Basic to Translational: Current concepts in liver immunology
22 February 2018
Royal College of Anaesthetists, London

08:15 Registration

08:50-09:00 Welcome & opening remarks
Harry Antoniades (Imperial College London)

Session 1: Lymphoid cells and the liver
Chairs: Yun Ma (King’s College London) & Salim Khakoo (University of Southampton)

09:00-09:25 T cell function in chronic liver disease: immune exhaustion or reprogramming?
Wafa Khamri (Imperial College London)

09:25-09:50 Lymphoid cells and antiviral immunity: implications for immunotherapy
Patrick Kennedy (Queen Mary University of London)

09:50-10:15 MAIT cells in homeostasis and disease
Paul Klenerman (University of Oxford)

10:15-10:40 NK cells dysfunction in chronic liver injury
Salim Khakoo (University of Southampton)

10:40-11:10 Refreshments, exhibition and posters

Session 2: Innate immune cells and the liver
Chairs: Harry Antoniades (Imperial College London) & John Iredale (University of Bristol)

11:10-11:35 Basic Myeloid cell biology and relevance in disease
Kevin Woollard (Imperial College London)

11:35-12:00 Intrahepatic macrophage subsets in chronic liver injury: insights from experimental models of disease
Prakash Rhamachandran (University of Edinburgh)

12:00-12:25 Role of myeloid cells in acute liver injury: immunopathology and translational implications
Lucia Possamai (Imperial College London)

12:25-13:00 Platelet-myeloid interactions in liver injury
Patricia Lalor (University of Birmingham)

13:00-14:10 Lunch and poster session
Session 3: Novel concepts in liver immunopathology
Chairs: Alastair O’Brien (University College London) & Yun Ma (King’s College London)

14:10-14:35  The role of hepatic endothelium in shaping hepatic immunity
            Chris Weston (University of Birmingham)

14:35-15:00  Harnessing immune responses for anti-tumour therapies: On-target effects
            Sergio Quezada (University College London)

15:00-15:25  Immune based therapies for hepatocellular cancer
            Stuart Curbishley (University of Birmingham)

15:25-16:00  Refreshments, exhibition and posters

Session 4: Selected Oral Presentations
Chairs: John Iredale (University of Bristol) & Alastair O’Brien (University College London)

16:00-16:15  Human liver infiltrating γδ T cells are composed
            Stuart Hunter (University of Birmingham)

16:15-16:30  Induction of tissue-resident T cell
            Laura Pallett (University College London)

16:30-16:45  Novel tools for dissecting the role of Kupffer cells
            Charlotte Scott (VIB, UGent, Belgium)

16:45-17:00  Visualisation of Salmonella Typhimurium within infected tissues
            Marisol Perez-Toledo (University of Birmingham)

Keynote Lecture

17:00-17:30  Myeloid heterogeneity in liver inflammation
            Frank Tacke (Aachen Germany)

17:30-17:45  Prize presentation and closing remarks
            Harry Antoniades (Imperial College London)
Poster programme

P.01 Thrombosis develops with distinct kinetics in the spleen and liver after systemic infection with *Salmonella Typhimurium*

Nonantzin Beristain-Covarrubias¹, Marisol Perez-Toledo², Adriana Flores-Langarica³, Julie Rayes², Lloyd King¹, Charlotte Cook¹, Steve P Watson² and Adam F Cunningham¹

¹Institute of Immunology & Immunotherapy, University of Birmingham, UK, ²Institute of Cardiovascular Sciences, University of Birmingham, UK

P.02 Intrahepatic CD4 regulatory T (Treg) cell phenotype and function in the healthy liver and in autoimmune hepatitis (AIH)

Neil Halliday¹², Victoria Male¹, Antonia Cuff¹, Douglas Thorburn², Krista Rombouts², Massimo Pinzani² and David Sansom³

¹Institute of Immunity and Transplantation, University College London, ²Institute of Liver and Digestive Health, University College London

P.03 Exogenous IL-4 causes death of monocytes and expansion of pro-reparative macrophages following acute liver injury

Ruairi W Lynch¹, C C Bain¹, C A Hawley¹, S J Forbes² and S J Jenkins¹

¹ Queen’s Medical Research Institute, University of Edinburgh, UK, ²Centre for Regenerative Medicine, University of Edinburgh, UK

P.04 Platelet inhibition reduces tumour burden by altering the immune response in hepatocellular carcinoma

