

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

**SUMMARY**

The Division of Endocrinology and Metabolism has continued its pursuit of excellence in patient care, research and training.

**Introduction:**

**Clinical Activities:**

Endocrinology is largely an outpatient specialty. Including the Gestational Diabetes Clinic and Bone and Osteoporosis Clinics that do not function in our premises, the number of visits per year exceeded the 25,000. Outpatient clinics are run around the week by GFT's. Non-GFT's run clinics on Monday and Thursday mornings. The increase in the number of patients is still too long. Constraints result from the RAMQ that is trying to restrict the number of endocrinologists. This problem has been solved at the expense of physician scientists increasing their clinical hours, reducing their research time. We also have established a triage system to see first those patients in most urgent need (e.g. decompensated diabetics, thyrotoxic patients). We have stretched to the limits the secretarial time available, which has not increased in over 7 years in spite the doubling of the numbers of patient visits. Although all staff physicians see patients spanning the whole spectrum of endocrine and metabolic diseases, some clinics are focused on a particular condition, as shown in the table below.

In-patient activities are centered on the Endocrine Consulting Service, attended by our staff physicians in a 2-week rotating schedule through the year. The endocrine service is largely covered by 10 of the 11 GFT's, which burdens them – including the physician scientists- with a minimum of 6 weeks per year. Volume of consults is approximately 1200/year. In addition, our staff is actively involved in CTU rotations. The Division does not have assigned beds and endocrine patients are admitted to general wards.

The Survival Skills Program of self-management education for patients with diabetes has continued to function regularly with private donations. No additional resources have been provided this year for the essential program.

**Outpatient Clinics:**

Monday AM: Diabetic Clinic (Kader); General Endocrinology (Schweitzer, Karaplis, Trifiro)  
Monday PM: General Endocrinology (Karaplis, Assimakopoulos, Schweitzer)  
Tuesday AM: Thyroid (Tamilia); General Endocrinology (Trifiro, Assimakopoulos, Schiffrin)  
Tuesday PM: General Endocrinology (Assimakopoulos, Schiffrin, Christopoulos, Richards)  
Wednesday AM: General Endocrinology (Trifiro, Majdan, Karaplis); Diabetic Foot Care  
(Dr. R. Chaytor); Osteoporosis I (Trifiro); Gestational Diabetic, Pav.H (Kader)

Wednesday PM: General Endocrinology (Christopoulos, Richards, Majdan);  
Osteoporosis II (Karaplis); Lipid Clinic (Schweitzer)  
Thursday AM: General Endocrinology (Schiffrin, Tamilia, Clamen, Rizzo);  
Thursday PM: General Endocrinology (Assimakopoulos, Schweitzer)  
Friday AM: General Endocrinology (Schiffrin, Schweitzer, Trifiro, Christopoulos, Majdan)  
Friday PM: General Endocrinology (Dr. O. Yu)

## **1. Research and publications:**

2013 was another promising year for Endo Research. Our part-time Clinical Research Nurse was promoted to full-time, CRN/Insulin Pump Nurse. Six (6) clinical studies were conducted at the treatment center (see list below) and another Phase III with Bristol Myers Squibb under negotiation. One hundred and thirty-seven patients participated in these trials over the year. The 6 studies included: one Phase II interdepartmental trial involving Endocrinology, Gastroenterology and Oncology; One Phase III trial; three Phase IV trials including one sponsored by the CIHR; and one in-house study conducted by one of our Endocrinologists. In addition, we have also set-up bi-weekly dynamic testing, and a total of 11 insulin pump starts were initiated.

Research projects and publications are listed under Section II. Research activities and publications continue on the rise (see individual reports for details).

## **2. Teaching activities**

The Division has continued to play an active role in joint activities with the other McGill Hospitals counterparts, such as Med-I Endocrine Physiology Course and Calcium Homeostasis, as well as hosting the Lipid-, Thyroid McGill Lectureships.

Our members continue to teach in McGill Graduate and Undergraduate courses such as Physiology (Tamilia), Advanced Endocrinology (Tamilia) and Neuroendocrinology (Tamilia).

