

SCIENTIFIC PROGRAMME

Day 1 - Wednesday 1st September 2010

3.30 - **Registration**
5.30 pm Informatics Forum, 10 Crichton Street (NE corner of George Square)

6.00 - **Welcome Reception**
8.00 pm The Royal Society, 22-26 George Street (at corner of Hanover Street).
Introduction by Jonathan Seckl
Special Guest: Dr Harry Burns (Chief Medical Officer for Scotland).

Day 2 – Thursday 2nd September

08.45 am **Welcome**
John Russell and Alison Douglas (Local Organising Committee)

09.00 am **Plenary I (PL1): Co-adaptive development of brain and placenta**
Barry Keverne (University of Cambridge, UK)
Chair: Megan Holmes (University of Edinburgh)

10.00 am Coffee/tea

10.30 am **Poster Data-blitz I**
See page 13 for Data Blitz programme
Chairs: Oliver Bosch (University of Regensburg, Germany)
Cheryl Frye (SUNY Albany, USA)

11.30 am **Poster Session I**

1.00 pm Lunch

2.00 pm **Symposium I: Maternal adaptations in pregnancy and lactation**
A: Pregnancy
Chairs: Luz Torner (IMSS, Mexico)
David Slattery (University of Regensburg, Germany)

2.00 pm **S1.1: Changes in spatial memory, anxiety and monoamines during and after pregnancy**
Abbe Macbeth (NIMH, Bethesda)

2.25 pm **S1.2: The role of pregnane neurosteroid formation in reproductive endocrine function and pregnancy**
Cheryl Frye (SUNY Albany, USA)

2.50 pm **S1.3: Suppressed responses to anorectic hormones and neuropeptides during pregnancy**
Sharon Ladyman (University of Otago, New Zealand)

Oral Communications 1

- 3.15 pm **OC1: Facilitation of predation in the pregnant and maternal rat: paradoxical behavioral enhancements in the increasingly ungainly female**
Kinsley C (University of Richmond, USA)
- 3.30 pm **OC2: Hypothalamic mechanisms mediating inhibition of prolactin secretion following stress in early pregnancy**
Parker VJ (University of Edinburgh, UK)
- 3.45 pm Coffee/tea
- 4.15 pm ***Symposium I: Maternal adaptations in pregnancy and lactation***
B: Lactation
Chairs: Cathy Dwyer (Scottish Agricultural College, UK).
Karen Bales (University of California at Davis, USA)
- 4.15 pm **S1.4: Neuroprotective effects of lactation against excitotoxicity in the hippocampus of the rat**
Teresa Morales (UNAM, Mexico)
- 4.40 pm **S1.5: Lactation-induced inhibition of kisspeptin and neurokinin B in the hypothalamus: role of leptin and insulin**
M Susan Smith (Oregon National Primate Research Center, USA)
- 5.05 pm **S1.6: Oxytocin and the neurobiology of mother-infant attachment**
Lane Strathearn (Baylor College of Medicine, USA)

Oral Communications II

- 5.30 pm **OC3: Functional role of ghrelin during lactation**
Abizaid, A. (Carleton University, Canada)
- 5.45 pm **OC4: Neural proliferation in the olfactory system and the hippocampus is down-regulated by parturition and interactions with the young in sheep mother**
Levy, F. (INRA, France)
- 6.00 pm Close of Day 1
- Evening Free to explore Edinburgh

Day 3 – Friday 3rd September

- 9.00am **Plenary II (PL2): Estrogen regulation of individual differences in maternal behaviour: Mediation by oxytocin and brain-derived neurotrophic factor**
Micheal Meaney (McGill University, Canada)
Chair: Jonathan Seckl (University of Edinburgh, UK)
- 10.00 am Coffee/tea
- 10.30 am **Poster Data-blitz II**
See page 14 for Data Blitz programme
Chairs: Kevin O'Byrne (Kings College, London, UK)
James Curley (Columbia University, USA)
- 11.30 am **Poster Session II**
- 1.00 pm Lunch
- 2.00 pm **Symposium II: Early Life Programming**
A: Pregnancy and prenatal effects on programming
Chairs: Alison Fleming (University of Toronto, Canada)
Emilie Rissman (University of Virginia, USA)
- 2.00 pm **S2.1: Impact of prolactin-induced neurogenesis in the maternal brain during pregnancy on post partum mood and behaviour**
Caroline Larsen (University of Otago, New Zealand)
- 2.25 pm **S2.2: Fetal programming of the stress response: transgenerational consequences**
Stephen Matthews (University of Toronto, Canada)
- 2.50 pm **S2.3: Maternal prenatal liquorice consumption and developmental outcomes in their offspring**
Katri Raikkonen (University of Helsinki, Finland)
- Oral Communications III**
- 3.15 pm **OC5: Sex differences in prenatally programmed anxiety behaviour and corticotropin releasing hormone (CRH) receptor mRNA expression in the amygdala in rats**
Brunton PJ (University of Edinburgh, UK)
- 3.30 pm **OC6: Prenatal anxiety and the human placenta**
O'Donnell K (Imperial College London, UK)
- 3.45 pm Coffee/tea
- 4.15 pm **Symposium II: Early life programming**
B: Postnatal origins of programming
Chairs: Aldo Lucion (Universidade Federal do Rio Grande do Sul, Brazil)
Barbara Woodside (Concordia University, Montreal, Canada)
- 4.15 pm **S2.4: Epigenetic programming of the neuroendocrine stress system**
Chris Murgatroyd (MPI, Germany)

