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| **Day 1 – Tuesday 20 May 2025** |
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| 12:00 - 1:30 | 90 min | Registration Opens  | Pepper Resort, 33A Viewland Drive, Noosa Heads |
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| 1:30 - 1:35 | 5 min | Conference starts | Opening remarks (Sumaira Hasnain (AoC); Lisa Connor)  |
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| **Session 1** | **Immune regulation at the mucosa****Chair: \*\*\*** |
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| 1:35 -2:35 | 60 min | Intl speaker – Matt Hepworth | ILC regulatory networks in mucosal barrier tissuemicroenvironments |
| 2:35 -3:05 | 30 min | Valerie Verhasselt | A newborn’s perspective on oral tolerance: implications for allergy prevention  |
| 3:05 -3:20 | 15 min | Freja Warner Van Dijk | Understanding inflammatory mononuclear phagocyte heterogeneity in human anogenital mucosa |
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| 3:20 -4:00 | 40 min  | ***Check in and Afternoon Tea*** |
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| **Session 2** | **Microbiome, treatment and diganosis of IBD** **Chair:\**\*\**** |
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| 4:00-4:30 | 30 min | Nicola Harris |

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| Mechanistic insight into diet based therapy for IBD |

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| 4:30-5:00 | 30 min | Simon Keely |

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| Immune responses to spirochetes – a hidden aetiology of unexplained GI disease |

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| 5:00-5:15 | 15 min | Zaini Aidil  | Harnessing mucosal healing in inflammatory bowel disease |
| 5:15-5:30 | 15 min | Bree Tillett | Changes in gut inflammation and permeability are reflected in host gut barrier proteins |
| 5:30-5:45 | 15 min | Matthijs Bekkers | A novel microbiota protein protects the intestinal epithelial barrier in inflammatory bowel disease |
| 5:45-6:00 | 15 min | Rabina Giri | Bioactive produced by Enterococcus Faecalis targets IL-23 signalling and protect against colitis and joint disease |
| **Session 3** | **Poster session with canapés and drinks** |
| 6:00 –9:00 |  | Posters |  |

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| **Day 2 – Wednesday 21 May 2025** |
| **Session 4** | **Early life and immune modulation** **Chair:\*\*\*\*** |
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|  8:30 - 9:30  | 60 min | Kathy McCoy | Defining the mechanisms by which early life microbial colonization modulates the immune system |
|  9:30 - 9:45 | 15 min | Min Yan | Maternal and infant stool short-chain fatty acids are not associated with risk of islet autoimmunity  |
|  9:45 - 10:00 | 15 min | Md Sohel Rana | Pathobionts in the breastmilk of obese mothers promote low-grade systemic inflammation and increase the severity of lower respiratory infections in the infant. |
| 10:00 - 10:15 | 15 min | Savannah Machado | Colostrum – the missing link for successful food allergy prevention |
| 10:15 – 10:30 | 15 min | Daniel Howard | Milk Osteopontin promotes microbiome-mediated neonatal haematopoiesis and disease tolerance to respiratory pathogens  |
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| 10:30 – 11:00 | 30 min | ***Morning Tea*** |
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| **Session 5** | **Spatial transcriptomcs** **Chair:** |
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| 11:00 – 11:30 | 30 min | Quan Nguyen | Spatial multiomics analysis of tissue microenvironment and cellular interactions in skin cancer |
| 11:30 – 12:00 | 30 min | Kylie James | Mapping colocalising cells and bacteria of the colitic mucosa |
| 12:00-12:15 | 15 mins | Jacqueline Tearle | Distinct topography of the primary sclerosing cholangitis colonic mucosa defined through paired microbial and single-cell RNA sequencing |
| 12:15-12:30 | 15 mins | Thomas O’Neil  | An *in situ* quantitative map of mononuclear phagocyte interactions with HIV across anogenital mucosal tissues using high parameter spatial proteomic techniques  |
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| 12:30 – 2:00  | 9 90 min | ***Lunch***  |
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| **SPONSORED BY SYSMEX**  |  |
| **Session 6** | **Epithelial-directed inflammation****Chair:**  |
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| 1:55 – 2:00 | 5 min | Sysmex |  |
| 2:00 – 2:30 | 30 min | Malcolm Starkey | Type 2 immunity in the urinary bladder |
| 2:30 – 3:00 | 30 min | Ashley Mansell | Inflammasomes and inflammation - it's as easy as NLRP 1, to, 3 |
| 3:00 – 3:30 | 30 min | Rhiannon Werder | Stem cell models to uncover antiviral immunity mechanisms in the alveolus |
| 3:30 – 3:45  | 15 min  | Elissa Deenick  | EML4 deficiency causes alveolar macrophage dysfunction and interstitial lung disease  |
| 3:45 – 4:00 | 15 min  | Laura Cook | Paediatric eosinophilic oesophagitis patients have reduced proportions of regulatory T cells within immune responses to food allergens: potential for a blood-based diagnostic assay |
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| 4:00 – 6:00 | **Chill time** |
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| 6:00 – 9:00 | Dinner with an expert | Tables are booked for 6:30 – please be sure to be punctual  |
| 9:00 - midnight | After dinner drinks  |  |

