

**Faculty of Medicine Research Conference  
and  
The Annual Wade Lecture**

**23 June 2016**

Lecture Theatres 1 & 2  
South Academic Block  
Southampton General Hospital

For further information email [medconf@soton.ac.uk](mailto:medconf@soton.ac.uk)

or visit

[www.southampton.ac.uk/medicine/research/research-conference.page](http://www.southampton.ac.uk/medicine/research/research-conference.page)

## PROGRAMME

08:40-09:05	Coffee and Registration, Lecture Theatre Foyer Level B, South Academic Block	
09:05 - 9:10	<b>Introduction and Welcome</b> Lecture Theatre 1 Professor John Holloway	
<b>Venue</b>	<b>Lecture Theatre 1</b>	<b>Lecture Theatre 2</b>
	<b>Session 1a</b>	<b>Session 1b</b>
<b>Chair:</b>	<b>Professor Salim Khakoo</b>	<b>Professor David Wilson</b>
09:15-09:30	<p style="text-align: center;"><b>Theresa Hydes</b> Clinical and Experimental Sciences</p> <p style="text-align: center;"><i>The identification of two distinct Natural Killer cell populations in the human liver expressing markers suggestive of NK cell memory and hepatic migration</i></p>	<p style="text-align: center;"><b>Sergio Regufe da Mota</b> Cancer Sciences</p> <p style="text-align: center;"><i>Lysine specific demethylase 1 inhibition attenuates drug resistant driven by androgen receptor modifications</i></p>
09:30-09:45	<p style="text-align: center;"><b>Rachel Dobson</b> Cancer Sciences</p> <p style="text-align: center;"><i>The impact of the tumour microenvironment on b-cell receptor (BCR) expression and signalling in Chronic Lymphocytic Leukaemia (CLL)</i></p>	<p style="text-align: center;"><b>Jay Amin</b> Clinical and Experimental Sciences</p> <p style="text-align: center;"><i>Central and systemic inflammation in Dementia with Lewy Bodies</i></p>
09:45-10:00	<p style="text-align: center;"><b>Rose-Marie MacKay</b> Clinical and Experimental Sciences</p> <p style="text-align: center;"><i>Recombinant Surfactant protein D (SP-D) downregulates allergic hypersensitivity in vivo - a novel role for SP-D in allergic sensitization</i></p>	<p style="text-align: center;"><b>Emma Sutton</b> Cancer Sciences</p> <p style="text-align: center;"><i>Developing new methods to understand the structure-function relationships that determine activity of anti-CD32b antibodies</i></p>
10:00-10:15	<p style="text-align: center;"><b>Daniel Page</b> Human Development and Health</p> <p style="text-align: center;"><i>VEGF-associated clay gels promotes in vitro angiogenesis: potential tissue engineering application for chronic wounds</i></p>	<p style="text-align: center;"><b>Charlene Akoto</b> Clinical and Experimental Sciences</p> <p style="text-align: center;"><i>Rhinovirus infection of human mast cells results in viral shedding which is inhibited by interferon</i></p>
10:15-10:30	<p style="text-align: center;"><b>Stuart Blakemore</b> Cancer Sciences</p> <p style="text-align: center;"><i>Genomic characterisation of Chronic Lymphocytic Leukaemia driver genes in the LRF CLL4 clinical trial cohort</i></p>	<p style="text-align: center;"><b>Enrico Mossotto</b> Human Development and Health</p> <p style="text-align: center;"><i>Mathematical modelling of NGS data for an alternative classification of paediatric inflammatory bowel disease</i></p>

