ANNUAL REPORT
2006/2007

THE HESS B. AND DIANE FINESTONE LABORATORY
IN MEMORY OF JACOB AND JENNY FINESTONE
http://www.mcgill.ca/finestone/

Submitted by: Dr. David S. Rosenblatt, Director

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MEMBERSHIP

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William D. Foulkes
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Marc Tischkowitz
Patricia N. Tonin
David Watkins

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The Hess B. and Diane Finestone Laboratory in Memory of Jacob and Jenny Finestone exists in order to promote the field of medical genetics at McGill University. Dr. David S. Rosenblatt has been Director of the laboratory since its inception. The laboratory was established with the help of an endowment to McGill University and funding is used to advance the academic goals of the Division of Medical Genetics in the Department of Medicine of the McGill University Health Centre (MUHC). As such, this report also serves as the Annual Report of the Division of Medical Genetics of the Department of Medicine of the MUHC. It is available on the Internet (**http://www.mcgill.ca/finestone)**. Since the University Division in Medicine also has included the Division at the Jewish General Hospital, this report also encompasses parts of that activity. Within the past few years, major advances have occurred with the creation of the Department of Medical Genetics at the Jewish General Hospital, and more recently, the Department of Medical Genetics at the MUHC.

Highlights: Research

Dr. William Foulkes and Dr. Marc Tischkowitz demonstrated the involvement of *PALB2*/*FANCN* in hereditary breast cancer families.

Dr. David Rosenblatt and his collaborators have shown that mutations in the *MCEE* gene can result in elevated methylmalonic acid excretion. With colleagues in the New York, he has described mutations in the *PCFT* gene in patients with Hereditary Folate Malabsorption, and with colleagues in Nebraska, he has shown that the polymorphic background of the *MTRR* gene affects the phenotype of a disease-causing mutation.

Dr. Patricia Tonin developed a derivative ovarian cancer cell line though the transfer of chromosome 3 fragments, using a novel modification of an established technique involving whole chromosome transfer. This cell line is now being used to identify the underlying chromosome 3p gene(s) involved in tumour suppression. A positive outcome has been the modulation of transcriptome networks, which will enable them to prioritize gene candidates for an independent project aimed at elucidating genes involved in ovarian tumourigenesis.

Highlights: Awards

Dr. William Foulkes was awarded a highly competitive Chercheur Nationaux Award from the FRSQ.

Dr. Marc Tischkowitz was awarded a Chercheur Clinicien Award from the FRSQ.

Highlights: Teaching

Dr. Nicholas AhMew completed the RV year of his training program and successfully passed the examinations of the Royal College in Medical Genetics. He plans to spend next year in China before continuing with fellowship training. Dr. Philippe Campeau completed his RIV year and served as Chief Resident. He is to be congratulated on an excellent job. Dr. Khalid Al-Tihihli, Dr. Maha Al-Awadi, and Dr. Mouna Ben Amor completed their RIII year and Dr. Daniela D'Agostino and Dr. Ahmad Alfares their RI year.

Highlights: Clinical

After more than five years, a Department of Medical Genetics was finally established at the MUHC. Dr. Teresa Costa has been appointed the first Chief of this hospital department. Dr. Costa has held positions in the past in Montreal, Halifax and Toronto.

In keeping with the new RUIS structure mandated by the Government of Quebec, a provincial committee and a local McGill committee have been established to examine how to best serve the interest of the Quebec population in the area of Medical Genetics.

