Annual Report  
Division of Medical Genetics, Department of Medicine  
Sir Mortimer B. Davis - Jewish General Hospital  
April 1, 2006-May 31, 2007

1. **Highlights**

Medical Genetics has been functioning as a Department at the Jewish General Hospital in its own right for a full year. At the same time, it has maintained its status as a Division within the McGill Department of Medicine. This document serves as the annual report for both entities. The major clinical focus of the department continues to be in the areas of Hereditary Cancer and Prenatal Diagnosis. Dr. Marc Tischkowitz has been on site at the JGH since September 2005 and he practises as a full time medical geneticist. Nora Wong and Sonya Zaor are full time counsellors, primarily responsible for cancer genetics. Maria Lalous, genetic counsellor, who joined the department in August 2005 primarily in the area of prenatal diagnosis, went on maternity leave in December 2006. Jennifer Fitzpatrick, the director of the McGill M.Sc. program in Genetic Counselling returned as a temporary replacement. Razia Chanda and Danielle Veyre provide administrative support for the Department.

Marc Tischkowitz trained in both medical oncology and clinical genetics and his main clinical and research interest is hereditary cancer predisposition. Dr. William Foulkes also continues to play a major role in clinical and research aspects of hereditary cancer predisposition at the JGH.

On the eighth floor of the A Pavilion, the department has administrative space and a dedicated counselling room, primarily used for prenatal diagnosis cases. Much of the clinical work in cancer genetics takes place in the Cancer Prevention Centre in the Segal Cancer Centre and provides state of the art facilities for managing individuals and families with a hereditary predisposition to cancer. The Program in Cancer Genetics, shared between the McGill Departments of Oncology and Human Genetics is now well established (www.mcgill.ca/cancelegenetics/). This program is led by Dr. William Foulkes.

2. **Evaluation of past academic year**

a) **Faculty**

Dr. David Rosenblatt continues to be Director of the University Division of Medical Genetics in the Department of Medicine at both the JGH and MUHC sites; this enhances integrated service delivery. He is also Chair of the McGill Department of Human Genetics. The report of his academic activities for the past year can be obtained at www.mcgill.ca/finestone/.
Dr. Marc Tischkowitz is primarily responsible for the day-to-day clinical activity in the department. He shares cancer genetics clinics with Dr. Foulkes and has started a monthly multidisciplinary hereditary gastrointestinal cancer clinic with Dr. Polymnia Galiatsatos, a gastroenterologist at the JGH. In addition he has started a monthly general genetics clinic where he sees referrals for all types of genetic disorder. He also sees ward referrals (including neonatal referrals) where a genetic disorder is suspected and is the medical supervisor for the prenatal diagnosis service.

Dr. William Foulkes continues to run the cancer genetics service, dividing his time between the MUHC and the JGH. There are close links to the Departments of Oncology and Pathology, and to a number of surgical divisions, reflecting the multidisciplinary nature of the clinical service. Please also refer to the annual report of the Program in Cancer Genetics for additional information: [www.mcgill.ca/cancergenetics](http://www.mcgill.ca/cancergenetics/).

Dr. Eva Andermann, Dr. Serge Melancon, and Dr. Laura Russel, all of whom have active appointments at the MUHC, were appointed to the staff of the JGH as associate members. They join Dr. V asken Der Kaloustian who also holds this appointment.

b) Clinical Activities

Cancer Genetics Clinical Activity

The following table and figure indicate the change in workload in cancer genetics from 1997 to 2006

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Consultations</td>
<td>88</td>
<td>111</td>
<td>114</td>
<td>146</td>
<td>155</td>
<td>183</td>
<td>359</td>
<td>292</td>
<td>283</td>
<td>351</td>
</tr>
<tr>
<td>Visits</td>
<td>20</td>
<td>59</td>
<td>18</td>
<td>91</td>
<td>99</td>
<td>151</td>
<td>228</td>
<td>292</td>
<td>289</td>
<td>250</td>
</tr>
<tr>
<td>Ward</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>16</td>
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<td>5</td>
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<tr>
<td>Phone</td>
<td>59</td>
<td>60</td>
<td>37</td>
<td>1</td>
<td>4</td>
<td>33</td>
<td>49</td>
<td>40</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total (excludes phone consults)</td>
<td>110</td>
<td>173</td>
<td>153</td>
<td>238</td>
<td>256</td>
<td>335</td>
<td>585</td>
<td>600</td>
<td>576</td>
<td>606</td>
</tr>
</tbody>
</table>
Prenatal Genetics Clinical Activity

