

**British Society for Cell Biology
British Society for Developmental Biology**

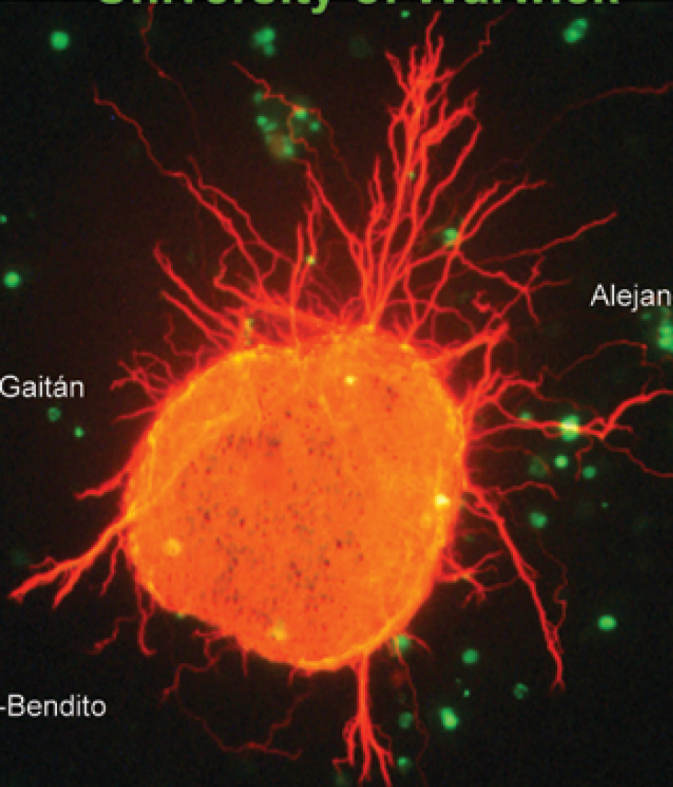
Joint Spring Meeting

16 - 19 March 2014

University of Warwick

Detlev Arendt
Clare Baker
Cedric Blanpain
James Briscoe
Peter Campbell
Peter Cullen
Jon Clarke
Simon Cook
Caroline Dean
John Dick
Evan Eichler
Marcos González-Gaitán
Magdalena Götz
Sarah Guthrie
Kat Hadjantonakis
Edith Heard
Nickolas Kent
Peter Kind
Pierre Léopold
Ottoline Leyser
Guillermina López-Bendito
Ilaria Malanchi
Denise Montell

Keith Mostov
W. James Nelson
Ewa Paluch
KJ Patel
Matthias Peter
Emma Rawlins
Margaret Robinson
Iñaki Ruiz-Trillo
Alejandro Sánchez Alvarado
Yoshiki Sasai
Anne Spang
Didier Stainier
Molly Stevens
Daniel St Johnston
Shahragim Tajbakhsh
Giuseppe Testa
Jerrold Turner
Scott Waddell
Will Wood
Sarah Woolner
Jerry Workman
Gregory Wray



Plenary lectures by:

James Rothman and Janet Rossant

Topics include:

Cancer, Cell Signalling, Building bodies, Epigenetics and Chromatin Structure, Epithelial Development and Disease, Live Imaging of Cell Motility and Morphogenesis, Membrane Trafficking, Neurodevelopment and Disease, Organ Stem cells


Scientific Organisers: Andrew Chalmers, Lynda Erskine, Adrian Harwood, Jordan Raff

