

Annual Report
Division of Internal Medicine
Department of Medicine - Jewish General Hospital
January 1 - December 31, 2012

SUMMARY

The Internal Medicine Division continues to provide most of the hospital's functions caring for more than 150 in-patients on a daily basis outside the Clinical Teaching Units. In spite of the many obligations, our division is one of the most accomplished in research with four of our members devoting more than 50% of their time in highly productive research activities.

1. Research and Publications:

In addition to our divisional members presenting world wide they have also been given recognition for their articles published in many well known medical journals. Hoffer, LJ, Bistran BR. Appropriate protein provision in critical illness: a systematic and narrative review. *Am J Clin Nutr* 96:591-600, 2012. *Fox BD, Kahn SR, Langleben D, Eisenberg MJ, Shimony A. Efficacy and safety of the novel oral anticoagulants for the treatment of acute venous thromboembolism – A direct and adjusted indirect meta-analysis of randomized controlled trials. *BMJ* 2012;345:e7498.

Secured grants for the Internal Medicine Division for their research are: Dr. John Hoffer \$111,030.00 for his research in Vitamin C & D treatment, Dr. Susan Kahn received \$607,438.00 for her research in Thrombosis, Dr. Vicky Tagalakis received \$167,700.00 for her research in Epidemiology & Venous Thrombosis, Dr. Schiffrin received \$918,224.00 for his research in hypertension, heart and stroke disease.

2. Teaching and learning (undergraduate and graduate)

Teaching Activities:

Clinical Teaching Unit: 4 weeks/year, Staff: 10, Residents: 6, Students: 2; Drs. R. Becker, R. Bunea, M. Elizov, J. Raffoul, L. Trudeau, V. Tagalakis, B. Cummings, S. Kahn,
Ambulatory Internal Medicine Clinics: 4 clinics/week, Staff: 10, Residents 20-25, Students: 8 Drs. R. Becker, R. Bunea, M. Elizov, B. Cummings, S. Kahn, J. Raffoul, L. Trudeau, V. Tagalakis, J. Hoffer, J. Lipes
Consult Service: 7 day/wk, Staff: 6, Residents: 1, Fellows: 1; Drs. B. Cummings, M. Elizov, R. Bunea, J. Raffoul, L. Trudeau, V. Tagalakis
Emergency Room/Medical Short Stay Unit: 7day/wk, Staff: 6, Residents: 6, Students: 4; Drs. R. Becker, R. Bunea, M. Elizov, B. Cummings, J. Raffoul, L. Trudeau, V. Tagalakis
Core Lectures: 10 hrs/year: Staff: 6, Residents: 20-30; Drs. R. Becker, R. Bunea, M. Elizov, B. Cummings, S. Kahn, J. Raffoul, L. Trudeau, V. Tagalakis, J. Hoffer
Orals & Exams: 11 hrs/year Students: 16-20; Drs. R. Becker, R. Bunea, M. Elizov, B. Cummings, S. Kahn, J. Raffoul, L. Trudeau, V. Tagalakis, J. Hoffer
Professional Skills Tutorial Group: 48 hrs/year, Students: 16-20; Drs. M. Elizov, B. Cummings

Clinical Activities:

Emergency Room/Medical Short Stay Unit/Consults: 8 weeks/yr: Drs. R. Becker, R. Bunea, M. Elizov, J. Raffoul, V. Tagalakakis, L. Trudeau

Emergency Room/Medical Short Stay Unit/Consults: 2 weeks/yr: Drs. B. Cummings, S. Kahn

Nutritional Support Team Consultation: 16-20 weeks/year: Dr. J. Hoffer

Internal Medicine Out-Patient Residents Clinic: ½ clinic/week: Drs. R. Becker, R. Bunea, M. Elizov, J. Raffoul, V. Tagalakakis, J. Hoffer, B. Cummings, L. Trudeau, B. Cummings, J. Lipes

Cardiovascular Prevention Center: 2 clinic/wk: Drs. E. Schiffrin, L. Trudeau

Resident's Hypertension Clinic: 2 clinic/wk: Drs. R. Becker, R. Bunea, M. Elizov, J. Raffoul, V. Tagalakakis, J. Hoffer, L. Trudeau, B. Cummings,

Thrombosis Clinic: 2 day clinic per week, Drs. S. Kahn, V. Tagalakakis

Pre-Operative Clinic: 1 ½ days per week: Drs. B. Cummings

3. Involvement in the community:

Hoffer, LJ

McGill

Nutrition pearls for surgeons, Jewish General Hospital Surgical Rounds, March 1, 2012

How much vitamin D is enough? How much is Dangerous?, Internal Medicine Academic Rounds, Jewish General Hospital, March 8, 2012

National

Clinical nutrition and evidence-based health care: challenges and opportunities. The Jursheed Jeejeebhoy Award and Plenary Lecture, Canadian Nutrition Society Annual Meeting, Vancouver, BC, March 24, 2012

Appropriate protein provisions in critical illness. Emerging strategies in optimizing Nutrition therapy Deliver, Nestle Health Science Seminar, Toronto, ON, November 2, 2012

Kahn, SR

McGill

Prevention of VTE in Hospitalized Patients. Internal Medicine residents Academic Half-day, Jewish General Hospital. November 29th, 2012.

