

**Annual Report
Pulmonary Division
Department of Medicine - Jewish General Hospital
January 1 - December 31, 2013**

SUMMARY

It has been a very exciting year for the Pulmonary Division with lots of growth and change. After 13 years as Chief of the Pulmonary Division at the Jewish General Hospital, Dr. D. Small stepped down in April 2013, and was replaced by Dr. Andrew Hirsch in May of 2013. In his tenure as Chief of the Division, Dr. Small oversaw a period of great expansion and growth. He was instrumental in the development of the Peter Brojde Lung Cancer Center which continues to provide state of the art medical and research care to patients afflicted with lung cancer. He saw the division grow to encompass 10 respirologists, with equal growth in nursing, and respiratory therapy. In addition, he provided leadership in the development of other specialized programs within pulmonary including the Airway Center, the Cancer Nutrition and Rehab Program, the TB clinic, and expertise in Pulmonary Hypertension and Thrombosis. The Pulmonary Division owes Dr. Small a debt of gratitude for his hard work, guidance and vision that helped make this Division what it is today. Dr. Hirsch looks forward to continuing to foster the tradition of growth in the Division through the development of existing and new programs to maintain our excellence in clinical pulmonary disease, research and teaching.

I would like to summarize the past clinical year under the sub-specialty programs that we offer.

1. Research and Publications

Pulmonary Oncology

This year, our pulmonary oncology program continues to be based at the Peter Brojde Lung Cancer Center on the 10th floor of the Segal Cancer Center. Dr. Thomas Jagoe was named co-director of the Center, along with Dr. Jason Agulnik. This state of the art Center continues to enable our patients to receive both standard conventional therapies along with complimentary modalities, all in one Center. We continue to offer our patients new therapies and clinical trials in addition to numerous resources including a dietitian, physiotherapist and an acupuncturist. Drs. Sakr and Agulnik continue to be involved in developing our interventional bronchoscopy program, which has recently expanded to include ultra-sound guided insertion of tunneled pleural catheters (pleurX). These are becoming an increasingly important option for patients with malignant pleural effusions. We are also receiving more referrals and have been performing an increased number of EBUS/TBNA procedures. Our pulmonary oncology program is also integrated with the McGill thoracic surgery program. Surgeons now see patients once a week in the Peter Brojde Lung Cancer Center. In addition to thoracic surgery, we also partner closely with the Department of Radiation Oncology, the Cancer Nutrition and Rehabilitation Program and our pathology colleagues. Our Pathology Department has become one of the centers in Canada to routinely screen our patients for ALK translocations.

The work of our Tumour Board continues to be one of the most important tools in the comprehensive approach and treatment of lung oncology patients. The Tumour Board includes the participation and detailed discussion by physicians from Surgery, Radiotherapy, Nuclear

Medicine, Pathology, in addition to our pulmonary oncology team (physicians, nurses, physiotherapists, a nutritionist) and the Cancer Nutrition Rehabilitation Program.

We continue to provide public information sessions about lung cancer, especially during Lung Cancer Awareness Month in November.

Our lung cancer research continues to grow with several publications this past year in peer reviewed journals and presentations at major international conferences including ASCO and the World Lung Cancer Conference.

Selected Pulmonary Oncology Publications:

--Lester, J.F., **J. Agulnik**, O. Akerborg, C. Chouaid, A. De Geer, H.W. Finern, G.J. Herder, J. Lungershausen, P.L. Mitchell, J. Vansteenkiste, C. Ziske, and E. Goker, *What constitutes best supportive care in the treatment of advanced non-small cell lung cancer patients?--Results from the lung cancer economics and outcomes research (LUCEOR) study*. Lung Cancer, 2013. **82**: 128-35.

--Gagnon, B., **J.S. Agulnik**, I. Gioulbasanis, G. Kasymjanova, D. Morris, and N. MacDonald, *Montreal prognostic score: estimating survival of patients with non-small cell lung cancer using clinical biomarkers*. Br J Cancer, 2013. **109**:2066-71.

--Chouaid, C., **J. Agulnik**, E. Goker, G.J. Herder, J.F. Lester, J. Vansteenkiste, H.W. Finern, J. Lungershausen, J. Eriksson, K. Kim, and P.L. Mitchell, *Health-related quality of life and utility in patients with advanced non-small-cell lung cancer: a prospective cross-sectional patient survey in a real-world setting*. J Thorac Oncol, 2013. **8**:997-1003.

