

BSI Midlands Immunology Group Symposium:

8 June 2023

College Court Conference Centre, Leicester

09:00 Registration

10:00 Welcome

Session I: Innate Immunity

Chairs: Dr David Bending, University of Birmingham, UK and Georgina Hopkins, University of Nottingham, UK

10:05 **Vaccine Adjuvants: where they go, how they get there, what they do and why should you care?**
Professor James Brewer, University of Glasgow, UK (*KEYNOTE SPEAKER*)

10:35 **A role for human splenic tissue macrophages during the earliest phases of invasive disease**
Marco Oggioni, University of Leicester, UK (*Selected short talk*)

10:45 **Vancomycin disrupts macrophage antifungal immunity**
Ebrima Bojang, University of Birmingham, UK (*Selected short talk*)

10:55 **Brain-specific immune responses during fungal meningitis**
Dr Rebecca Drummond, University of Birmingham, UK (*Invited speaker*)

11:15 Refreshment break and meet the exhibitors

Session II: Translational Immunology

Chairs: Professor Lucy Fairclough, University of Nottingham, UK and Dr Martin Davey, University of Warwick, UK

11:50 **Tales of tissue immunity**
Professor Menna Clatworthy, University of Cambridge, UK (*KEYNOTE SPEAKER*)

12:20 **Complement and inflammatory marker analysis in women with obstetric antiphospholipid syndrome (OAPS)**
Dr Danai Bagkou Dimakou, University of Birmingham, UK (*Selected short talk*)

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- 12:30 **Large E-cadherin+ CD103+ CD8+ T cells invade biliary epithelial cells through interactions with β -catenin**
Dr Scott P Davies, University of Birmingham, UK (*Selected short talk*)
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- 12:40 **Sulfation at glycopolymer side chains switches activity at the macrophage mannose receptor (CD206) in vitro and in vivo; implications for CD206-targeted therapies**
Dr Luisa Martinez-Pomares, University of Nottingham, UK (*Invited speaker*)
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- 13:00 Lunch, exhibition, and **poster session from 13:45 to 14:30**
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- Session III: Adaptive Immunity**
Chairs: Dr Rebecca Drummond, University of Birmingham, UK and Dr Zhi Li, University of Birmingham, UK
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- 14:30 **Differences between CD80 and CD86 affect both the CTLA-4 and PD-1 checkpoints**
Professor David Sansom, University College London, UK (*KEYNOTE SPEAKER*)
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- 15:00 **Blockade of lag3 synergizes responses to anti-PD-L1 through increasing duration of T cell receptor signalling**
Dr Lozan Sheriff, University of Birmingham, UK (*Selected short talk*)
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- 15:10 **Phosphoinositide acyl chain saturation drives CD8+ effector T cell signaling and function**
Dr Joy Edwards-Hicks, University of Cambridge, UK (*Selected short talk*)
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- 15:20 **Activated tissue resident memory T-cells (CD8+CD103+CD39+) uniquely predict survival in left sided "immune-hot" colorectal cancers**
Dr Judith Ramage, University of Nottingham, UK (*Invited speaker*)
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- 15:45 Closing remarks and prizes
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- 16:00 Networking reception
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- 17:00 Close
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Poster presentations

