

WCRB PROGRAM

Sunday, 9 October 2011

WCRB Registration Opens

4:00 PM - 6:30 PM

Foyer

WCRB Welcome Reception

6:00 PM - 7:30 PM

Cairns Convention Centre

Monday, 10 October 2011

Registration desk open

7:30 AM - 5:00 PM

Foyer

Plenary Lecture 1

8:30 AM - 9:30 AM

Chair: Charles Allan

Peter Koopman

Foundations of Fertility: Signaling pathways regulating fetal germ cell development *abs#080*

Hall A

The WCRB acknowledges the support of:



Morning Tea

9:30 AM - 10:00 AM

Foyer

Concurrent symposia sessions I-III

Session I: Periconception origins of postnatal development and disease

10:00 AM - 12:00 PM

Hall A

Chairs: Rebecca Robker, Wee Ching Kong

10:00am

Tom Fleming

Rodent preimplantation maternal low protein diet model and adult cardiovascular disease *abs#081*

10:30am

Kevin Sinclair

One-carbon metabolism and epigenetic programming in the oocyte and pre-implantation embryo *abs#082*

11:00am

Caroline McMillen

Maternal obesity and the early origins of childhood obesity: Weighing up the benefits and costs of maternal weight loss in the periconceptual period for the offspring *abs#083*

11:30am

Tod Fullston

Diet induced paternal obesity epigenetically modifies sperm and impairs the reproductive health of two subsequent generations in a mouse model. *abs#084*

11:45am

Xiang-Hong Ou

Maternal insulin resistance causes oxidative stress and mitochondrial dysfunction in oocytes *abs#085*

Session II: Molecular control of meiotic progression

10:00 AM - 12:00 PM

Room 1 & 2

Chairs: Janet Holt, Jeremy Thompson

10:00am **Mary Ann Handel**

Regulation of exit from meiotic prophase *abs#086*

10:30am **Keith Jones**

Cdh1/Fzr1 in the maintenance of prophase arrest and prevention of aneuploidy *abs#087*

11:00am **Qing-Yuan Sun**

Mechanisms regulating accurate chromosome segregation during mouse oocyte meiosis *abs#088*

11:30am **Greg Fitzharris**

Chromosome segregation in mammalian oocytes *abs#089*

Session III: Revelations in neuroendocrine control of reproduction

10:00 AM - 12:00 PM

Room 3 & 4

Chairs: John Nilson, Chris Scott

10:00am **Iain Clarke**

Metabolic regulation of the reproductive Axis *abs#090*

10:30am **Hiroaki Okamura**

GnRH pulse generation by hypothalamic kisspeptin/neurokinin b/dynorphin neurons *abs#091*

11:00am **Kevin Murphy**

The design of a kisspeptin-10 analogue with greater *in vivo* bioactivity than kisspeptin-10. *abs#092*

11:30am **Cheryl Ashworth**

Effects of pre-natal stress and post-natal pain on the steroidogenic capacity of young pig gonads *abs#093*

11:45am **Stephanie Lee**

A transcriptomic examination of sexual differentiation in zebrafish *abs#094*

Lunch Break

12:00 PM - 1:00 PM

Foyer

Plenary Lecture 2

1:00 PM - 2:00 PM

Hall A

Chair: Qing Yuan Sun

Haibin Wang

Molecular determinants of blastocyst competency for implantation *abs#095*

The WCRB acknowledges the support of the: Chinese Society for Reproductive Biology

Concurrent symposia sessions IV-VI

Session IV: Understanding ovarian function to maximise animal production

2:00 PM - 3:30 PM

Hall A

Chairs: Helen Irving-Rodgers, Masafumi Tetsuka

2:00pm **Milo Wilbank**

Sex and the single follicle: Mechanisms involved in selection of one or multiple dominant follicles in cattle *abs#096*

2:30pm **Kenneth McNatty**

Hierarchical ovarian follicular development and ovulation-rate *abs#097*

3:00pm **Kiyoshi OKUDA**

Factors and microenvironments regulating CL function - hypoxia in luteal physiology - *abs#098*

Session V: Sperm development and function

2:00 PM - 3:30 PM

Room 1 & 2

Chairs: Mai Sarraj Liza O'Donnell

- 2:00pm **Charles Allan**
Steroidal control of Sertoli cell and spermatogenic development *abs#099*
- 2:30pm **Wei Yan**
Regulation of spermatogenesis by small non-coding RNAs *abs#100*
- 3:00pm **Shosei Yoshida**
Sperm stem cell behaviors in mouse testis *abs#101*