Clinical Statistics:

Suzanne Dufrasne, M.Ps, Psychologist:

Huntington Disease

Number of new patients seen: 16
Number of sessions in person: 28
Number of counselling phone calls with patients (pre-session, follow-up): 48
Number of counselling phone calls with health professionals: 20
Total number of interventions with patients: 76

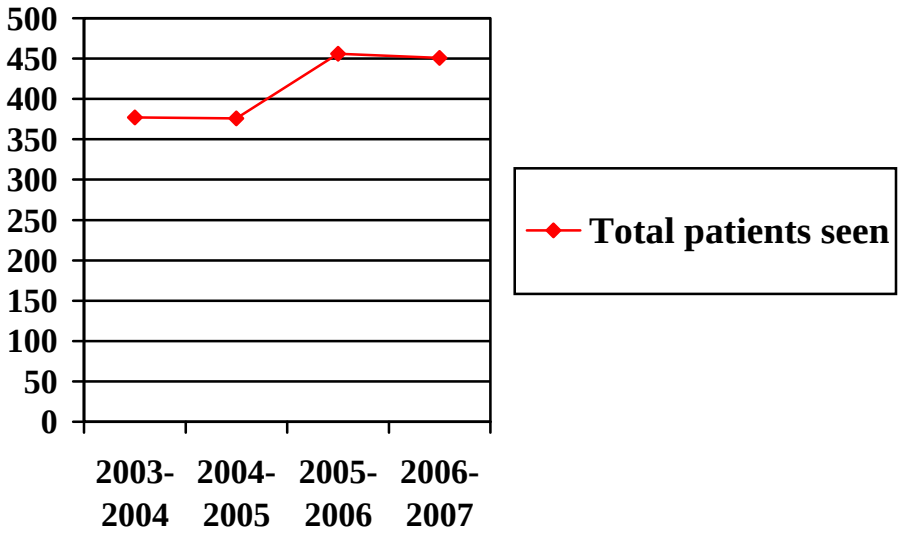
Other Diseases (Creutzfeldt-Jakob, Familial adenomatous polyposis)

Number of patients seen: 2

Stephanie Fox, MSc, MS, Genetic Counsellor:

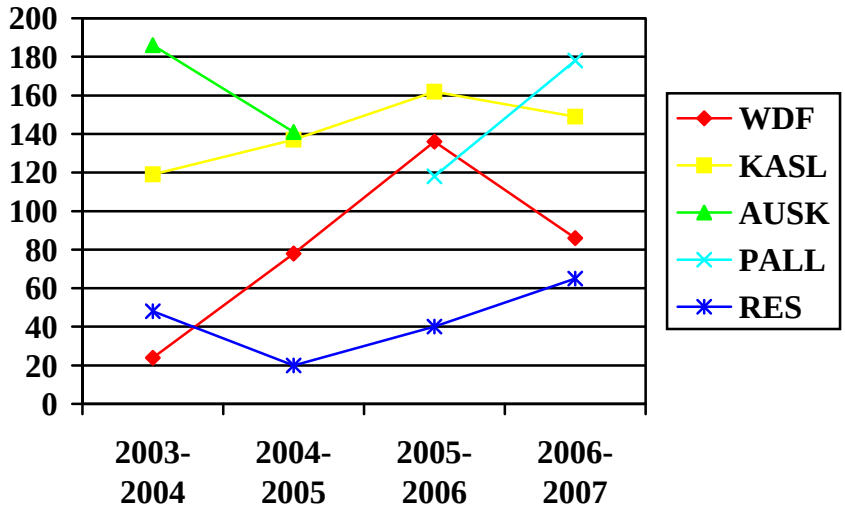
Montreal General Hospital Hereditary Cancer Clinic – April 1 to December 4, 2006:

Number of new patients seen: 75
Number of follow-up patients seen: 80
Total cases seen: 155



Total Patients Seen at MUHC

2003-2004: 377
2004-2005: 376
2005-2006: 456
2006-2007: 451 ~20% increase since 2004-2005



NOTES FOR LEGEND:
Fiscal periods are calculated from April 1st- March 31st.

- Totals for **KASL** (Lidia Kasprzak) take into account all patients seen by KASL and/or her replacements (**SFOX** [Stephanie Fox]**, MLAL** [Maria Lalous]**, LROB** [Laura Robb]) over each financial period.
- For 2005-2006 fiscal period, **PALL** (Laura Palma) totals are calculated from time of start date **July 1, 2005** and therefore, do not include the statistics for April 1st- June 30th, 2005).
- Stats for **RES** include the total number of patients seen by either genetics residents and/or **FITZJ** (Jennifer Fitzpatrick)

Research Interests and Accomplishments of Individual Members:

Dr. Eleanor Elstein has an active clinic in the area of cardiovascular genetics, which evaluates inherited cardiac diseases as well as systemic genetic diseases that have cardiac manifestations.

