

**Annual Report
Pulmonary Division
Department of Medicine, Jewish General Hospital
April 1, 2011 - December 31, 2011**

I. Highlights of Past Year

1. Airways Centre

At the Airways Centre we now offer state of the art multidimensional and multidisciplinary care for patients with asthma and COPD, especially those with severe disease. To improve the care of our patients, we have developed an Oracle database for joint electronic patient follow up. We also offer walk-in spirometry 4 days a week to facilitate collaboration with primary care practitioners in our area and currently are developing a web-based scientific community.

Our asthma clinic patients have a combined evaluation by an inhalation therapist, nurse specialist, pulmonary physician and by an allergist on the same day, which facilitates accessibility and also permits direct communication between team members. We also work closely with ENT specialists who provide rapid evaluation to our patients.

Since January 2010, patients not responding to the usual therapeutic approach undergo sputum induction and analysis with the help of a laboratory technician with an expertise in cellular morphology. This allows us to examine the inflammatory profile of their airways in order to better target therapy and thus improve effectiveness of treatment and reduce adverse effects. Our asthma nurse specialist ensures close patient surveillance by phone (treatment adherence, exacerbation follow, etc), as well as sees patients hospitalized or visiting Emergency Room to ensure adequate "prise en charge".

The COPD aspect of the airways centre continues to expand the multidisciplinary COPD clinic with Dr. Mark Palayew seeing patients from the medical point of view, and Esther Dajczman, the clinical nurse specialist, administering to the nursing needs of the patients. This clinic is based on the chronic care model and strives to attend to patient needs through pris en charge and early intervention by the attending nurse and physician and with continued education of patients for self-management support. The COPD program continues to strengthen the established links with Mount Sinai Hospital, the Smoking Cessation and pre-admission clinics, the CSSS and with exercise facilities in the community (YMHA, Cummings Center). Patients are transitioned and followed by Esther across hospital centers (JGH,MSH) and the community according to their needs. Programs developed in partnership with the pre-admission clinic for screening of lung disease, and with the YM-YWHA to facilitate exercise for patients with COPD in the community continue to flourish and receive patients.

Important quality assurance research has shown a significant trend towards reduction in the number of visits for respiratory and non-respiratory causes to the Emergency Department, which appear to decrease following the introduction of the new COPD program resources. Furthermore, the number of admissions for both respiratory and non-respiratory causes also seem reduced in the 1 year post observation period.

Patients have access to new medications through trials done in conjunction with pharmaceutical companies. Independent research has recently been started with the addition of Dr. Chantal Robitaille. An abstract titled “Screening for occult airways disease. A case for implementation in a surgical pre-admission clinic” has been presented at the American College of Chest Physicians Meeting in October 2011. Healthcare end-points are being studied in an ongoing trial on continuity of care for patients with exacerbation of COPD. Many exciting projects continue to be planned within the context of this integrated interdisciplinary program.

2. Pulmonary Oncology

The past year has also been significant for our pulmonary oncology program, which grew substantially. We were designated a cancer referral centre by the comité de lutte contre le cancer du Québec. The creation of the Brojde Lung Cancer Centre combining traditional Chinese Medicine and other complementary modalities with mainstream treatment for our lung cancer patients is based on the philosophies of integrative oncology and holistic nursing. This offers opportunities for research, education, and state of the art clinical practice with facilities to provide services to patients in our center, as well as at home. Our comprehensive approach manifests itself in a team, which includes a dedicated dietician, physiotherapist, acupuncturist, and a traditional Chinese medicine specialist who are now available to all of our patients and the feedback has been extremely positive. We are looking forward to the expansion of the Brojde Centre to the 10th floor of the Segal Cancer Centre.

The work of our Tumor Board continues to be one of the most important tools in the comprehensive approach to the treatment of our oncology patients. Tumor Board includes the participation and detailed discussion by physicians from surgery, radiotherapy, nuclear medicine (reviewing PET/CTs), pathologists (presenting and reviewing pathology slides), in addition to our pulmonary oncology team (physicians, nurses) and our Cancer Nutrition and Rehabilitation group. This comprehensive approach to treatment of our lung cancer patients has brought a number of patients requesting second opinions. Our Tumour Board has become a model for Ontario Cancer Care.

