

Joint European Conference in Reproduction & Fertility

incorporating the

2004 Annual Conference
Society for Reproduction & Fertility

5-7 April 2004

Hosted by: Veterinary Faculty, Ghent University



Sunday April 4 2004

16:00 – **Registration** (Aula Foyer)
18:30

18:30 – **Welcome Reception** (Peristilium)
20:00

Monday April 5

08:30 – **Registration** (Aula Foyer)
08:50

08:50 – **Welcome / Opening Ceremony** (Aula)
09:00 Professor Alan McNeilly (Edinburgh, UK) / Professor Ann Van Soom (Ghent, Belgium)

09:00 – **Symposium 1: Recent Advances in the Biology of Assisted Reproduction** (Aula)
11:00 Chairs: Professor Aart de Kruif (Ghent, Belgium) / tbc

09:00 – *Intra-uterine Insemination*
09:40 Dr. Steven Verberckmoes (Ghent, Belgium)

09:40 – *In Vitro Follicle Maturation in Humans and Domestic Livestock*
10:20 Dr. Helen Picton (Leeds, UK)

10:20 – *Derivation of Oocytes from Embryonic Stem Cells*
11:00 Professor Hans R Scholer (Pennsylvania, USA)

11:00 – **Coffee and Trade Exhibition** (Peristilium)
11:30

11:30 – **Symposium 1 (continued): Recent Advances in the Biology of Assisted Reproduction**
12:50 (Aula)
Chairs: Professor Aart de Kruif (Ghent, Belgium)/ tbc

11:30 – *Embryo-Pathogen Interactions*
12:10 Professor Ann Van Soom (Ghent, Belgium)

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- 12:10 – *Embryonic Genome Analysis*
12:50
Professor Heiner Niemann (Neustadt, Germany)
- 13:00 – **SRF Annual General Meeting** (Aula)
13:30
Followed by Lunch (Het Pand)
- 13:00 – **Lunch** (Het Pand)
14:20
- 14:30 – **Oral Session 1: Corpus Luteum & Female Reproductive Endocrinology**
16:00
(Aula) (*note: parallel session*)
Chair: tbc
- 14:30 *Pre-ovulatory follicle dynamics and subsequent corpus luteum function in the cow*
Robinson RS, Hammond AJ, Hunter MG & Mann GE
- 14:45 *Leptin in the bovine corpus luteum - receptor expression and effects on progesterone production*
Nicklin LT, Glister C, Robinson RS, Marsters P, Campbell BK, Knight PG, Mann GE & Hunter MG
- 15:00 *Fasting stimulates VEGF mRNA expression and steroidogenesis in pig corpora lutea*
Galeati G, Zannoni A, Spinaci M, Govoni N, Fantinati P, De Ambrogi M, Volpe S & Tamanini C
- 15:15 *Ovarian response, embryo yield and antibody formation after repeated superovulation of pigs*
Reischl J & Holtz W
- 15:30 *Effect of a high fibre diet prior to oestrus on reproductive hormones in gilts*
Ferguson EM, Slevin J, Hunter MG, Edwards SA & Ashworth CJ
- 15:45 *Are suprabasal progesterone levels involved in the pathogenesis of cystic ovarian disease in dairy cattle?*
Vanholder T, Leroy JLMR, Opsomer G, Coryn M, Dewulf J & de Kruif A
- 14:30 – **Oral Session 2: Embryology & Pregnancy**
16:00
(Conference Room) (*note: parallel session*)
Chair: tbc
- 14:30 *Preimplantation development, apoptosis and ultrastructure of in vitro cultured rabbit embryos derived from in vivo fertilized gene-microinjected eggs*
Makarevich AV, Chrenek P, Pivko J, Zilka N & Bulla J
- 14:45 *Permeability of murine zona pellucida to fluorescent particles*

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Mateusen B, Van Soom A, Nauwynck HJ, Schmidt J & Mahabir E