VTE in Travellers. JGH Internal Medicine Rounds. November 8, 2012.

VTE in Travellers. JGH Thrombosis Rounds. October 31, 2012.

Preventing VTE in medical and surgical patients. McGill Division of Internal Medicine Rounds. October 9, 2012.

Oral anticoagulation in 2012: What are our options? Continuing Medical Education, General Medicine Department, Douglas Mental Health University Institute. June 6, 2012.

Investigating new approaches to treating venous thrombosis and its sequelae.

Department of Medicine Annual Research Symposium. April 27, 2012.

Surgical thromboprophylaxis. McGill General Internal Medicine Fellowship Program Periop Medicine seminar. April 24, 2012.

Maximizing benefit and minimizing harm: Development and validation of a clinical prediction rule for recurrent venous thromboembolism. Lady Davis Institute Principal Investigator Rounds, Jewish General Hospital. April 18, 2012.

New Oral Anticoagulants. March 2012 DVT Awareness Month, JGH Clot busters.

Medical Grand Rounds, Jewish General Hospital. March 26, 2012.

Prevention and Treatment of VTE in Obstetrics Patients. March 2012 DVT Awareness Month, JGH Clot busters. Obstetrics & Gynecology Rounds, Jewish General Hospital. March 22, 2012.

New Oral Anticoagulants. McGill Hematology Wednesday E-Learning series. Faculty of Medicine, McGill University. March 7, 2012.

Proposal for a Center of Excellence in Thrombosis and Anticoagulation Care. Foundation Directors and Trustees Meeting, Jewish General Hospital. March 6, 2012.

System-wide interventions for implementation of thromboprophylaxis in hospitalized patients at risk for venous thromboembolism: A Cochrane review. Clinical Epidemiology Research Rounds, Jewish General Hospital. January 24, 2012.

National

Effective Time Management. Workshop given at Fédération des médecins spécialistes du Québec Annual Meeting. Montreal, November 2012.

La prophylaxie thromboembolique en 2012, quoi de neuf doc ? Département de médecine spécialisée, Centre de santé et de services sociaux du Sud-Ouest-Verdun, Hôpital de Verdun. Montreal, October 10, 2012.

International

Outcomes to Guide Prevention of VTE in Nonsurgical Patient. Invited speaker as part of Panel discussion, Meeting Patient Safety Goal1: How the Antithrombotic Guidelines Will Help Prevent VTE, Chest 2012. Atlanta, GA, October 25, 2012.

Post thrombotic Syndrome/Chronic Venous Insufficiency: Impact on Quality of Life and Potential Prevention with Thrombolytic Therapy. Thrombosis and Thromboembolism, Department of Continuing Education, Harvard Medical School. Boston, MA, October 18, 2012.

Do we underestimate the late burden of VTE? Thrombosis Management 2012: The Clinical Challenge. Prague, Czech Republic, June 15, 2012.

Air travel and blood clots. Invited speaker, Multinational Conference, The White House. Washington DC, May 11, 2012.

Coping with Clots. National Blood Clot Alliance's Stop The Clot® Forum. Chicago, Illinois, May 5, 2012.

Incidence and risk factors of PTS. 16th European Vascular Course. Maastricht, the Netherlands, March 11-13, 2012.

Villalta scale: Goals and limitations. 16th European Vascular Course. Maastricht, The Netherlands, March 11-13, 2012.

Assessing the Post-thrombotic syndrome using the Villalta Scale. Annual Investigators Meeting of the NHLBI-funded ATTRACT Study. St Louis, MO, March 1, 2012.

Critical appraisal of the CaVenT study. Annual Investigators Meeting of the NHLBI-funded ATTRACT Study. St Louis, MO, March 1, 2012.

Mechanisms and Management of Post Thrombotic Syndrome. Keynote speaker, Specialty Symposium in Vascular Medicine and Thrombosis, 24th Annual Meeting of the American Venous Forum. Orlando, Florida, February 8-11, 2012.

Schiffrin, EL

McGill

New developments in hypertension. Medical Grand Rounds, McGill University Hospital Center, Montreal, PQ, January 24, 2012.

National

Refractory hypertension. Invited Lecture at the Annual Meeting of the Quebec Hypertension Society, Quebec City, PQ, January 20, 2012.

International

Aldosterone effects on the vasculature. 13th Richard Underwood Memorial Lecture, Endocrine Grand Rounds, Brigham and Women's Hospital/Beth Israel Deaconess Hospital/Department of Medicine, Harvard Medical School, Boston, MA, January 31, 2012.

Vascular inflammation, hypertension and vascular risk. Invited lecture to Eighth International Workshop on Structure and Function of the Vascular System, Paris, France, February 16-18, 2012.

Resistant hypertension. Lecture as "Speaker of the Year 2012", Belgium, March 5, 2012, Universitair Ziekenhuis Gent, Department of Cardiology (Prof. Tine De Backer).