Airways Center

At the Airways Center we offer state-of-the-art multi-dimensional and inter-disciplinary care for patients with asthma and COPD. Our nurse/ clinical specialists (CNS) Pascale Rioux (for asthma) and Ester Dajczman (for COPD) coordinate the care of the patients and follow them over their illness trajectory in conjunction with their pulmonary physician partners. We have expanded our asthma program to include sputum inflammatory profiles and measurement of expired concentration of nitric oxide to patients not responding to usual therapeutic approach.

The chronic obstructive pulmonary disease (COPD) clinic continues to thrive and is based on the chronic care model striving to attend to patient's needs through continued education and self-managing support, smoking cessation, and integrated services. We have developed close links with Mount Sinai Hospital so that patients have access to pulmonary rehab and the CNS who works in both centers is able to transition many patients. Dr. N. Saad has joined our team with an interest and expertise in pulmonary rehabilitation. She has reinvigorated the rehabilitation program at Mount Sinai and strengthened our ties between the institutions.

New patient centered programs such as the COPD school for patients and their caregivers who are unable or unwilling to go through a full rehabilitation program are in the advanced planning stages and will begin in early 2014.

There is ongoing research in both asthma and COPD. These include the continued investigation of various medications to treat airway disease, and patient centered investigations at the JGH and Mt. Sinai in patients with COPD.

Selected airway Center Publications:

Suissa, S., V. Patenaude, F. Lapi, and **P. Ernst**, *Inhaled corticosteroids in COPD and the risk of serious pneumonia*. Thorax, 2013. **68**(11): p. 1029-36.

Ernst, P., A. Ariel, and S. Suissa, *Differences between asthmatics and nonasthmatics hospitalized with influenza A infection*. Eur Respir J, 2013. **41**(4): p. 772-4.

Saad, N., P. Camus, S. Suissa, and **P. Ernst**, *Statins and the risk of interstitial lung disease: a cohort study*. Thorax, 2013. **68**(4): p. 361-4.

Wardini, R., **E. Dajczman**, N. Yang, M. Baltzan, D. Prefontaine, M. Stathatos, H. Marciano, S. Watson, and **N. Wolkove**, *Using a virtual game system to innovate pulmonary rehabilitation: safety, adherence and enjoyment in severe chronic obstructive pulmonary disease*. Can Respir J, 2013. **20**(5): p. 357-61

Dajczman, E., **C. Robitaille**, **P. Ernst**, **A.M. Hirsch**, **N. Wolkove**, **D. Small**, J. Bianco, H. Stern, and **M. Palayew**, *Integrated interdisciplinary care for patients with chronic obstructive pulmonary disease reduces emergency department visits, admissions and costs: a quality assurance study*. Can Respir J, 2013. **20**(5): p. 351-6.

Pulmonary Vascular Diseases

The pulmonary vascular aspect of the Division continues to be very active. With respect to acute thrombosis, the ELOPE study completed recruitment, and is in data collection, and clean up phase. This is a CIHR, multi-center cohort study led out of the Jewish General Hospital looking at the long-term outcomes of patients with acute pulmonary embolism. Data should be available in 2014. We began another CIHR-funded study looking at the safety of withholding anti-coagulation in patients with small sub-segmental pulmonary emboli. The thrombosis consult service continues to grow and sees patients with a wide variety of coagulation disorders and the outpatient thrombosis clinic follows almost all patients with acute and chronic thrombotic disorders. The thrombosis service works closely with the Divisions of Hematology and Internal Medicine.

From a pulmonary hypertension standpoint, the pulmonary thromboendartectomy program continues to grow. We are having good surgical results in patients with chronic thromboembolic pulmonary hypertension and are looking at long-term outcomes. Clinically, we continue to co-operate very closely with the divisions of Cardiology and Rheumatology and see patients from all over the province with all forms of pulmonary hypertension. We provide rapid and thorough clinical assessment, follow-up and treatment of these complex disorders.