10:30-11:15	<b>POSTER SESSION 1 with Refreshments</b>	
<b>Venue</b>	<b>Lecture Theatre 1</b>	<b>Lecture Theatre 2</b>
	<b>Session 2a</b>	<b>Session 2b</b>
<b>Chair:</b>	<b>Prof Richard Oreffo</b>	<b>Professor Donna Davies</b>
11:15-11:30	<p><b>Caroline Barker</b>  <b>Cancer Sciences</b></p> <p><i>Dissecting cancer metabolism in a 3D breast model</i></p>	<p><b>Joshua Wallington</b>  <b>Clinical and Experimental Sciences</b></p> <p><i>Cytotoxic responses of mucosal-associated invariant T (MAIT) cells to non-typeable Haemophilus influenzae (NTHi) infection: implications for lung disease</i></p>
11:30-11:45	<p><b>Kinda Ibrahim</b>  <b>Human Development and Health</b></p> <p><i>How are older patients at high risk of poor healthcare outcomes identified in hospital?</i></p>	<p><b>Lindsay D. Smith</b>  <b>Cancer Sciences</b></p> <p><i>Biological Significance of B-cell Receptor Autophagy in Chronic Lymphocytic Leukaemia</i></p>
11:45-12:00	<p><b>Henry Leonard</b>  <b>Cancer Sciences</b></p> <p><i>The role of constitutively active FOXO1 in CD8 T cell during adoptive transfer therapy against cancer</i></p>	<p><b>Sonja Rakic</b>  <b>Clinical and Experimental Sciences</b></p> <p><i>Acute systemic infection promotes immunosuppression in Alzheimer's disease</i></p>
12:00-12:15	<p><b>Ilse Bloom</b>  <b>Human Development and Health</b></p> <p><i>Diet quality in later life: the importance of social factors</i></p>	<p><b>Kirstie Cleary</b>  <b>Cancer Sciences</b></p> <p><i>Impact of target antigen properties on antibody effector mechanisms</i></p>

12:15-13:15	<b>POSTER SESSION 2 with Lunch</b>	
<b>Venue</b>	<b>Lecture Theatre 1</b>	<b>Lecture Theatre 2</b>
	<b>Session 3a</b>	<b>Session 3b</b>
<b>Chair:</b>	<b>Professor Sarah Ennis</b>	<b>Professor Martin Feelisch</b>
13:15-13:30	<p style="text-align: center;"><b>Mark Jones</b>  <b>Clinical and Experimental Sciences</b></p> <p style="text-align: center;"><i>Three-Dimensional Characterisation of Fibroblast Foci in Idiopathic Pulmonary Fibrosis</i></p>	<p style="text-align: center;"><b>Matthew Rose-Zerilli</b>  <b>Cancer Sciences</b></p> <p style="text-align: center;"><i>The epigenomic landscape of Splenic Marginal Zone Lymphoma</i></p>
13:30-13:45	<p style="text-align: center;"><b>Chris Perry</b>  <b>Primary Care and Population Sciences</b></p> <p style="text-align: center;"><i>The effect of body mass index on patient outcome in chronic obstructive pulmonary disease: a retrospective cohort study using the Hampshire Health Record</i></p>	<p style="text-align: center;"><b>Shellie Long</b>  <b>Clinical and Experimental Sciences</b></p> <p style="text-align: center;"><i>Trialling the Sensitivity of Detection Methods for an In Vitro Cell-Based Assay for the Pharmaceutical Testing of Botulinum Neurotoxin Type-A</i></p>
13:45-14:00	<p style="text-align: center;"><b>Dannielle Wellington</b>  <b>Cancer Sciences</b></p> <p style="text-align: center;"><i>ERAP1 polymorphisms associated with Ankylosing Spondylitis increase Natural Killer cell activation</i></p>	<p style="text-align: center;"><b>Reza J. Forooshani</b>  <b>Human Development and Health</b></p> <p style="text-align: center;"><i>Whole-exome sequencing (WES) identifies rare mutations in two pedigrees with recurrent familial Nephrolithiasis</i></p>
14:00-14:15	<p style="text-align: center;"><b>Olayinka Obanewa</b>  <b>Human Development and Health</b></p> <p style="text-align: center;"><i>CHILDHOOD IMMUNISATION TRENDS IN NIGERIA: Inequalities by Wealth, Education and Residence.</i></p>	<p style="text-align: center;"><b>Akul Singhania</b>  <b>Clinical and Experimental Sciences</b></p> <p style="text-align: center;"><i>Unsupervised gene co-expression analysis identifies a novel endotype in severe asthma</i></p>