Session VI: Preserving and preventing fertility

2:00 PM - 3:30 PM

Room 3 & 4

Chairs: Guiying Nie, William S Yeung

- 2:00pm **Teruhiko Wakayama**
Development of novel cloning and ART methods for animal production and species preservation *abs#102*
- 2:30pm **John Aitken**
Pioneering therapies to preserve or prevent sperm function and to protect against Sexually Transmitted Diseases (STDs) *abs#103*
- 3:00pm **Evdokia Dimitriadis**
Regulation of implantation at the fetal-maternal interface: Opportunities for new contraceptives. *abs#104*

Afternoon Tea

3:30 PM - 4:00 PM

Foyer

Plenary Lecture 3

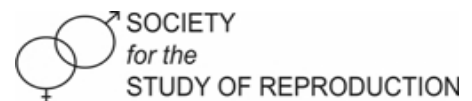
4:00 PM - 5:00 PM

Hall A

Chair: Jock Findlay

- John Eppig**
Oocytes Under Arrest: A "Whodunit" *abs#105*

The WCRB acknowledges the support of:



WCRB Posters: - Session 1

5:00 PM - 6:30 PM

Hall B

Tuesday, 11 October 2011

Registration Desk Open

7:30 AM - 5:00 PM

Foyer

Plenary Lecture 4

8:30 AM - 9:30 AM

Hall A

Chair: Chang-Gyu Lee

Nam-Hyung Kim

The role of microRNAs on the epigenetic regulation of fertilized and cloned embryo development *abs#110*

The WCRB acknowledge the support of the: Korean Society for Animal Reproduction

Morning Tea

9:30 AM - 10:00 AM

Foyer

Concurrent symposia sessions VII-IX

Session VII: Advances in germ line stem cell production

10:00 AM - 12:00 PM

Hall A

Chairs: Gary Hime, Kate Loveland

10:00am

Ji Wu

Production of offspring from germ line stem cells in new born ovary *abs#111*

10:30am

Shaorong Gao

Pluripotency and therapeutic potential of induced pluripotent stem cells *abs#112*

11:00am

Jeong Mook Lim

Knowledge from model; germline- or nongermline-derived, stem cell-like cells and their application for deriving tissue-specific stem cells *abs#113*

11:30am

Qi Zhou

Pluripotent stem cells and the potential application in regenerative medicine *abs#114*

Session VIII: Molecular Control of Ovarian Function

10:00 AM - 12:00 PM

Room 1 & 2

Chairs: Karla Hutt, Bruce Murphy

10:00am

Mats Brännström

Molecular mechanisms of ovulation *abs#115*

10:30am

Rebecca Robker

Novel pathways linking adiposity and dysfunction of ovulation and oocytes *abs#116*

11:00am

Richard Anderson

The diverse roles of neurotrophins in ovarian function *abs#117*

11:30am

Michel De Vos

Embryo yield and quality after non-hCG primed IVM and conventional ICSI in PCO patients *abs#118*

11:45am

Tomoko Nakamura

GDF-9 induces connexin 43 and enzymes of cholesterol biosynthesis in human granulosa cells *abs#119*

Session IX: New aspects of uterus and placental function

10:00 AM - 12:00 PM

Room 3 & 4

Chairs: Lois Salamonsen, Haibin Wang

- 10:00am **Simon Riley**
The essential role of the placenta and fetal membranes at the fetal-maternal interface for a successful pregnancy and initiation of labour *abs#120*
- 10:30am **Norihiro Sugino**
Aberrant DNA methylation in uterine leiomyomas *abs#121*
- 11:00am **Kazuyoshi Hashizume**
Novel factors involved in the cross-talk between mother and fetus during pregnancy: Multinucleation and functions of bovine trophoblastic cells for implantation. *abs#122*
- 11:30am **Joanna James**
Trophoblasts do not migrate retrograde to flow in low shear stresses: consequences for spiral artery remodelling in the first trimester of human pregnancy *abs#123*
- 11:45am **Wai Sum O**
The role of adrenomedullin in tubal ectopic pregnancy *abs#124*

Lunch Break

12:00 PM - 1:00 PM

Foyer

Plenary Lecture #5

1:00 PM - 2:00 PM

Chair: Greg FitzHarris

John Carroll

Time, space and energy in the mammalian oocyte *abs#125*

Hall A



The WCRB acknowledges the support of:

Concurrent symposia sessions X-XI

Session X: Gametes and early embryo development

2:00 PM - 3:30 PM

Hall A

Chairs: Ken Sawai, Keith Jones

- 2:00pm **Kazuo Yamagata**
Genetic and epigenetic landscape of mouse preimplantation development revealed by live-cell imaging *abs#126*
- 2:30pm **Dong Jin**
RNA polymerase II CTD regulation in mammalian oocytes and early embryos *abs#127*
- 3:00pm **Suzannah Williams**
Embryos generated from oocyte lacking complex N- and O- glycans have compromised implantation and development. *abs#128*
- 3:15pm **Simon Lane**
Attachment, but not tension or position, mediated satisfaction of the SAC underlies the susceptibility of mammalian oocytes to chromosome segregation defects. *abs#129*

Session XI: Update on the Hypothalamo-Pituitary-Gonadal Axis

2:00 PM - 3:30 PM

Room 1 & 2

Chairs: Hiroko Tsukamura, Richard Lea

2:00pm **John Nilson**

Calcineurin and NFAT are new members of the GnRH transcriptional network *abs#130*

2:30pm **Mary Hunzicker-Dunn**

FSH Regulation of *Lhcgr* Expression in Granulosa Cells. *abs#131*

3:00pm **Paul Fowler**

Environmental exposures and reproductive development and function in the female *abs#132*

Session XII: Tailored Therapies for Reproductive Medicine

2:00 PM - 3:30 PM

Room 3 & 4

Chairs: Ray Rodgers, Noruhiro Sugino

2:00pm **Stephen Hillier**

The ovary from basic science to clinical translation *abs#133*

2:30pm **Kylie Dunning**

Ovarian Follicle Metabolism and Culture for Fertility Preservation. *abs#134*

3:00pm **Claire Roberts**

Parental genotype and risk for preeclampsia *abs#135*

Afternoon Tea

3:30 PM - 4:00 PM

Foyer

Plenary Lecture #6

4:00 PM - 5:00 PM

Hall A

Chair: Darryl Russell

Johan Smitz

A roadmap to obtain competent oocytes from preserved ovarian tissue *abs#136*

The WCRB acknowledges the support of:



WCRB Posters- session 2

5:00 PM - 6:30 PM

Hall B

Conference BBQ Dinner & Dance

7:00 PM - 12:00 AM

Outdoor Veranda and Hall D

Tickets required

Wednesday, 12 October 2011

Registration Desk Open

7:30 AM - 12:00 PM

Foyer

Plenary Lecture #7

8:30 AM - 9:30 AM

Hall A

Chair: Noboru Manabe (TBC)

Hiroshi Nagashima

The interface between reproductive biology and regenerative
medicine *abs#140*



The WCRB acknowledges the support of:

Morning Tea

9:30 AM - 10:00 AM

Foyer

Concurrent symposia sessions XII-XIV

Session XIII: Gamete quality challenges to healthy reproductive outcomes

10:00 AM - 12:00 PM

Hall A

Chairs: Eileen McLaughlin, Suzannah Williams

- 10:00am **Evelyn Telfer**
Oocyte somatic cell interactions promoting follicle activation and development *abs#142*
- 10:30am **William Yeung**
Glycodelin-C and the role of cumulus complex in natural sperm quality selection *abs#141*
- 11:00am **Takahiro Arima**
Aberrant DNA methylation of imprinted loci in sperm from oligospermic patients *abs#143*
- 11:30am **Jorma Toppari**
Environmental modifiers of male reproductive functions *abs#144*

Session XIV: Chromatin modifications and packaging in mature Sperm

10:00 AM - 12:00 PM

Room 1 & 2

Chairs: Moira O'Bryan, John Aitken

- 10:00am **Hisato Kobayashi**
Mouse gametic DNA methylomes show the role of intragenic DNA methylation in the establishment of oocyte-specific heritable marks *abs#145*
- 10:15am **Duangporn Jamsai**
RNA binding motif 5 dysfunction causes male infertility in mice by disrupting spermatid maturation *abs#146*
- 10:30am **Douglas Carrell**
Chromatin in human sperm, packaging genes for embryo development *abs#147*
- 11:00am **Hitoshi Kurumizaka**
Structural and functional analyses of human nucleosomes containing testis-specific histone variants *abs#148*
- 11:30am **Shaun Roman**
Nucleosome retention during chromatin packaging in human spermatozoa. *abs#149*

Meeting Close

12:00 PM - 12:15 PM

Hall A

