# SRF 2015 Scientific Programme

# Monday 20 July 2015

# **Postgrad/Post Doctoral Symposium: Alternative Careers in Science** – Bernard Sunley Theatre

The aim of this symposium is to increase awareness of careers in science outside of traditional academia. We have four interesting speakers all of whom have taken very different paths post PhD. Lunch will be included and all delegates are welcome to come along!

10:30 – 11:00	Registration – Bernard Sunley Foyer
11:00 – 11:25	Dr Michelle Myers (Medical Science Liason at Roche)
11:25 – 11:50	Dr Jamie Gallagher (Public Engagement Officer at the University of Glasgow)
11:50 – 12:00	Break - Bernard Sunley Foyer
12:00 – 12:25	Dr George Ashley (Business Development Manager at PrimerDesign)
12:25 – 12:50	Dr Jessica Boname (Programme Manager for Reproductive Health at the MRC)
12:50 – 13:00	Panel questions
13:00 – 13:20	<b>Lunch</b> for Postgrad/Doc Symposium attendees – <i>Bernard Sunley Foyer</i>

Monday 20 July 2015			
10:30 – 13:30	Regist	ration, refreshments, put up posters – Bernard Sunley Foyer	
13:20 – 13:30	Welcor	me to SRF 2015 from Franchesca Houghton, Chair of SRF Programme Committee – Bernard Sunley Theatre	
Symposia 1: The sperm race – Bernard Sunley Theatre Chair: Richard Sharpe (University of Edinburgh, UK)			
13:30 – 14:00	S001	Occupational and environmental influences on semen quality <b>Allan Pacey</b> (University of Sheffield, UK)	
14:00 – 14:30	S002	How does the sperm spot egg? Timo Strünker (Max Planck Institute, Germany)	
14:30 – 15:00	S003	Gamete interaction with the reproductive tract  Alireza Fazeli (University of Sheffield, UK)	
15:00 – 15:30	15:00 – 15:30 Refreshments – Bernard Sunley Foyer		
Oral Communications Parallel sessions 1 & 2			
Oral communications 1 – Embryo and Implantation – Room C Chair: Amanda de Mestre (Royal Veterinary College, UK)			
15:30 – 15:45	0004	The Bioenergetic Profile of the Bovine Blastocyst  Paul McKeegan (Leeds Institute of Cardiovascular and Metabolic Medicine, UK)	

Effect of environmental oxygen on the expression of miRNAs in human embryonic stem cells **Sophia Sander** (Centre for Human Development Stem Cells & Regeneration, Faculty of Medicine,

University of Southampton, UK)

15:45 – 16:00 **O005** 

16:00 – 16:15	0006	Involvement of microRNA lethal-7 in the regulation of embryo dormancy in mice Weimin Liu (The University of HongKong, Hong Kong)	
16:15 – 16:30	0007	A potential co-culture system of ovine blastocyst with uterine endometrium to mimic initial attachment of embryo implantation  Tina Tremaine (The Royal Veterinary College, UK)	
16:30 – 16:45	8000	The Effect of In Vitro Fertilization (IVF) and Embryo Culture on Mouse Development and Adult Health Anan A ljahdali (University of Southampton, UK)	
		us 2 – Ovarian function – Bernard Sunley Foyer urgh Napier University, UK)	
15:30 – 15:45	0009	Role of kit ligand in nuclear maturation in bovine oocytes  Paula Lima (UNESP, Brazil)	
15:45 – 16:00	0010	Role of Wnt/beta-catenin signal transduction pathway in rat follicular development and luteal function Marta Tesone (IBYME-CONICET, Argentina)	
16:00 – 16:15	0011	The role of the oocyte is investigated in Premature Ovarian Failure using the Reaggregated Ovarian Pellet technique  Sairah Sheikh (University of Oxford, UK)	
16:15 – 16:30	O012	Differential effects of transforming growth factor beta 2 (TGFβ2) in two different models of preantral follicle growth  Elizabeth Oliver (Imperial College London, United Kingdom)	
16:30 – 16:45	0013	The oocyte induces estrus stage-specific changes in theca cells and their extracellular matrix <b>Alice Christensen</b> (University of Oxford, UK)	
16:45 – 17:00	Refres	hments – Bernard Sunley Foyer	
17:00 – 18:20			
17:00 – 17:20	O001	Hyperandrogenism modulates adipokine gene expression in mouse adipocytes: implications for PCOS <b>Avi Lerner</b> (Imperial College London, UK)	
17:20 – 17:40	O002	Hyperphagia of pregnancy and lactation is associated with changes in appetite-regulating gut hormones and gastrointestinal modifications in Wistar rats  Michelle L Johnson (The Open University, UK)	
17:40 – 18:00	O003	Kinetic, morphological and functional details of the early stages of human and mouse embryo implantation in an in vitro model  Peter Ruane (University of Manchester, UK)	
18:00 – 18:20	S004	SRF-SRB Exchange Lecture:  Musashi RNA binding protein MSI2 interacts with SFPQ and controls the expression of target mRNAs Tbx1 and Piwil1 in male germ cells during spermatogenesis Jessie Sutherland (The University of Newcastle, Australia)	
18:20 – 19:00	Welco	Welcome drinks reception – Bernard Sunley Foyer	
19:00 – 20:00	Dinner – JCR Dining Hall		
20:30 – 21:30	Social	event: Quiz – JCR Common Room Lounge	

