# Inflammation at barrier sites

Manchester Institute of Biotechnology
Manchester

**Wednesday, 26 April 2023**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:45</td>
<td>Registration and sandwich lunch</td>
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<tr>
<td>12:30</td>
<td>Conference opening and housekeeping</td>
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<td>Professor Peter Barlow, Edinburgh Napier University, UK</td>
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<td>12:40</td>
<td><strong>GUT SESSION</strong></td>
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<td>Chairs: Dr Matt Hepworth, University of Manchester, UK and Olivia Ridgewell, University of Glasgow, UK</td>
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<td></td>
<td><strong>Autophagy controls mucus secretion from intestinal goblet cells by alleviating ER stress</strong></td>
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<td>Dr Shai Bel, Bar-Ilan University, Israel – <em>invited speaker</em></td>
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<td>13:15</td>
<td><strong>Bi-directional signalling between the intestinal epithelium and type-3 innate lymphoid cells (ILC3) via the Notch pathway</strong></td>
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<td>Dr Ainize Pena Cearra, King’s College London, UK – <em>selected short talk</em></td>
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<td>13:30</td>
<td><strong>Vitamin D bioavailability regulates microbiome-dependent cancer immunity</strong></td>
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<td>Dr Evangelos Giampazolias, CRUK Manchester Institute, UK – <em>selected short talk</em></td>
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<tr>
<td>13:45</td>
<td>Lightning talks</td>
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<tr>
<td>14:00</td>
<td>Refreshment break and exhibition</td>
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<tr>
<td>14:45</td>
<td><strong>Controlling the activation of intestinal intraepithelial T cells</strong></td>
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<td>Dr Mahima Swamy, University of Dundee, UK – <em>invited speaker</em></td>
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<tr>
<td>15:20</td>
<td><strong>Dysregulation of intestinal Vδ1 T cell compartmentalisation and functionality in inflammatory bowel disease</strong></td>
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<td>Dr Carrie Willcox, University of Birmingham, UK – <em>selected short talk</em></td>
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<td>15:35</td>
<td><strong>Segmented filamentous bacteria-induced epithelial MHCII regulates cognate CD4+ intraepithelial lymphocytes and epithelial turnover</strong></td>
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<td>Tomáš Brabec, Charles University in Prague, Czech Republic – <em>selected short talk</em></td>
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</table>
15:50  **Gamma deltas guts and bugs**  
Dr Neil McCarthy, Queen Mary University of London, UK – *invited speaker*

16:25  Comfort break

17:00  **Translating Immunology into New Therapies for Inflammatory Bowel Disease**  
Professor Dame Fiona Powrie, University of Oxford, UK – *KEYNOTE SPEAKER*

18:00  Networking reception and posters

19:30  Close

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**Thursday, 27 April 2023**

**LUNG SESSION**  
Chairs: Dr Madhvi Menon, University of Manchester, UK and Dr Naomi Martin, University of Nottingham, UK

09:00  **Extracellular matrix fragments as key regulators of inflammation and remodelling in chronic lung disease**  
Professor Rob Snelgrove Imperial College London, UK – *invited speaker*

09:35  **Alterations in B and T cell profiles associate with long COVID**  
Bethany Potts, University of Manchester, UK – *selected short talk*

09:50  **Pannexin 1 drives efficient epithelial repair after tissue injury**  
Dr Christopher D. Lucas, University of Edinburgh, UK – *selected short talk*

10:05  Refreshment break and exhibition

10:45  **Understanding macrophage diversity in the lung**  
Dr Calum Bain, University of Edinburgh, UK – *invited speaker*

11:20  **Dermal γδ17´17 T cells orchestrate innate and adaptive immunity in distal organs during nematode infection**  
Dr Pedro H. Papotto, University of Manchester, UK – *selected short talk*

11:35  **Ageing Barrier Immunity – dissecting how inflammying blocks immunity in the elderly**  
Dr Emma Chambers, Queen Mary University of London, UK – *invited speaker*