Resistant hypertension. Lecture as "Speaker of the Year 2012", Belgium, March 6, 2012, Universitat Katholiek Leuven (Prof. Jan Stassen).

Vascular remodeling in chronic kidney disease. Lecture as "Speaker of the Year 2012", Belgium, March 6, 2012, Cliniques Universitaires St-Luc, Université Catholique de Bruxelles (Prof. Alexandre Persu).

Vascular actions of aldosterone. Lecture as "Speaker of the Year 2012", Belgium, March 7, 2012, Universitair Ziekenhuis Brussel (Prof. Alain Dupont).

Resistant hypertension. Lecture as "Speaker of the Year 2012", Belgium, March 7, 2012, Université de Liège, Départements d'endocrinologie, cardiologie et néphrologie (Prof. Jean-Marie Krzesinski).

Immunity and inflammation in hypertension. Lecture as "Speaker of the Year 2012", Belgium, March 8, 2012, Universitair Ziekenhuis Antwerpen (Prof. Hilde Heuten).

Vascular effects of aldosterone: role in CKD? Invited State-of-the-Art Lecture at European Renal Association-European Dialysis-Transplantation Association Meeting, Paris, May 26, 2012.

BP in 2012 and resistant hypertension. Medical Grand Rounds at University of Virginia Medical Center Department of Medicine, Charlottesville, VA, September 5, 2012.

Immunity and hypertension. Research Seminar at University of Virginia Medical Center Cardiovascular Research Centre, Charlottesville, VA, September 6, 2012.

Effect of antihypertensive therapy on vascular remodeling and stiffness in hypertension. Invited lecture at 35th Annual Meeting of Japanese Society of Hypertension, Nagoya, Japan, September 20-22, 2012

Immune mechanisms in hypertension. Invited State-of-the-Art Lecture, 24th Scientific Meeting of the International Society of Hypertension, Hypertension Sydney 2012, Sydney, Australia, September 29-October 4, 2012.

Tagalakis, V

McGill

Tagalakis V. New Anticoagulation medications- pros and cons. Oral presentation at: 63rd Annual Refresher Course for Family Physicians, McGill University, Montreal, Canada, 2012.

Tagalakis V. Prevention and treatment of VTE in Obstetrics Patients. Oral presentation at: Obstetrics & Gynecology Grand Rounds, Jewish General Hospital, McGill University, 2012.

National

Tagalakis V, Blostein M, Emed J, Kahn S. Lots about clots and cancer: What cancer patients and their families should know about deep vein thrombosis and pulmonary embolism. Oral presentation at: CIHR Café Scientifique; 2012 March 29th; Montreal, Canada.

International

Ji Y*, Ciampi A, Tagalakis V. Modified EM algorithms for model-based clustering of longitudinal data. Oral presentation at: 20th International Conference on Computational Statistics (COMPSTAT 2012); 2012 August 27-31; Limassol, Cyprus.

4. Partnerships: None to report

5. Honours, awards, and prizes:

The Division of Internal Medicine members have received career awards and or honors of recognition towards their research. Dr. Elizov received \$29,000.00 for here research in Mentorship in Clinic Medicine. She also received the 2012-2013 Richard and Sylvia Cruess Faculty Scholar in Medical Education. Dr. John Leonard Hoffer was awarded the 2012 Kursheed Jeejeebhoy Award and Plenary Lecture, Canadian Nutrition Society. Vicky Tagalakis was awarded \$12,000.00 for Epidemiology of venous thrombosis and pharmacoepidemiology, Department of Medicine, JGH

6. Milestones:

Dr. Jed Lipes has joined the Jewish General Hospital in the Division of General Internal Medicine and the Department of Adult Critical Care. He obtained dual specialty training in both general internal medicine and critical care medicine at McGill University. He completed additional subspecialty training in cardiovascular critical care at the Institut universitaire de cardiologie et de pneumologie de Québec. He then returned to Montreal to pursue a fellowship in advanced echocardiography at the Jewish General Hospital. His research interests include echocardiography in critical care, mechanical ventilation and quality improvement.

7. Fundraising: None to report.

SECTION 1 – DIVISION STATUS

1. Mission and objectives of the Division

The Division of Internal Medicine will continue to enhance McGill University in their role as one of Quebec's leading teaching institutions. Our Division fulfills its role in achieving high standards in all aspects of academic medicine. All physicians in the Division have a clear academic role. Recruitment is the most important priority as the burden of clinical service has become increasingly higher over the years

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

- Dr. Rubin Becker, Chief, Division of Internal Medicine, Jewish General Hospital; Medical Director, Mount Sinai; Chief of Medicine, Jewish