14:15-15:00	<b>POSTER SESSION 3 with Refreshments</b>	
<b>Venue</b>	<b>Lecture Theatre 1</b>	<b>Lecture Theatre 2</b>
	<b>Session 4a</b>	<b>Session 4b</b>
<b>Chair:</b>	<b>Professor Deborah Mackay</b>	<b>Professor Marie-Louise Newell</b>
15:00-15:15	<p><b>Samantha Drennan</b> Cancer Sciences</p> <p><i>The circulating CLL cells of patients on ibrutinib preserve high IgM signalling capacity while suppressing CXCR4 activity</i></p>	<p><b>Diego Ojeda Pedraza</b> Clinical and Experimental Sciences</p> <p><i>Maternal High Fat Diet (HFD) increases cell density while decreasing neuronal density in the adult offspring male brain.</i></p>
15:15-15:30	<p><b>Chester Lai</b> Clinical and Experimental Sciences</p> <p><i>Characterisation of CD8+ effector T cell dysfunction in cutaneous squamous cell carcinoma</i></p>	<p><b>Katie Packwood</b> Cancer Sciences</p> <p><i>The role of the tumour suppressor gene, TP53, in determining breast tumour subtype</i></p>
15:30-15:45	<p><b>Helen Parker</b> Cancer Sciences</p> <p><i>Non-coding Notchi mutations in Chronic Lymphocytic Leukaemia; their clinical impact in the UK CLL4 Trial</i></p>	<p><b>Anish Pandey</b> Clinical and Experimental Sciences</p> <p><i>Monitoring the in vivo, longitudinal carriage of a commensal Neisseria spp</i></p>
15:45-16:00	<p><b>Zoe Pounce</b> Clinical and Experimental Sciences</p> <p><i>Factors Influencing in vitro Transformation Efficiency of Neisseria lactamica</i></p>	<p><b>Edoardo Scarpa</b> Human Development and Health</p> <p><i>Wnt pathway activating polymeric nanoparticles for fracture localisation</i></p>
16:00- 16:15	<b>Refreshments</b>	

	<b>Published Research Prize Presentations Lecture Theatre 1</b>
<b>Chair:</b>	<b>Professor Iain Cameron, Dean, Faculty of Medicine</b>
16:15-16:30	<b>The Wessex Medical Research Prize for Best Research Publication by a Postgraduate Research Student</b> <b>Dr Agnieszka Janeczek (to be presented by Dr Nicholas Evans)</b> Human Development and Health <i>Transient Canonical Wnt Stimulation Enriches Human Bone Marrow Mononuclear Cell Isolates for Osteoprogenitors</i>
16:30-16:45	<b>The Iain Cameron Prize for Best Research Publication by a Postdoctoral Researcher</b> <b>Dr Alison Yeomans</b> Cancer Sciences <i>Engagement of the B-cell receptor of chronic lymphocytic leukemia cells drives global and MYC-specific mRNA translation</i>
16:45-17:00	<b>The Michael Arthur Prize for Best Research Publication by a Clinical Academic Trainee</b> <b>Dr Simon Fraser</b> Primary Care and Population Sciences <i>Exploration of chronic kidney disease prevalence estimates using new measures of kidney function in the Health Survey for England</i>
17.00-17.10	<b>Prize ceremony</b> <b>Professor Iain Cameron, Dean, Faculty of Medicine</b>
17.10-17.15	<b>Research Conference closing remarks</b> <b>Professor John Holloway</b>
17.15-18.15	<b>The Annual Wade Lecture 2016</b>  Professor Michael Arthur DM FRCP FMedSci PFHEA President and Provost, UCL  <i>'REF, TEF, Green Paper, Nurse and Stern; Whoops-a-Daisy'</i> Lecture Theatre 1
18.15 - 18.20	<b>Closing remarks</b> <b>Professor Sir Christopher Snowden, Vice-Chancellor</b>
18.20-19.00	The conference will be followed by a wine and canapés reception