www.bscb-bsdb-meetings.co.uk

BSCB/BSDB Joint Spring Meeting – Final Programme 2014

Sunday 16th March, 2014

14.00 – 16.00	BSDB/BSCB Committee Meetings – Ensemble (BSDB) and Studio (BSCB) – Arts Centre	
14.00 – 18.00	Registration – Students Union Building	
15.00 – 16.30	Workshops-(Alternative) Careers in Science	
16.30 – 18.00	Graduate Symposium – Chair: Phil Ingham,	
16.30 – 16.45	01 - P Ovando-Roche , Imperial College, London TRF2-mediated REST4 stability is critical for differentiation and maintenance of neural progenitors	
16.45 – 17.00	02 - M Malaguti , University of Edinburgh, Edinburgh The maintenance of E-cadherin expression by BMP inhibits the differentiation of pluripotent cells	
17.00 – 17.15	03- RJ Tetley University of Cambridge, Cambridge Mechanisms for maintaining the integrity of tissue boundaries during polarised cell intercalation	
17.20 – 17.25	FT01 - ZA Novak , University of Oxford, Oxford Asterless provides a primary licence that allows centrioles to duplicate for the first time	
17.25 – 17.30	FT02 - MF Ford , Institute of Genetics and Molecular Medicine, Edinburgh Development and characterisation of a global Cre-inducible cell cycle reporter mouse	
17.30 – 17.35	FT03 - RL Carr , Kings College, London Fate Choice in the Cranial Neural Crest	
17.35 – 17.40	FT04 - EJ Johnson , Roslin Institute, Edinburgh The Measure of a Morphogen - Limb SHH in Mammalian and Avian Species	
17.40 – 17.45	FT05- E Mansell , University of Bristol Signalling from the Placenta to the Foetus: A Cause of Childhood Leukaemia?	
17.45 – 17.50	FT06 - SJ Fleenor , University of Oxford, Oxford Distinct expressions and functions of isoforms of Regulator of G protein Signalling 3 throughout neuronal maturation	
18.00 – 19.30	Dinner – Rootes Building	
19.30 – 20.30	PL01 Plenary Lecture Janet Rossant – The Hospital for Sick Children, University of Toronto, Canada Making the mouse blastocyst	Main Lecture Theatre
20.30 – 21.30	PL02 Garland Plenary Lecture Kai Simons - Max Planck Institute of Molecular Cell Biology and Genetics, Dresden Cell Membranes : Subcompartmentalization driven by phase separation	Main Lecture Theatre
21.30 onwards	Student and Post Doc Social/Drinks Reception: Panorama Suite	

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Monday 17th March, 2014

07.30 – 20.00	Registration – Arts Centre	
08.00 – 09.00	Joint Officers' Meeting	
Session 1:	NEURO DEVELOPMENT AND DISEASE Main Lecture Theatre Chair: Corinne Houart - Kings College London	MEMBRANE TRAFFICKING Woods-Scawen Lecture Theatre Chair: Francis Barr – University of Oxford
09.00 – 09.30	S01 Evan Eichler – University of Washington, USA New Mutations in Autism Genes identify Neurodevelopmental Pathways	S06 Pierre Leopold – Institut de Biologie Valrose, France Studying growth control in flies: from developmental regulations to neoplasms
09.30 – 10.00	S02 Guillermina López-Bendito – CSIC & Universidad Miguel Hernández, Spain Wiring the thalamocortical system: from axon guidance to plasticity	S07 Anne Spang – University of Basel, Switzerland The prion domain in the exomer-dependent cargo Pin2p serves as a trans-Golgi retention motif
10.00 – 10.30	S03 Sarah Guthrie - Kings College London Alpha2-chimaerin in normal and abnormal development of the ocular motor system	S08 Margaret Robinson – University of Cambridge Machinery for making coated vesicles
10.30 – 11.00	Refreshment Break and Exhibition Viewing Time	