- P.01 **Using fluorescent ligands as flow cytometry probes: a study of adenosine receptor subtypes expression in human macrophages**
Foteini Patera, University of Nottingham, UK
- P.02 **Streptococcus uberis exploits NLRP3 inflammasome activation in disease pathogenesis: the role of the cell envelope serine protease SUB1154**
Abbie Tomes, University of Nottingham, UK
- P.03 **The impact of ruxolitinib and tocilizumab on IL-6 evoked phospho-STAT3 induction across human immune cell subsets**
Omar S. Qureshi, University of Birmingham, UK
- P.04 **Effect of GM-CSF on the immune response of human monocytes against C. albicans**
Khawalah Abid Munshi, University of Nottingham, UK
- P.05 **A family-wide assessment of latent STAT transcription factor interactions reveals divergent dimer repertoires**
Uwe Vinkemeier, University of Nottingham, UK
- P.06 **Exploring Affinity-Dependent Metabolic Imprinting of Anti-Viral T Cell Responses**
Hannah Bollons, University of Birmingham, UK
- P.07 **Hypoxia impairs CD8+ T cell effector function and metabolic reprogramming**
Fulton-Ward T, University of Birmingham, UK
- P.08 **Impaired macrophage phagocytosis of non-typable Haemophilus influenzae in older adults is associated with reduced CD36 expression**
Kylie Belchamber, University of Birmingham, UK
- P.09 **Therapeutic potential of a multi-tumour antigen peptide vaccine for hard-to-treat cancers**
Carles Puig-Saenz, Nottingham Trent University, UK
- P.10 **Therapeutic efficacy of a prostatic acid phosphatase (PAP) derived peptide-based vaccine administered with CAF®09b adjuvant tested in HHDII/DR1 and C57BL/6 mice**
J.E. Thomas, Nottingham Trent University, UK
- P.11 **Engineering amino acid uptake promotes CAR T-cell adaption to the tumour environment**
Nicola McJannett, University of Birmingham, UK
- P.12 **Re-wiring of TCR signalling pathways during CD8 T cell exhaustion**
Thomas Elliot, University of Birmingham, UK
- P.13 **Preventing graft-versus-host disease by redirecting TREG specificity with TCR retroviral transduction**
Elif Yildiz, University of Birmingham, UK
- P.14 **Mass Cytometry at The University of Birmingham Flow Cytometry Facility: Supporting Researchers' Needs across the Midlands and the UK**
Shahram Golbabapour, University of Birmingham, UK

- P.15 **The University of Birmingham Flow Cytometry Facility: Supporting Flow Cytometry Researchers' Needs across the Midlands and the UK**
Shahram Golbabapour, University of Birmingham, UK
- P.16 **Application of Tg4 Nur77-Tempo mice to identify effective immunotherapy combinations**
Emma K Jennings, University of Birmingham, UK
- P.17 **Mapping the immune landscape: Optimising the multiplex immunohistochemistry images of Tissue-Resident Memory T cell in Breast Cancer**
Qianya Xu, University of Nottingham, UK
- P.18 **Blood Leukocyte Characterisation in Eosinophilic Granulomatosis with Polyangiitis (EGPA)**
Dale R, University of Leicester, UK
- P.19 **Defining the surface proteome of apoptotic cell-derived extracellular vesicles**
Rachel Butler, Aston University, UK
- P.20 **Increased IEL expansion following Salmonella infection in NAIP-deficient mice**
Scarfe L., University of Birmingham, UK
- P.21 **Fancy a cigarette? Addressing the need of an ethically sound mouse model to define the immunopathophysiological mechanisms of cigarette smoke-induced chronic obstructive pulmonary disease (COPD)**
Laura Bartlett, University of Nottingham, UK
- P.22 **Therapeutic STm Δ aroA preferentially invade proliferating cells in human colorectal cancer**
Gillian Mackie, University of Birmingham, UK
- P.23 **Exploiting immune cells by Multiplex to improve the Immune score in colorectal cancer**
Zhiyuan Cheng, University of Nottingham, UK
- P.24 **Long-chain fatty acid uptake from the bone marrow microenvironment suppresses T cell function in Multiple Myeloma**
Gudgeon N, University of Birmingham, UK
- P.25 **Optimising the multiplex immunohistochemistry images of macrophages in Breast Cancer**
Shakhnoza Jumaniyazova, University of Nottingham, UK
- P.26 **Maternal Vaccination against Streptococcus pneumoniae leads to long-lasting immunity to offspring**
Jamie Pillaye, University of Birmingham, UK
- P.27 **NRK1 fine-tunes NAD(P)⁺/H₂O₂, glutathione and reactive oxygen species abundance during CD4⁺ T cell activation to regulate their function and exhaustion**
Victoria Stavrou, University of Birmingham, UK
- P.28 **Neuroimmunology of cryptococcal meningitis: exploring the roles of CNS-localized myeloid cells in T-cell responses**
Man Shun Fu, University of Birmingham, UK
- P.29 **Immature granulocyte counts and red cell distribution width may be used to predict survival outcome in alcoholic hepatitis**
Reenam Shamim Khan, University of Birmingham, UK
- P.30 **Towards a B cell Vaccine for Tumour expressed Self-Antigens**
F. Escobar-Riquelme, University of Birmingham, UK
- P.31 **SARS-CoV-2 variant infection of liver epithelial cells**
Marcin Kowalczyk, University of Birmingham, UK

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