## Poster Session 1

Poster number	Author	Title	Academic Unit
101	Andrew Douglas	Therapeutic epigenetic regulation of C9orf72 for amyotrophic lateral sclerosis and frontotemporal dememtia	Human Development and Health
102	Yawwani Gunawardana	The Utility of the Connectivity Map (CMAP) for HIV Cure Strategies	Clinical and Experimental Sciences
103	Helena Lee	Retinal development in infants and young chidlren with albinism. A potential therapeutic target?	Clinical and Experimental Sciences
104	Tracy Coelho	Rising incidence of IBD in the context of diminishing rates of H pylori infection	Human Development and Health
105	Paul Holloway	Programing minimalistic neuronal arrays using autonomous microfluidics	Cancer Sciences
106	Jade Forster	Using targeted deep sequencing technology in Chronic Lymphocytic Leukaemia	Cancer Sciences
107	Angus Prosser	Regional perfusion SPECT imaging abnormality predicts Alzheimer's disease CSF biomarker status	Clinical and Experimental Sciences
108	Hannia Almonacid-Mendoza	Biology and function of the Neisseria gonorrhoeae Adhesin Complex Protein (Ng-ACP, NGO1981)	Clinical and Experimental Sciences
109	Veronika Jenei	EGFR and $\alpha\beta6$ integrin synergistically regulate cancer cell motility	Cancer Sciences
110	Michael Head	The global state of play with pneumonia - a systematic analysis considering research funding, implementation investments alongside the global burden of disease	Clinical and Experimental Sciences
111	Nazira J Albargothy	Vascular basement membranes as pathways for the passage of fluid into and out of the brain	Clinical and Experimental Sciences
112	Arindam Banerjee	Restricted glycolysis promotes stem-cell like characterstics in breast cancer cells	Cancer Sciences
113	Shona Waddell	Can bioimprinted substrates direct skeletal stem cell osteogenic differentiation?	Human Development and Health

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Poster number	Author	Title	Academic Unit
114	Aisha Rasool	Prenatal high fat diet exposure primes offspring for increased neuroinflammation and altered hypothalamic stress markers	Human Development and Health
115	Berenice Mbiribindi	Peptide antagonism is a generalizable phenomenon to KIR2DL2/L3 positive NK cells	Clinical and Experimental Sciences
116	Alison Hill	Epithelial-fibroblast cross-talk in response to viral infection of the epithelium activates repair and remodelling responses in a co-culture model of the airway mucosa	Clinical and Experimental Sciences
117	Franco Conforti	Romidepsin (FK228) target Focal adhesion kinase (FAK) expression in lung fibrosis	Clinical and Experimental Sciences
118	Rafael Gomes	EXPLORING KEY COMPONENTS OF THE HEPATITIS C VIRUS NON-STRUCTURAL PROTEINS THAT DRIVE FORMATION OF THE REPLICATION COMPLEX	Clinical and Experimental Sciences
119	Elizabeth Lemm	Activators of the SHIP1 lipid phosphatase; a novel therapeutic strategy to suppress B-cell receptor signalling and CXCR4 expression in human B-cell cancers	Cancer Sciences
120	Joanna Gould	Maternal protein restriction around conception reduces the neural stem cells during mouse fetal brain development and alters neuronal differentiation during gestation.	Clinical and Experimental Sciences
121	Colette O'Neill	Chlamydia trachomatis from Australian Aboriginal people with trachoma are polyphyletic composed of multiple distinctive lineages	Clinical and Experimental Sciences
122	Edward Sullivan	Investigating the Role of NS5A Domain 3 in Protecting Hepatitis C Virus Proteins from Degradation	Clinical and Experimental Sciences
123	Alistair Easton	The Immunomodulatory role of the Cancer Associated Ganglioside GD2	Cancer Sciences
124	Joshua Welsh	Sizing the small, smaller and smallest: extracellular vesicles as fibrosis biomarkers in non-alcoholic fatty liver disease	Human Development and Health
126	Aravinthan Varatharaj	Developing dynamic contrast-enhanced magnetic resonance brain imaging in Southampton	Clinical and Experimental Sciences

