitrios Stamatialis**  
TU-Twente, The Netherlands

## Poster Award Ceremony and Closing Remarks

**Pedro M. Baptista**  
IIS Aragon, Spain

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## Abstract Submission

Abstracts for poster presentations are open until January 31<sup>st</sup> 2021. Poster presentations will be carried out in 2 virtual sessions with 3-5 minutes “rapid-fire” presentations.

Winners for 3 Poster Awards will be selected (1<sup>st</sup> prize: 500 EUR; 2<sup>nd</sup> prize: 300 EUR and 3<sup>rd</sup> prize: 200 EUR)!

Guidelines for poster submission:

- Abstract max. 400 words including title
- Send your abstract to [anita.aichinger@donau-uni.ac.at](mailto:anita.aichinger@donau-uni.ac.at)
- Deadline: January 31<sup>st</sup>, 2021

## Registration and Fees

**Online by bank transfer only:**

[www.esao.org/registration-form-esao-winter-school-2021/](http://www.esao.org/registration-form-esao-winter-school-2021/)

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**Registration fee**

**before/after Jan 31, 2021**

ESAO/TERMIS-EU Member € 100,- /€ 150,-

Non-Member € 150,- /€ 225,-

Student € 50,- /€ 75,-