Dr. Ken Dewar and his laboratory are using genomics and bioinformatics technologies to study genome structure and variation. One focus of the lab is to develop genetic mapping tools for investigating complex trait mapping in a nonhuman primate, the vervet monkey. Using comparative genomics approaches they have leveraged other genome projects (human, chimpanzee, rhesus monkey) to streamline the discovery of markers of genetic variation (SNPs). They have also embarked upon the generation of corresponding genome wide physical map, entailing the paired-end sequencing and genome alignments for >200,000 BAC clones. The vervet BAC map is being used to delineate chromosomal breakpoints and to identify vervet BAC clones associated with evolutionary recently derived centromeres and pericentromeric regions.

His group is also interested in understanding genome structure and virulence factors in the human bacterial pathogen *Clostridium difficile*. *C. difficile* remains a serious health risk in Quebec, North America, and Europe, in part due to an epidemic strain of increased virulence which has emerged in the last several years. The laboratory has performed the sequencing of the entire 4 Mb genome of a virulent strain from Montreal, and is now generating the genome sequences of other isolates with important clinical phenotypes. Cross-genome comparisons of gene content and organization will be used to identify additional candidate genes involved in pathogenicity.

Dr. William Foulkes and colleagues have been characterizing mutations in the new breast cancer gene PALB2. In addition, he has worked with BRCA1-mutated cell lines to try to develop novel treatments. With George Chong, he has described several novel mutations in genes associated with hereditary colorectal cancer. As mentioned above, in recognition of the excellence of his work, he has been awarded a Chercheur Nationaux award from the FRSQ.

Mary Fujiwara studies the distribution and maintenance of genetic variability, including deleterious alleles, in populations. During the current reporting period, she continued collaborations on the Hutterite population of North America, an inbred population isolate, to map and further delineate the clinical variability of a Joubert-related cerebello-oculo-renal syndrome. In addition, she participated in the mapping of two other rare Mendelian diseases, Sanfilippo C syndrome and methylmalonic aciduria and homocystinuria (cblC type), in patients and families collected from around the world. She also participated in collaborations on identifying underlying genetic susceptibility for complex diseases including kidney stone formation and early-onset coronary heart disease in the French-Canadian population.

She also collaborate with Daniel Bichet (Hôpital Sacré-Coeur de Montréal) on the genetics of nephrogenic and neurohypophyseal diabetes insipidus. The study of mutations in three different genes has shown that the mode of inheritance can differ based on the particular mutation. They maintain locus specific mutation databases for these genes which encode the hormone arginine vasopressin, its receptor, and a water channel (*AVP*, *AVPR2*, and *AQP2*, respectively).

Dr. Brian Gilfix focuses on two main areas of research: 1) Homocysteine and its Metabolism/Inborn Errors of Metabolism (Homocystinuria)-they have a large cohort of patients in the Adult Genetics Clinic with homocystinuria. He is using this opportunity to explore new treatments of homocystinuria and investigate the effect of elevated homocysteine on other risk factors for cardiovascular disease; 2) Development of Laboratory Methods in Molecular Diagnostics and HPLC-he is developing and implementing assays based on hybridization probes to replace standard assays based on restriction fragment length polymorphism used to genotype single nucleotide polymorphisms in the clinical laboratory. The benefit of this is decreased net cost and faster turnaround time.

Dr. Ken Morgan has a major interest in human population genetics and genetic epidemiology. He is involved in the genetic analysis of Mendelian and complex traits in humans and mice. Accomplishments related to human genetics include mapping rare Mendelian diseases. Ongoing collaborations include segregation and linkage analysis of intermediate phenotypes contributing to calcium kidney stone formation; genetic susceptibility to inflammatory bowel disease in children; and reducing the complexity of pedigrees in founder populations such that statistical analysis is computationally feasible.
He is a member of the CIHR Institute of Genetics Priorities and Planning committee for genetic epidemiology and statistical genetics and was on the organizing committee of the "Second Annual Canadian Genetic Epidemiology and Statistical Genetics Meeting", held in Toronto, 15-17 April 2007.

