

Aniridia-net training school: 3D bioprinting & deep phenotyping for eye research

Monday 5th of June, Introduction to the 3D bioprinting

- 9.30** Arrival and Registrations, coffee (Room F217, 2nd floor of ARVO building)
- 10.00** Welcome to Faculty of Medicine and Health technology, Tampere University
Participant introductions, training school program overview and practical matters.
- 11.00-13.00** Introduction to the 3D bioprinting by Dr. Anni Mörö, Tampere University (Room F217, 2nd floor of ARVO building)
- 13.00-14.00** Lunch break (Juvenes ARVO restaurant, 1st floor)
- 14.00-15.00** Laboratory introductions (ARVO teaching laboratories, 2nd floor)
Bioinks and 3D bioprinting of human cornea
- 15.00-17.00** 3D bioprinter demos and introduction to corneal cell applications using human stem cells (ARVO teaching laboratories, 2nd floor and 3D bioprinting core facility at 4th floor)
Equipment demos, lectures and discussions.

Evening program

Tuesday 6th of June, 3D bioprinting in practice

- 9.00** Lecture by Prof Che Connon, Newcastle University (Room F212, 2nd floor of ARVO building)
Own experiences with 3D bioprinting
- 10.00-13.00** Introduction to bioprinters (ARVO teaching laboratories, 2nd floor)

Brinter technology demos and lectures
- 13.00-14.00** Lunch break (Juvenes ARVO restaurant, 1st floor)



14.00-15.00 Seminar by Prof Che Connon, Newcastle University (F114, 1st floor of ARVO-building)

Title: Biomechanical modulation therapy for the restoration of the limbal niche.
Zoom link available for remote participants (open for all).

15.00-17.00 3D of living cells (ARVO teaching laboratories, 2nd floor)

Demos and discussions

Evening program

Wednesday 7th of June, 3D bioprinting in practice (day 2) and deep phenotyping of cells

8.00-11.00 Printing of bioinks, hands on practical's (ARVO teaching laboratories, 2nd floor)

11.00-13.00 Introduction to the flow cytometry by Dr. Laura Kummola (Room F212, 2nd floor of ARVO building, Coffee available)

Lecture, practical tips and discissions

13.00-14.00 Lunch break (Juvenes ARVO restaurant, 1st floor)

14.00-17.00 Mechanical testing of soft materials and analyses of bioprinted cells (ARVO teaching laboratories, 2nd floor)

Introductions, Hand's on practical's with microscopy and discussions

Evening program

Thursday 8th of June, Deep phenotyping of cells (Room F212, 2nd floor of ARVO building)

9.00-10.00 Lecture by Prof Jo Huiqing Zhou, Radboud University, Netherlands

Introduction to scRNA sequencing and scATAC sequencing.

Coffee

10.30-13.30 Lecture by Dr. Jos Smits, Radboud University, Netherlands and Dr. Meri Vattulainen, Tampere University

Introduction to data analyses

scRNA sequencing analyses of human limbal stem cells

13.30- Lunch (Juvenes ARVO restaurant, 1st floor)

Discussions, feedback and closure of the training school

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