Natasa Pavlovic¹, Pär Gerwins¹² and Femke Heindryckx³

¹Department of Medical Cell Biology, Uppsala University, Sweden, ²Department of Radiology, Uppsala University Hospital, Sweden
P.05  Mucosa-associated invariant T-cells link intestinal immunity with antibacterial immune defects in alcoholic liver disease

Antonio Riva1,2, Vishal Patel1,2,3, Ayako Kurioka4, Hannah C Jeffery5, Gavin Wright6, Sarah Tarff6, Debbie Shawcross2,3, Jennifer M Ryan5, Alexander Evans7, Sarah Azarian8, Jasmohan S Bajaj8, Andrew Fagan8, Vinod Patel9, Kosha Mehta9, Carlos Lopez9, Marieta Simonova10, Krum Katzarov10, Tanya Hadzhiova10, Slava Pavlova10, Julia A Wendon3, Ye H Oo5, Paul Klenerman4, Roger Williams1,2 and Shilpa Chokshi1,2

1Institute of Hepatology London, Foundation for Liver Research, UK, 2Division of Transplantation, Immunology and Mucosal Biology, Faculty of Life Sciences and Medicine, King’s College London, UK, 3Institute of Liver Studies, King’s College London, UK, 4Peter Medawar Building for Pathogen Research, University of Oxford, UK, 5Centre for Liver Research and NIHR BRU in Liver Disease, University of Birmingham, UK, 6Department of Gastroenterology, Basildon University Hospital, UK, 7Department of Gastroenterology, Royal Berkshire Hospital, UK, 8Department of Gastroenterology, Hepatology and Nutrition, Virginia Commonwealth University and McGuire VAMC, USA, 9Department of Biomedical Sciences, University of Westminster, UK, 10Department of Gastroenterology, Military Medical Academy, Bulgaria

P.06  Visualisation of Salmonella Typhimurium within infected tissues reveals the distinct roles of innate and adaptive immunity in containing bacterial spread

Marisol Perez-Toledo1, Jessica Hitchcock2, Nonantzin Beristain-Covarrubias1, Charlotte N. Cook1, Adriana Flores-Langarica1, Steve P. Watson1, Adam F. Cunningham1

1Institute of Immunology and Immunotherapy, College of Medical and Dental Sciences, University of Birmingham, UK, 2Department of Pathology, Cambridge University, UK, 3Institute of Cardiovascular Sciences, College of Medical and Dental Sciences, University of Birmingham, UK

P.07  The role of autophagy in the adaptation of liver-resident and hepatitis B-specific T-cells

Leo Swadling1, A Schurich1, L Pallett3, O Amin1, K Suveizdyte1, D Mesner1, G Fusai2, B R Davidson2, F Froghi2, WM Rosenberg2, K Simon3 and M K Maini1

1Division of Infection and Immunity, University College London, UK, 2UCL Institute of Immunity and Transplantation, Royal Free Hospital, UK, 3Kennedy Institute, University of Oxford, UK
P.08  **Peripheral and liver CD80 and CD86 expression in monocytes and B cells in patients with cholestatic liver disease**  

Konstantinos Aliazis¹, Rehana Rahman¹, Ben Wiggins¹, Xiaoyan Li², Evaggelia Liaskou¹, Yuehua Huang², Zania Stamataki² and Gideon Hirschfield¹  

¹Centre for Liver Research, Institute of Immunology and Immunotherapy, College of Medical and Dental Sciences, University of Birmingham, UK, ²3rd Affiliated Hospital of Sun Yat-Sen University, School of Infectious Disease, China

P.09  **Immune-suppressive HLA-DR+CD8+ T cells are increased in cirrhotic patients and may contribute to adaptive immune response impairment**  

Fanny Lebossé¹,², Cattherin Gudd¹,², Arjuna Singanayagam¹,², Rooshi Nathwani³, Oltin Pop¹,², Naveenta Kumar¹,², Sujit Mukherjee¹, Evangelos Triantafyllou¹,², Tie Zheng Hou³, Alberto Quaglia³, Fabien Zoulim⁴, Julia Wendon³, Mark Thurst¹, Ameet Dhar¹, Wafa Khamri¹ and Charalambos G Antoniades¹,²  

¹Division of Digestive Diseases, St. Mary’s Campus Imperial College London, UK, ²Institute of Liver Studies, King’s College Hospital, King’s College London, UK, ³Institute of Immunity and Transplantation, University College London, UK, ⁴INSERM U1052- Cancer Research Center of Lyon (CRCL), France