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| **Day 3 - 22 May 2024** |
| **Session 7** | **Immune-structural cell cross talk****Chair:** |
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|  8:30 - 9:30  | 60 min | Intl speaker – Shruti Naik | Immune-tissue communication in repair, infection, inflammation and cancer |
|  9:30 - 10:00 | 30 min | Sumaira Hasnain | Interleukin-22 suppresses major histocompatibility complex ll in mucosal epithelial cell |
| 10:00 - 10:15 | 15 min | Anne Jensen | The role of fermentable fibers in trichuris muris infection: Host susceptibility and microbial interactions  |
| 10:15 - 10:30 | 15 min | Haozhe Wang | Intestinal immune profiling of enteric nervous system and neuroimmune crosstalk  |
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| 10:30 – 11:00 | 30 min | ***Morning Tea*** |
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| **Session 8** | **IEL and the gut barrier****Chair:** |
| **SPONSORED BY**  |  |
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| 11:00 – 11:30 | 30 min | Lisa Mielke  | New immunotherapy strategies for treatment of colorectal cancer |
| 11:30 – 12:00 | 30 min | Roland Ruscher | Compartmentalised persistence of unconventional intestine-resident CD8aa IEL throughout life. |
| 12:00 – 12:15 | 15 min | Kayla Fasano | Disruption of integrin ⍺vß6 in intestinal epithelial cells predisposes to ulcerative colitis |
| 12:15 – 12:30 | 15 min | Louis Perriman | Vg9Vd2 T cell development |
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| 12:30 -4.00 | ***Packed Lunch and Chill time*** |
| 2:00 – 4:00 | 210 min | Excursions |
| **Session 9** | **Microbiome and lymphocyte development Chair:**  |
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| 4:00 – 5:00 | 60 min | Intl speaker -Tim Hand | Maternal regulation of the intestinal microbiota and then development of memory T cells |
| 5:00 – 5:30 | 30 min | Markus Geuking | Priming of microbiota-specific T cells protects from colitis |
| 5:30 – 5:45 | 15 min | Kayla Wilson | Secondary bile acids regulate dendritic cell-T cell priming |
| 5:45 – 6:00 | 15 min | Maximillien Evrard | Microenvironment-derived danger signals govern the stability of intestinal TRM |
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| 6:00 | **Free evening**  |

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| **Day 4 – Friday 23 May**  |
| **Session 10** | **Microbiome and Gut-ass’d disease** **Chair:** |
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| 8:30 - 9:00 | 30 min | Sam Forster | Characterising the site-specific regulatory role of the microbiome in IBD symptoms |
| 9:00 - 9:30 | 30 min | Páraic Ó Cuív | Rationally Developed Precision Microbiome Therapeutics for the Treatment of Chronic Inflammatory Diseases |
| 9:30 - 10:00 | 30 min | Rimma Goldberg | Cell based therapies for IBD |
| 10:00 - 10:15 | 15 min | Lauren Schooth  | The duodenal mucosa-associated microbiota can be used to differentiate patients based on Rome IV diagnosis, and duodenal spheroid barrier function is improved in non-DGBI subjects compared to DGBI subjects. |
| 10:15 - 10:30 | 15 min | Tan HuiYing | Investigation of Epithelial Key Disease-Driver Genes in Inflammatory Bowel Disease as Novel Drug Targets  |
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| 10:30 – 11:00 | 30 min | ***Morning Tea*** |
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| **Session 11** | **Lung inflammation and infection** **Chair:** |
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| 11:00 – 11:30 | 30 min | Tim Barnett | Understanding “Strep Throat” pathogenesis for better treatments and prevention strategies |
| 11:30 – 12:00 | 30 min | Ulrike Kappler | Three habits of highly successful pathogens – molecular details of long-term interactions between *Haemophilus influenzae* and human epithelia |
| 12:00 – 12:15 | 15 min | Patricia Namubiru | Targeting specific neutrophil populations ameliorates severe bronchiolitis in infancy and prevents the subsequent development of asthma |
| 12:15 – 12:30 | 15 min | Rebecca Palmer  | A high dimensional spectral cytometry method for comprehensive phenotyping of murine pulmonary cells |
| 12-30 – 12:45  | 15 min | Hannah Boswell | MAIT cell priming mitigates influenza-induced lung inflammation and tissue damage |
| 12:45 – 1:00 | Conference close – Awards announced, closing remarks  |
| 1:30  | Bus departs  |