11.00 – 11.30	S04 Scott Waddell – University of Oxford Bending the not so simple mind of the fruit fly	S09 Peter Cullen – University of Bristol Phosphoinositide-mediated cargo sorting through the endocytic network in health and disease
11.30 – 11.45	O4 D Mi - University of Edinburgh, Edinburgh Pax6 exerts regional control of cortical progenitor proliferation via direct repression of Cdk6 and hypophosphorylation of Rb	O6 G Zanetti – Birkbeck College, London Structure of the COPII vesicle coat assembled on tubular membranes by cryo-electron tomography
11.45 – 12.00	O5 MA Basson – Kings' College, London Deregulated FGF and homeobox gene expression underlies cerebellar vermis hypoplasia in CHARGE syndrome	O7 J King – University of Sheffield, Sheffield Multiple roles and regulation of WASH in lysosomal digestion
12.00 – 12.30	S05 Peter Kind – University of Edinburgh Convergence of synaptic pathophysiology in genetically divergent forms of developmental disorders	S10 James Nelson – Stanford University, USA Regulation of Protein Trafficking in the Primary Cilium
12.30 – 14.30	Lunch and Posters/Exhibition Viewing Time Mead Gallery, Arts Centre Odd number posters to be displayed 13.00 – 13.30 Use of bDNA for multiplex RNA measurements in Flow Cytometry – speaker – Paul Turner	
Session 2:	CANCER Main Lecture Theatre Chair: CHAIR: Steve Jackson – University of Cambridge	BUILDING BODIES – Woods-Scawen Lecture Theatre evolution and formation of multicellular systems Chair: Jim Haseloff – University of Cambridge
14.30 – 15.00	S11 John Dick – Princess Margaret Cancer Centre, University Health Network, Canada Genetic and non-genetic mechanisms contribute to longterm clonal growth dynamics and therapy resistance	S16 Detlev Arendt - EMBL, Germany Evolution of non-visual light perception and of melatonin signalling
15.00 – 15.30	S12 Luis Parada - University of Texas Southwestern Medical Center Glioma Stem Cells and Cancer	S17 Iñaki Ruiz-Trillo – Institut de Biologia Evolutiva, Spain Unicellular lineages to understand the origin of metazoan multicellularity: a genomics and cell biology perspective
15.30 – 16.00	S13 K J Patel - LMB, University of Cambridge	S18 Yoshiki Sasai – RIKEN Center for Developmental Biology, Japan Self-organization of neural patterns and structures in 3D culture of stem cells
16.00 – 16.30	Refreshment break and Exhibition Viewing Time	
16.30 - 17.00	S14 Peter Campbell – Sanger Institute, University of Cambridge Interrogating the architecture of cancer genomes	S19 Clare Baker – University of Cambridge The Development and Evolution of Vertebrate Electoreceptors
17.00 – 17.30	S15 Ilaria Malanchi - London Research Institute, London Metastatic initiating cells and their context	17.00 – 17.15 O8 S Dietrich – University of Portsmouth, Portsmouth Evolutionarily conserved morphogenetic movements at the vertebrate head-trunk interface control hypopharyngeal organ assembly 17.15 – 17.30 O9 AP McGregor – Oxford Brookes University, Oxford The eyes have it: Characterisation of the genetic basis of differences in eye size between <i>Drosophila</i> species
17.30 – 18.30	M01 Hooke Medal Talk – Anne Bertolotti Main Lecture Theatre Misfolded proteins: Prion like propagation and potential cure	
18.30 – 20.00	Dinner – Rootes Building	
20.00 – 21.00	M02 Waddington Medal Talk – Invited Speaker Main Lecture Theatre	
21.00 – 22.30	Drinks Reception and poster viewing - Mead Gallery Arts Centre	