Selected Pulmonary Vascular Publications:

Fox, B.D., A. Shimony, D. Langleben, **A. Hirsch**, L. Rudski, R. Schlesinger, M.J. Eisenberg, D. Joyal, M. Hudson, K. Boutet, A. Serban, A. Masetto, and M. Baron, *High prevalence of occult left heart disease in scleroderma-pulmonary hypertension*. Eur Respir J, 2013. **42**(4): p. 1083-91.

Fox, B., D. Langleben, **A.M. Hirsch**, R.D. Schlesinger, M.J. Eisenberg, D. Joyal, F. Blenkhorn, and L. Lesenko, *Hemodynamic stability after transitioning between endothelin receptor antagonists in patients with pulmonary arterial hypertension*. Can J Cardiol, 2013. **29**(6): 672-7.

Tuberculosis

Our Tuberculosis clinic continues to be very active. During 2013, the clinic had over 1500 patient visits. During that year, 20-25 patients with active tuberculosis were being followed at any one time. Most of these patients require active contact tracing, which is done by both the TB clinic nurse and, depending on the extent of the exposure, by la Direction de la Santé Publique with whom we have very close ties. Research studies during this past year have included a health utility scale for patients for both latent and active TB, as well as creation of a database to understand host, environmental and mycobacterial characteristics in patients with tuberculosis.

2. Teaching and learning (undergraduate and graduate)

The Division is fortunate enough to have medical students, residents and fellows throughout the academic year.

Dr. N. Saad completed her combined HEC-McGill University MBA program

Dr. A. Hirsch participates in Residency Training Committee and evaluation of Residents, as well as Mock Royal College Exams for Fellows.

Dr. C. Pepe is an examiner for Pulmonary Medicine for the Royal College of Physicians and Surgeons of Canada.

3. Involvement in the community:

We are intimately involved with the community in outreach teaching programs for our lung cancer program, as mentioned in the above summary. We also provide teaching to community doctors on a regular basis for lung diseases with conferences and rounds.

4. Partnerships

Our lung cancer program is a model of inter-disciplinary approach with many other departments within the hospital, such as Radiology, Pathology, Nuclear Medicine and Radiation Oncology. Our Airways Center collaborates extensively with Mount Sinai Hospital and various CLSCs, in particular CLSC Cavendish, as well as the SDRSD. Our Tuberculosis program is in intimate contact with the Direction de la Santé Publique because of the nature of the illness.

5. New hires, promotions, and retirements

Dr. N. Saad has joined us during the past year. She has an expertise in pulmonary rehabilitation, and administration recently having completed her executive MBA.

Dr. T. Jagoe was promoted to Associate Professor of Medicine, and named co-director of the Peter Brojde Lung Cancer Center

6. Fundraising:

Fundraising has been very active in our Division. We are fortunate enough to receive many donations that help support our research and clinical activities within our Division.

SECTION I – DIVISION STATUS UPDATE

1. Mission and objectives of the Division

The mission of the Division of Pulmonary Diseases is to offer excellent clinical care for patients suffering from pulmonary diseases. We also strive to provide excellent teaching to medical students, residents and fellows, as well as the community at large. Research in all aspects of pulmonary diseases is also an extremely important activity within the Division.

2. A nominative list of academic staff, their academic rank

Dr. A. Hirsch	Associate Professor of Medicine, Chief of Pulmonary
Dr. J. Agulnik	Assistant Professor of Medicine, Associate Chief of Pulmonary Medicine, Director of Pulmonary Oncology
Dr. P. Ernst	Professor of Medicine
Dr. D. Small	Associate Professor of Medicine
Dr. T. Jagoe	Associate Professor of Medicine
Dr. N. Wolkove	Associate Professor of Medicine
Dr. M. Palayew	Assistant Professor of Medicine
Dr. C. Pepe	Assistant Professor of Medicine
Dr. L. Sakr	Assistant Professor of Medicine
Dr. N. Saad	Assistant Professor of Medicine

SECTION II - GRANTS, PUBLICATIONS, AND SERVICE OUTSIDE OF MCGILL

1. Grants and awards received

Pulmonary and Pulmonary Oncology Ongoing Pharmaceutical Trials 2012

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

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

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

Astellas Pharma (OSI): A Randomized, Double-Blind, Phase 2 Study of erlotinib (Tarceva®) in combination with OSI-906 or placebo in Chemonaive Patients with Advanced NSCLC with Activating Mutations of the Epidermal Growth Factor Receptor (EGFR) Gene

