

TCAG New Technologies Seminar

“Using Ingenuity Pathway Analysis to understand complex disease: case studies focused on Ovarian Cancer and Type II Diabetes”

Date: Monday Nov. 02, 2009
Time: 1:30 – 3:30 PM
Location: MaRS Centre, CR-3
101 College St.
Speaker: Chris Kirchberg,
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Functional Implications of Molecular Profiles of Ovarian Cancer. Researchers focused on improving methods for the diagnosis and treatment of ovarian cancer are faced with challenges such as unclear signs and symptoms of disease, ineffective screening methods, and difficulty identifying patients with a high risk for relapse. Platforms such as gene expression profiling and miRNA screening offer novel methods for capturing the molecular state of the disease, and understanding mechanisms of disease and drug response. An *in silico* approach, in which IPA 7.6 is used to analyze such molecular profiles and understand the functional implications of deregulated miRNA, over-expressed transcripts, and gene mutations associated with ovarian cancer will be presented.

Linking SNPs from Type II Diabetes GWAS to Disease-Relevant Genes, Pathways, Phenotypes and Molecular Mechanisms. Genome-Wide Association Studies (GWAS) that identify single-nucleotide-polymorphisms (SNPs) present in patients with Type II Diabetes provide a powerful tool for predicting gene to disease associations and generating hypothesis about the underlying molecular mechanisms of disease. Further analysis and exploration of GWAS data in IPA 7.6 enables researchers to narrow in on and prioritize the subset of genes from GWAS that are associated with disease relevant pathways, biological processes/phenotypes, and regulatory events.

Hosted by The Centre for Applied Genomics and
the Ontario Genomics Institute



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