P.10  **Differentiating chronic liver diseases through mass spectroscopy-based diagnostics**  

Anna Mroz¹, Paolo Inglese³, Francesca Rosini¹, Alex Pechlivanis¹, Evaggelia Liaskou², Gideon Hirschfield², Simon Taylor-Robinson¹, David Jones³, Robert Goldin¹, Elaine Holmes¹ and Zoltan Takats¹  

¹Imperial College London, UK, ²University of Birmingham, UK, ³Newcastle University, UK

P.11  **The role of liver B cell subsets in T cell costimulation**  

Shajabeegom Rahman¹, Xiaoyan Li², Konstantinos Aliazis³, Jaideep Matharoo¹, Sudha Purswani ³, Gary Reynolds ¹,³ and Zania Stamataki¹  

¹Centre for Liver Research, Institute for Immunology and Immunotherapy, University of Birmingham, Birmingham, UK, ²Affiliated Hospital of Sun Yat-Sen University, School of Infectious Disease, China, ³Queen Elizabeth Hospital NHS Trust, UK

P.12  **A novel tool to study the mechanism of hepatocyte efferocytosis in vitro**  

Ratnam Gandhi, Scott P Davies, Gary Reynolds and Zania Stamataki  

Institute for Immunology and Immunotherapy, Centre for Liver Research, University of Birmingham, UK
**P.13 Efferocytosis by hepatocytes induces multinucleation in vitro and ex vivo in human livers**

Scott P Davies¹, Gary Reynolds¹, Ricky Bhogal¹,², Richard W Laing¹,², Yuri Boteon¹,², Dev Sangha³, Dan Patten¹, Lorraine Wallace¹, Robin May¹, Thamara Perera², Darius Mirza², Hynek Mergental³, Simon Afford¹ and Zania Stamatakis¹

¹Centre for Liver Research, Institute for Immunology and Immunotherapy, University of Birmingham, Birmingham, UK, ²Queen Elizabeth Hospital NHS Trust, Birmingham, UK, ³School of Biosciences, University of Birmingham, Birmingham, UK

**P.14 Progression of cirrhotic liver disease towards acute-on-chronic liver failure (ACLF) triggers changes in innate immune cell phenotype and their response to pro-inflammatory stimulation**

Alexander A Maini, Derek W Gilroy and Alastair J O’Brien

University College London, UK

**P.15 Using fine needle aspirates to sample compartmentalised liver-resident immunity and hepatocytes to probe new HBV therapies**

Upkar S Gill¹, Laura J Pallett², Alice R Burton², Kerstin Stegmann², Patrick T F Kennedy¹ and Mala K Maini²

¹Hepatology, Centre for Immunobiology, Blizard Institute, Barts and The London, School of Medicine & Dentistry, QMUL, UK, ²Division of Infection & Immunity, UCL, UK

**P.16 Transcriptome profiles of NK and T cells regulating immune control in chronic hepatitis B, proximate to patients treated with Pegylated Interferon alpha-Nucleos(t)ide analogue (NA) sequential therapy compared to de novo NA therapy**

Upkar S Gill¹, Nina Le Bert², Kamini Kunasegaran³, Atefeh Khakpoor³, Navjot Hansi¹, Damien Tan², Laura Rivino³, Harsimran D Singh⁴, Wei-Chen Huang⁴, Dimitra Peppa⁴ and Antonio Bertoletti²,³, Mala K Maini⁴ and Patrick T F Kennedy¹

¹Hepatology, Centre for Immunobiology, Blizard Institute, Barts and The London, School of Medicine & Dentistry, QMUL, London, UK, ²Infection & Immunity Program, Singapore Institute for Clinical Sciences, Agency for Science, Technology & Research (A*STAR), Singapore, ³Program Emerging Viral Diseases, Duke-NUS Medical School, Singapore, ⁴Division of Infection & Immunity, UCL, London, UK
HBV-specific T cell responses in low replicating inactive carrier patients are independent of Hepatitis B surface antigen load

Upkar S Gill¹, Navjyot K Hansi¹, Nina Le Bert², Kamini Kunasegaran³, Grace E Dolman¹, Damien Tan², William Tong⁴, Mala K Maini⁵, Antonio Bertoletti²,³ and Patrick T F Kennedy¹

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