- 15:00 *The onset of zygotic genome activation measured in single mouse embryos using luciferase reporters and an imaging photon detector*
Rogers NT, Larman M & Swann K
- 15:15 *Effect of cobalt/vitamin B12 status on ovum recovery from superovulated ewes*
Mitchell LM, van der Ven W, van Soest W, Watt RG, Ashworth CJ, Rooke JA & McEvoy TG
- 15:30 *Use of heterologous and homologous radioimmunoassay (RIA) for ovine Pregnancy-Associated Glycoprotein (ovPAG) determination to detect pregnancy in sheep*
Vandaele L, Verberckmoes S, De Cat S, El Amiri B, Sulon J, Duchateau L, Van Soom A & Beckers JF
- 15:45 *The anti-inflammatory cytokine interleukin-10 protects against LPS-induced miscarriage and preterm labour*
Robertson SA & Skinner RJ
- 16:00 – **Tea/Coffee and Trade Exhibition** (Peristilium)
16:30
- 16:30 – **Attended Posters** (Peristilium)
18:30
(refreshments provided)
- 18:30 **Free Evening**
onwards
(a list of local restaurants and bars will be provided in the delegate packs with further copies available at the Registration Desk)

Tuesday April 6

- 09:00 – **Oral Session 3: Ovarian Follicles - 1**
11:00 (Aula) *(note: parallel session)*
Chair: tbc
- 09:00 *Metabolic changes in follicular fluid of the dominant follicle in high-yielding dairy cows early post partum*
Leroy JLMR, Vanholder T, Delanghe JR, Opsomer G, Van Soom A, Bols PEJ, Dewulf J & de Kruif A

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- 09:15 *Localization of estrogen receptor beta (ERB) mRNA within various bovine ovarian cell types using in situ hybridisation*
D'Haeseleer MM & Van den Broeck WLM
- 09:30 *Angiogenic activity of swine granulosa cells*
Bianco F, Basini G, Bussolati S & Grasselli F
- 09:45 *Expression of Kit Ligand and c-Kit receptor in goat ovaries*
Silva JRV, van den Hurk R & Figueiredo JR
- 10:00 *Does the pre-ovulatory LH surge regulate the expression of mRNAs for transforming growth factor alpha (TGFA) and its receptor (EGF-R) in the post-LH surge ovine follicle?*
Khalid M, Miles L, Wheeler-Jones CPD & Scaramuzzi RJ
- 10:15 *Dependence of primordial follicle formation on FIGLA may be mediated by regulation of MCL1 expression*
Bayne RAL & Anderson RA
- 10:30 *Heat stress in vitro affects steroid production by theca and granulosa cells from bovine preovulatory follicles*
Folger JK, Bridges PJ & Fortune JE
- 10:45 *Allotransplantation of mouse hemi-ovaries under the kidney capsule versus back muscle*
Soleimani R, Liu J, Van der Elst J & Dhont M
- 09:00 – 11:00 **Oral Session 4: Sperm & Male Infertility**
(Conference Room) (*note: parallel session*)
Chair: tbc
- 09:00 *Endogenous modulators of 11B-hydroxysteroid dehydrogenase (11BHSD) activities in bovine and porcine seminal plasma*
Thurston LM & Michael AE
- 09:15 *Evidence for continued maturation of spermatozoa after entry into the vas deferens of the spinifex hopping mouse, Notomys alexis*
Bauer MK, Leigh CM, Ricci M, Peirce EJ & Breed WG
- 09:30 *Sperm distribution in the genital tract of the bitch following artificial insemination*
Rijsselaere T, Van Soom A, Van Cruchten S, Coryn M, Görtz K, Maes D & de Kruif A