Tuesday 2	21 Jul	y 2015	
08:30 - 09:00	Registration – Bernard Sunley Foyer		
09:00 – 10:30	Symposia 2: Surgical intervention and fertility – Bernard Sunley Theatre Chair: W. Colin Duncan (University of Edinburgh, UK)		
09:00 – 09:30	S005	Ovarian autografts and autotransplants as experimental modes for the treatment of infertility <b>Bruce Campbell</b> (University of Nottingham, UK)	
09:30 – 10:00	S006	Uterus transplantation – an update  Mats Brännström (University of Gothenburg, Sweden)	
10:00 – 10:30	S007	Mechanical injury of the endometrium to enhance implantation  Nava Dekel (The Weizmann Institute of Science, Israel)	
10:30 - 11:00	1:00 <b>Refreshments</b> – Bernard Sunley Foyer		
		ard lectures – Bernard Sunley Theatre ghton (University of Southampton, UK)	
11:00 – 11:40	S008	SRF New Investigator Award lecture:  Molecular mechanisms regulating early equine placental development in health and disease  Amanda de Mestre (Royal Veterinary College, UK)	
11:40 – 12:20	<b>S009</b>	SSR New Investigator Lecture:  Epithelial genes in the endometrial and ovarian cancer  Kanako Hayashi (Southern Illinois University School of Medicine, U.S.A.)	
12:30 – 13:30	SRF AGM – Bernard Sunley Theatre (for SRF members only)		
13:00 – 14:00	0 <b>Lunch</b> – Bernard Sunley Theatre		
13:30 - 14:30	Poster viewing session – Room A		

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14:30 – 16:00	Chairs: Christopher Coyle (University of Aberdeen, UK) and		
	Jessie	Sutherland (The University of Newcastle, Australia)	
14:30 – 14:45	O014	Maternal protein restriction around conception reduces the neural stem cells during mouse fetal brain development and alters neuronal differentiation during gestation  Joanna Gould (University of Southampton, UK)	
14:45 – 15:00	O015	Defective decidualisation: a possible mechanism of Chlamydia trachomatis induced miscarriage Sevasti Giakoumelou (University of Edinburgh, UK)	
15:00 – 15:15	O016	Investigating a role for the epidermal growth factor receptor (EGFR) in androgen signalling within mouse preantral follicle development  Kacie Thomson (Imperial College London, UK)	
15:15 – 15:30	O017	Decidual macrophages become increasingly immunosuppressive during early pregnancy and an altered activation state may be associated with a higher risk of preeclampsia  Rebecca Buckley (St George's University of London, UK)	
15:30 – 15:45	0018	Variations in the way UK pregnant sheep are managed programs male reproductive development Evangelia Moutevelidi (University of Edinburgh, UK)	
15:45 – 16:00	0019	Obesity in PCOS: a consequence of prenatally programmed reduced energy expenditure  Katarzyna Siemienowicz (University of Edinburgh, UK)	
16:00 – 16:30	16:00 – 16:30 <b>Refreshments</b> – Bernard Sunley Foyer		
SRF Distinguished Scientist lecture – Bernard Sunley Theatre Chair: Tony Michael (Queen Mary University of London, UK)			
16:30 – 17:30	<b>S010</b>	Reproduction as the pivot for adaptability of the next generation(s), and its health consequences  Richard Sharpe (University of Edinburgh, UK)	
19:30 – 20:00	SRF 20	15 Pre-dinner drinks reception– Lawn outside JCR	
20:00 – 23:30	SRF 2015 Confernece dinner – JCR Dining Hall Ceilidh – Common Room Lounge		