- Rehabilitation Hospital; Associate Professor of Medicine, McGill University
- Dr. Ruxandra Bunea, Director, Postgraduate Education, Jewish General Hospital; Assistant Professor McGill University
- Dr. Vicky Tagalakis: Research Director, Department of Medicine, Jewish General Hospital, Program Director for Internal Medicine Fellowship Training Program and Associate Professor, McGill University
- Dr. Susan Kahn: Director, Thrombosis Clinic, Jewish General Hospital; Associate Co-Director, Lady Davis Institute for Medical Research; Professor of Medicine, McGill University
- Dr. Beth Cummings: Director, Undergraduate Medical Education, Jewish General Hospital; Clerkship Program Chair and Assistant Professor, McGill University
- Dr. Ernesto Schiffrin: Physician-in-Chief and Director of the Cardiovascular Prevention Centre, Jewish General Hospital; Canada Research Chair in Hypertension and Vascular Research, Lady Davis Institute for Medical Research; Professor and Vice-Chair (Research), Department of Medicine, McGill University.
- Dr. Joseph Raffoul: CTU Director and Medical Gatekeeper Jewish General Hospital; Assistant Professor of Medicine, McGill University
- Dr. John Leonard Hoffer: Professor of Medicine, McGill University
- Dr. Michelle Elizov: McGill Representative, Board of Directors, Canadian Association of Medical Education; Director of Medical Education Elective Program and Co-Director of Medical Education Fellowship Program, Centre for Medical Education, and Associate Professor of Medicine, McGill University
- Dr. Luc Trudeau: Assistant Professor, McGill University
- Dr. Harvey Chang: Assistant Professor, McGill University
- Dr. Jed Lipes: Assistant Professor, McGill University

SECTION II – PUBLICATIONS, AND SERVICES OUTSIDE MCGILL

1. Grants and awards received

Research, Grants & Awards: See Annex 1

2. Scholarly works published in the 2012 calendar year:

Kahn, Susan

--*Guanella R, **Kahn SR**. Post-thrombotic syndrome: current prevention and management strategies. *Expert Review of Cardiovascular Therapy*,10(12):1555-1566, 2012.

--Fox BD, **Kahn SR**, Langleben D, Eisenberg MJ, Shimony A. Efficacy and safety of the novel oral anticoagulants for the treatment of acute venous thromboembolism – A direct and adjusted indirect meta-analysis of randomized controlled trials. *BMJ*, 345:e7498, 2012.

--Chitsike RS, Rodger MA, Kovacs MJ, Betancourt MT, Wells PS, Anderson DR, Chagnon I, LE Gal G, Solymoss S, Crowther MA, Perrier A, White RH, Vickars LM, Ramsay T, **Kahn SR**. Risk of post-thrombotic syndrome after subtherapeutic warfarin

anticoagulation for a first unprovoked deep vein thrombosis: results from the REVERSE study. *J Thromb Haemost*, 10(10):2039-2044, 2012.

--**Kahn SR**, *Springmann V, Schulman S, Martineau J, Stewart JA, Komari N, McLeod A, Strulovitch C, Blostein M, Faucher JP, Gamble G, Gordon W, Kagoma PK, Miron MJ, Laverdière D, Game M, Mills A. Patterns of Management and Adherence to Venous Thromboembolism Treatment Guidelines in a National Prospective Cohort Study of VTE Management in the Canadian Outpatient Setting: The Recovery Study. *Thromb Haemost*, 108(3):493- 498, 2012.

--*Galanaud J-P, Holcroft CA, Rodger MA, Kovacs MJ, Betancourt MT, Wells PS, Anderson DA, Chagnon I, Le Gal G, Solymoss S, Crowther MA, Perrier A, White RH, Vickars LM, Ramsay T, **Kahn SR**. Comparison of the Villalta post-thrombotic syndrome score in the ipsilateral versus contralateral leg after a first unprovoked deep vein thrombosis. *J Thromb Haemost*, 10(6):1036-1042, 2012.

--Goldenberg NA, Brandão LR, Journeycake J, Kahn S, Monagle P, Revel-Vilk S, Sharathkumar A, Chan AK; Perinatal and Paediatric Haemostasis Subcommittee of the Scientific and Standardization Committee of the International Society on Thrombosis and Haemostasis .Definition of post-thrombotic syndrome following lower extremity deep venous thrombosis and standardization of outcome measurement in pediatric clinical investigations.*J Thromb Haemost*, 10(3):477-480, 2012.

--**Kahn SR**, Lim W, Dunn A, Cushman M, Dentali F, Akl EA, Cook DJ, Balekian AA, Klein RC, Le H, Schulman S, Murad MH. Prevention of VTE in Nonsurgical Patients: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest* 141(2 suppl):e195S-226S, 2012.

--Kearon C, Akl E, Comerota A, Prandoni P, Bounameaux H, Goldhaber S, Nelson M, Wells P, Gould M, Dentali F, Crowther M, **Kahn SR**. Antithrombotic Therapy for VTE Disease: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*, 141(2 Suppl):e419S-94S, 2012.

--Guyatt T, Eikelboom J, Gould M, Garcia DA, Crowther M, Murad M, **Kahn SR**, Falck-Ytter Y, Francis, Charles; Lansberg M, Akl E, Hirsh J. Approach to Outcome Measurement in the Prevention of Thrombosis in Surgical and Medical Patients: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*,141(2 Suppl):e185S-94S, 2012.

--*Cohen JM, Akl EA, **Kahn SR**. Pharmacologic and compression therapies for postthrombotic syndrome: a systematic review of randomized controlled trials. *Chest*, 141(2):308-20, 2012.