Dr. Michael Tamilia has continued to receive the recognition of our young colleagues and students as a truly exceptional teacher. Drs. Tina Kader and Morris Schweitzer continue to be remarkable active in CME activities primarily addressed to general practitioners, internists and specialists. Thus, the JGH Endocrine Division has reached a high profile at the university, national and international levels.

Overall, the Division of Endocrinology is one of the most, if not the most, active in contributing its staff to teaching (Professional Skills and Introduction to Internal Medicine and Physiology) and CTU coverage within the Department of Medicine at the Jewish General Hospital.

### **Medical Students**

-Metabolic Bone Disease in Unit 5, Med I; preparation of lecture notes, case study, and quiz for students and organizing small group tutors.

-One 1-hour lecture on metabolic bone disorders and two 1.5-hour small group sessions

## **Residents**

- (i) Core lectures in Endocrinology
- (ii) Simulated oral examination in Internal Medicine

## **Postgraduate Students**

Advances in Human Genetics: A post graduate course offered by the Department of Human Genetics: Three 1.5-hr lectures on the genetics of metabolic bone diseases.

Endocrine Residents (Fellows) and Medical Residents doing elective rotations participate in all our clinical activities. They are under the direct supervision of the Attending on service. Residents must attend clinics while not busy with the in-patient service. Some clinics are compulsory: Gestational Diabetes, Thyroid, Lipid and Osteoporosis Clinic. Our Division has become very popular for elective rotations among residents and students. All trainees rotating through the Division must attend Endocrine Grand Rounds (every Thursday from 11:30-12:30). This past year we have had an unusually high number of Endocrine Residents, and the same is expected for the next academic year. In addition to McGill Medical Students doing elective rotations, we have received students from UK, Australia, Finland, and Brazil during the last year. Notably, the majority of McGill candidates to McGill Endocrine Residents have come from our Internal Medicine training program over the last several years, a reflection of the positive influence of our staff on the Residents. The McGill Endocrine Teaching Program at large was highly rated by the trainees with our Division receiving the highest ratings in a large number of items, notably conferences, bedside and outpatient teaching, integration with basic sciences. Our weakest mark is on premises and facilities for Endocrine Residents.

In addition to these tutorial activities, our Division offers a yearly cycle of lectures on essential endocrinology for residents and non-endocrinologists in general. Our Division also actively participates in the undergraduate teaching of Endocrine Physiology and Calcium Homeostasis (Med-I Physiology) with 6 of our members being small group tutors this year (Assimakopoulos, Beitel, Kader, Karaplis, Schiffrin, and Trifiro). All GFT's have also been very active on CME accredited activities. Dr. Tina Kader has been traditionally active in CME to various groups of physicians, paramedical personnel, as well as in giving talks to the community at large on prevention of obesity and diabetes. Ms. Joyce Arsenault (Nurse, Certified Diabetes Educator), Ms. Maria Di Narzo (nurse, Certified, Diabetes Educator) and Ms. Sondra Sherman (Dietitian) have worked together with Dr. Tina Kader in this latter endeavour.

The McGill Hospital Endocrine Division holds quarterly combined Endo Rounds, one of which is hosted by our Division. Our Division has for years hosted two major McGill Endocrine lectures, the McGill/Merck Frosst Lipid Lecture and the McGill/Abbott Thyroid Lecture..

In addition to the teaching activities described under Teaching Activities, above, Endocrine Grand Rounds, under the direction of Dr. Mark Trifiro, have continued to be a great success because of the timeliness of the subjects, the sensible balance of basic and clinical science and

the quality of the invited speakers. Endo Grand Rounds are given weekly from September to June.

**3. Involvement in the community:**

Members of the Division continue to serve in committees of granting agencies, editorial boards and to participate in other high level academic activities at national and international levels. Members have succeeded in the competing renewal of their grants as well as in obtaining additional support from peer-reviewed granting agencies.

**4. Partnerships:**

Dr. Tamilia collaborated with Dr. George Chong from Department of Pathology to apply genetic mutation analysis in the diagnosis of thyroid nodules and with Dr. Mark Trifiro and Dr. Elliot Mittmaker to characterize gene mutations in stored thyroid tumor specimens. Dr. Tamilia is developing the Thyroid Cancer Program in association with Head and Neck Oncology for McGill University.