Dr. David Rosenblatt and his laboratory continue to be the major international referral source for the diagnosis of patients with inherited disorders of folate and vitamin B_{12}. They are involved in studying the biochemical and molecular bases of these diseases. This year they have expanded mutation analysis among patients with combined homocystinuria and methylmalonic aciduria due to mutations in MMACHC. They have also shown that mutations in the MCEE gene can result in elevated methylmalonic acid excretion. With colleagues in the New York, they have described mutations in the *PCFT* gene in patients with Hereditary Folate Malabsorption, and with colleagues in Nebraska, they have shown that the polymorphic background of the MTRR gene affects the phenotype of a disease-causing mutation. Dr. Rosenblatt continues to serve as Chairman of the Department of Human Genetics. In August 2006, he served as the Chairman of the FASEB Summer Research Conference on One-Carbon Metabolism in Indian Wells, California.

Dr Marc Tischkowitz has been establishing a research program at the Segal Centre, Jewish General Hospital to undertake innovative and effective research in the field of hereditary predisposition to cancer, with a focus on the genetic links between breast cancer and Fanconi Anemia. He was part of an international collaboration that identified PALB2/FANCN as a new Fanconi Anemia gene and together with Dr Foulkes he helped to establish that PALB2 is a breast cancer predisposition gene.

Patricia Tonin works in two principal areas of research; these are described on the web site: **www.toninlab.mcgill.ca**.

A. The Molecular study of Human Epithelial Ovarian Cancer

More than 70% of women diagnosed with ovarian cancer die of the disease. Our knowledge of the molecular events associated with the development and progression of epithelial ovarian cancer has been limited by the lack of a suitable model system. Also, since the disease is often diagnosed at a late stage when numerous complex chromosomal changes have already taken place, the early molecular events remain largely unknown. Research in the lab is focused on the identification of tumour suppressor genes, particularly those physically associated with chromosomes 3p and 17q. Various molecular genetic techniques are used to identify them, which include, allelic content analysis such loss of heterozygosity studies and single nucleotide (SNP) polymorphism analyses, large-scale gene expression assays (Affymetrix platform), and more recently functional approaches based on chromosome transfer fragment and gene complementation. A major accomplishment of the last year was development of a derivative ovarian cancer cell line though the transfer of chromosome 3 fragments. This cell line was developed using a novel modification of an established technique involving whole chromosome transfer. This cell line is now being used to identify the underlying chromosome 3p gene(s) involved in tumour suppression. A positive outcome has been the modulation of transcriptome networks, which will enable them to prioritize gene candidates for an independent project aimed at elucidating genes involved in ovarian tumourigenesis. [See News item at **www.toninlab.mcgill.ca** for Press Release.]

In collaboration with colleagues at the CHUM-Notre Dame, they investigate gene expression profiles of ovarian cancer samples with the aim of identifying signature patterns of gene expression in order to elucidate molecular pathways important in ovarian tumourigenesis.

B. Breast and Ovarian Cancer Susceptibility Genes

Hereditary breast and ovarian cancer accounts for approximately 5-10% of all breast and ovarian cancers. A large majority of cancer families are attributed to germline mutations in BRCA1 and BRCA2. However, about 40% of cancer families are negative for mutations in these known genes. Dr. Tonin's group is also focused on determining the contribution of known and unknown cancer susceptibility genes to inherited predispositon to breast and ovarian cancer. They focus on the founder French Canadian population of Quebec as reviewed in a special issue of the *Bulletin du Cancer*, which commemorated the 100th anniversary of *Société Française du Cancer* in France. In 2006 they described a new founder BRCA2 mutation found to recur in the French Canadian population. Moreover, they have extended their analysis to further refine those cancer families most likely to harbour BRCA1 or BRCA2 mutations.