The following table and figure indicate the change in workload in prenatal genetics from 2003-2006

<table>
<thead>
<tr>
<th>Clinics Type</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>139</td>
<td>257</td>
<td>320</td>
<td>443</td>
</tr>
<tr>
<td>Consultations</td>
<td>101</td>
<td>213</td>
<td>245</td>
<td>281</td>
</tr>
<tr>
<td>Visits</td>
<td>38</td>
<td>44</td>
<td>75</td>
<td>162</td>
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</tbody>
</table>

Other Clinics

<table>
<thead>
<tr>
<th>Clinic Type</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Genetics</td>
<td>Consultations 49</td>
</tr>
<tr>
<td></td>
<td>Visits 11</td>
</tr>
<tr>
<td></td>
<td>Total 62</td>
</tr>
<tr>
<td>Hereditary GI</td>
<td>Consultations 11</td>
</tr>
<tr>
<td></td>
<td>Visits 2</td>
</tr>
<tr>
<td></td>
<td>Total 13</td>
</tr>
<tr>
<td>Hereditary GYN</td>
<td>Total 69</td>
</tr>
</tbody>
</table>
c) Honours and Awards

As of 2007, Dr. William Foulkes is a Chercheur-National at the SMBD-Jewish General Hospital. This award was given to him by the Fonds de la recherche en Santé. He holds this award until 2011.

Since June 2003, he has been a William Dawson Scholar at McGill University. This is a major award equivalent to a Canada Research Char, Tier 2, and Dr. Foulkes holds this award until 2008.

In 2006, Dr. Marc Tischkowitz was awarded a Chercheur-Boursier Clinicien award from the FRSQ.

d) Teaching Activities – 2006-2007

GRADUATE AND UNDERGRADUATE COURSES

**William Foulkes**

516 – 614B  Environmental Carcinogenesis
Department: Medicine (Div. Experimental Medicine)
Format: Lecture
Title: Cancer Genetics/Prevention
Role: Lecturer
Level: MSc program
Time (hr/yr): One two-hour session

516 – 0635D  Experimental and Clinical Oncology
Format: Lecture
*Title:* Cancer Genetics
Role: Lecturer
Level: MSc program
Time (hr/yr): 1.5-hour seminar

521-690B  Inherited Cancer Syndromes
Department: Department of Human Genetics
Format: Lecture
*Title:* Cancer Genetics
Role: Lecturer
Level: MSc program
Time (hr/yr): Four two-hour sessions
Medical Genetics
Unit 8 small group teaching in medical genetics
Format: One 2 hour lecture and 4 small groups session, 3 hours each
Role: Lecturer
Level: Medical students

David Rosenblatt

Biology 575
Department: Biology/Human Genetics
Format: Lecture
Title: Inborn Errors of Folate and Cobalamin Transport and Metabolism
Role: Lecturer and Course Co-ordinator
Level: Undergraduate/Graduate
Time: 6 hours

Unit 8
Department: Human Genetics
Format: Lecture and Small Group Teaching
Role: Lecturer-2 sessions:
Titles: Introduction
Huntington Disease
Small Group Leader – 4 sessions
Level: Medical
Time: One hour lectures; 8 hours small groups

Marc Tischkowitz

516 – 614B Environmental Carcinogenesis
Department: Medicine (Div. Experimental Medicine)
Format: Lecture
Title: It's a dangerous world out there: DNA repair and environmental toxins
Role: Lecturer
Level: MSc program
Time: One two-hour session

516 – 0635D Experimental and Clinical Oncology
Format: Lecture
Title: Clinical Issues in Hereditary Cancer Genetics
Role: Lecturer
Level: MSc program
Time (hr/yr): 1.5-hour seminar
Unit 8
Department: Human Genetics
Format: Lecture and Small Group Teaching
Role: Lecturer-2 sessions:
Titles: Cancer
Prenatal
Ethics
Small Group Leader – 2 sessions
Level: Medical
Time: One hour lectures; 8 hours small groups

Department: Human Genetics, Oncology
Format: Lecture and Small Group Teaching
Role: Lecturer
Titles: Using Pathology in Cancer Genetics
Level: Genetic Counselling MSc Course
Time: 1.5 hours

Maria Lalous (N.B. On maternity leave from January 2007)
McGill Genetic Counselling MSc Program

Clinical Supervision:

<table>
<thead>
<tr>
<th></th>
<th>Length Of Clinical Rotation (wks)</th>
<th>Number</th>
<th>Total time (wks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Student</td>
<td>4</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Second year Student</td>
<td>8</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>4</td>
<td>24</td>
</tr>
</tbody>
</table>

Medical Genetics
Unit 8 small group teaching in medical genetics
Format: One 2 hour lecture and 4 small group sessions, 3 hours each
Role: Lecturer
Level: Medical students
**McGill Genetic Counselling MSc Program**

**Clinical Supervision:**

<table>
<thead>
<tr>
<th></th>
<th>Length Of Clinical Rotation (wks)</th>
<th>Number</th>
<th>Total time (wks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Student</td>
<td>4</td>
<td>2 (concurrent)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Workshop 2 - Cancer Risk Assessment**

Methods used to evaluate cancer risk

Format: One small groups session, 3 hours
Role: Lecturer
Level: Genetic counseling students
Sonya Zaor

McGill Genetic Counselling MSc Program

Clinical Supervision:

<table>
<thead>
<tr>
<th></th>
<th>Length Of Clinical Rotation (wks)</th>
<th>Number</th>
<th>Total time (wks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Student</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

**Workshop 1-Cancer Risk Assessment**
Psychosocial Issues in Cancer Genetics: a patient testimony
Format: One small group session, 1.5 hours
Role: Lecturer
Level: Genetic counselling students

**Medical Genetics**
Unit 8 small group teaching in medical genetics
Format: One 2 hour lecture
Role: Lecturer
Level: Medical students
INVITED LECTURES, TALKS, PRESENTATIONS

William Foulkes

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

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

August 16, 2006
Title: Recent advances in understanding of the inherited susceptibility to cancers of the prostate, pancreas, stomach and colorectum
Australian Ovarian Cancer Study and the Family Cancer Clinics of Australia
Couran Cove Island Resort
Stradbroke Island, Australia

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

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

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

January 5th, 2007
Title: DNA repair and cancer susceptibility
Radiation Science Seminar
Montreal General Hospital
May 10th, 2007

**Title: New developments in breast cancer genetics**
Manitoba Cancer Care workshop, ITMHRT
Winnipeg, Manitoba

**David Rosenblatt**

August 5-10, 2006
Chairman, FASEB Summer Research Conference
One Carbon Metabolism
Indian Wells, California

September 11, 2006
**Moderator: Women and Health: Unravelling the Mysteries of Hormones**
National Council of Jewish Women of Canada
Gelber Conference Centre, Montreal, QC

September 26-29, 2006
Canadian Academy of Health Sciences
2nd Annual Meeting
Ottawa, Ontario

October 6-7, 2006
Genetic Testing
Center for Disease Control (CDC)
Atlanta, GA

April 19-22, 2007
**Title: Inborn errors of vitamin B12: From clinical phenotypic variability to novel metabolic steps**
Canadian Genetic Diseases Network
16th Annual Meeting
Saint-Sauveur, Quebec

**Marc Tischkowitz**

May 2, 2006
**Title: BRCA1-associated “core basal phenotype” (ER-, HER2-, CK5/6+) of breast cancer is associated with a poor prognosis**
Réseau de Médecine Génétique Appliquées du FRSQ Journées Génétiques Meeting, Montréal
May 6, 2006
**Title:** Chromosome Breakage Syndromes and DNA repair
Montreal Children’s Hospital Friday Lecture and Seminar Series

May 8, 2006
**Title:** HNPCC: Diagnostic Criteria and More…
Polymnia Galiatsatos, Adrian Gologan, Marc Tischkowitz
Jewish General Hospital Medical Rounds

September 22, 2006
**Title:** An update on Hereditary Breast Cancer
Hôpital Charles LeMoyne Oncology Rounds

October 26, 2006
**Title:** What’s new in DNA Repair?
Montreal Centre for Experimental Therapeutics in Cancer, 4th Annual Meeting

November 10, 2006
**Title:** Screening for genetic diseases in the Ashkenazi Jewish population
Jewish General Hospital Obstetrics and Gynecology Rounds

December 14, 2006
**Title:** Genetic factors in breast and ovarian cancer: a primer for family doctors
McGill Thursday Evening Lecture Series

February 15, 2007
**Title:** Pathology in Cancer Genetics
Genetic Counselling Students Seminar

February 16, 2007
**Title:** Screening for genetic diseases in the Ashkenazi Jewish population
Montreal Children’s Hospital Friday Lecture and Seminar Series