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- 09:45 *Expression of progesterone receptor(s) during capacitation and incidence of acrosome reaction induced by progesterone and zona proteins in boar spermatozoa*
Cheng FP, Chiang KC & Wu JT
- 10:15 *Modulation of the mouse testis transcriptome during postnatal development and in selected models of male infertility*
Ellis PJI, Furlong RA, Wilson AE, Print C, Burgoyne PS, Mahadevaiah SK, Toure A & Affara NA
- 10:30 *Interchromosomal effect in infertile men with Robertsonian or reciprocal translocation*
Douet-Guilbert N, Morel F, Le Bris MJ, Delobel B, Marchetti C, Moerman A, Duban B, Amice J, Amice V & De Braekeleer M
- 10:45 *Contraceptive effect of M1 equatorial segment protein in male hamster (Mesocricetus auratus)*
Mat Noor M & Alene T
- 11:00 – **Coffee and Trade Exhibition** (Peristilium)
11:30
- 11:30 – **SRF New Investigator Lecture** (Aula)
12:15 Chair: Dr. Tony Michael (London, UK)
- Molecular Advances in Sperm Cryopreservation*
Dr Lisa M Thurston (London, UK)
- 12:15 – **SRF Student Prize Session** (Aula)
13:00 Chair: Dr. Ioannis Sfontouris (Nottingham, UK)
- 12:15 *Oocyte-cumulus communication: Impact of gap junctional communication and GDF-9 on peroxiredoxin 6 expression*
Leyens G, Knoops B & Donnay I
- 12:30 *Novel functional characterization of expression of prostaglandin F2a synthase (PGFS) and microsomal prostaglandin E2 synthase (mPGES) in porcine estrous cycle endometrium and in early pregnancy*
Waclawik A, Rahman NA, Rivero-Muller A, Brokken LJS, Watanabe K, Blitek A & Ziecik AJ
- 12:45 *Role for prostaglandins in the autocrine/paracrine regulation of 11B-hydroxysteroid dehydrogenase (11BHS) activity in human granulosa-lutein (hGL) cells*

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Jonas KC, Chandras C, Abayasekara DRE & Michael AE

13:00 – **SRF Postgradoc Lunch** (Peristilium)
14:20

(For postgradoc members of SRF + members of SRF Council)

13:00 – **Lunch (Het Pand)**
14:20

14:30 – **Oral Session 5: Oocytes**
16:00 (Aula) *(note: parallel session)*
Chair: tbc

14:30 *Glycoconjugates of the zona pellucida of murid rodents: Is there evidence for species-specificity?*
Swann CA, Leigh CM & Breed WG

14:45 *Ploidy and development of artificial mouse oocytes and zygotes*
Heindryckx B, Lierman S, Van der Elst J & Dhont M

15:00 *PKA localises to mitochondria in mouse oocytes*
Webb RJ & Carroll J

15:15 *The effects of caffeine on MPF and MAPK kinase activities and parthenogenetic development of aging ovine oocytes*
Lee JH & Campbell KHS

15:30 *Connexin 43 as a parameter of cumulus functionality in meiotic maturation of bovine oocytes in vitro*
Tománek M & Machatková M

15:45 *FSH delays nuclear maturation but enhances development of pig oocytes in vitro*
Ye J, Campbell KHS & Luck MR

14:30 – **Oral Session 6: Uterus**
16:00 (Conference Room) *(note: parallel session)*
Chair: tbc