MEETINGS AND PRESENTATIONS

KEN DEWAR

February 23, 2006 — Department of Physiology Seminar Series,
McGill University, Montreal, QC
Title: Comparative Genomics: Comparing and contrasting aspects of genome evolution

November 26, 2006 — Academic Tribute and Colloquium in Honor of Dr. Abraham Fuks
McGill University, Montreal QC
Title: I have 50 % of my mother's genes, yet am 99% identical to a chimpanzee

SUZANNE DUFRASNE

November 21, 2006 — Seminar for Genetic Counselling students, with Dr. Sylvain Chouinard.
Ste-Justine Hospital, Montreal, QC
Title: Predictive testing for Huntington Disease

WILLIAM FOULKES

February 2, 2006 — 5th International "From Gene to Cure" Congress
Vrije Universiteit Amsterdam
Amsterdam, Netherlands
Title: Genetic Risk Assessment

February 2, 2006 — 5th International "From Gene to Cure" Congress
Vrije Universiteit Amsterdam
Amsterdam, Netherlands
Title: Prevention of hereditary breast cancer

June 15, 2006 — Toronto Breast Cancer Symposium 2006
Metro Toronto Convention Center
Toronto, Ontario
Title: Genetics and Breast Cancer: An Update

April 20, 2006 — "Basal-like and BRCA1-associated Breast Cancer" meeting
Harvard Club
Boston, MA, USA
Title: Clinico-pathological features of basal-like/BRCA1 tumors

August 16, 2006 — Australian Ovarian Cancer Study and the Family Cancer Clinics of Australia
Couran Cove Island Resort
Stradbroke Island, Australia

Title: Recent advances in understanding of the inherited susceptibility to cancers of the prostate, pancreas, stomach and colorectum

August 18, 2006 — Australian Ovarian Cancer Study and the Family Cancer Clinics of Australia
Couran Cove Island Resort
Stradbroke Island, Australia
Title: Hereditary breast cancer: from pathology to treatment and beyond

October 28, 2006 — 10th Annual Cincinnati Comprehensive Breast Cancer Conference
Cutting Edge Strategies in Breast Cancer: The next decade
Cincinnati, OH, USA
Title: Breakthrough treatments for BRCA1 and BRCA2 mutation carriers

November 9, 2006 — Cancer Colloquia IV: Cell and Molecular Biology of Breast Cancer
University of St-Andrews
St-Andrews, Scotland
Title: Hereditary breast cancer: from pathology to treatment and beyond

BRIAN GILFIX

October 6, 2006 — McGill Neurology Conference
Montreal General Hospital
Montréal, QC
Title: Myelopathy due to vitamin B12 deficiency

November 14, 2006 — Speaker, Life as a Physician Seminar Series
McGill Faculty of Medicine
Montréal, QC

KENNETH MORGAN

August 3-5, 2006 — Invited speaker in workshop: The Genomic Revolution and the Origin of of Humanity.
Origins Institute, McMaster University
Hamilton, Ontario
Title: Challenges and approaches to understanding complex diseases.

October 19, 2006 — Invited speaker at conference: Innovations in Genomics Research: Implications for Health Services and Policy
Newfoundland and Labrador Centre for Health Services and Policy
St. John's, Newfoundland
Title: Population history, structure and genetics of the Hutterites in North America.

LAURA PALMA

October 9-13, 2006	The American Society of Human Genetics, 56th Annual Meeting Ernest N. Morial Convention Center, New Orleans, LA Attendee
January 12, 2007	Multidisciplinary Urology/Genetics Rounds Montréal, QC **Title:** Genetics of Pheochromocytoma and other Paragangliomas
May 4, 2007	Medical Genetics Journal Club Montréal, QC Title: Assisted reproduction for inherited predisposition to cancer: Challenging the barriers of preventive medicine?