--*De Wolf MAF, Wittens CHA, **Kahn SR**. Incidence and risk factors of the post-thrombotic syndrome.*Phlebology*,27 Suppl 1:85-94, 2012.

--*Strijkers RHW, Wittens CHA, **Kahn SR**. Villaltascale: Goals and limitations. *Phlebology*,27 Suppl 1:130-135, 2012.

--Prandoni P and **Kahn SR**. The Post Thrombotic Syndrome, Deep Vein Thrombosis, Dr. Gregory Cheng (Ed.), ISBN: 978-953-51-0225-0, In Tech, Available from: <http://www.intechopen.com/books/deep-vein-thrombosis/post-thrombotic-syndrome-of-the-leg.2012>.

Lipes, Jed

--Lellouche F, **Lipes J**. Prophylactic protective ventilation: Lower tidal volumes for all patients? *Intensive Care Med*. Epub Oct 30, 2012.

--Mardini L, **Lipes J**, Jayaraman D. Adverse outcomes associated with delayed intensive care consultation in medical and surgical inpatients. *Journal of Critical Care*. Dec;27(6):688-93, 2012.

--**Lipes J**, Bojmehrani A, Lellouche F. Low tidal volume ventilation in patients without acute respiratory distress syndrome: A paradigm shift in mechanical ventilation. *Critical Care Research and Practice*. 416862. doi: 10.1155/2012/416862. 2012

Schiffrin, Ernesto L.

--Azoulay L, Assimes TL, Yin H, Bartels DB, **Schiffrin EL**, Suissa S. The use of angiotensin receptor blockers and the risk of cancer: a nested case-control study. *PLoS One*. 2012;7(12):e50893. doi: 10.1371/journal.pone.0050893. Epub 2012 Dec 12. PMID: 23251399; in press.

--Briet M, **Schiffrin EL**. Effects of aldosterone on the vasculature. Invited review. *J Vasc Res*. 2013;50:89-99 (DOI: 10.1159/000345243).

--Briet MT, **Schiffrin EL**. Treatment of arterial remodeling in essential hypertension. *Curr Hypert Rep*. 2012; DOI: 10.1007/s11906-012-0325-0.

--Cloutier L, **Schiffrin EL**. Hypertension prevalence and control: Impact of method of blood pressure measurement. *Current Cardiovasc Risk Rep*. 2012;6(4):267-273; DOI 10.1007/s12170-012-0247-z.

--Daskalopoulou SS, Khan NA, Quinn RR, Ruzicka M, McKay DW, Hackam DG, Rabkin SW, Rabi DM, Gilbert RE, Padwal RS, Dawes M, Touyz RM, Campbell TS, Cloutier L, Grover S, Honos G, Herman RJ, **Schiffrin EL**, Bolli P, Wilson T, Feldman RD, Lindsay MP, Hemmelgarn BR, Hill MD, Gelfer M, Burns KD, Vallée M, Prasad RVR, Lebel M, McLean D, Arnold JMO, Moe GW, Howlett JG, Boulanger J-M, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V Kaczorowski J, Trudeau L, Bacon SL, Petrella RJ, Milot A, Stone JA, Drouin D, Lamarre-Cliché M, Godwin M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk G, Burgess E, Lewanczuk R, Dresser GK, Penner B, Hegele RA, McFarlane PA, Sharma M, Campbell NRC, Reid D, Poirier L, and Tobe SW, for the Canadian Hypertension Education Program. The 2012 Canadian Hypertension Education Program (CHEP) Recommendations for the Management of Hypertension: Blood Pressure Measurement, Diagnosis, Assessment of Risk and Therapy. *Can J Cardiol* 2012;28:270-287.

--Kasal DAB, **Schiffrin EL**. Angiotensin II, aldosterone and anti-inflammatory

lymphocytes: interplay and therapeutic opportunities. *Int J Hypertens*. 2012: Article ID 829786, 5 pages, DOI10.1155/2012/829786

--Kasal DAB, Barhoumi T, Li MW, Fritsch Neves M, Laurant P, Paradis P, **Schiffrin EL**. T regulatory lymphocytes prevent aldosterone-induced vascular injury. *Hypertension* 2012;59:324-330.

--Larochelle P, Kollmannsberger C, Feldman RD, **Schiffrin EL**, Poirier L, Patenaude F, Ruether D, Myers M, Bjarnason G. Hypertension Management in Renal Cell Cancer Patients Treated with Anti-Angiogenic Agents. *Curr Oncol* 2012;19: 202-208.

--Marchesi C, Dentali F, Nicolini F, Maresca AM, Tayebjee MH, Franz M, Guasti L, Venco A, **Schiffrin EL**, Lip GYH, Grandi AM. Plasma levels of matrix metalloproteinases and their inhibitors in hypertension: A systematic review and meta-analysis. *J Hypertens*. 2012; 30:3-16.

--Marchesi C, Rehman A, Rautureau Y, Kasal DAB, Briet M, Leibowitz A, Simeone SM, Ebrahimian T, Neves MF, Offermanns S, Gonzalez FJ, Paradis P, **Schiffrin EL**. Protective role of vascular smooth muscle cell PPAR γ in angiotensin II-induced vascular disease. *Cardiovasc Res*. 2013 Jan 8. [Epub ahead of print] doi: 10.1093/cvr/cvs362.

