

BSI West Midlands Immunology Group Symposium: “Immunology in the Midlands Rebooted”

13 May 2022

Edgbaston Park Hotel, Birmingham

08:30 Registration

09:00 Welcome

09:15 **Stromal – immune interactions shaping the tumor micro-environment in multiple myeloma**
Tom Cupedo, Erasmus MC, Netherlands (*Keynote speaker*)

Session I: Innate Immunity

Chairs: Kendle Maslowski, University of Birmingham, UK and Sofia Hain Porter, University of Birmingham, UK

09:45 **Innate immune response to cytosolic endotoxins**
Dave Boucher, University of York, UK (*Invited speaker*)

10:15 **Peripheral NK cell dysregulation in Recurrent Pregnancy Loss (RPL)**
Danai Bagkou Dimakou, University of Birmingham, UK (*Selected abstract short talk*)

10:25 **Neuroimmunology of cryptococcal meningitis: exploring the roles of CNS-localized myeloid cells in T-cell responses**
Man Shun Fu, University of Birmingham, UK (*Selected abstract short talk*)

10:35 **The rapid loss of crucial NK effector functions upon tumour infiltration debilitates anti-tumour responses (*short talk*)**
Isaac Dean, University of Birmingham, UK (*Selected abstract short talk*)

10:45 Refreshment break

Session II: Tissue Immunology

Chairs: Valentina Pucino, University of Birmingham, UK and Georgina Hopkins, University of Nottingham, UK

11:15 **Regulation of dendritic cell populations in healthy and infected tissues**
Carlos Munoz Minutti, Francis Crick Institute, UK (*Invited speaker*)

11:45 **Synovial tissue zonation underpins specific disease pathotypes in rheumatoid arthritis**
Patricia Ines Reis Nisa, University of Birmingham, UK (*Selected abstract short talk*)

11:55 **The Thymus Synchronises CD4 and CD8 Thymocyte Development That Fixes the CD4:CD8 Peripheral T-cell Ratio**
Callum Moore, University of Birmingham, UK (*Selected abstract short talk*)

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- 12:05 **Fungal growth in microglia promotes microbial adaptation and infection of the central nervous system**
Sally Hashim Mohamed, University of Birmingham, UK (*Selected abstract short talk*)
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- 12:15 Lunch and poster session I from 12:45 to 13:15
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- Session III: Environmental cues**
Chairs: Ewan Ross, Aston University, UK and Nancy Gomez, University of Nottingham, UK
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- 13:15 **Comprehensive analysis of cigarette smoke/e-cigarette induced extracellular vesicles from peripheral blood mononuclear cells**
Lucy Fairclough, University of Nottingham, UK (*Invited speaker*)
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- 13:35 **TNF- α drives naïve CD4+ T cell metabolic reprogramming upon activation**
Emma Bishop, University of Birmingham, UK (*Selected abstract short talk*)
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- 13:45 **Combined single cell profiling technologies reveal novel modulation of Wnt signalling in synovial fibroblasts during the resolution phase of inflammatory arthritis**
Lucy-Jayne Marsh, University of Birmingham, UK (*Selected abstract short talk*)
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- 13:55 **EVs from apoptotic cells modulate the immune response**
Andrew Devitt, Aston University, UK (*Invited speaker*)
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- 14:15 Refreshments and poster session II from 14:15 to 15:00
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- Session IV: Adaptive Immunity**
Chairs: David Bending, University of Birmingham, UK and Zhi Li, University of Birmingham, UK
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- 15:00 **Ageing and the response to vaccination**
Michelle Linterman, Babraham Institute, UK (*Invited speaker*)
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- 15:30 **Nr4a1-timer of cell kinetics and activity (Tocky) reporter mice: A tool to exploring temporal T- and B-cell response to TCR engagement**
Emma Jennings, University of Birmingham, UK (*Selected abstract short talk*)
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- 15:40 **B cell activation and autoimmunity in a mouse model of B cell anergy**
Ashley Hudson, University of Birmingham, UK (*Selected abstract short talk*)
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- 15:50 **Force application to the T cell receptor controls T cell activation**
Joseph Clarke, University of Birmingham, UK (*Selected abstract short talk*)
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- 16:00 Closing remarks and prizes
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- 16:15 Networking reception
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- 17:30 Close
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Poster presentations

- P.01 CCR7 directs medulla-dependent development of effector gd T-cells in the murine thymus**
Kieran James, University of Birmingham, UK
- P.02 Cytokeratin-19 Labels A Population Of Multi-potent mTEC Progenitors In The Embryonic Thymus**
Beth Lucas, University of Birmingham, UK
- P.03 Vaccines against SARS-CoV-2 are effective among healthcare workers: a systemic review and meta-analysis**
Oliver Galgut, University of Birmingham, UK
- P.04 Eosinophils are an essential element of a type 2 immune axis that controls thymus regeneration**
Emilie J. Cosway, University of Birmingham, UK
- P.05 Characterising migration of memory B cells emerging from germinal centres**
Cameron J M Burnett, University of Birmingham, UK
- P.06 PD1 pathway blockade augments T cell receptor signal strength within CD4+ Tumor Infiltrating Lymphocytes**
Lozan Sheriff, University of Birmingham, UK
- P.07 CXCL12 Identifies Heterogeneity In Cortical Epithelial Cells**
Andrea White, University of Birmingham, UK
- P.08 Immunomodulatory effects of Salmonella, E. coli and Lactobacillus- treated tumour organoids**
Riahne McQuade, University of Birmingham, UK
- P.09 Cross reactivity of serological response to SARS-CoV-2 vaccination with viral variants of concern detected by lateral flow assay**
Daniel Ebanks, University of Birmingham, UK
- P.10 Is the serum Ig subclass response post SARS-CoV-2 vaccination affected by prior SARS-CoV-2 infection?**
Alex Cook, University of Birmingham, UK
- P.11 A cell biology imaging analysis pipeline to characterise SARS-CoV-2 variants**
Harriet Hill, University of Birmingham, UK
- P.12 Phosphoantigen-based prodrugs (ProPAgens) as potent stimulators of V γ 9V δ 2 T cell activation and anti-tumour cytotoxicity**
Maria Sharif, University of Birmingham, UK
- P.13 A comparison of serum and saliva antiviral antibody levels following SARS-CoV-2 infection and vaccination in healthcare workers**
Sian E. Faustini, University of Birmingham, UK
- P.14 Hypoxia suppresses TCR signalling, activation and effector function of CD8+ T cells**
Fulton-Ward T, University of Birmingham, UK
- P.15 Imaging inflammation and bleeding in the fungal-infected CNS**
Sofia Hain, University of Birmingham, UK
- P.16 Bacterial cancer therapy induces patient-specific responses in human colorectal tumour organoids**
Gillian Mackie, University of Birmingham, UK
- P.17 Characterising B-cell derived extracellular vesicles and their role in T-cell trafficking**
P. Nathan, University of Birmingham, UK
- P.18 Interplay between NAIPs and prostaglandins in colonic infection, inflammation and cancer**
Lisa Scarfe, University of Birmingham, UK
- P.19 Improving B cell responses to self in cancer**
Fernanda N. Escobar-Riquelme, University of Birmingham, UK

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