DAVID ROSENBLATT

August 5-10, 2006	FASEB Summer Research Conference One Carbon Metabolism Indian Wells, California. Chairman
September 11, 2006	National Council of Jewish Women of Canada Gelber Conference Centre, Montreal, QC Moderator: Women and Health: Unravelling the Mysteries of Hormones
Sept 26-29, 2006	Canadian Academy of Health Sciences 2nd Annual Meeting Ottawa, ON
October 6-7, 2006	Genetic Testing Center for Disease Control (CDC) Atlanta, GA
April 19-22, 2007	Canadian Genetic Diseases Network 16th Annual Meeting Saint-Sauveur, Quebec **Title:** Inborn errors of vitamin B_{12}: From clinical phenotypic variability to novel metabolic steps.

MARK TISCHKOWITZ

May 2006	CBCRA Reasons for Hope Conference, Presentation with Jean-Sébastien Brunet, Louis R Bégin, David Huntsman, Maggie CU Cheang, Torsten Nielsen, Lars Akslen and William D Foulkes Montréal, QC **Title:** The *BRCA1*-associated "core basal phenotype" (ER-, HER2-, CK5/6+) of breast cancer is associated with a poor prognosis.
May 2, 2006	Réseau de Médicine Génétique Appliquées du FRSQ Journées Génétiques Meeting Montréal, QC **Title:** BRCA1-associated "core basal phenotype" (ER-, HER2-, CK5/6+) of breast cancer is associated with a poor prognosis
May 6, 2006	Montreal Children's Hospital Friday Lecture and Seminar Series Montréal, QC **Title:** Chromosome Breakage Syndromes and DNA repair
May 8, 2006	Polymnia Galiatsatos, Adrian Gologan, Marc Tischkowitz Jewish General Hospital Medical Rounds **Title:** HNPCC: Diagnostic criteria and more…
September 22, 2006	Hôpital Charles LeMoyne Oncology Rounds Montréal, QC **Title:** An update on Hereditary Breast Cancer
October 26, 2006	Montreal Centre for Experimental Therapeutics in Cancer, 4th Annual Meeting Montréal, QC **Title:** What's new in DNA Repair?
October 19-22, 2006	Speaker, 18th Annual Fanconi Anemia Scientific Symposium North Bethesda, Maryland, USA
November 10, 2006	Jewish General Hospital Obstetrics and Gynecology Rounds Montréal, QC **Title:** Screening for genetic diseases in the Ashkenazi Jewish population
December 14, 2006	McGill Thursday Evening Lecture Series Montréal, QC **Title:** Genetic factors in breast and ovarian cancer: a primer for family doctors

February 15, 2007	Genetic Counselling Students Seminar McGill University Montreal, QC **Title:** Pathology in Cancer Genetics
February 16, 2007	Montreal Children's Hospital Friday Lecture and Seminar Series Montreal, QC **Title:** Screening for genetic diseases in the Ashkenazi Jewish population
February 26, 2007	Jewish General Hospital Medical Rounds (also presented at Montreal General Hospital and Royal Victoria Hospital) Montréal, QC **Title:** A stitch in time? Management issues in hereditary gastric cancer
March 6, 2007	Environmental Carcinogenesis, MSc Course EXMD 614 McGill University Montreal, QC **Title:** It's a dangerous world out there: DNA repair and environmental toxins
March 23, 2007	Montreal Children's Hospital Genetics Rounds, with Sonya Zaor Montreal, QC **Title:** Dilemmas in Hereditary Gastric Cancer - a new case and an old case revisited
April 13, 2007	McGill University Hospitals Research Institute Genetics Axis McGill Department of Human Genetics Seminar Series Montreal, QC **Title:** PALB2/FANCN – another link between Fanconi Anemia and breast cancer
April 13, 2007	Montreal Children's Hospital Neonatal Rounds Montreal, QC **Title:** Fanconi anemia - an important cause of congenital malformations
May 16, 2007	"Lets Talk about Colorectal Cancer" - Free Public Forum: Chevra Kadisha B'nai Jacob - Beit Hazikaron and Colorectal Association of Canada **Title:** Genetics of Colorectal Cancer
May 27, 2007	30-minute interview, Radio 940 Montreal, QC **Title:** Hereditary predisposition to breast cancer

May 27, 2007 — Public Seminar, Salon des Baby Boomers Plus, Palais des congrès Montréal, QC
Title: Cancer- Are you at risk? Can you prevent it?

