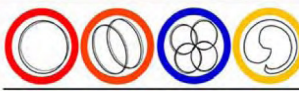


**BSCB****BSDB**

Celebrating the 10th Anniversary of the first draft of the human genome

# British Society for Cell Biology & British Society for Developmental Biology **Joint Spring Meeting**

**12-15 April 2010**

**University of Warwick**

Peter Andrews  
Richard Behringer  
Adrian Bird  
Marty Cohn  
Kevin Eggan  
Anne Ferguson Smith  
Amanda Fisher  
Peter Fraser  
Eileen Furlong  
Isabella Graef  
Alex Joyner  
Bob Kingston  
Birgit Lane  
Ihor Lemischka  
John Lis  
Sylvie Mazan  
Alex Meissner  
Jan van Minnen  
Eric Miska

**Plenary Lectures  
from Elaine Fuchs  
and Mike Levine**

*Topics include post-genomic approaches to:  
ES/iPS Cell Biology & Regenerative Medicine,  
Limb Development, Intracellular Transport,  
Disease Models & Mechanisms, Epigenetics,  
Signalling Pathways, Evolution,  
Regulation of Gene Expression*

**Scientific Organisers:**

Paul Andrews, Josh Brickman,  
Elizabeth Fisher and Kate Lewis

Christine Mummery  
Jennifer Nemhauser  
Lee Niswander  
Nipam Patel  
Roger Patient  
Geoff Raisman  
Giampetro Schiavo  
William Skarnes  
Austin Smith  
Beate Sodiek  
Colin Stewart  
Max Telford  
Cheryll Tickle  
Jeff Twiss  
Kristin Tessmar-Raible  
Jean-Paul Vincent  
Marion Walhout  
Fiona Watt  
Melanie Welham  
Emma Whitelaw  
Rolf Zeller

**website: [www.bscb-bsdb-2010.co.uk](http://www.bscb-bsdb-2010.co.uk)**

Painting of Gregor Mendel by Rosa Beddington

# BSCB/BSDB Joint Spring Meeting - Programme 2010

## Monday 12<sup>th</sup> April

1300–1430	BSCB/BSDB Joint Officers' Meeting (Ensemble Room)	
1430–1830	BSDB committee meeting (Ensemble Room)	BSCB committee meeting (National Grid Room)
1600–1800	<b>Graduate Symposium</b> - Social Sciences O21(Chair: Cheryll Tickle) Presentations from Poster numbers P86, P101 and P137	
1800–1930	<b>Dinner</b>	
1930–2030	<b>MAIN THEATRE - BSDB Plenary Lecture</b> <b>PL1 Mike Levine, University of California, USA</b> Transcriptional precision in the Drosophila embryo	
2030–2130		<b>MAIN THEATRE - BSCB Garland Plenary Lecture</b> <b>PL2 Elaine Fuchs, The Rockefeller University, New York, USA</b> Skin Stem Cells and Niche Interactions in Morphogenesis and Cancer