- 4.40 pm **S2.5: Hippocampal corticosteroid- and serotonin-receptor changes in adolescent marmoset monkeys that experienced parental separation in infancy**
Christopher Pryce (Psychiatric University Hospital, Switzerland)
- 5.05 pm **S2.6: Prenatal stress alters brain programming thereby diminishing gender differences in hippocampal gene expression and sexual dimorphic behaviour**
Marta Weinstock (Hebrew University, Israel)
- Oral Communications IV**
- 5.30 pm **OC7: Effects of early life social deprivation on behavioural motivation in the context of reward and reward-related cues**
Lomanowska AM (University of Toronto, Canada)
- 5.45 pm **OC8: Breastfeeding under stress due to a natural disaster affects children's hippocampus, stress response and behavior**
King S (McGill University, Canada)
- 6.00 pm Close of Day 2
- Evening **Conference Dinner and Ceilidh**
Chair: Dave Grattan (University of Otago, New Zealand)
The Balmoral Hotel, 1 Princes Street (junction with North Bridge).
Dinner speaker: Maternal memory: motherhood and beyond
Robert Bridges (Tufts University, USA)

Day 4 – Saturday 4th September

- 8.30 am **Symposium III: Perinatal influence on mental health**
A: Maternal effects
Chairs: Sue Carter (University of Illinois, Chicago, USA)]
Ian Jones (Cardiff University, UK)
- 8.30 am **S3.1: Gestational stress influences maternal and child emotional regulation and cognition**
Curt Sandman (UC Irvine, USA)
- 8.55 am **S3.2: Genetics and post-natal triggering of mood disorder and psychosis**
Nick Craddock (University of Cardiff, UK)
- 9.20 am **S3.3: Effects of peri-natal SSRI exposure on neurodevelopment and the HPA system of the mother and child**
Jodi Pawluski (Maastricht University, The Netherlands)
- Oral Communications V**
- 9.45 am **OC9: Fertility and prenatal attitudes towards pregnancy in women with eating disorders: Results from the Avon longitudinal study of parents and children**
Easter A (Kings College London, UK)
- 10.00 am **OC10: Towards a better understanding of mother's mental health: Effects of chronic stress on peripartum adaptations**
Hillner K (University of Regensburg, Germany)

- 10.15 am Coffee/tea
- 10.45 am **Symposium III: Perinatal influence on mental health**
B: Offspring effects
Chairs: K Nishimori (Tohoku University, Japan)
V. Glover (Imperial College, UK)
- 10.45 am **S3.4: Early but post-perinatal exposure to stress – a model of childhood trauma**
Gal Richter-Levin (University of Haifa, Israel)
- 11.10 am **S3.5: Childhood trauma and adult psychopathology: role of the central oxytocin system?**
Christine Heim (Emory University, USA)
- 11.35 am **S3.6: Biological embedding of adverse childhood experiences: relevance to adult medical illness**
Andrea Danese (Kings College London, UK)
- Oral Communications VI**
- 12.00 pm **OC11: Entorhinal cortex-specific disruption of gamma frequency oscillation in cross-fostered rodents**
Hall SP (Newcastle University, UK)
- 12.15 pm **OC12: 11 beta-HSD2^{-/-} mice exhibit depressive-like behaviour and altered serotonergic and dopaminergic pathways within the brain**
Wyrwoll CS (University of Edinburgh, UK)
- 12.30 pm Lunch
- 1.30 pm **Symposium IV: Parental behaviour**
A: Maternal behaviour
Chairs: Joe Lonstein (Michigan State University, USA)
James Swain (University of Michigan, USA)
- 1.30 pm **S4.1: Long-term modulation of maternal care by cocaine: fMRI studies in the rat**
Marcello Febo (Northeastern University, USA)
- 1.55 pm **S4.2: The neural circuitry underlying the motivated choice between pup- and cocaine-conditioned incentives by postpartum female rats**
Mariana Pereira (Rutgers University, USA)
- 2.20 pm **S4.3: Development of mutual mother-young attachment in sheep: from behaviour to brain**
Raymond Nowak (INRA, France)
- Oral Communications VII**
- 2.45 pm **OC13: The development of olfactory recognition is delayed in sheep genotypes which display less maternal care at parturition**
Dwyer C (Scottish Agricultural College, UK)
- 3.00 pm **OC14: Maternal aggression in the rat: links to brain oxytocin and vasopressin**
Meddle SL (University of Edinburgh, UK)
- 3.15 pm Coffee/tea

- 3.45 pm **Symposium IV: Parental behaviour**
B: Paternal behaviour
Chairs: Frances Champagne (Columbia University, USA)
Katherine Wynne-Edwards (University of Calgary, Canada)
- 3.45 pm **S4.4: Parenting-induced neuroplasticity in male *Peromyscus californicus***
Catherine Franssen (Randolph Macon College, USA) *Nestin*
- 4:25 4.10 pm **S4.5: Impact of paternal care on prefronto-limbic development in degus (*Octodon degus*)**
Anna Katharina Braun (Otto von Guericke University Magdeburg, Germany)
- 4.35 pm **S4.6: Neurobiology of incubation behaviour in birds**
Peter Sharp (Roslin Institute, UK)
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- Oral Communications VIII**
- 5.00 pm **OC15: Emotion regulation circuits in the parental brain affected by timing, sex, mood and behaviour**
Swain J (University of Michigan, USA)
- 5.15 pm **OC16: Neural regulation of mouse parental behaviour based on its social experiences**
Kuroda K (Riken Brain Science Institute, Japan)
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- 5.30 pm **Plenary III (PL3): Maternal stress transgenerational programming of offspring stress responsivity**
Tracy Bale (University of Pennsylvania, USA)
Chair: Alison Douglas (University of Edinburgh, UK)
- 6.30 pm Close of Meeting and Notice of Next Meeting