Tuesday 18th March, 2014

08.00 – 18.00	Registration – Arts Centre	
Session 3:	EPIGENETICS & CHROMATIN STRUCTURE Main Lecture Theatre Chair: Andrew Ward – Imperial College, London	EPITHELIAL DEVELOPMENT AND DISEASE Woods-Scawen Lecture Theatre Chair: Karl Matter – University College London
09.00 – 09.30	S20 Mandy Fisher - MRC Clinical Sciences Centre, Imperial College Human X chromosome reactivation by cell fusion reprogramming	S25 Keith Mostov – University of California School of Medicine, San Francisco A molecular switch for the control of orientation of epithelial polarity
09.30 – 10.00	S21 Giuseppe Testa – European Institute of Oncology, Milan Disease Avatars: Epigenetic reprogramming and the rise of human disease models	S26 Jerrold Turner – The University of Chicago Mechanistic approaches to mucosal barrier restoration and therapeutic interventions
10.00 – 10.30	S22 Nick Kent – University of Cardiff Sequencing chromatin structure	S27 Didier Stainier – Max-Planck-Gesellschaft, Germany Imaging organ formation and function in zebrafish
10.30 – 11.00	Refreshment break and Exhibition Viewing Time	
11.00 – 11.30	S23 Lars Hennig – Swedish University of Agricultural Sciences, Sweden Variations on a theme - Polycomb group proteins in plant development	S28 Sarah Woolner – University of Manchester Regulation of cell division orientation during epithelial morphogenesis
11.30 – 11.45	O10 SM Cowley – University of Leicester, Leicester Histone Deacetylase (HDAC) 1 and 2 are essential for accurate cell division and the pluripotency of embryonic stem cells	O12 A Grapin-Botton – University of Copenhagen, Copenhagen 3-D live imaging and clonal analysis reveal asymmetric and symmetric emergence of endocrine progenitors in the developing pancreas
11.45 – 12.00	O 11H Dodson – National University of Ireland, Galway H2AX provides a responsive chromatin environment in human cells	O13 J Connolly – Queen Mary University, London Cooperation between actin and keratin networks regulates nuclear mechanotransduction
12.00 – 12.30	S24 Jerry Workman - Stowers Institute for Medical Research, USA Histone modification and exchange during transcription: Signals and Mechanisms	S29 Daniel St Johnston – The Gurdon Institute, University of Cambridge The role of spindle orientation in maintaining epithelia integrity
12.30 – 14.30	Lunch and Poster/Exhibition Viewing Time – Mead Gallery, Arts Centre Even number posters to be displayed	
Session 4:	ORGAN STEM CELLS Main Lecture Theatre Chair: Janet Rossant – University of Toronto	CELL SIGNALLING Woods-Scawen Lecture Theatre Chair: Caroline Hill – London Research Institute, CRUK
14.30 – 15.00	S30 Alejandro Sánchez Alvarado – Stowers Institute for Medical Research, USA Stem Cells and the Reproductive Plasticity of Planarians	S35 Marcos Gonzalez-Gaitan – University of Geneva, Switzerland Growth control by time derivatives of morphogen signaling
15.00 – 15.30	S31 Molly Stevens – Imperial College London Exploring and engineering the cell-material interface	S36 Matthias Peter – ETH Zurich, Switzerland Function and regulation of cullin-based E3 ubiquitin ligases.
15.30 – 16.00	S32 Shahragim Tajbakhsh – Pasteur Institute, France Molecular and lineage relationships of muscle stem cells during development and regeneration	S37 James Briscoe - NIMR, London Gene regulatory logic of Shh morphogen pattern formation
16.00 – 16.30	Refreshment Break and Exhibition Viewing Time	
16.30 – 17.00	S33 Magdalena Götz – Helmholtz Zentrum München, Germany New molecular factors regulating neural stem cell differentiation	S38 Ottoline Leyser – University of Cambridge Plant developmental plasticity: How hedges hedge their bets
17.00 – 17.15	O14E Piddini – Gordon Institute, Cambridge Active cell competition selects fit stem cells and their progeny in adult homeostatic tissues	O16 S Kermorgant - QMUL, London Receptor Tyrosine Kinase c-Met control of the cytoskeleton: different endosomes, different pathways
17.15 – 17.30	O15M V Taylor – Cardiff University, Cardiff Progenitor cells and remodelling in the Drosophila muscle differentiation program	O17 M Bischoff – University of Cambridge, Cambridge Cytonemes are required for the establishment of a normal Hedgehog morphogen gradient in <i>Drosophila</i>
17.30 – 18.00	S34 Emma Rawlins – The Gurdon Institute, University of Cambridge Airway Epithelial Stem Cells in Homeostasis	S39 Simon Cook – The Babraham Institute, University of Cambridge Changes in signalling pathways that underpin acquired resistance to new targeted cancer therapeutics
18.00 – 19.30	BSDB AGM - Main Lecture Theatre	BSCB AGM - Woods-Scawen Lecture Theatre
20.00 onwards	Conference Dinner – Panorama Suite	

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Wednesday 19th March, 2014

08.00 – 12.00	Registration – Arts Centre	
	LIVE CELL IMAGING/CELL MOTILITY/MORPHOGENESIS Main Lecture Theatre Chair: Rob Cross – University of Warwick	
09.00 – 09.30	S40 Ewa Paluch – MRC Laboratory for Molecular Cell Biology, University College London Biomechanics of cell migration in confinement	
09.30 – 10.00	S41 Jon Clarke – King's College London Cell remodelling during neural tube development in the zebrafish	
10.00 – 10.30	M03 Beddington Medal Talk – William Razzell Studies of Wound Inflammatory Calcium Signalling and Mechanical Forces During Wound Healing in Drosophila	Main Lecture Theatre
10.30 – 11.00	Refreshment Break	
11.00 – 11.30	S42 Denise Montell - Johns Hopkins School of Medicine, USA Mechanical feedback through E-cadherin amplifies guidance signaling in collective border cell migration	
11.30 – 12.00	S43 Will Wood – University of Bath Inflammatory macrophage migration in Drosophila	
12.00 – 12.30	S44 Kat Hadjantonakis – Sloan-Kettering Institute, USA Guts and gastrulation: cell dynamics and the morphogenesis of the early mouse embryo	
12.00 – 14.30	Lunch & delegates depart	