Our annual lung cancer awareness campaign in November has been an enormous success. We will continue this year with both a public lecture and information sessions. In addition, due to generous donors, we have set up an annual lung cancer lecture series to begin in 2012.

Our research continues to grow with several publications in peer reviewed journals and presentations at major international conferences including MASCC (international supportive care conference) and World lung cancer conference. Dr. J. Agulnik received a salary support grant for his research in molecular diagnostics of lung cancer which was presented at the World lung cancer conference. We have submitted numerous abstracts to ASCO 2012 with molecular pathology group, we continue to be one of the leading centres in Canada for screening for lung cancer.

3. Pulmonary Vascular Diseases

Pulmonary vascular disease is managed with the collaboration of Dr. Andrew Hirsch in two sub-specialized clinics. The Center for Pulmonary Vascular Disease is one of two major referral centers in the province that diagnose and manage patients with pulmonary hypertension of all causes. Dr. Hirsch is also very active in providing expert in-patient and out-patient care to patients with all varieties of arterial and venous thrombotic diseases. This of course includes the diagnosis and management of acute and chronic pulmonary embolism. Research in pulmonary hypertension and thromboembolic diseases is also ongoing and Dr. A. Hirsch has been fortunate enough to have secured a CIHR grant for a study on perspective evaluation of long-term outcomes after pulmonary embolism, which is being conducted in conjunction with Dr. Susan Kahn. Dr. A. Hirsch has been promoted to Associate Professor of Medicine in 2011.

4. Tuberculosis

The Tuberculosis Clinic, under the co-directorship of Drs. Mark Palayew and Chris Greenaway continues to serve the hospital by managing the care of almost all patients diagnosed with active tuberculosis in the hospital. There is also a large burden of latent tuberculosis that is managed through the TB clinic. Almost all active TB cases both pulmonary and non-pulmonary are managed through the TB clinic. There are close liaisons with the Departments of Public Health both on and off the island of Montreal. This is coordinated through the work of Geraldine Ricafort.

II. Evaluation of the Past Academic Year

The initiation of many new research projects and the significant increase in clinical activities has resulted in a very active year. Teaching remains of the highest caliber. We continue being rated very highly according to student, intern and resident evaluation over the past year.

1) Teaching Activities

The JGH Pulmonary Division was extremely active in teaching. Five members of the Division attended on the medical wards. While there, they supervise the medical team consisting of medical students, junior and senior residents. They conduct daily teaching rounds as well.

The pulmonary consult service is always extremely active. Medical students, residents and pulmonary fellows always benefit from diverse and challenging cases when they are on the Pulmonary rotation. They see patients in Emergency and on the floors and in outpatient clinics. They also participate in weekly Pulmonary, Tumour Board and X-ray rounds. Fellows and residents receive “hands on” training in invasive procedures, such as bronchoscopy and thoracentesis. Pulmonary fellows gain experience in working up and following patients in a 6-month rotation. They have their weekly clinics under the supervision of Dr. P. Ernst, Dr. Mark Palayew, Dr. A. Hirsch and Dr. D. Small in pulmonary, as well as sub-specialty clinics in pulmonary oncology (Dr. D. Small, Dr. C. Pepe), pulmonary hypertension and thrombosis (Dr. A. Hirsch) and tuberculosis (Dr. M. Palayew) and a sleep clinic at Mount Sinai Hospital (Dr. M. Palayew).

In addition to the clinical teaching, some members of the division regularly participated in lecture series to the medical residents and students at their CXR teaching sessions and Core medicine lectures.

With the ongoing success of the Experimental and Clinical Oncology Course 56-635D, undergraduate students continue to participate in our Pulmonary Tumor Board meetings (held weekly) as part of the workshop portion of their course. This year again, the students greatly appreciated the opportunity to attend the Tumor Board meetings and thereby gain a unique experience in participating in the work of this multi-disciplinary, innovative team.

