

## EASL School Official Title: Advanced Immunology of the Liver; Deep Immunophenotyping of liver FNA and resection samples using multi-modal techniques

27<sup>th</sup> – 28<sup>th</sup> June 2025

DAY 1		
08:45 – 09:00	<p><b>Registration</b> Welcome to the School and overview of the programme.</p>	<p>Prof Ellie Barnes Prof Paul Klenerman Dr Emma Culver</p>
09:00 - 10:00	<p><b>Session 1: Deep immunophenotyping of liver tissue and blood – Experimental approaches</b></p> <p>Break-out groups of 5 students design a study to answer a research question.</p>	<p>Dr Tamsin Cargill Dr Rory Peters Dr Anthony George Dr Helen Ferry Dr Lucy Garner Dr Aneesha Bhandari Dr Felipe Galvez-Cancino</p>
10:00 - 10:30	Coffee break	
11:00 - 13:00	<p><b>Session 2: Hands-on-session 1</b> (rotate in groups of 5)</p> <p>1: Processing liver tissue for immunological techniques</p> <ul style="list-style-type: none"> <li>- Whole tissue processing (single cell suspension, resecting, snap freezing)</li> <li>- H&amp;E and microscopy of cryosections</li> </ul> <p>2: Multiparameter flow cytometry</p> <ul style="list-style-type: none"> <li>- Sample staining</li> <li>- Sample acquisition</li> </ul> <p>3: Single cell RNA sequencing aspects of sample preparation and processing</p>	<p>Dr Tamsin Cargill Dr Rory Peters Dr Anthony George Dr Helen Ferry Dr Lucy Garner Dr Aneesha Bhandari Dr Felipe Galvez-Cancino</p>

13:00 - 14:00	Lunch	
14:00 - 16:00	<p><b>Session 3: Hands-on-session 2.</b> (rotate in groups of 5)</p> <p>1: Processing liver tissue for immunological techniques</p> <ul style="list-style-type: none"> <li>- Whole tissue processing (single cell suspension, resecting, snap freezing)</li> <li>- H&amp;E and microscopy of cryosections</li> </ul> <p>2: Multiparameter flow cytometry</p> <ul style="list-style-type: none"> <li>- Sample staining</li> <li>- Sample acquisition</li> </ul> <p>3: Single cell RNA sequencing aspects of sample preparation and processing</p>	<p>Dr Tamsin Cargill Dr Rory Peters Dr Anthony George Dr Helen Ferry Dr Lucy Garner Dr Aneesha Bhandari Dr Felipe Galvez-Cancino</p>
16:00 - 16:30	Coffee break	
16:30 - 17:30	<p><b>Session 4: State-of-the-art lecture.</b></p> <p>Assessment of the immunological response in the liver using liver fine needle aspiration</p>	Dr Uppy Gill

DAY 2		
09:15 - 11:15	<p><b>Session 1: Hands-on-session 3</b></p> <p>1: Processing liver tissue for immunological techniques</p> <ul style="list-style-type: none"> <li>- Whole tissue processing (single cell suspension, resecting, snap freezing)</li> <li>- H&amp;E and microscopy of cryosections</li> </ul> <p>2: Multiparameter flow cytometry</p> <ul style="list-style-type: none"> <li>- Sample staining</li> <li>- Sample acquisition</li> </ul> <p>3: Single cell RNA sequencing aspects of sample preparation and processing</p>	<p>Dr Tamsin Cargill Dr Rory Peters Dr Anthony George Dr Helen Ferry Dr Lucy Garner Dr Aneesha Bhandari Dr Felipe Galvez-Cancino</p>

11:15 – 11:45	Coffee break	
11:45 – 12:45	<p><b>Session 2: Integrative analysis/systems immunology of multimodal experimental data.</b></p> <p>Analysis of datasets generated by immunological techniques</p> <p>-</p>	<p>Dr Tamsin Cargill Dr Rory Peters Dr Anthony George Dr Helen Ferry Dr Lucy Garner Dr Aneesha Bhandari Dr Felipe Galvez- Cancino</p>
12:45 – 13:00	<b>Session 3: Conclusions and close</b>	<p>Prof Ellie Barnes Prof Paul Klenerman Dr Emma Culver</p>