#### Oral Communications Parallel sessions 3 & 4

## **Oral Communications 3 – Sperm** – *Room C*

Chair: Alireza Fazeli (University of Sheffield, UK)

09:30 – 09:45	O020	Sertoli-specific ablation of RHOX8 results in impaired spermatogenesis in mice  James MacLean (Southern Illinois University, U.S.A.)
09:45 – 10:00	0021	Ruminal acidosis has long term effects upon sperm production in the bull  Viv Perry (University of Nottingham, UK)
10:00 – 10:15	0022	Interaction of progesterone and pH in regulation of hyperactivated motility in human spermatozoa  Cosmas Achikanu (University of Birmingham, UK)
10:15 – 10:30	0023	Notch signaling in the bovine oviduct and spermatozoa: a regulator of the spermatozoa-oviduct interaction?  Mariana Batista (CIISA - Centro Interdisciplinar de Investigação em Sanidade Animal, Faculty of Veterinary Medicine, Portugal)
10:30 – 10:45	0024	The effects of alcohol-induced oxidative stress on sperm DNA and fertility outcomes  Edidiong Akang (Benue State University, Nigeria)

### **Oral communications 4 – Female reproduction** –Bernard Sunley Theatre

Chair: Tom Fleming (University of Southampton, UK)

09:30 – 09:45	O025	Alteration of mechanisms underlying pituitary microvasculature remodelling and reduction in prolactin secretion precede full activation of the gonadotrophic axis in anoestrous ewes receiving exogenous melatonin  Josephine Mooney (University of Bristol, UK)
09:45 – 10:00	0026	Neuroendocrine control of ovulation in primates: a role for two distinct populations of GnRH neurons?  Henryk Urbanski (ONPRC-OHSU, U.S.A.)

10:00 – 10:15	0027	Investigation into the role of endometrial heparinase (HPSE), hypoxia-inducible factor (HIF1A), secreted phosphoprotein 1 (SPP1), uteroferrin (ACP5) and vascular endothelial growth factor A (VEGFA) in foetal growth in pigs  Claire Stenhouse (The Roslin Institute, UK)	
10:15 – 10:30	O028	Regulation of the prostaglandin synthase COX2 by epidermal growth factor requires Steroid Receptor Coactivator Interacting Protein (SIP) in human myometrium  Claire Hudson (University of Bristol, UK)	
10:30 – 10:45	0029	Maternal leptin levels: Association with pregnancy outcome  Kamani Tennekoon (Institute of Biocehmistry Molecular Biology and Biotechnology, Sri Lanka)	
10:45 – 11:15	Refres	hments – Bernard Sunley Foyer	
10:45 – 11:45	Poster viewing session – Room A		
	_	nent of livestock fertility – Bernard Sunley Theatre yal Veterinary College, UK)	
11:45 – 12:15	S011	Nutritional impact on fetal development  Jacqueline Wallace (University of Aberdeen, UK)	
12:15 – 12:45	S012	Impact of prenatal stress on reproductive development in livestock  Cheryl Ashworth (University of Edinburgh, UK)	
12:45 – 13:15	S013	Embryo-uterine dialogue in the cow Olivier Sandra (INRA, France)	
13:15 – 13:25		D15 Closing remarks – Bernard Sunley Theatre ranchesca Houghton, Chair of SRF Programme Committee and University of Southampton, UK)	