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- 14:30 *Immunohistochemical detection of MMP-1 and TIMP-1 expression in the cyclic canine endometrium*
Van Cruchten SJM, Simoens PJM & Van den Broeck WLM
- 14:45 *Exploring the extracellular matrix of the bovine oviduct - modulations of hyaluronan associated receptors and synthases in vivo and in vitro*
Ulbrich SE & Einspanier R
- 15:00 *Oestrogen receptor alpha inhibits the NF-kappaB pathway in a bovine endometrial stromal cell line*
Wang C-K, Derecka K, Mann GE, Sheldrick ELR & Flint APF
- 15:15 *Immune response in mice following in utero infection with Mouse Hepatitis Virus and Mouse Minute Virus*
Mahabir E, Mayer A, Needham J & Schmidt J
- 15:30 *Substrate induction of COX-2 expression by polyunsaturated fatty acids (PUFAs)*
Sheldrick ELR, Derecka K & Flint APF
- 15:45 *The pattern of COX-2 and EP4 mRNA expression in the ovine cervix during the oestrous cycle*
Kershaw CM, Khalid M, McGowan MR, Wheeler-Jones CPD & Scaramuzzi
- 16:00 – **Tea/Coffee and Trade Exhibition** (Peristilium)
16:30
- 16:30 – **Oral Session 7: Ovarian Follicles - 2**
17:30 (Aula) (note: parallel session)
Chair: tbc
- 16:30 *FSH and IGF promote both the secretion of 'total' inhibin-A and activin-A by bovine granulosa cells and modify the relative abundance of different molecular mass (Mr) variants*
Glister C, Groome NP & Knight PG
- 16:45 *BMPs 2, 6 and 15 are regulators of porcine theca cell function in vitro*
Quinn RL, Brankin V, McGarr C, Webb R & Hunter MG
- 17:00 *The function of co-cultured porcine granulosa and theca cells is modulated by BMPs 2, 6 and 15 in conjunction with oocytes in a serum free system*
Brankin V, Quinn RL, McGarr C, Webb R & Hunter MG

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- 17:15 *Expression of bone morphogenetic protein-6 (BMP-6) in the bovine foetal ovary at different stages of gestation*
Dugan KJ, Campbell BK, Skinner A, Armstrong DG & Webb R
- 16:30 – **Oral Session 8: Fertilization**
17:30 (Conference Room) (*note: parallel session*)
Chair: tbc
- 16:30 *Mitochondrial transfer between porcine oocytes improves fertilisation outcome*
El Shourbagy SH & John J
- 16:45 *Carbohydrates and glycoproteins involved in bovine fertilization in vitro*
Tanghe S, Van Soom A, Duchateau L & de Kruif A
- 17:00 *Effect of replacement of follicular fluid on pregnancy rates in the horse*
Parlevliet JM, Eilts BE, Paccamonti DL, Ferrer MS, Lyle SK & Aljarrah AA
- 17:15 *Requirement for mitochondrial ATP production during sperm-triggered Ca²⁺ oscillations in the mouse egg*
Dumollard R, Duchen M, Marangos P, Swann K & Carroll J
- 19:00–
24:00 **Conference Dinner** (Poortackere Monasterium)
To include presentation of the SRF Student Prize and the Marshall Medal

Wednesday April 7

- 09:00 – 11:00 **Symposium 2: Emerging Concepts in Reproductive Endocrinology** (Aula)
Chairs: tbc / tbc
- 09:00 – 09:40 *Endocrine Basis of Cystic Ovarian Diseases*
Professor David Abbott (Wisconsin, USA)
- 09:40 – 10:20 *Glucocorticoid Metabolism & Reproduction: A Tale of Two Enzymes*
Dr. Tony Michael (London, UK)

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- 10:20 – 11:00 *AMH in the Ovary: From Receptor Signalling to Physiological Function and Clinical Impact*
Professor Axel Themmen (Rotterdam, Netherlands)
- 11:00 – 11:30 **Coffee and Trade Exhibition** (Peristilium)
- 11:30 – 12:30 **SRF Distinguished Scientist Lecture** (Aula)
Chair: Professor Alan McNeilly (Edinburgh, UK)
- The Oocyte and its Role in Regulating Ovulation Rate: A New Paradigm in Reproductive Biology*
Professor Ken P McNatty (Wallaceville, New Zealand)
- 12:30 – 12:45 **Closing Ceremony** (Aula)
Professor Ann Van Soom (Ghent, Belgium)
Professor Alan McNeilly (Edinburgh, UK)