The JGH Division of Endocrinology participates in the quarterly combined Endo Rounds held by the McGill Endocrine Division.

**5. Milestones:**

**Dr. Oriana Hoi Yun Yu** was recruited as Assistant Professor to the Department of Medicine, Division of Endocrinology. Dr. Yu obtained her medical degree from the University of Calgary in 2006 and then came to McGill for postgraduate training in endocrinology and general internal medicine. Dr. Yu subsequently completed a Masters of Epidemiology and Biostatistics at McGill University. During her training, Dr. Yu has published two manuscripts including one study on the use of statins and prostate cancer risk which was recently accepted for publication in the Journal of Clinical Oncology.

Dr. Yu is now involved in a number of studies being conducted at the Jewish General Hospital. Her projects involve assessing the association between abnormalities in metabolism and risk of cancer. She is also involved in projects assessing management therapies for type 2 diabetes and genetic studies exploring the etiology of cardiovascular disease in diabetic patients.

Maria DiNarzo, one of Nurse/Educators retired at the end of December after more than 20 years at the Jewish General Hospital including 15 years in endocrinology.

**6. Honours, Awards, Prizes:**

**-Dr. Michael Tamilia received *Teacher of the Year Award in Endocrinology and Metabolism*** from the McGill University Department of Medicine in May 2013.

-Joyce Arsenault, our Diabetes Nurse/Educator, was awarded the Queen Elizabeth II Diamond Jubilee Medal for her outstanding contribution to our community

-The Division of Endocrinology and Novo Nordisk hosted a Half Century on Insulin Award reception for 8 patients and their families on Thursday, November 14, 2013.

-In December, Maria DiNarzo was nominated and received the award for Caring and Beyond.

**7. Fundraising:** None

**SECTION I - DIVISION STATUS UPDATE**

**1. Mission and objectives of the Division**

The renovated space for the Division of Endocrinology has been helpful in providing excellent care as the division continues to place a high priority on patient care and in doing so seeks new clinical recruits either as full-time or as part time members. Efforts are being made to add another diabetic nurse to help with the ever-increasing referral of diabetic patients.

Other priorities include the expansion of both clinical research and basic research personnel. This will be a very arduous task given the many roadblocks at the university, government and hospital level; however the Division remains confident that when the right recruits come along, it will find the mechanisms to have them join its staff.

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

Dr. Mark A. Trifiro - Chief, Professor (GFT-U)  
Dr. Peter Assimakopoulos - Associate Professor (GFT-H)  
Dr. Stavroula Christopoulos - Assistant Professor (GFT-H)  
Dr. Tina Kader – Associate Professor (GFT-H)  
Dr. Andrew Karaplis - Professor (GFT-U)  
Dr. Agnieszka Majdan - Assistant Professor (GFT-H)  
Dr. John Brent Richards - Assistant Professor (GFT-U)  
Dr. Alicia Schiffrin - Professor (GFT-U)  
Dr. Morris Schweitzer - Associate Professor (GFT-H)  
Dr. Michael Tamilia - Associate Professor (GFT-H)  
Dr. Oriana Yu – Assistant Professor (GFT-H)  
Dr. Marvin Clamen - Faculty Lecturer (P/T)  
Dr. Lilian Jukier - Adjunct Professor (P/T)  
Dr. Arturo Rizzo - Assistant Professor (P/T)  
Lenore Beitel, PhD - Assistant Professor

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

**1. Grants and awards received**

**J. Brent Richards**

-2010-2013: Ministère du Développement économique, Innovation et Exportation du Québec.

CiPhER : Consortium International Pour l'identification des gènes de fracture ostéoporotique.  
Role: Principal Investigator. \$491,231 over 3 years.

-2009-2013: Fonds de Recherche de la Santé du Québec. Établissement de jeunes chercheurs – Juniors 1. Role: Principal Investigator. \$30,000 over 4 years.

-2009-2014: Canadian Institutes of Health Research, Operating Grant. Canadian Longitudinal Study on Aging. Role: Co-Investigator. \$23,500,000 over 5 years.

-2010-2013: Ministère du développement économique, Innovation et Exportation du Québec. CiPhER: Consortium International pour l'identification des gènes de facture ostéorobotique.  
Rôle: Principal Investigator. \$491,231 over 3 years.