## Tuesday 13<sup>th</sup> April

<b>Session 1:</b>	<b>BSDB - Limb Development: Classical Development in a post-genomic era</b> (Chair: Cheryll Tickle) <b>Main Theatre</b>	<b>BSCB - Stem Cell Biology</b> (Chair: Peter Andrews) <b>Cinema</b>
0900–0930	<b>S1</b> Cheryll Tickle (chair), University of Bath, UK Genomic and computational approaches to studying digit pattern formation in chick wing development	<b>S5</b> Ihor Lemischka, Mount Sinai School of Medicine, New York, USA Pluripotency
0930–0945	<b>O1</b> FA Sulaiman - The role of <i>Tbx5</i> in the symmetrical initiation of the right and left forelimb	<b>O3</b> MB Bonsall - Phenotypic evolutionary models in stem cell biology
0945–1015	<b>S2</b> Marty Cohn, University of Florida, USA Sexual Differentiation of Genitalia and Limbs: Integrating Local and Global Signals During Pattern Formation	<b>S6</b> Austin Smith, University of Cambridge, UK Intrinsic and Extrinsic Regulation of the Pluripotent Ground State <b>Sponsored by The Company of Biologists</b>
1015–1045	<b>Refreshment Break and Exhibition Viewing Time</b>	
1045–1115	<b>S3</b> Rolf Zeller, University of Basel, Switzerland A Self-Regulatory and Robust Morpho-Regulatory System controls Initiation, Progression and Termination of Mouse Limb Bud Development	<b>S7</b> Geoff Raisman, UCL Institute of Neurology, UK Regeneration of Nervous System
1115–1130	<b>O2</b> MK Mason - Of <i>Meis</i> and Bats: Exploring the Limb Transcriptome of the Developing Bat	<b>O4</b> F Hammachi - The function of PouV proteins in maintaining pluripotency and ES cell self-renewal
1130–1200	<b>S4</b> Richard Behringer, University of Texas, USA Assessing Comparative Genetic Information in the Mouse	<b>S8</b> Christine Mummery, Leiden University Medical Center, Netherlands Cardiovascular derivatives of pluripotent stem cells in cardiac repair, drug discovery and disease
1200–1400	<b>Lunch and Exhibition Viewing Time</b> <b>Lunchtime Workshop: Possible Routes to Academic Careers in Science</b> (Social Sciences O21) <b>Cyntellect Europe Ltd Lunchtime Seminar</b> (Main Theatre)	
<b>Session 2:</b>	<b>BSDB - Interactions of signalling pathways</b> (Chair: Roger Patient) <b>Cinema</b>	<b>BSCB - Genome and disease</b> (Chair: Elizabeth Fisher) <b>Main Theatre</b>
1400–1430	<b>S9</b> Roger Patient, Oxford University / John Radcliffe Hospital, UK Programming blood stem cells during embryonic development	<b>S13</b> Eric Miska, University of Cambridge, UK The complex life of small RNA
1430–1445	<b>O5</b> L Gunhaga - Temporal separated or simultaneous exposure of Wnt and BMP signals directs the choice between neural plate border and epidermal fate	<b>O7</b> C Neves - Retinal degeneration in the clubfoot mouse
1445–1515	<b>S10</b> Lee Niswander, University of Colorado, USA Gene Interactions and Environmental Influences in Neural Tube Closure	<b>S14</b> Colin Stewart, Institute of Medical Biology, Biopolis, Singapore The nuclear envelope/lamina regulates Wnt signaling in premature aging (progeria)
1515–1545	<b>Refreshment break and Exhibition Viewing Time</b>	
1545–1615	<b>S11</b> Jennifer Nemhauser, University of Washington, USA Information Processing during Early Seedling Development	<b>S15</b> Amanda Fisher, Imperial College London, UK The Roles of Polycomb-group proteins in Pluripotency and Reprogramming
1615–1630	<b>O6</b> S Gibb - Interfering with Wnt Signalling alters the Periodicity of the Segmentation Clock	<b>O8</b> N Brison - A G11A mutation N-terminal to the polyalanine tract in HOXD13 causes limb malformations by altering both the stability and the DNA-binding functions of HOXD13
1630–1700	<b>S12</b> Alex Joyner, Sloan-Kettering Institute, New York, USA The Engrailed homeobox genes are master regulators of 3D organization of cerebellum morphology, gene expression and circuitry	<b>S16</b> Alex Meissner, Harvard University, USA Epigenetic reprogramming and cellular states
1710–1800		<b>Announcement of BSCB Science Writing Prize</b> <b>M1 BSCB: Hooke Medal</b> - The beginning and the end of the cell cycle Karim Labib, Senior Group Leader, Paterson Institute, Manchester, UK
1800–1900	BSDB AGM	BSCB AGM
1900–2030	<b>Dinner</b>	
2000–2230	<b>Poster Session and Exhibition Viewing Time</b>	