February 26, 2007
**Title:** A stitch in time? - management issues in hereditary gastric cancer
Jewish General Hospital Medical Rounds (also presented at Montreal General Hospital and Royal Victoria Hospital)

March 6, 2007
**Title:** It’s a dangerous world out there: DNA repair and environmental toxins
Environmental Carcinogenesis MSc course EXMD 614

March 23, 2007 (with Sonya Zaor)
**Title:** Dilemmas in Hereditary Gastric Cancer - a new case and an old case revisited.
Montreal Children’s Hospital Genetics rounds
April 13, 2007
Title: **PALB2/FANCN – another link between Fanconi Anemia and breast cancer**
McGill University Hospitals Research Institute Genetics Axis and McGill Department of Human Genetics Seminar Series

April 13, 2007
Title: **Fanconi anemia - an important cause of congenital malformations**
Montreal Children’s Hospital neonatal rounds

May 16, 2007
Title: **Genetics of Colorectal Cancer**
“Lets Talk about Colorectal Cancer” - Free Public Forum: Chevra Kadisha B’nai Jacob - Beit Hazikaron and Colorectal Association of Canada

May 27, 2007
Title: **Hereditary Predisposition to Breast Cancer**
30 minute interview, Radio 940, Montreal, and
Title: **Cancer- Are you at risk? Can you prevent it?**
Public Seminar, Salon des Baby Boomers Plus, Palais des congrès, Montréal

**Nora Wong**

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

May 31, 2007
Title: **Cancer prevention Education: Insights from genetics and lifestyle changes**
Session A: Research in cancer patient education
*Reasons to Hope, Knowledge to Cope: Innovations in Cancer Patient Education*:
Cancer Patient Education Network (CPEN)-Canada-5th Annual Conference Marriott Château Champlain, Montreal, Quebec May 31-June 2 2007

**Sonya Zaor**

March 23, 2007 (with Marc Tischkowitz)
Title: **Dilemmas in Hereditary Gastric Cancer - a new case and an old case revisited.**
McGill Medical Genetic Grand Rounds
e) Service to Academic Community and other Contributions

Members of the Division are very active in the academic activities of the Department of Human Genetics at McGill. In addition to being Chair of the Department, Dr. Rosenblatt is the Past President of the Association of Medical Geneticists of Quebec. Dr. Foulkes is Director of the McGill Program in Cancer Genetics and plays a key role on the Board of Directors of the Hereditary Breast and Ovarian Cancer Foundation. Dr Tischkowitz is a member of the Clinical Practice Committee, Canadian College of Medical Genetics and a member of Editorial board for the journal Clinical & Investigative Medicine. Nora Wong is the editor of the Hereditary Breast and Ovarian Cancer Foundation newsletter, an annual publication for individuals with BRCA1 or BRCA2 mutations.

f) Research Operating Funds – 2006-2007

**William Foulkes**

CBCRA – IDEA – 2006-2007 (PI)
CBCRA – Operating – 2006-2009 (PI)
CBCRA – Operating – 2005-2008 (PI)
CIHR – Operating – 2003-2006, extended 2007 (PI as of 12/18/06)
Susan G Komen BrCa Found. –2006-2009 (Co-I)
NIH – Group Grant – 2002-2006, extended 2007 (Co-I)
CIHR –Group Grant – 2003-2007 (Co-I)
PCRFC – Operating – 2005-2007 (Co-I)
CBCRI – Operating – 2004-2009 (Co-I)

**David Rosenblatt**

CIHR, Operating Grant, PI – 2006-2009
CIHR, Group Grant, Co-Investigator – 2007-2012

**Marc Tischkowitz**

Rethink Breast Cancer- Operating 2006-2008 (PI)

g) Publications for 2006-2007

**William Foulkes**


David Rosenblatt


**Marc Tischkowitz**


\textbf{Nora Wong}


3. Objectives and Priorities

Our objective remains to provide comprehensive service to our clientele. Our priority is to make it clear that further resources must be made available for prenatal, cancer and other general genetics services at the JGH. The Department of Medical Genetics at the JGH aspires to making the needs of both individuals and families in the area of medical genetics better known to the hospital and the community at large.

David S. Rosenblatt, MD
Medical Geneticist
Chief, Department of Medical Genetics, JGH
Chief, Division of Medical Genetics, Department of Medicine, McGill
Chair, Department of Human Genetics, McGill