Imclone (0805): A Randomized, Multicenter, Open-Label Phase 3 Study of Pemetrexed-Cisplatin Chemotherapy Plus Necitumumab (IMC-11F8) Versus Pemetrexed-Cisplatin Chemotherapy Alone in the First-Line Treatment of Patients with Stage IV Nonsquamous Non-Small Cell Lung Cancer (NSCLC)

GSK: (MAGE) A double-blind, randomized, placebo-controlled Phase III study to assess the efficacy of recMAGE-A3 + AS15 Antigen-Specific Cancer Immunotherapeutic as adjuvant therapy in patients with resectable MAGE-A3-positive Non-Small Cell Lung Cancer

Merck KGaA: START: 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

Boehringer Ingelheim: Multicenter, randomized, double-blind, Phase III trial to investigate the efficacy and safety of oral BIBF 1120 plus standard pemetrexed therapy compared to placebo plus standard pemetrexed therapy in patients with stage IIIB/IV or recurrent non small cell lung cancer after failure of first line chemotherapy

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

Sunnybrook/Scimega: A Randomized study of standard treatment with chemotherapy +/- the addition of enoxaparin in small cell lung cancer – RASTEN

Imclone (0806): A Randomized, Multicenter, Open-Label, Phase 3 Study of Gemcitabine-Cisplatin Chemotherapy Plus Necitumumab (IMC-11F8) Versus Gemcitabine-Cisplatin Chemotherapy Alone in the First-Line Treatment of Patients With Stage IV Squamous Non-Small Cell Lung Cancer (NSCLC)

CIHR - STATCOPE – Phase III Clinical Trial: Prospective Randomized Placebo-Controlled Trial of SimvaSTATin the Prevention of COPD Exacerbations (STATCOPE)

Boehringer –Ingelheim “A Randomized, Active Controlled, Double-Blind, Double-Dummy, Parallel Group design, multi-center trial to compare the efficacy and safety of 2.5µg and 5µg Tiotropium Inhalation Solution delivered by the Respimat® Inhaler with Tiotropium Inhalation Capsules 18µg delivered by the HandiHaler”

3. Scholarly works published in the 2013 calendar year

1. Lester, J.F., **J. Agulnik**, O. Akerborg, C. Chouaid, A. De Geer, H.W. Finnern, G.J. Herder, J. Lungershausen, P.L. Mitchell, J. Vansteenkiste, C. Ziske, and E. Goker, *What constitutes best supportive care in the treatment of advanced non-small cell lung cancer patients?--Results from the lung cancer economics and outcomes research (LUCEOR) study*. Lung Cancer, 2013. **82**(1): p. 128-35.
2. Kasymjanova, G., M. Grossman, T. Tran, R.T. Jagoe, V. Cohen, C. Pepe, D. Small, and **J. Agulnik**, *The potential role for acupuncture in treating symptoms in patients with lung cancer: an observational longitudinal study*. Curr Oncol, 2013. **20**(3): p. 152-7.
3. Gagnon, B., **J.S. Agulnik**, I. Gioulbasanis, G. Kasymjanova, D. Morris, and N. MacDonald, *Montreal prognostic score: estimating survival of patients with non-small cell lung cancer using clinical biomarkers*. Br J Cancer, 2013. **109**(8): p. 2066-71.
4. Chouaid, C., **J. Agulnik**, E. Goker, G.J. Herder, J.F. Lester, J. Vansteenkiste, H.W. Finnern, J. Lungershausen, J. Eriksson, K. Kim, and P.L. Mitchell, *Health-related quality of life and utility in patients with advanced non-small-cell lung cancer: a prospective cross-sectional patient survey in a real-world setting*. J Thorac Oncol, 2013. **8**(8): p. 997-1003.
5. Fox, B.D., A. Shimony, D. Langleben, **A. Hirsch**, L. Rudski, R. Schlesinger, M.J. Eisenberg, D. Joyal, M. Hudson, K. Boutet, A. Serban, A. Masetto, and M. Baron, *High prevalence of occult left heart disease in scleroderma-pulmonary hypertension*. Eur Respir J, 2013. **42**(4): p. 1083-91.
6. Fox, B.D., D. Langleben, **A. Hirsch**, K. Boutet, and A. Shimony, *Step climbing capacity in patients with pulmonary hypertension*. Clin Res Cardiol, 2013. **102**(1): p. 51-61.
7. Fox, B., D. Langleben, **A.M. Hirsch**, R.D. Schlesinger, M.J. Eisenberg, D. Joyal, F. Blenkhorn, and L. Lesenko, *Hemodynamic stability after transitioning between endothelin receptor antagonists in patients with pulmonary arterial hypertension*. Can J Cardiol, 2013. **29**(6):672-7.
8. Dajczman, E., C. Robitaille, P. Ernst, **A.M. Hirsch**, N. Wolkove, D. Small, J. Bianco, H. Stern, and M. Palayew, *Integrated interdisciplinary care for patients with chronic obstructive pulmonary disease reduces emergency department visits, admissions and costs: a quality assurance study*. Can Respir J, 2013. **20**(5): p. 351-6.
9. Hudson, M., D. Assayag, M. Caron, B.D. Fox, **A. Hirsch**, R. Steele, R. Gaudreau-Taillefer, S. Tatibouet, L. Rudski, and M. Baron, *Comparison of different measures of diffusing capacity for carbon monoxide (DLCO) in systemic sclerosis*. Clin Rheumatol, 2013. **32**(10): p. 1467-74.
10. Suissa, S., V. Patenaude, F. Lapi, and **P. Ernst**, *Inhaled corticosteroids in COPD and the risk of serious pneumonia*. Thorax, 2013. **68**(11): p. 1029-36.
11. Lamontagne, A.J., S. Pelaez, R. Grad, L. Blais, K.L. Lavoie, S.L. Bacon, H. Guay, A. Gauthier, M.L. McKinney, **P. Ernst**, J. Collin, and F.M. Ducharme, *Facilitators and solutions for practicing optimal guided asthma self-management: the physician perspective*. Can Respir J, 2013. **20**(4): p. 285-93.

