

### **PhD Day Symposium**

Thursday 13 July 2017

**Talks:** William Harvey Lecture Theatre, University of Cambridge School of Clinical Medicine

**Poster session:** Seminar Rooms, University of Cambridge School of Clinical Medicine

#### **Talk Schedule**

Session 1		
09:40	Alisa Molotova, CSCI PhD rep	Franklin/Chalut
	Welcome	
09:45	Dr Alessandro Serra	Abcam
	Multiplexing done easy: Detect miRNA or proteins directly from crude samples with Fireplex	
09:55	Stanley Strawbridge	Smith
	Session introduction	
10:00	Moosa Qureshi	Göttgens
	Cellular Model of CEBPA N321D aims to capture Gene Expression Profile in the Transition to Pre-Leukaemic Status	
10:15	Olivia Harris	Watson
	Un(MaSC)ing mammary gland development: combining novel lineage tracing and 3D imaging for studying mammary stem cells	
10:30	Claudia Pama	Káradóttir
	Myelination during development and learning	
10:45	Anastasiya Sybirna	Surani
	Exploring transcriptional regulators of human germ cell fate	
11:00	Madeline McNamara	Sinha
	Development of potential therapeutic strategies for Marfan Syndrome using a human iPSC-derived <i>in vitro</i> disease model	
11:15	Coffee break	
	Session 2	
11:40	Dr Rebecca Jones	SCI Public Engagement
	Public Engagement – ways to get involved	
11:50	Eugene Park	Ringshausen
	Session introduction	
11:55	Serena Belluschi	Laurenti
	Molecular regulation of quiescence exit within the heterogeneous human LT-HSC compartment	
12:10	Lucia Cordero Espinoza	Huch
	Stromal regulation of facultative progenitors in the regenerating liver	
12:25	Dr Brian Huntly	
	Introduction to External Speaker	
12:30	Professor Margaret Goodell - External Speaker	Baylor College
	Immortal Stem Cells and their Epigenetic Regulation	of Medicine, Texas
13:30	Lunch Buffet	

Session 3		
14:15	Julia Spindel	Reik
	Session introduction	
14:20	Anna Albiero	McCaskie
	Cartilage progenitor cells: study of DACTs proteins in human articular cartilage	
14:35	Rebecca Caeser	Hodson
	Functional mutation screening using CRISPR in germinal centre malignancies	
14:50	Fiona Hamey	Göttgens
	Modelling the transcriptional landscape of haematopoiesis	
15:05	Michael Segel	Franklin
	Contextualising OPC Ageing	
15:20	Coffee break	
	Session 4	
15:45	Cora Olpe	Winton
	Session introduction	
15:50	Ludovica Di Canio	Franklin
	Regulation of oligodendrocyte lineage cell progression by the RXRγ nuclear receptor	
16:05	Caroline Oedekoven	Kent
	Characterisation of fate choice regulators in single mouse haematopoietic stem cells	
16:20	Giovanni Canu	Vallier
	Cell-cycle dependent mechanisms controlling differentiation of haematopoietic stem cells	
16:35	Amanda Collier	Rugg-Gunn
	Comprehensive Cell Surface Protein Profiling Identifies Specific Markers	
10.50	of Human Naive and Primed Pluripotent States	
16:50	End of talks	
17:00	Closed PI meeting	
17:00	Poster session, with refreshments	
18:30	Talk and poster winners announced	