-2012-2016: Canadian Institutes of Health Research (CIHR): Pinpointing Causal Variants for Osteoporosis. Role: Nominated Principal Investigator (Co-PI: Tomi Pastinen). \$816,608 over 4 years. This grant ranked first for the CIHR Genetics panel.

-2011-2013: Canadian Institutes of Health Research (CIHR). Can Québec Consortium for Drug Discovery (CQDM). Identification of Critical Drug Targets for Auto-Immune Disease. Role: Principal Investigator. \$300,000 over 2 years.

-2011-2013: Canadian Cancer Society Research Institute. Effects of metformin on colorectal epithelial cell proliferation. Role : Co-Investigator. \$195,000 over 2 years.

-2011-2016: Canadian Institutes of Health Research (CIHR). Canadian Multicentre Osteoporosis Study. Role: Co-Applicant. \$3,422,052 over 5 years

### **Mark A. Trifiro**

-2010-2015: Canadian Institutes of Health Research (CIHR) Innovative approaches to functional characterization of the androgen receptor in prostate cancer; P.I. Mark Trifiro, Co-Applicants: Miltiadis Paliouras and Edwin Wang; Operating Grant: total \$560,279

-2009-2012: “Biosenseurs génétiquement modifiés à haute sélectivité et sensibilité”  
Fonds Québécois de la recherche sur la Nature et les Technologies, Operating \$48,760/yr (Co-PI)

-2009-2012: “Nanoporous silicon catheter device with real-time optical monitoring of bacterial contaminants during hemodialysis”; Canadian Institute for Photonics Innovation (CIPI), \$29,900 total

### **2013 Pharmaceutical Research Studies:**

-CIHR, Phase IV MITY- Metformin in Women with T2DM in Pregnancy Trial Ongoing

-In house Insulin Therapy in T2DM-, study to evaluate insulin response at different c-peptide levels Continuing

-CCSRI, Phase II EMCP 2011-1 Effects of Metformin on colon proliferation Concluded in 2013

-Amgen, Phase IV Protocol 2010128- Prolia Ongoing

-Amgen, Phase III Protocol 20110142- Efficacy/Safety of AMG 785 in treatment of postmenopausal Women with Osteoporosis Ongoing

-Genetics of Diabetes Complications, Ongoing

-Lilly, Phase IV, B3D-EW-GHDW, Teriparatide and Residronate in the Treatment of Patients with Severe Postmenopausal Osteoporosis: Comparative Effects Ongoing

## 2. Scholarly works published in the 2013 calendar year:

### Brent Richards

--Dastani Z, Berger C, Langsetmo L, Fu L, Wong BYL, Malik S, Goltzman D, Cole DE, Richards JB. In healthy adults, biological activity of vitamin D, as assessed by serum PTH, is largely independent of DBP concentrations. *Journal of Bone and Mineral Research* [IF: 6.1] Epub 2013 Jul 16. PMID: 23857798

--Dastani Z, Johnson T, Kronenberg F, Nelson CP, Assimes TL, März W, CARDIoGRAM Consortium, ADIPOGen Consortium, Richards JB. The Shared Allelic Architecture of Adiponectin Levels and Coronary Artery Disease. *Atherosclerosis*[IF: 4.0]. 2013 Apr PMID: 23664276

--Gottlieb B, Alvarado C, Wang C, Gharizadeh B, Babrzadeh F, Richards B, Batist G, Basik M, Beitel LK, Trifiro M. Making Sense of Intra-Tumor Genetic Heterogeneity: Altered Frequency of Androgen Receptor Cag Repeat Length Variants in Breast Cancer Tissues. *Human Mutation*. [IF: 5.8] 2013 Feb 1. PMID: 23377847

--Heilmann S, Kiefer AK, Fricker N, Drichel D, Hillmer AM, Herold C, Tung JY, Eriksson N, Redler S, Betz RC, Li R, Kárason A, Nyholt DR, Song K, Vermeulen SH, Kanoni S, Dedoussis G, Martin NG, Kiemenev LA, Mooser V, Stefansson K, Richards JB, Becker T, Brockschmidt FF, Hinds DA, Nöthen MM. Androgenetic alopecia: identification of four genetic risk loci and evidence for the contribution of WNT-signaling to its etiology. *Journal of Investigative Dermatology* [IF: 5.8]. 2013 Jan 28. doi: 10.1038/jid.2013.43.