12. Filion, K.B., D. Chateau, L.E. Targownik, A. Gershon, M. Durand, H. Tamim, G.F. Teare, P. Ravani, **P. Ernst**, and C.R. Dormuth, *Proton pump inhibitors and the risk of hospitalization for community-acquired pneumonia: replicated cohort studies with meta-analysis*. Gut, 2013.
13. Bacon, S.L., K.L. Lavoie, J. Bourbeau, **P. Ernst**, K. Maghni, D. Gautrin, M. Labrecque, V. Pepin, and B.K. Pedersen, *The effects of a multisite aerobic exercise intervention on asthma morbidity in sedentary adults with asthma: the Ex-asthma study randomized controlled trial protocol*. BMJ Open, 2013. **3**(6).
14. **Ernst, P.**, A. Ariel, and S. Suissa, *Differences between asthmatics and nonasthmatics hospitalized with influenza A infection*. Eur Respir J, 2013. **41**(4): p. 772-4.
15. Wilchesky, M., **P. Ernst**, J.M. Brophy, R.W. Platt, and S. Suissa, *Response*. Chest, 2013. **143**(2): p. 580.
16. Lapi, F., **P. Ernst**, and S. Suissa, *Reply to Trezza et Al*. Clin Infect Dis, 2013. **56**(9): p. 1356-7.
17. Saad, N., P. Camus, S. Suissa, and **P. Ernst**, *Statins and the risk of interstitial lung disease: a cohort study*. Thorax, 2013. **68**(4): p. 361-4.
18. Lapi, F., A. Kezouh, S. Suissa, and P. Ernst, *The use of inhaled corticosteroids and the risk of adrenal insufficiency*. Eur Respir J, 2013. **42**(1): p. 79-86.
19. **Wolkove, N.** and M. Baltzan, *A 68-year-old woman with sleep-onset insomnia*. CMAJ, 2013. **185**(17): p. 1517-9.
20. Wardini, R., E. Dajczman, N. Yang, M. Baltzan, D. Prefontaine, M. Stathatos, H. Marciano, S. Watson, and **N. Wolkove**, *Using a virtual game system to innovate pulmonary rehabilitation: safety, adherence and enjoyment in severe chronic obstructive pulmonary disease*. Can Respir J, 2013. **20**(5): p. 357-61.

Submitted by:

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