-- Rautureau Y, **Schiffrin EL**. Endothelin in hypertension: An update. *Curr Opinion Nephrol Hypert*. 2012, 21:128–136.

--Rehman A, Leibowitz A, Yamamoto N, Rautureau Y, Paradis P, **Schiffrin EL**. Angiotensin type 2 receptor agonist C21 reduces vascular injury and myocardial fibrosis in stroke-prone spontaneously hypertensive rats. *Hypertension* 2012;59:291-299.

--**Schiffrin EL**. The immune system: role in hypertension. *Can J Cardiol*. 2012; in press.

--**Schiffrin EL**. 2011 Excellence Award in Hypertension Research Lecture. Vascular remodeling in hypertension: Mechanisms and treatment. *Hypertension*. 2012; 59:367-374.

--**Schiffrin EL**. Vascular mineralocorticoid receptors regulate blood pressure: Effects on myogenic tone and role in aging. Invited commentary on “Direct regulation of blood pressure by smooth muscle cell mineralocorticoid receptors” by McCurley et al. (*Nature Medicine* 2012;18:1429-1433.). *Circ Res*. 2013;DOI: 10.1161/CIRCRESAHA.113.300883.

--**Schiffrin EL**. Hypertension: treatments, diabetes, and developing regions. *The Lancet*. 2012;380(9841): 539-541.

--**Schiffrin EL**. Immune modulation of resistance artery remodeling. *Basic Clin Pharmacol Toxicol* 2012; 110:70-72.

--**Schiffrin EL**. The immune system: role in hypertension. *Can J Cardiol*. 2012Aug 14. [Epub ahead of print] PMID: 22902155; in press, .doi.org/10.1016/j.cjca.2012.06.009.

--**Schiffrin EL**. Hypertension: treatments, diabetes, and developing regions. *The Lancet*. 2012;380 (9841): 539-541.

--**Schiffrin EL**. Effect of treatment on cardiac small resistance arteries in hypertension and diabetes. *J Hypertens*. 2012;30:271-272.

--Sedeek M, Montezano AC, Hebert RL, Gray SP, Di Marco E, Jha JC, Cooper ME, Jandeleit-Dahm K, **Schiffrin EL**, Wilkinson-Berka JL, Touyz RM. Oxidative stress, Nox isoforms and complications of diabetes – Potential targets for novel therapies. *J Cardiovasc Trans Res*. 2012;5:509-518.

--Rautureau Y, **Schiffrin EL**. Chapter 7: Endothelin system: role in hypertension. Hypertension Update eBook. Eds., **Schiffrin EL**, Touyz RM. Future Medicine. 2012.

--Savoia C, **Schiffrin EL**. Chapter 7: Hypertensive vascular disease. Hypertension Update eBook. Eds., **Schiffrin EL**, Touyz RM. Future Medicine. 2012.

--**Schiffrin EL**. L'évaluation de l'hypertension artérielle. Chapitre 6 du Guide thérapeutique de la Société québécoise d'hypertension artérielle. Version en français. 2012.

--**Schiffrin EL**. Defining, diagnosing and monitoring hypertension. Chapter 1 of the Therapeutic Guide from the Quebec Hypertension Society. English version. 2012.

--**Schiffrin EL**. The evaluation of hypertension. Chapter 6 of the Therapeutic Guide from the Quebec Hypertension Society. English version. 2012.

--**Schiffrin EL**. Chapter 1: Definition of hypertension. Hypertension Update eBook. Eds., **Schiffrin EL**, Touyz RM. Future Medicine. 2012.

--**Schiffrin EL**. La définition, le diagnostic et le suivi de l'hypertension artérielle. Chapitre 1 du Guide thérapeutique de la Société québécoise d'hypertension artérielle. Version en français. 2012.

--**Schiffrin EL**. Endotelina. Libro de Hipertensión Arterial – Sociedad Argentina de Hipertensión Arterial (SAHA). Ed. Gómez LLambí Ed, 2012

--**Schiffrin EL**. Reactive oxygen species in hypertension and atherosclerosis. In Systems Biology of Oxidative Stress (SBOS), Editor, Ismail Laher. Springer Science, Heidelberg, Germany.

--**Schiffrin EL**. The Endothelin System. In: David Robertson, Italo Biaggioni, Geoffrey Burnstock, Phillip A Low and Julian FR Paton, editors, Primer on the Autonomic Nervous System. Oxford: Academic Press, 2012, pp. 135-140.

Tagalakis, Vicky

--**Tagalakis V**, Kondal D, Ji Y, Boivin J-F, Moride Y, Ciampi A, Kahn SR. Men had a higher risk of recurrent venous thromboembolism than women: A large population study. *Gender Medicine*;9(1): 33-43, 2012.

