

UKNSCN Third Annual Science Meeting

12-14th July 2010 at the East Midlands Conference Centre, University of Nottingham

Programme

Sunday 11th July

15.00 – 20.00 Exhibitor Set Up in Exhibition Hall & Atrium

Monday 12th July

07.30 Registration and Poster Set Up

11.15 Lunch in Exhibition Hall and **Poster/Exhibits Session I**

12.25 Welcome by Dr Cathy Prescott, Chair UKNSCN Advisory Committee

12.30 **Session I – Stem Cells in Development/Organogenesis**
Chair: Claudio Stern, UCL

[12.30] Chris Wright, Vanderbilt University Medical Centre, USA
Progenitors, lineage allocation and plasticity in pancreas formation

[13.00] Val Wilson, Edinburgh
Bipotent neuromesodermal progenitors for the growing anteroposterior axis

[13.25] Georges Lacaud, Manchester
New insights into haematopoietic development

[13.50] Owen Sansom, Glasgow
Investigating Wnt signalling in stem and progenitor cells in vivo

[14.15] **Selected Poster Abstract Presentation**
Emma Rawlins, Gurdon Institute, Cambridge
Transcriptional programmes of multipotent epithelial stem cells in the embryonic lung

14.30 **Coffee/Tea & Poster/Exhibits Session II**

15.00 **Session II – Stem Cell Functional Control**
Chair: Lorraine Young, Nottingham

[15.00] Andrew Johnson, Nottingham
Evolution of pluripotency and the germ line soma relationship

[15.25] Wendy Bickmore, MRC Human Genetics Unit, Edinburgh
Mechanisms of polycomb-mediated gene expression in embryonic stem cells

[15.50] Tariq Enver, Oxford
Stem cell heterogeneity and lineage commitment in the blood system

[16.15] Amanda Fisher, Hammersmith, London
The roles of polycomb-group proteins in pluripotency and reprogramming

[16.40] Kevin Docherty, Aberdeen
Stem cells and gender effects in adolescent obesity

[17.10] **Selected Poster Abstract Presentation**
Silke Becker, UCL
Differentiation of Müller stem cells towards a retinal ganglion cell phenotype

- 17.25 Introduction to Memorial Lecture by Sir Richard Gardner FRS
- 17.30 **The Dame Anne McLaren Memorial Lecture (Keynote 1)**
Fiona Watt, Wellcome Trust Centre for Stem Cell Research, Cambridge
Stem cell-niche interactions in mammalian epidermis
- 18.15 Networking Drinks Reception and **Poster/Exhibits Session III**
Sponsored by the University of Nottingham
- 19.30 Dinner (bowl supper provided at the EMCC)

Tuesday 13th July

- 07.30 Meet the Experts Breakfast – 25 places in each of 5 groups led by:
Claudio Stern (UCL) *Room 1a*
Jon Frampton (Birmingham) *Room 1b*
Sir Richard Gardner (Oxford) *Room 1c*
Matthew Walls (Epistem plc) *Room 2a*
David Warburton (USA) *Room 2b*
- 08.25 Welcome by Member of UKNSCN Advisory Committee
- 08.30 **Session III – Stem Cell Isolation, Culture and Differentiation**
Chair: Peter Andrews, Sheffield
- [08.30]* Michael Schneider, Imperial
Cardiopoiesis: genetic circuits for cardiac muscle creation by adult and embryonic stem cells
- [08.55]* Alexander Medvinsky, Edinburgh
Hierarchical organisation of the developing HSC lineage
- [09.20]* Lorenz Studer, Sloan-Kettering Institute, USA
Modelling neural development and disease in human pluripotent stem cells
- [09.50]* Yen Choo, Plasticell
Combinatorial cell culture experiment analysis facilitated by bioinformatics
- [10.15]* **Selected Poster Abstract Presentation**
Duncan Miller, Manchester
Investigating the role of TGF β signalling components during differentiation of hESCs to definitive endoderm
- 10.30 **Coffee/Tea & Poster/Exhibits Session IV**
- 11.00 **Session IV – Stem Cells in Chronic Conditions and Disease**
Chair: Dame Julia Polak, Imperial
- [11.00]* **Keynote 2:** David Warburton, Children's Hospital Los Angeles, USA
Stem cells and lung regeneration
- [11.40]* Ian Mackenzie, QMUL, London
Malignant stem cells: maintenance, migration and metastasis

