

## History of The Nelly Auersperg Award in Women's Health Research



Dr. Nelly Auersperg

The Nelly Auersperg Award in Women's Health Research was established in 2000 by an anonymous donor to honour the work of Dr. Nelly Auersperg, one of Canada's foremost cell biologists. Dr. Auersperg is particularly well known for her work on ovarian cancer, the leading cause of death from gynaecological malignancies in North American women. Dr. Auersperg and her team are currently working to better understand the causes of and early changes in genes that lead to ovarian cancer as a means to identify potential markers for early ovarian cancer detection and prevention.

The Nelly Auersperg Award is granted to a promising researcher in the area of women's health to conduct an innovative research project. In 2002, Dr. Catherine Anderson received \$15,000 for her research on the utilization of a new screening technique to analyze the relationship between the presence of an extra chromosomal copy in the placenta (trisomic placentae) and the development of pre-eclampsia, a life-threatening condition that occurs in 3 – 5 % of pregnancies.



In 2004, Dr. Margaret McGregor was awarded a similar amount to generate a comprehensive understanding of 'best practices' for the care of women who have experience a sexual assault.



Dr. Margaret McGregor

This study was published in *Health Care for Women International* in 2009.

*Margaret J. McGregor; Janice Du Mont; Deborah White; Megan E. Coombes. (2009). Examination for Sexual Assault: Evaluating the Literature for Indicators of Women-Centered Care Health Care for Women International, 1096-4665, Volume 30, Issue 1: 22-40.*

#### 2011 Winner

Dr. Julian Christians won the 2011 Nelly Auersperg award for his project **“Can PAPP2 be used as an early marker of preeclampsia?”**

Preeclampsia affects 5-7% of pregnancies and is a leading cause of maternal mortality. There is great interest in developing our understanding of markers that indicate whether there may be a problem with placental development that puts a woman at risk of preeclampsia. One potential marker under investigation includes first-trimester levels of a protein called PAPP2 in the maternal blood stream, which numerous studies have associated with a variety of diseases of pregnancy. More recently, a few studies have found that the levels of a related protein, PAPP2, are higher at delivery in placentae from preeclamptic pregnancies. However, because PAPP2 has only been studied in placental samples obtained at delivery, it is not clear whether PAPP2 could be used for early screening, i.e., by measuring circulating levels of PAPP2 protein in the first trimester. Dr. Christian's research will be the first to address the potential of PAPP2 as an early marker for placental disease. The study will measure first trimester PAPP2 levels in blood samples obtained from two prenatal screening programs to determine (a) factors that contribute to variation in PAPP2 levels in normal healthy pregnancies (e.g., gestational age at sampling, ethnicity, maternal weight, smoking, medication), and (b) whether first trimester PAPP2 levels differ between healthy pregnancies and those that develop preeclampsia. Results from the study have tremendous potential to reduce infant and maternal morbidity and mortality.