12:10  Lunch, posters and exhibition
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<th>Time</th>
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<tr>
<td>13:00</td>
<td><strong>Immune surveillance in epithelial tissue and tumours</strong></td>
<td>Dr Jessica Strid, Imperial College London, UK – <strong>invited speaker</strong></td>
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<tr>
<td>13:35</td>
<td><strong>The skin microbiome in inflammation and in immunodeficiency</strong></td>
<td>Dr Heidi Kong, NIH, USA – <strong>invited speaker</strong></td>
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<td>14:10</td>
<td><em>Integrated spatial and single cell transcriptomic analyses reveal a critical role for Vg6 gd T cells in the control of skin inflammation during infection</em></td>
<td>Dr Matthew C. Sinton, University of Glasgow, UK – <strong>selected short talk</strong></td>
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<td>14:25</td>
<td><strong>A specialised keratinocyte niche permits differentiation of monocytes into Langerhans cells despite ongoing inflammation</strong></td>
<td>Dr Anna Appios, University College London, UK – <strong>selected short talk</strong></td>
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<tr>
<td>14:40</td>
<td><strong>Delineating mechanisms of immune tailoring at the oral barrier</strong></td>
<td>Dr Jo Konkel, University of Manchester, UK – <strong>invited speaker</strong></td>
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<tr>
<td>15:15</td>
<td>Refreshment break and exhibition</td>
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<tr>
<td>15:40</td>
<td><strong>Decoding the developing human immune system</strong></td>
<td>Professor Muzlifah Haniffa, Wellcome Sanger Institute, UK – <strong>KEYNOTE SPEAKER</strong></td>
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<td>16:25</td>
<td>Closing comments and prize-giving</td>
<td>Dr Emily Gwyer Findlay, University of Southampton, UK</td>
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Lightning talks and poster presentations

P.01 Aberrant B cell responses in chronic obstructive pulmonary disease
Rinal Sahputra, University of Manchester, UK

P.02 Skin Immuno-matrix: The role of the endothelial glycocalyx and heparan sulfate in psoriasis-like skin inflammation
Megan Priestley, University of Manchester, UK

P.03 A matrisome-enriched co-expression module associated with the perivascular niche is upregulated in treatment non-responsive inflammatory bowel disease
Libby Jennings, University of Oxford, UK

Poster presentations

P.04 CXCL4 drives wide-spread non-receptor mediated immune cell recruitment via interactions with extracellular matrix proteoglycans
Amanda J L Ridley, University of Manchester, UK

P.05 Investigating Host Susceptibility to Infection
Julia Sanchez-Garrido, Imperial College London, UK

P.06 Alterations to circulating myeloid cells and bone marrow hematopoiesis following intestinal worm infection
Joana C. Oliveira, University of Manchester, UK

P.07 Mucosal organoids capture tissue-specific innate lymphoid cell development
Joana F. Neves, King’s College London, UK

P.08 Understanding the role of the endothelial glycocalyx in regulating immune cell recruitment during lung inflammation / infection
Iashia Z Mulholland, University of Manchester, UK

P.09 A feedback loop between epithelium and Innate Lymphoid Cells controls intestinal TGF-β1 dynamics
Diana Coman, King’s College London, UK

P.10 Maintenance and Metabolism of Intestinal ILC3
James I. King, University of Manchester, UK

P.11 Investigating how Heligmosomoides polygyrus infection affects gut barrier integrity
Olivia J. Ridgewell, University of Glasgow, UK

P.12 IL-13 as a modulator of the hyaluronan extracellular matrix in lung
Rebecca J Dodd, University of Manchester, UK

P.13 Myeloid cell suppressive receptor, CD200R1, promotes IL-17 production by unconventional lymphocytes
Saunders A, Lancaster University, UK
Gut lymphoid tissues and group 3 innate lymphoid cells are regulated by a conserved microRNA
Luke B. Roberts, University of Manchester, UK

Imaging mass cytometry highlights a novel role for chitinase-like proteins in airway remodelling
Hannah E Tompkins, University of Manchester, UK

CD200R1 is required for efficient wound healing in middle-aged mice
Joshua Cox, University of Manchester, UK

The immunological links between inflammation in the skin and the respiratory system
Lucy Buckingham, University of Manchester, UK

Tissue damage and microbiota modifications provoke intestinal type 2 immunity during Schistosoma mansoni infection
Alice H. Costain, University of Manchester, UK

Localised intestinal radiotherapy causes systemic immune changes in the lung and thymus
Urszula M Cytlak, University of Manchester, UK

Targeting integrin αvβ8 to promote TGF-β activity in IBD
Daniel Brice, University of Manchester, UK

Is mitochondria striving to rescue the murine lupus lung?
Akhil, Panjab University, Chandigarh, India

Investigating the Effects of Ultraviolet Radiation in Manipulating Skin Microbiome-Host Interactions
Hannah J. Serrage, University of Manchester, UK

The role of chemokines in driving normal tissue toxicity in radiotherapy-induced bowel inflammation
Nabina Pun, University of Manchester, UK

Ym1 as a Regulator of IL-17
Georgia E. Baldwin, University of Manchester, UK

Lung basal cells stimulate the immune system to clear influenza virus then then calm the immune system to repair the damage
Patrick Shearer, University of Glasgow, UK

The Role of Lipid Metabolism in an Active T Follicular Helper Cell Response
Jack Jones, University of Glasgow, UK

Microplastics induce a pro-thrombotic phenotype and disrupt cellular integrity of respiratory epithelial cells in vitro
Naomi Martin, De Montfort University, UK

Allergic Airway Matrix Remodelling Develops Independently of Type 2 Inflammation
James E Parkinson, University of Manchester, UK
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