Divisional weekly pulmonary rounds take place throughout the academic year. This involves presentations by our own staff, including fellows, residents and physicians from other divisions of the Jewish General, as well as many visiting professors. This year, guest speakers have included Dr. B. Fox, Dr. P. O'Byrne, Dr. P. Small, D. Menzies, Dr. M. Liberman, Dr. A. Gonzalez, Dr. R. Sheppard, Dr. M. Tewfik, Pulmonary Fellows Dr. C. Sairam, Dr. F. Al-Jamaan, Dr. I. Azuelos and Dr. M. Povitz.

A weekly Clinical/X-Ray conference is held in conjunction with the Radiology and Thoracic Surgery Departments.

Members of our Respiratory Physiology Department are also active in the ongoing clinical teaching of Vanier College Respiratory and Anesthesia students, including HOP students.

2) Research

Research studies have been undertaken in pulmonary oncology, obstructive lung disease, asthma, thromboembolism and pulmonary hypertension. ELOPE study, a multicenter CIHR funded study of the long term outcome of pulmonary embolism is underway and is going on well.

Research studies, many of which are ongoing include:

GSK: Antigen-specific Cancer Immunotherapeutic as Adjuvant Therapy in Patients with Resectable MAGE-A3 Positive NSCLC.

ImClone: A randomized, multicenter, open-label phase 3 study of pemetrexed-cisplatin chemotherapy plus IMC-11F8 versus pemetrexed-cisplatin chemotherapy alone in the first-line treatment of patients with nonsquamous stage III or IV NSCLC

ImClone: A randomized, multicenter, open-label phase 3 study of gemcitabine-cisplatin chemotherapy plus IMC-11F8 versus gemcitabine-cisplatin chemotherapy alone in the first-line treatment of patients with nonsquamous stage III or IV NSCLC

Pfizer: Phase 2, open-label, single arm study of the efficacy and safety of PF-02341066 in patients with advanced non-small cell lung cancer (NSCLC) harboring a translocation or inversion involving the anaplastic lymphoma kinase (ALK) gene locus

Pfizer: Phase 3, randomized, open-label study of the efficacy and safety of PF-02341066 versus standard of care chemotherapy (Pemetrexed or Docetaxel) in patients with NSCLC harboring a translocation or inversion event involving ALK gene locus

Boehringer Ingelheim: A randomized open-label phase II trial of BI 6727 monotherapy and BI 6727 in combination with standard dose pemetrexed compared to pemetrexed monotherapy in second line Non-small Cell Lung Cancer

RTOG: A study of Nimotuzumab (TheraCIM h-R3) in combination with external RT in Stages 2B-4 NSCLC

Novartis: A phase II, multi-center, open-label study of AUY922 administered IV on a once-weekly schedule in patients with advanced NSCLC who have received at least two lines of prior chemotherapy

Morphotek: A randomized, double-blind, placebo-controlled, study of the safety and efficacy of farletuzumab in combination with carboplatin or docetaxel followed by pemetrexed in chemotherapy naive subjects with stage IV adenocarcinoma with wild type EGFR

Boehringer Ingelheim: Multi-country, retrospective, cross-sectional chart review of patients with advanced NSCLC. (LUCEOR 1)

Boehringer Ingelheim: Multi-country, cross-sectional, prospective patient quality of life survey of patients with advanced NSCLC. (LUCEOR 2)

OSI Pharmaceutical: A randomized, double-blind, phase 2 study of erlotinib (Tarceva®) in combination with OSI-906 or placebo in chemotherapy naive patients with advanced NSCLC with activating mutations of the Epidermal Growth Factor Receptor (EGFR) Gene

OSI Pharmaceutical: A Randomized, double-blind, phase 2 study of maintenance OSI-906 plus erlotinib (Tarceva®) or erlotinib (Tarceva®) plus placebo in patients with non-progression following four cycles of 1st line platinum-based chemotherapy for advanced NSCLC

Daiichi Sankyo Inc.: A phase 3, randomized, double-blind, placebo-controlled study of ARQ-197 plus erlotinib (Tarceva®) in previously treated subject with locally advanced or metastatic, NSCLC

Bristol-Myers Squibb: Randomized, multicenter, double-blind, phase 3 trial comparing the efficacy of Ipilimumab in addition to paclitaxel and carboplatin versus placebo in addition to paclitaxel and carboplatin in subjects with stage IV/recurrent Non-Small Cell Lung