PATRICIA N. TONIN

May 18, 2006 — CHUM-Hopital Hotel Dieu - Service de Médecine Génique
Montreal, Quebec
Title: The importance of chromosome 3 genes in ovarian cancer revealed by integrating genomic and functional strategies

May 1-2, 2006 — Réseau de médicine génetique appliquée (RGMA) du FRSQ
6émes Journée Génétiques
Title: The influence of the BRCA2 ovarian cancer cluster region (OCCR) in French Canadian breast and/ovarian cancer families of Quebec

May 13-16, 2006 — Canadian Conference on Ovarian Cancer Research
Third National Conference On Ovarian Cancer Research,
Vancouver, British Columbia
Title: Histopathological subtypes of ovarian cancers in familial breast-ovarian cancer families: Are there novel breast-ovarian cancer susceptibility genes?

March 20, 2007 — Cancer Research Laboratory Program, London Regional Cancer Program
London Health Sciences Centre
London, Ontario
Title: Integrating genomic, gene expression and functional complementation strategies to identify genes implicated in ovarian cancer

NORA WONG

April 18, 2007 — Public Service Announcement
Minimed-SMBD-Jewish General Hospital
April 11, 18, 25 & May 2, 9, 16
Montréal, QC
Title: Medical Genetics-Genetic risk and cancer

May 31, 2007 — *Reasons to Hope, Knowledge to Cope: Innovations in Cancer Patient Education:* Cancer Patient Education Network (CPEN)-Canada-5th Annual Conference, May 31-June 2, 2007

Session A: Research in cancer patient education
Marriott Château Champlain
Montreal, QC
Title: Cancer prevention Education: Insights from genetics and lifestyle changes

SONYA ZAOR

March 23, 2007 McGill Medical Genetic Grand Rounds with Marc Tischkowitz
Montréal, QC
Title: Dilemmas in Hereditary Gastric Cancer - a new case and an old case revisited.

ORIGINAL PUBLICATIONS

Baker K, Chong G, **Foulkes WD**, Jass JR. Transforming growth factor-pathway disruption and infiltration of colorectal cancers by intraepithelial lymphocytes. *Histopathol* 49(4): 371-380, 2006.

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Bikker H, Bakker HD, Abeling NGGM, Poll-The BT, Kleijer WJ, **Rosenblatt DS**, Waterham HR, Wanders RJA, Duran M. A homozygous nonsense mutation in the methylmalonyl-CoA epimerase gene results in mild methylmalonic aciduria. *Hum Mutat* 27(7): 640-643, 2006.

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Dean NL, Loredo-Osti JC, **Fujiwara TM**, **Morgan K**, Tan SL, Naumova AK, and Ao A. Transmission ratio distortion in the myotonic dystrophy locus in human preimplantation embryos. *Eur J Hum Genet* 14:299-306, 2006.

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Ernest S, Carter M, Shao H, Hosack A, Lerner N, Colmenares C, **Rosenblatt DS**, Yoh-Han Pao, Ross ME, Nadeau J. Parallel changes in metabolite and expression profiles in *Crooked-tail* mutant and folate-reduced wild-type mice. *Hum Mol Genet* 15(23): 3387- 93, 2006.

Finch A, Beiner M, Lubinski J, Lynch HT, Moller P, Rosen B, Murphy J, Ghadirian P, Friedman E, **Foulkes WD**, Kim-Sing C, Wagner T, Tung N, Couch F, Stoppa-Lyonnet D, Ainsworth P, Daly M, Pasini B, Gershoni-Baruch R, Eng C, Olopade OI, McLennan J, Karlan B, Weitzel J, Sun P, Narod SA. Hereditary Ovarian Cancer Clinical Study Group. Salpingo-oophorectomy and the risk of ovarian, fallopian tube and peritoneal cancers in women with BRCA1 or BRCA2 mutation. *JAMA* 296 (2): 185-192, 2006.

