

EASL Basic School of Hepatology

Precision Cut Liver Slices and Liver Organoids – versatile ex-vivo models of liver disease

2 – 4 October 2024

The Roger Williams Institute of Hepatology, London, UK

DIRECTORS

Prof Shilpa Chokshi, Dr Elena Palma, Dr Luca Urbani

PROGRAMME OVERVIEW

Day 1, Wed 2nd Oct

12:00 – 13:00 **Hotel Check-In**

13:30 – 14:00 **Registration & Welcome Coffee**

14:00 – 14:30 **Welcome** (Boardroom)

14,00 – 14,05 *Welcome to the Institute.* Phil Newsome.

14,05 – 14,20 *Introduction and Learning Objectives.* Shilpa Chokshi, Elena Palma, Luca Urbani.

14,20 – 14,30 *Health & Safety induction.* Nicola Harris.

14:30 – 15:30 **Ice-breaker game: human bingo**

15:30 – 17:00 **State-of-the-art: Experimental models of liver diseases**

15:30 – 16:15 **Keynote lecture 1 and Q&A.** Intro: Elena Palma.

Precision Cut Liver Tissue Slices – applications, advantages and limitations. Prof. Peter Olinga, Netherlands.

16:15 – 17:00 **Keynote lecture 2 and Q&A.** Intro: Luca Urbani.

Liver Organoids – from basic research to therapeutic applications. Prof Fotios Sampaziotis, Cambridge, UK.

17:00 – 17:30 **Coffee Break** (Staff room)

17:30 – 18:10 **Talks and breakout sessions**

17:30 – 17:40 *Precision cut liver slices versus organoids as models of liver disease* – Luca Urbani

17:40 – 17:50 *How to monitor disease processes in ex-vivo models* – Shilpa Chokshi

17:50 – 18:00 *Tumour slices and Tumour organoids* – Elena Palma

18:00 – 18:10 *Roundtable discussion*

18:10 – 18:30 **Visit of the facility – walkround in 2 groups**

18:30 – 19:30 **Welcome drinks and Pub style quiz**

19:30 – 21:30 **Dinner at The Roger Williams Institute of Hepatology**

Day 2, Thu 3rd Oct

08:15 – 8:30 Delegates and chaperones gather in the boardroom.

08:30 – 12:00 1st Practical session with coffee break

Participants will be divided into 4 teams for small group hands-on experience in the lab.

Module 1. Preparation of PCLS from liver explants (1h30') (floor: G)
Elena Palma, Shilpa Chokshi, Una Rastovic, Nicola Harris, Sergio F. Bozzano, Ravi Jagatia, Kishore Krishnamurthy, Wendy Fernandes.

Module 2. Tissue dissociation and organoid derivation (1h30') (floor: 1 & 2)
Sara Campinoti, Luca Urbani, Lai Wei, Bruna Almeida, Sophie Richard, Fabio Grundland Freile, Daisy Gao, Kavitha Kirubendran, Maya Medic, Sandra Phillips, Phoebe Tsou, Caitlin Rore.

12:00 – 12:30 Keynote lecture 3 and Q&A. Intro: Shilpa Chokshi
Sample analysis using spatial technologies. *Prof Prakash Ramachandran, Edinburgh, UK.*

12:30 – 13:15 Lunch (staffroom)

13:15 – 16:00 2nd Practical session

Participants will be divided into 4 teams for small group hands-on experience in the lab.

Module 3. Slice handling, culture and processing (1h15') (floor: G)
Shilpa Chokshi, Elena Palma, Una Rastovic, Sergio F. Bozzano, Nicola Harris, Ravi Jagatia, Kishore Krishnamurthy, Wendy Fernandes.

Module 4. 3D culture of organoids and expansion (1h15') (floor: 1 & 2)
Sara Campinoti, Luca Urbani, Lai Wei, Bruna Almeida, Sophie Richard, Fabio Grundland Freile, Daisy Gao, Kavitha Kirubendran, Maya Medic, Sandra Phillips, Phoebe Tsou, Caitlin Rore.

16:00 – 16:30 Coffee Break (boardroom)

16:30 – 19:00 Parallel sessions

Participants will be divided into 2 groups for feedback from the Faculty.

- a. Applications of the models (project specific pitches) (Elena Palma and Luca Urbani) - 1 slide + 3 questions (Boardroom)
- b. Mentorship/career advice (Shilpa Chokshi, Michele Vacca and Vishal Patel) - 2 questions (floor: 1)

19:00 – 22:30 Dinner with 'Speed' networking with the Faculty

19:00 – 19:30 Bus transport to restaurant and group picture

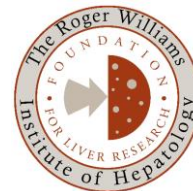
19:30 – 22:00 Dinner with 'Speed' networking with the Faculty at "The Horniman at Hays" pub

22:00 – 22:30 Return to hotel (via coach)

Day 3, Fri 4th Oct

8:00 – 8:30 Hotel Check-out

9:00 – 9:15 Summary of day before & questions



9:15 – 12:00 3rd Practical session with coffee break

Participants will be divided into 4 teams for small group hands-on experience in the lab.

Module 5. Embedding of organoids and PCLS for histological analysis/ Immunofluorescence (1h10') (floor: 2)
Bruna Almeida, Sergio F. Bozzano, Fabio Grundland Freile, Nicola Harris, Una Rastovic, Caitlin Rore

Module 6. Immunofluorescence characterisation of organoids (35') (floor: 1)
Sara Campinoti, Lai Wei, Maya Medic.

Module 7. Imaging and microscopy (35') (floor: 2)
Luca Urbani, Ravi Jagatia.

12:00 – 12:30 Post-school quiz and survey (online)

12:30 – 14:00 Closing remarks, Lunch bag (staffroom) and depart