## Poster Session 2

Poster number	Author	Title	Academic Unit
201	Charles Birts	Metabolic crosstalk between cancer cells and the surrounding stroma in oesophageal adenocarcinoma	Cancer Sciences
202	Nicola J Weston-Bell	B-cell receptor-induced down-regulation of CXCR4 expression operates via a non-canonical signaling pathway in CLL cells	Cancer Sciences
203	Alison Yeomans	Targeted inhibition of RNA translation in Chronic Lymphocytic Leukaemia	Cancer Sciences
204	María Humbert	Characterization of the <i>Neisseria meningitidis</i> - Adhesin Complex Protein: a novel lysozyme inhibitor with vaccine potential that contributes to pathogenesis	Clinical and Experimental Sciences
205	María Humbert	Truncated <i>Neisseria meningitidis</i> -Macrophage Infectivity Potentiator (Nm-MIP) protein could be considered a potential candidate for a universal meningococcal vaccine within a structural vaccinology approach	Clinical and Experimental Sciences
206	Jordana Griffiths	Defining the Structure-Function Relationship of Anti-Human OX40 Monoclonal Antibodies	Cancer Sciences
207	Emma Lofthouse	Coupling of organic anion transport to the placental glutamate gradient	Human Development and Health
208	Giedo Elamin	Development of Chandler Loop for examining thrombus formation	Human Development and Health
209	Maaikje Sybil Jongen	Screening platelet functional heterogeneity using droplet microfluidics	Cancer Sciences
210	Patience Brace	Investigating host regulatory pathways that limit immunopathology in tuberculosis.	Clinical and Experimental Sciences
211	Grace Cooper	Understanding the lung NK cell phenotype and response to influenza	Clinical and Experimental Sciences
212	Abbie Mead	The Warburg effect: Regulation of integrin endocytosis and function	Cancer Sciences

## Poster Session 2

Poster number	Author	Title	Academic Unit
213	Chloe Rose	Efficient Purification of Basophils from Blood and the Effects on Cell Function	Clinical and Experimental Sciences
214	Marios Stavrou	Microfluidic investigation of epidermal growth factor receptor activation dynamics	Cancer Sciences
215	Rosanna Smith	Fluorescent reporter variability – A tale of two alleles	Institute for Life Sciences
216	Rana Abadalkareem	Carboxypeptidase A3: a mast cell mediator with great diagnostic potential for drug-induced allergies	Clinical and Experimental Sciences
217	Mohammed Aref Kyyaly	Efficient Methods for the Purification of Mast Cell Proteases	Clinical and Experimental Sciences
218	Maria Ester Quesada del Bosque	Evaluation of the effect of bronchoconstriction on airway cellular responses in asthma	Clinical and Experimental Sciences
220	Ibrahim Salahudeen Mohammed	The potential for an allergic cause in heroin-associated deaths	Clinical and Experimental Sciences
221	Harindra Amarasinghe	Integrating epigenetics to unravel their clinical importance in Chronic lymphocytic leukemia	Cancer Sciences
222	Shmma Quraishe	Too Plastic? Characterising the perineuronal net in age-related hearing loss (ARHL).	Clinical and Experimental Sciences
223	Silvia Lanati	Immune characterisation of a spontaneous mouse model of neuroblastoma for the study of immunotherapy in a preclinical setting	Cancer Sciences
224	Christopher J Hanley	A subset of myofibroblastic cancer-associated fibroblasts regulate collagen fiber elongation, which is prognostic in multiple cancers.	Cancer Sciences