Trudeau, Luc

--Daskalopoulou S, **Trudeau L** for the Canadian Hypertension Education Program, The 2012 Canadian Hypertension Education Program recommendations for the management of hypertension: Blood Pressure Measurement, Diagnosis, Assessment of Risk, and Therapy, Can J. Cardiology, Vol. 28, (2012), 270-287 (peer reviewed)

--**Trudeau, L** The SPS3 Investigators, Effects of Clopidogrel Added to Aspirin in Patients with Recent Lacunar Stroke, NEJM, 2012, Vol. 367 (9), 817-825 (peer reviewed)

--**Trudeau, L** Société québécoise d'hypertension artérielle, Guide thérapeutique, 4^{ième} édition, Trudeau, L, Chapitre 27, L'hypertension artérielle et les produits de santé naturels, 2012 (peer-reviewed)

3. Academic and community engagement service outside of McGill by individual members of the unit: see above under Community Involvement

SECTION III – CONFIDENTIAL INFORMATION

1. Consulting activities:

Name of Faculty Member	Private Sector Consulting # of days	Public Sector Consulting # of days	Other number of Days	Number of Total Days
Dr. R. Becker		Internal Medicine Consults for Jewish Rehabilitation Hospital - 1 day/week		52
Dr. R. Becker		Mount Sinai Hospital - ½ day/week		26
Dr. J. Raffoul		Internal Medicine Consults Lakeshore General Hospital, 2 evening/month		24
Dr. J. Raffoul		Brunswick Medical Center -1 day/Month		12
Dr. L. Trudeau		Institut de Réadaptation - 1 day/month		12

Respectfully Submitted

Rubin Becker, MD
Chief, Division of Internal Medicine

Annex 1: Research, Grants & Awards

NAME	AGENCY	TITLE	External Grants	Career Awards	Industrial Contracts	Clinical Research Awards
Elizov, M.	Department of Medicine. JGH	Mentorship in Clinical Medicine				12,000
Hoffer, Leonard J.	Université McGill	Vitamin therapy in JGH patients		2,834		
Hoffer, Leonard J.	Lotte & John Hecht Memorial Foundation	Study - Intravenous Vitamin C in combination with chemo therapy In lung cancer patients.	100,000			
Hoffer, Leonard J.	Immunotec Recherche	Method development to measure plasma amino acids and reduced total cysteine.			8,196	
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	TIPPS (Thrombophilia in pregnancy prophylaxis study): A multicentre, multinational randomized control trial of prophylactic low molecular weight heparin (LMWH) in high risk pregnant thrombophilic women. CIHR 524E-CVD-91 01-004	1,800			
Kahn, Susan Rebecca	Heart and Stroke Foundation of Ontario (HSFO)	NA6771-Recurrent venous thromboembolism risk stratification evaluation (REVERSE) long term follow-up to define if lifelong anticoagulation is required In high risk patients with a first unprovoked venous thromboembolism.	3,466			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	GENERVTE: Gene Interactions and Recurrent Venous Thromboembolism.	3,750			
Kahn, Susan Rebecca	Fondation des Maladies du Cœur de l'Ontario	P. Wells - HSFO - Development and validation of clinical prediction rules for bleeding for patients on anticoagulant therapy for venous thromboembolism.	6750			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	Step Monitoring to Improve ARTERial health (SMARTER)	9,317			
Kahn, Susan Rebecca	Regroupement de particuliers	Thrombosis Clinic.	13,200			
Kahn, Susan Rebecca	National Institutes of Health	Pharmacomechanical catheter-directed thrombolysis for acute DVT-attract trial.	20,248			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	A Pilot Study Assessing Feasibility of a Randomized, Placebo- controlled Trial of Low-Molecular-Weight-Heparin for Postpartum Prophylaxis in Women at Risk of Developing Venous Thromboembolism (pilot PROSPER Trial)	25,291			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	Furthering innovation in thrombosis research. - TRUST	25,741			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	Randomized controlled trail of anticoagulation vs. placebo for a first symptomatic isolated distal deep-vein thrombosis (IDDVT) The CACTUS-PTS Trial.	31,543			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	A randomized, placebo-controlled trial of compression stockings to prevent the post-thrombotic syndrome: The SOX	120,091			
Kahn, Susan Rebecca	Instituts de Recherche en Sante du Canada	Prospective evaluation of long-term outcomes after pulmonary embolism: The ELOPE study.	139,358			
Kahn, Susan Rebecca	Fonds de la Recherche en Sante du Québec	Recherche épidémiologique sur les maladies thromboemboliques: conséquences et mécanismes		10,659		
Kahn, Susan Rebecca	Fonds de la Recherche en Sante du Québec	Recherche épidemiologique sur les maladies thromboemboliques: conséquences et mécanismes		37,671		
Kahn, Susan Rebecca	Sanofi-Aventis (Canada)	Thrombosis Fellowship.		60,000		
Kahn, Susan Rebecca	Aventis Pharma	A double-blind, placebo-controlled, parallel, multicenter study on extended VTE prophylaxis in acutely ill medical patients with prolonged immobilization.			1,977	
Kahn, Susan Rebecca	Lawson Health Research Institute	A prospective study of upper extremity deep vein thrombosis to determine the prevalence of post-thrombotic syndrome in patients managed with anticoagulation.			12,250	
Kahn, Susan Rebecca	Quintiles Canada Inc.	A phase III, randomized, double-blind, double-dummy, parallel group, multi-center, multi-national study for evaluation of efficacy and safety of (LMW) Heparin/Edoxaban versus (LMW) Heparin/Warfarin in subjects with symptomatic deep-vein			23,276	
Kahn, Susan Rebecca	Boehringer Ingelheim (Canada) Ltd	1160.46 - A phase III. Randomized, double blind, parallel-group study of the efficacy and safety of oral dabigatran etexilate (150 mg bid) compared to warfarin (INR 2.0-3.0) for 6 month treatment of acute symptomatic venous			61,050	
Schiffrin, Ernesto	Fondation des Maladies du Cœur du Canada (FMCC)	Remodelage des artères de petit et gros calibre dans l'insuffisance rénale chronique.		8,078		