Novartis: An open label two-stage study of orally administered BKM120 in patients with metastatic non-small cell lung cancer with activated PI3K pathway

Helsinn Therapeutics/Medpace: Anamorelin HCI in the treatment of NSCLC – Cachexia (NSCLC-C): A randomized, double-blind, placebo-controlled, multicenter, phase 3 study to evaluate the safety and efficacy of Anamorelin HCI in patients with NSCLC

Hoffman-La Roche/Quintiles: A randomized, double-blind, placebo-controlled, phase 3 study of 1st line maintenance erlotinib (Tarceva®) versus erlotinib (Tarceva®) at the time of progression in patients with advanced NSCLC who have not progressed following 4 cycles of platinum-based chemotherapy

Sanofi-Aventis: A prospective, non-interventional, cohort survey on VTE risk in patients receiving new chemotherapy for cancer (CANTARISK)

Sunnybrook Health Sciences Centre: A randomized phase III study of standard treatment +/- enoxaparin in small cell lung cancer – RASTEN

Merck KGaA and EMD Serono, Inc: Stimulating Targeted Antigenic Response To NSCLC - A multi-center phase III randomized, double-blind placebo-controlled study of the cancer vaccine Stimuvax® (L-BLP25 or BLP25 liposome vaccine) in non-small cell lung cancer (NSCLC) subjects with unresectable stage III disease

Immunotec Inc: Effect of IMN1207 versus Casein on Weight Loss, Survival and Quality of Life in Non Small Cell Lung Cancer patients During or Following Chemotherapy Radiation or Surgery: A Multi-Center, Randomized, Double-blind Study

BR-26: A Double Blind Placebo Controlled Randomized Trial of PF-00299804 (PF-804) in Patients With Incurable Stage IIIB/IV Non-small Cell Lung Cancer After Failure of Standard Therapy for Advanced or Metastatic Disease

BI 1744 CL (5ug (2 actuations of 2.5 ug) and 10 ug (2 actuation of 5 ug) delivered by the Respimat® Inhaler, and 48 weeks of twice daily Foradil® (12 ug) delivered by the aerolizer® Inhaler, in patients with Chronic Obstructive Pulmonary Disease (COPD)

3) Clinical Activities: (April 1- Dec. 31 2011)

Oncology Clinic Statistics

New patients	105
Follow up visits	1556
Chemotherapy	465

Pulmonary Clinic Statistics

New patients (including oncology patients workup)	1571
Follow up visits (including oncology f/u)	6470

Laboratory Investigations:

Pulmonary function tests, Histamine challenge studies,

Cardio-pulmonary exercise studies	3354
Procedures:	
Bronchoscopies (including EBUS and Cryotherapy)	252
Thoracocentesis	122

4) Academic Staff & Recruitment

The Division has been very active in recruitment this year. Dr. Lama Sakr, a graduate of the Pulmonary Fellowship Program from Université de Montréal affiliated hospitals and subsequently did a year fellowship in interventional procedures at Marseilles, France. She is now completing a Master's of Epidemiology with a research project in pulmonary oncology before joining our team full time in September of 2012. Dr. Nathalie Saad is also completing her pulmonary fellowship at McGill and will be joining us after two subsequent years focusing on pulmonary rehabilitation. She will have a joint appointment at the Jewish General and Mount Sinai hospitals. Both of these excellent recruits will add substantially to the development of our pulmonary division.

5) Consulting activities:

Name of Faculty Member	Private Sector Consulting (# days)	Public Sector Consulting (# days)	Other (# of days) Please explain	Total
David Small	<u>0</u>	<u>6</u>	<u>0</u>	<u>6</u>
P. Ernst	<u>4</u>	<u>10</u>	<u>0</u>	<u>14</u>

III Objectives and Priorities

The main objective for the coming year will be to continue to improve our clinical programs and broaden our research activities. New PREM positions will be extremely important for our clinical and academic growth. Space is also a very important issue that will have to be addressed within the next year.

Respectfully submitted,

David Small, M.D., F.R.C.P.©
 Chief,
 Division of Pulmonary Diseases