[12.05] Phil Jones, Cambridge
Epidermal maintenance by a single population of stochastic progenitors: a new paradigm of tissue homeostasis

[12.30] Nissim Benvenisty, Hebrew University of Jerusalem, Israel
Human pluripotent stem cells and genetic disorders

[13.00] **Selected Poster Abstract Presentation**
Marcelo Rivolta, Sheffield
Functional recovery obtained by human ESC-derived otic neuroprogenitor cells (ONPs) transplanted into a model of hearing loss

13.15 Lunch in Exhibition Hall and **Poster/Exhibits Session V**

13.30 **Lung Regeneration Workshop** **Conference Room 3**

14.15 **Parallel Workshops A – D**
A: Epigenetics and iPS Cells **Auditorium**

Organisers: Austin Smith, Peter Andrews

B: Cancer Stem Cells **Conference Room 1**

Organisers: Ian Mackenzie, Brian Huntly

C: Regulatory Roadmap for Stem Cell Therapies **Conference Room 2**

Organisers: Chris Bravery, Imogen Swann

D: Future Patenting in Stem Cells **Conference Room 3**

Organisers: Julian Hitchcock, Gerry Kamstra, Rowena Dinham

17.00 **Coffee/Tea and Poster/Exhibits Session VI**

18.45 Coaches Depart for Kelham Hall

19.30 Pre-dinner Drinks at Kelham Hall

20.00 Conference Dinner at Kelham Hall
After-dinner Speaker: Professor Sir John Gurdon FRS

22.15 First Coach Departs for EMCC

Wednesday 14th July

09.00 **Session V – Using Stem Cells for Replacement and Repair**
Chair: Alicia El Haj, Keele

[09.00] Ivan Martin, Basel, Switzerland
Bioreactor-based engineering of 3D niches and tissues

[09.30] Richard Oreffo, Southampton
Bridging the regeneration gap: skeletal cells in bone tissue engineering

[09.55] John Fisher, Leeds
Functional biological scaffolds

[10.20] David Williams, Loughborough
Manufacturing cell therapies

10.45 **Parallel Workshops E – H Part 1**
E: Ethics and Social Science in Stem Cells **Conference Room 2**

Organisers: Brian Salter, Andrew Webster

F: Technology: Cell Culture Optimisation **Conference Room 1**

Organisers: Lars Sundstrom, Rosemary Drake

	G: Technology: Imaging and Tracking Cells Organisers: Kathy Niakan, Carolyn Carr	Auditorium
	H: Technology Adoption by the NHS and Reimbursement Organisers: Marg Parton, John Egan	Conference Room 3
12.30	Lunch in Exhibition Hall and Poster/Exhibits Session VII	
12.45 – 13.45	UKSCB Open Forum	Auditorium
13.45	Parallel Workshops E – H Part 2	
	E: Ethics and Social Science in Stem Cells	Conference Room 2
	F: Technology: Cell Culture Optimisation	Conference Room 1
	G: Technology: Imaging and Tracking Cells	Auditorium
	H: Technology Adoption by the NHS and Reimbursement	Conference Room 3
14.45	Coffee/Tea and Poster/Exhibits Session VIII	
15.15	Session VI – Stem Cells in Disease Modelling and Drug Toxicity Testing Chair: Matthew Walls, Epistem	
[15.15]	Keynote 3: Marc Peschanski, I-STEM, Paris <i>Human embryonic stem cells in modelling and mitigation of disease</i>	
[15.55]	Richard Wade-Martins, Oxford <i>Stem cell-derived neuronal models of Parkinson's disease</i>	
[16.20]	Tim Allsopp, Pfizer Regenerative Medicine <i>Regenerative medicine and the biopharmaceutical industry</i>	
[16.45]	Frank Bonner, Stem Cells for Safer Medicines <i>SC4SM predictive toxicology consortium: progress and challenges</i>	
17.10	Close of Meeting	