NAME	AGENCY	TITLE	External Grants	Career Awards	Industrial Contracts	Clinical Research Awards
Schiffrin, Ernesto	Fondation des Maladies du Cœur du Canada (FMCC)	Remodelage des artères de petit et gros calibre dans l'insuffisance rénale chronique.		9,890		
Schiffrin, Ernesto	University of Barcelona	Dr. Cristina Sierra - Paid Permit from the Hospital Clinic of Barcelona in Spain		12,139		
Schiffrin, Ernesto	Kao Corporation (Japan)	Research on vascular disease in hypertension: Role of endothelin, PPARs and T-lymphocytes.		40,000		
Schiffrin, Ernesto	Secrétariat des Chaires de Recherche du Canada	Remodeling of blood vessels in hypertension.		49,863		
Schiffrin, Ernesto	Secrétariat des Chaires de Recherche du Canada	Remodeling of blood vessels in hypertension.		150,549		
Schiffrin, Ernesto	Regroupement de Particuliers	Cardio hypertension research "Fonds d'urgence"	684			
Schiffrin, Ernesto	Instituts de Recherche en Sante du Canada	Congenital nephron deficit and essential hypertension.	56,444			
Schiffrin, Ernesto	Juvenile Diabetes Research Foundation	Nox-derived Rox: renal and vascular complications of type 1 Diabetes	73,769			
Schiffrin, Ernesto	Instituts de Recherche en Sante du Canada	Vascular remodeling in hypertension: From genes to mice to humans	112,147			
Schiffrin, Ernesto	Instituts de Recherche en Sante du Canada	T -regulatory cells and vascular injury in hypertension	156,659			
Schiffrin, Ernesto	Instituts de Recherche en Sante du Canada	Endothelin, vascular inflammation and injury, and hypertension	159,344			
Schiffrin, Ernesto	Kao Corporation (Japan)	Research on vascular disease in hypertension Role of endothelin, PPARs and T-lymphocytes.			10,016	
Schiffrin, Ernesto	Novartis Pharmaceuticals Corporation	A double-blind, randomized, parallel design study to compare the effectiveness of Aliskiren versus Hydrochlorothiazide In mild- to-moderate hypertensive type II diabetes mellitus patients in reversing the re-modeling of resistance arteries an correcting			25,491	
Tagalakis, Vicky	Instituts de Recherche en Sante du Canada	Lots about clots and cancer: what cancer patients and their families should know about deep vein thrombosis and pulmonary embolism	3,000			
Tagalakis, Vicky	Fondation des Maladies du Cœur du Québec	Screening for previously undiagnosed malignancy in patients with unprovoked controlled trial using comprehensive computed tomography of venous thromboembolism: a randomized the abdomen/pelvis.	4,945			
Tagalakis, Vicky	Fondation des Maladies du Cœur du Québec	Screening for previously undiagnosed malignancy in patients with unprovoked controlled trial using comprehensive computed tomography of venous thromboembolism: a randomized the abdomen/pelvis.	12,055			
Tagalakis, Vicky	Fondation des Maladies du Cœur du Québec		25,000			
Tagalakis, Vicky	Fonds de la Recherche en Sante du Québec	Recherche épidémiologique et pharmaco-épidémiologique en thrombose veineuse		8,562		
Tagalakis, Vicky	Fonds de la Recherche en Sante du Québec	Recherche épidémiologique et pharmaco-épidémiologique en thrombose veineuse		26,666		
Tagalakis, Vicky	Pfizer Canada Inc.	Post-operative venous thromboembolism In patients with cancer A population based cohort study (WS462014)			10,000	
Tagalakis, Vicky	Sanofi-Aventis (Canada)	Determining the timing of venous thromboembolism in the post-operative setting: a population-based cohort study.			29,354	
Tagalakis, Vicky	Eisai Research Institute	FRAG-A001-401 - Dalteparin sodium injection (FRAGMIN). Multi-center, Open label, single-arm, controlled long-term (52 weeks) study for understanding safety and efficacy in subjects with malignancies and symptomatic venous Thrombosis			36,118	
Tagalakis, V.	Department of Medicine. JGH	Epidemiology of venous thrombosis and pharmacoepidemiology				12,000