## Poster Session 3

Poster number	Author	Title	Academic Unit
301	Andrew Flower	The RUTI trial: a multi-centred, 16 week, randomised, double blind, placebo controlled, feasibility study of Chinese herbal medicine (CHM) for women with Recurrent Urinary Tract Infections (RUTIs)	Primary Care and Population Sciences
302	Stephen Lim	The Southampton Mobility Volunteer programme to increase physical activity levels of older inpatients: a feasibility study (SoMoVe)	Human Development and Health
303	Stephen Lim	Measuring physical activity of hospitalised older adults: a systematic review	Human Development and Health
304	Andy van Hateren	The mechanism by which the anti-HIV drug abacavir alters MHC class I peptide selection	Cancer Sciences
305	Fiona Howson	Trained Volunteer Mealtime Assistants in Four Different Hospital Departments: A Feasibility Study	Human Development and Health
306	Lynn N. Lansbury	Implementation of Comprehensive Geriatric Assessment in primary care: Feasibility and acceptability	Human Development and Health
307	Alexandra Jackson	Vaccine potential of outer membrane proteins of <i>Dichelobacter nodosus</i> for the prevention of ovine footrot	Clinical and Experimental Sciences
308	Hilda Hounkpatin	Identifying patients with acute kidney injury using a regional clinical database	Primary Care and Population Sciences
309	Samantha Williams	UNderstanding medical and non-medical anTibiotic prescribing for rEspiratory tract infections in primary care out of hours services: a qualitative analysis (The UNITE Study)	Primary Care and Population Sciences
310	Luke O'Gorman	Exome Analysis of Nystagmus Patients	Human Development and Health
311	Reuben J Pengelly	The Wessex Clinical Exome Pilot: a comprehensive service evaluation of focussed exome sequencing in clinical diagnostics	Human Development and Health
312	John Spreadbury	Measuring Young Onset Dementia: A Comprehensive Review of the Quantitative and Qualitative Psychosocial Research	Human Development and Health

## Poster Session 3

Poster number	Author	Title	Academic Unit
314	Mira Kreuzer	The effect of glycolytic metabolism on HIF-1 target gene expression in breast cancer cells	Cancer Sciences
315	Catherine Winstanley	Development and Evaluation of an Improved Enzyme-Linked Immunosorbent Assay for the Detection of Antibodies to Chlamydia trachomatis Plasmid-Encoded Pgp3	Clinical and Experimental Sciences
316	Rachel Ryves	Feasibility study for a randomised controlled trial of PROMs in the assessment and follow-up monitoring of patients with depression in primary care (PROMDEP) - A nested qualitative study	Primary Care and Population Sciences
317	MogibElrahamn Khedr	Vasoactive intestinal peptide (VIP) induces in vitro proliferation of human hepatocytes	Clinical and Experimental Sciences
318	Massimiliano Mellone	New role for the DNA Damage Response pathway in tumour microenvironment	Cancer Sciences
319	Ashley I. Heinson	Bacterial vaccine design using reverse vaccinology	Clinical and Experimental Sciences
320	Adam Geraghty	Internet-based vestibular rehabilitation for older adults with chronic dizziness: A randomised controlled trial in primary care	Primary Care and Population Sciences
321	Mohammed Mumtaz Naiyer	Peptide selective NK cell receptor KIR2DS2 for <i>Flaviviridae</i> viruses.	Clinical and Experimental Sciences
322	Manjunath Hegde	Profiling Cellular Interaction Potentials from the Tumour Microenvironment	Cancer Sciences
323	Matthew Loxham	Allergenic proteases directly cleave the chemokine CX3CL1 from the surface of airway epithelium, augmenting rhinovirus infection	Clinical and Experimental Sciences
324	Claire Simner	Placental uptake and metabolism of vitamin D	Human Development and Health
325	Ingrid Muller	Digital interventions for people with low health literacy: using the Person-Based Approach to enhance engagement.	Primary Care and Population Sciences