

Basic science school of Hepatology:

MICROBIOME IN CHRONIC LIVER DISEASE

London 2023 – Imperial College London

25 attendees selected among basic scientists and clinical researchers, particularly encouraging early career researchers with interests in hepatology, the microbiome, and associated disciplines.

DETAILED PROGRAMME

DAY 1 (Wednesday 27 September 2023)

- 01.00-01.50 pm Registration/ introductions
- 01.50-02.00 pm Welcome and theoretical introduction on the school programme
(*Prof Mark Thursz, Dr Pinelopi Manousou - ICL*)

Session 1: General Overview

Chairs – School Faculty

- 02.00-02.30 pm Why is the intestinal microbiome important in human disease?
(*Prof Julian Marchesi - ICL*)
- 02.30-03.00 pm Metataxonomics and metagenomics - who is in my gut? (*Dr Julie McDonald – ICL*)
- 03.00-03.30 pm How to study microbial metabolites: introduction to metabolomics
(*Prof Elaine Holmes – Perth, ICL – virtual*)
- 03.30-04:00 pm How does the microbiome influence the liver? The gut-liver axis
(*Prof Lesley Hoyles, Nottingham Trent*)
- 04.00-05.00 pm *Coffee break*

Session 2: Microbiome and steatotic liver diseases

Chairs – School Faculty

- 05.00-05.30 pm Keynote speaker: Microbiome and metabolism (*Prof Marc Dumas – ICL*)
- 05.30-06.00 pm Keynote speaker – Microbiome in alcohol-related liver disease
(*Prof Bernd Schnabl – UCSD, USA - virtual*)
- 06.00-10.00 pm *Optional informal evening social event – Roof East, Stratford*

DAY 2 (Thursday 28 September 2023)

Session 3: Manipulating the microbiome in liver disease Chairs – School Faculty

- 09.30-10.00am Faecal microbiota transplant (*Dr Benjamin Mullish-ICL*)
- 10.00-10.30am Antibiotics including rifaximin- α targeting the microbiome in cirrhosis, and harnessing bacteriophages as novel biotherapeutics (*Dr Vishal Patel-King's*)
- 10:30-11.00 am *Coffee break*

Session 4: Microbiome and Liver Disease I Chairs – School Faculty

- 11.00-11.30 am Microbiome and cirrhosis (*Prof Debbie Shawcross - KCL*)
- 11.30-12.00 am The microbiome, biliary and autoimmune disease (*Dr Palek Trivedi - Birmingham*)
- 12.00-12.30 am Keynote speaker (*Dr Onno Holleboom - AMC Amsterdam*) – Microbiome, NAFLD and other metabolic disorders
- 12.30-13.45 pm *Lunch*

Session 5: Hands on

Participants will be split into 3 groups of 7-10 students each and will rotate across 3 workshops:

- Workshop 1: Consideration for a 'microbiome manipulation' study
- Workshop 2: Microbiome analysis/bioinformatics
- Workshop 3: Other techniques to analyse the microbiome – omics and beyond

- 13.45-14.45 pm First round of workshops
- 14.45-15.45 pm Second round of workshops
- 15.45-16.45 pm Third round of workshops
- 16.45-17.15 pm *Coffee break*

Session 6: Microbiome and Liver Disease II Chairs – School Faculty

- 17.15-17.45 pm Microbiome and gut epithelial integrity (*Dr Roberta Forlano - ICL*)
- 17.45-18.15pm Microbiome, and the gut-brain-liver axis (*Prof Jas Bajaj-Virginia Commonwealth University - virtual*)
- 18.15-22.00 pm *Evening social event – Tavolino, central London*

DAY 2 (Friday 29 September 2023)

Session 7:

Emerging areas for the gut-liver axis

Chairs – School Faculty

09.30-10.00 am	Antimicrobial resistance and CLD (<i>Dr Lindsey Edwards-King's</i>)
10.30-11.00 am	How to organise a microbiome-manipulation study (<i>Prof Debbie Shawcross and panel discussion</i>)
11.00-11.30 am	Keynote speaker (<i>Prof Jonel Trebicka – Munster - virtual</i>) – What we have learned about the microbiome and liver disease from MICROB-PREDICT
11.30-12.00 am	Concluding remarks Post-course quiz Final coffee break and departures