Foulkes WD. BRCA1 and BRCA2: Chemosensitivity, treatment outcomes and prognosis. *Fam Cancer* 5 (2): 135-142, 2006.

Friedman E, Kotsopoulos J, Lubinski J, Lynch HT, Ghadirian P, Neuhausen SL, Isaacs C, Weber B, **Foulkes WD**, Moller P, Rosen B, Kim-Sing C, Gershoni-Baruch R, Ainsworth P, Daly M, Tung N, Eisen A, Olopade OI, Karlan B, Saal HM, Garber JE, Rennert G, Gilchrist D, Eng C, Offit K, Osborne M, Sun P, Narod SA, the Hereditary Breast Cancer Clinical Study Group. Spontaneous and therapeutic abortions and the risk of breast cancer among BRCA mutation carriers. *Breast Cancer Res* 8(2):R15, 2006.

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RESEARCH OPERATING FUNDS – 2006-2007

AGENCY

Dewar, Ken	Genome Canada, Group Grant – 2006-2009 Genome Canada, PI – 2005-2009 CIHR, Group Grant – 2005-2008 National Institutes of Health, PI, Group Grant – 2004-2008 Genome Canada (Emerging Issues), PI – 2006-2007 Canada Foundation for Innovation, PI, Group Grant – 2006-2007
Brian Gilfix	Gustuv Levinschi Foundation Award, PI – 2007 March of Dimes Birth Defects Foundation, PI – 2006-2008
Foulkes, William	CBCRA, IDEA, PI – 2006-2007 CBCRA, Operating Grant, PI – 2006-2009 CBCRA, Operating Grant, PI – 2005-2008 CIHR, Operating Grant, (PI as of 12/18/06) – 2003-2006, extended 2007 Susan G Komen BrCa Found, Co-Investigator –2006-2009 NIH, Group Grant, Co-Investigator – 2002-2006, extended 2007 CIHR, Group Grant, Co-Investigator – 2003-2007 PCRFC, Operating Grant, Co-Investigator – 2005-2007 CBCRI, Operating Grant, Co-Investigator – 2004-2009
Morgan, Kenneth	Networks of Centres of Excellence, Operating, Investigator – 1999-2009 CIHR, Group Grant, Investigator – 2003-2008 CIHR, Operating Grant, Co-PI – 2006-2009 CIHR, Operating Grant, Co-application – 2007-2009
Rosenblatt, David S.	CIHR, Operating Grant, PI – 2006-2009 CIHR, Group Grant, Co-Investigator – 2007-2012

Tischkowitz, Mark	Rethink Breast Cancer, Operating Grant, PI – 2006-2008
Tonin, Patricia N.	Cancer Research Society, Inc., Strategic Grant, Co-PI – 2005-2007 CIHR, Operating Grant, Investigator – 2005-2008 Quebec Breast Cancer Foundation, Group Operating Grant – 2004-2007 CIHR, Operating Grant, Investigator – 2004-2006 Fonds de la Recherche en Santé du Québec: Reseau cancerologie, Group Operating Grant – 2000-2007 VRQ, Group Operating Grant – 2002-2006 Canadian Foundation for Innovation, Innovation Fund – 2002-2006 Montreal Breast Cancer Foundation, Group Operating Grant – 2003-2006

FINANCIAL REPORT – 2006/2007

Starting Balance	$ 87,772
Deficit from 2005-2006	($18,637)
	$ 69,135

Salary Support and Benefits (Dufrasne, Flannery, Rosenblatt, Valancy, Veyre)	$ 48,909
Conferences, Seminars, Travel	$ 18,195
Catering and Events	$ 2,699
Library and Membership	$ 6,320
Board Accreditation (Fox, Palma, Secord)	$ 6,955
Materials and Supplies	$ 1,321
Miscellaneous	$ 1,941

Total Expenses:	**$ 86,340**
Balance:	**($17,205)**