Recent happenings

Congratulations to the following Award and Grant recipients from the Reproduction and Healthy Pregnancy Research Program:

**Researcher Grants**

- **Dr. Peter von Dadelszen & Mark Ansermino (Pediatric Anesthesia)** – Saving Lives at Birth Seed Grant, $200,000 USD for 2 years, Project: PIERS on the Move: Pre-Eclampsia Integrated Estimate of Risk Assessment on a Mobile Phone
- **Dr. Laura Magee** – CIHR Operating Grant, $297,609 for 4 years, Project: CHIPS-Child: Testing the developmental origins hypothesis
- **Dr. Laura Magee & Dr. Anne Synnes** – CIHR Operating Grant $615,426 for 4 years, Project: MAG-CP: Magnesium Sulphate for Fetal Neuroprotection or the Preterm Infant
- **Dr. K.S. Joseph, Dr. Laura Magee & Dr. Robert Liston (Maternal Fetal Medicine, ObGyn)** – CIHR Emerging Team Grant, $900,000 for 3 years, Project: Preventing Severe Maternal Morbidity
- **Dr. Stefan Grzybowski** – CIHR Knowledge Translation Supplement, $87,500 for 1 year, Project: Building on 6 Years of Rural Maternity Care Research: An Integrated, Multimedia Approach to KT
- **Dr. Patricia Janssen** – CIHR Knowledge Translation Supplement $99,981 for 1 year, Project: Doing Time: Knowledge Translation
- **Dr. Peter von Dadelszen** – Bill & Melinda Gates Foundation $6,999,991 for 4 years, Project: PRE-Eclampsia-Eclampsia Monitoring, Prevention and Treatment (PRE-EMPT)
- **Dr. Geoffrey Hammond** – CIHR Operating Grant $395,661 for 3 years, Project: Corticosteroid-binding globulin: key regulator of glucocorticoid action during development and disease
- **Dr. Peter von Dadelszen** – CIHR Catalyst Grant $100,000 for 1 year, Project: Clinical Prediction Models for Critically Ill Pregnant Women: MEOWS and CIPHER
- **Dr. Wendy Robinson** – CIHR Operating Grant $858,805 for 5 years, Project: DNA Methylation and its Association with Neural Tube Defects
- **Dr. Evica Rajačan-Separovic** – CIHR Operating Grant $644,347 for 5 years, Project: Genomeic Changes in Human Miscarriages and their Functional Consequences
- **Dr. Pablo Nepomnaschy** – CIHR Operating Grant $364,879 for 3 years, Project: Interplay between women’s stress and reproductive axes: The dynamic transition from post-partum infertility to ovarian cyclicity

**Trainee Awards**

- **Ting-Kuang Yang** - CIHR Master’s Award, Supervisor: Dr. C. Brown
- **Courtney Hanna** - CIHR Doctoral Award, Supervisor: Dr. Wendy Robinson
- **Samantha Benton** - CFRI Graduate Studentship 2011, Supervisor: Dr. Peter von Dadelszen
- **Magda Price** - CFRI Partnership Graduate Studentships, Supervisor: Dr. Wendy Robinson
- **Tuan Anh Nguyen** - CFRI Partnership Graduate Studentships, Supervisors: Dr. Dan Rurak & Dr. Ken Lim
- **Gillian Hanley** - CFRI Postdoctoral Fellowship, Supervisor: Dr. Patricia Janssen
- **Kirsten Hogg** - CFRI Postdoctoral Fellowship, Co-Supervisor: Dr. Wendy Robinson
- **Beth Payne** - Outstanding achievement by a Masters Student, Supervisor: Dr. Peter von Dadelszen

Please direct comments about this newsletter to Domena Tu, dtu@cfri.ca

**Upcoming Meetings**

Research Highlight:
GnRH-II Enhances Ovarian Cancer Cell Invasiveness

Ovarian cancer is the most lethal gynaecological cancer because the disease spreads extensively and rapidly before diagnosis. However, five-year survival rates are as high as 90% for patients presenting with localized disease, and it is critical to gain a better understanding of how normal ovarian cells are transformed into aggressively growing cancer cells. The observation that the levels of gonadotropin-releasing hormone-II (GnRH)-II and its receptor are increased in ovarian tumours prompted Dr. Peter C.K. Leung and his colleagues to investigate the regulation and function of GnRH-II in ovarian cancer cells. Their early studies demonstrated that the production of GnRH-II was enhanced by epidermal growth factor, a key tumour growth factor, which increased the invasiveness of the cells (1). Building on these results, their studies in collaboration with Dr. Geoffrey L. Hammond demonstrated that 37kDa laminin receptor precursor and matrix metalloproteinase-2 are critical mediators of GnRH-II enhanced ovarian cancer cell invasion (2). The results of these two studies were featured on the cover of the February 2011 issue of Molecular Endocrinology (see below), and also received mention in the Trends & Insights section of the March issue of The Endocrine Society's Endocrine News magazine (http://www.endo-society.org/endonews/2011/upload/Endocrine-News-March-2011.pdf)

Continued investigation of the mechanisms underlying the promotion of ovarian cancer cell invasion by GnRH-II also identified a parallel pathway, independent of 37kDa laminin receptor precursor, leading to the up-regulation of membrane type I matrix metalloproteinase (3). These studies represented the core of Song Ling Poon’s Ph.D. thesis, which she defended in November 2010: Song is currently a postdoctoral fellow at the National University of Singapore.

Selected Recent Publications


Cheng JC, Auersperg N, Leung PC. Inhibition of p53 represses E-cadherin expression by increasing DNA methyltransferase-1 and promoter methylation in serous borderline ovarian tumor cells. Oncogene. 2011 Apr 11


Proposed model for GnRH-II autocrine actions in ovarian cancer cell invasion

Cover art for Molecular Endocrinology, February 1, 2011, Vol. 25, Number 2 http://mend.endo journals.org/content/25/2/local/front-matter.pdf


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