### Wednesday 14<sup>th</sup> April

<b>Session 3:</b>	BSDB - Genomic Approaches to Developmental Biology: Achievements and Challenges (Chair: Eileen Furlong)	BSCB - Cellular mechanisms of disease (Chair: Jeff Twiss)
	<b>Main Theatre</b>	<b>Cinema</b>
0900–0930	<b>S17</b> Eileen Furlong, EMBL, Heidelberg, Germany Making global predictions of <i>cis</i> -regulatory activity	<b>S21</b> Birgit Lane, University of Dundee, UK Keratin mutations in skin fragility disorders
0930–0945	<b>O9</b> JHL Hui - Evolution of expression and function of an ancient Hox complex miRNA	<b>O11</b> HJ Selvadurai - What role does canonical Wnt signalling play in development and tumorigenesis of the cerebellum?
0945–1015	<b>S18</b> Bob Kingston, Massachusetts General Hospital / Harvard Medical School, USA Nucleosome occupancy and regulation of Hox expression in human ES cell lineages	<b>S22</b> Adrian Bird, University of Edinburgh, UK The Dinucleotide CpG as a genomic signalling module
1015–1045	<b>Refreshment Break and Exhibition Viewing Time</b>	
1045–1115	<b>S19</b> William Skarnes, Wellcome Trust Sanger Institute, UK A conditional knockout resource for genome-wide analysis of mouse gene function	<b>S23</b> Giampietro Schiavo, Cancer Research UK, London Research Institute, UK Controlling neurotrophin receptor traffic and signalling in neuronal differentiation and survival
1115–1130	<b>O10</b> E Magny - Search for genes with small Open Reading Frames in the Drosophila genome	<b>O12</b> G Dixon - Individual cell tracking in a transgenic zebrafish inflammation model reveals a range of neutrophil fates in vivo
1130–1200	<b>S20</b> Marion Walhout, University of Massachusetts Medical School, USA Gene-centered regulatory networks	<b>S24</b> Isabella Graef, Stanford Medical School, USA Destabilization of the NFAT Circuit in Human Down Syndrome
1200–1400	<b>Lunch and Exhibition Viewing Time</b>	
	<b>Lunchtime Workshop: Genomic Science in the Future: Impacts of new sequencing methods and where do we go from here?</b> (Social Sciences O21)	
<b>Session 4:</b>	BSDB - Mechanisms of Gene Regulation (Chair: Mike Levine)	BSCB - Macromolecular Complexes and transport (Chair: Giampietro Schiavo)
	<b>Cinema</b>	<b>Main Theatre</b>
1400–1430	<b>S25</b> John Lis, Cornell University, New York, USA New Views of Transcription Activation	<b>S28</b> Jeff Twiss, Drexel University, Philadelphia, USA Regulating RNA transport into regenerating axons
1430–1445	<b>O13</b> NS Patel - Chromatin re-organisation during neural differentiation in the mouse embryo	<b>O15</b> P Whitley - Constitutive recycling of claudin proteins is disrupted by perturbation of ESCRT and PIKfyve dependent endocytic pathways
1445–1515	<b>S26</b> Anne Ferguson Smith, University of Cambridge, UK Genomic imprinting as an adaptive model of developmental plasticity	<b>S29</b> Beate Sodeik, Hannover Medical School, Germany Recruitment of Microtubule Motors by Capsids of the human neurotropic Herpes Simplex Virus
1515–1545	<b>Refreshment Break and Exhibition Viewing Time</b>	
1545–1615	<b>S27</b> Peter Fraser, The Babraham Institute, Cambridge, UK Preferential associations between co-regulated genes reveal a transcriptional interactome	<b>S30</b> Jean-Paul Vincent, NIMR, MRC, London, UK Activation of apoptosis in response to the loss of apical determinants in the embryonic epidermis of Drosophila
1615–1630	<b>O14</b> RG Jenner - Short RNAs are transcribed from repressed Polycomb target genes and interact with Polycomb Repressive Complex-2	<b>O16</b> S McHarg - How are desmosomes down-regulated?
1630–1700	<b>M2 BSDB Beddington Medal Talk</b> - The molecular regulation of centriole duplication Naomi Stevens, Sloan-Kettering Institute, New York, USA	<b>S31</b> Jan van Minnen, University of Calgary, Canada Schwann cells transfer Polyribosomes to injured and regenerating axons
1700–1800	<b>Waddington Medal (Main Theatre)</b>	
<b>1800–1930</b>	<b>Poster Session and Exhibition Viewing Time</b>	
1930	<b>Conference Dinner</b>	

### Thursday 15<sup>th</sup> April

<b>Session 5:</b>	BSDB - Evolution and Development: Genomes and Beyond (Chair: Nipam Patel)	BSCB - iPS cells and regenerative medicine (Chair: Paul Andrews)
	<b>Main Theatre</b>	<b>Cinema</b>
0900–0930	<b>S32</b> Nipam Patel, University of California, USA Developmental Insights from the Study of Newly Emerging Model Species <b>Sponsored by The Company of Biologists</b>	<b>S36</b> Peter Andrews, University of Sheffield, UK Human Embryonic Stem Cells: Commitment, Adaptation and Cancer <b>Sponsored by Abcam</b>
0930–0945	<b>O17</b> B Steventon - Gbx2 and Otx2 form a functional boundary within the pre-placodal region of vertebrate embryos	<b>O19</b> TA Heanue - SOX2 as a means to identify and isolate enteric nervous system progenitor cells
0945–1015	<b>S33</b> Sylvie Mazan, CNRS-Université, Paris 6, Roscoff, France Origin of extraembryonic tissues in jawed vertebrates: insights from the dogfish	<b>S37</b> Melanie Welham, University of Bath, UK Signaling pathways regulating cell fate of pluripotent stem cells
1015–1045	<b>Refreshment Break and Exhibition Viewing Time</b>	
1045–1115	<b>S34</b> Kristin Tessmar-Raible, University of Vienna, Austria Lunar Clocks in Ancient Cell Types	<b>S38</b> Fiona Watt, Cambridge University, UK The epidermal stem cell microenvironment
1115–1130	<b>O18</b> T Takahashi - An EST screen from the annelid <i>Pomatoceros lamarckii</i> reveals patterns of gene loss and gain in animals	<b>O20</b> VV Ganeva - Using developmental biology for studying stem cell differentiation and tissue engineering of kidney structures
1130–1200	<b>S35</b> Max Telford, University College London, UK What have we learned about animal evolution from two decades of molecular phylogenetics?	<b>S39</b> Kevin Eggan, The Harvard Stem Cell Institute, USA iPS cells and disease models
1200–1400	<b>Lunch</b>	