#### **Poster List**

1	Theresa Bartels	Rowitch
	Systematic Characterisation of Astrocyte Heterogeneity in the Mouse Forebrain	
	by RNAscope	
2	Lawrence Bates	Silva
	Developing new methods to study the role of Oct4 in pluripotency	
3	James Baye	Chalut
	The thermodynamics of stem cell fate transitions: single-cell and collective dynamics	
4	Francesca Beaton	McCaskie
	The Bone Marrow Niche and its Manipulation for Cartilage and Bone Repair	
5	Daniel Bode	Kent
	Characterisation of protein networks driving haematopoietic stem cell fate choice	
6	Jan Botthof	Cvejic
	Loss of the homologous recombination gene rad51 leads to Fanconi anemia-like	
	symptoms in zebrafish	
7	Aracely Castillo Venzor	Surani
	Decoding the early cell state transitions during primordial germ cell specification	
8	Amanda Dalby	Ghevaert
	An Inducible Human iPSC Line for the Scaling up of Megakaryocyte and	
	Platelet Production in vitro for Transfusion Medicine	
9	Charlene Fabian	Rugg-Gunn
	Polycomb-Group Proteins in Human Pancreatic Cell Differentiation	
10	Sophie Frankham-Wells	McCaskie
	The interaction of a blood subpopulation and MSCs in hypoxia	
11	Nikoletta Gkatza	Frye
	Post-transcriptional RNA methylation affects protein translation and response to stress	
12	Myfanwy Hill	Franklin
	Imaging Demyelination in the CNS	
13	Wajid Jawaid	Göttgens
	Deep learning models of bifurcating developmental journeys from single-cell	
	transcriptomic data can make accurate predictions of gene perturbations	
14	Timo Kohler	Chalut
	Cells in Gels: Multi germ layer differentiation of clonal embryonic stem cells in	
	biomimetic microgels	
15	Tim Lohoff	Nichols/Reik
	Mechanisms of lineage commitment during exit from pluripotency in vivo	
16	Ludovica Marando	Huntly
	The role of the DNMT3A mutation in the subversion of normal Haematopoietic Stem Cell	
	function and generation of preleukaemia	

17	Jamie McGinn	Alcolea
	Epithelial stem cell fate plasticity in health and disease; a mouse oesophageal model	
18	Chris McMurran	Franklin
	Remyelination in germ-free mice	
19	Alisa Molotova	Franklin/Chalut
	Dynamic interplay between ageing OPCs and their surrounding microenvironment	
20	Sam Myers	Smith
	Determining the signalling pathways that govern naive human pluripotency	
21	Cora Olpe	Winton
	Investigating the Cancer Chemopreventive Effect of Aspirin	
22	Anna Osnato	Vallier
	Transcriptional networks variations during cell cycle progression in human embryonic	
	stem cells	
23	Luca Peruzzotti-Jametti	Pluchino
	Transplanted induced neural stem cells ameliorate experimental autoimmune	
	encephalomyelitis by metabolic reprogramming of mononuclear phagocytes	
24	Blanca Pijuan-Sala	Göttgens
	eRNAs: a potential proxy for enhancer state during blood differentiation at the	
	single-cell level	
25	Alexander Ross	Vallier
	Development of gut location and developmental stage specific iPSC derived human	
	intestinal epithelial organoids for use in disease modelling, drug discovery and	
	autologous cell therapy	
26	Antonella Santoro	Ringshausen
	Hematopoietic niche remodelling in B cell malignancies	
27	Vijitha Sathiaseelan	Ringshausen
	Characterization of ZAP70 mediated signaling pathways in distinct cellular compartments	
	in Chronic Lymphocytic Leukaemia.	
28	Kirsten Scott	Barker
	B lymphocytes in Parkinson's Disease	
29	Mairi Shepherd	Kent
	Single cell approaches identify the molecular network driving malignant haematopoietic	
	stem cell self-renewal	
30	Elsa Sousa	Silva
	Investigating the link between naïve cell identity and X-inactivation	
31	Julia Spindel	Reik
	The role and regulation of UHRF1 during epigenetic reprogramming	
32	Samantha Tilson	Vallier
	Induced Pluripotent Stem Cell Derived Model for the Study of Non-alcoholic	
	Steatohepatitis and Hepatitis C Virus	

The Role of Sox2 in Induced  Christophe Verstreken	d Pluripotency ects mechanotransduction pathways and the pluripotency	Chalut
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Cell substrate stretching aff		
network in ES cells		
35 Sam Watcham		Göttgens
Modelling Haematopoiesis i	n Health and Disease across Different Scales	
36 Brandon Wesley		Vallier
Single-cell analysis of prima	ary human hepatocytes for improved maturation and population	
heterogeneity of iPSC-deriv	ed hepatocytes	
37 Bao Xiu Tan		Chalut
The roles of mechanotranso	duction in pluripotency and cell fate decisions	
38 Loukia Yiangou		Sinha/Vallier
Control of mesoderm specif	ication by cell cycle regulators	

Notes	



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