--Ladouceur M, Zheng HF, Greenwood CM, Richards JB. Empirical power of very rare variants for common traits and disease: results from sanger sequencing 1998 individuals. *European Journal of Human Genetics* [IF: 4.0]. 2013 Jan 16. doi: 10.1038/ejhg.2012.284.

--R Lui, A Montpetit, M Rousseau, SYM Wu, CMT Greenwood, TD Spector, M Pollak, C Polychronakos, JB Richards. Somatic Point Mutations Occurring in Early Development: A Monozygotic Twin Study. *Journal of Medical Genetics* [IF: 5.7]. 2013;0:1–7. PMID: 24123875

--Oualkacha K, Dastani Z, Li R, Cingolani PE, Spector TD, Hammond CJ, Richards JB, Ciampi A, Greenwood CM. Adjusted Sequence Kernel Association Test for Rare Variants Controlling for Cryptic and Family Relatedness. *Genetic Epidemiology* [IF: 3.3]. 2013 Mar 25. PMID:23529756

--Porcu E, Medici M, Pistis G, Volpato CB, Wilson SG, Cappola AR, Bos SD, Deelen J, den Heijer M, Freathy RM, Lahti J, Liu C, Lopez LM, Nolte IM, O'Connell JR, Tanaka T, Trompet S, Arnold A, Bandinelli S, Beekman M, Böhringer S, Brown SJ, Buckley BM, Camaschella C, de Craen AJ, Davies G, de Visser MC, Ford I, Forsen T, Frayling TM, Fugazzola L, Gögele M, Hattersley AT, Hermus AR, Hofman A, Houwing-Duistermaat JJ, Jensen RA, Kajantie E, Kloppenburg M, Lim EM, Masciullo C, Mariotti S, Minelli C, Mitchell BD, Nagaraja R, Netea-Maier RT, Palotie A, Persani L, Piras MG, Psaty BM, Rääkkönen K, Richards JB, Rivadeneira F, Sala C, Sabra MM, Sattar N, Shields BM, Soranzo N, Starr JM, Stott DJ, Sweep FC, Usala G, van der Klauw MM, van Heemst D, van Mullem A, H Vermeulen S, Visser WE, Walsh JP, Westendorp RG, Widen E, Zhai G, Cucca F, Deary IJ, Eriksson JG, Ferrucci L, Fox CS, Jukema JW, Kiemenev LA, Pramstaller PP, Schlessinger D, Shuldiner AR, Slagboom EP, Uitterlinden AG, Vaidya B, Visser TJ, Wolffenbuttel BH, Meulenbelt I, Rotter JI, Spector TD, Hicks AA, Toniolo D, Sanna S, Peeters RP, Naitza S. A meta-analysis of thyroid-related traits reveals novel Loci and gender-specific differences in the regulation of thyroid function. *PLoS Genetics* [IF: 9.2]. 2013 Feb;9(2) PMID: 23408906

--Vimalaswaran KS, Berry DJ, Lu C, Tikkanen E, Pilz S, Hiraki LT, Cooper JD, Dastani Z, Li R, Houston DK, Wood AR, Michaëlsson K, Vandenput L, Zgaga L, Yerges-Armstrong LM, McCarthy MI, Dupuis J, Kaakinen M, Kleber ME, Jameson K, Arden N, Raitakari O, Viikari J, Lohman KK, Ferrucci L, Melhus H, Ingelsson E, Byberg L, Lind L, Lorentzon M, Salomaa V, Campbell H, Dunlop M, Mitchell BD, Herzig KH, Pouta A, Hartikainen AL; Genetic Investigation of Anthropometric Traits (GIANT) consortium, Streeten EA, Theodoratou E, Jula A, Wareham NJ, Ohlsson C, Frayling TM, Kritchevsky SB, Spector TD, Richards JB, Lehtimäki T, Ouweland WH, Kraft P, Cooper C, März W, Power C, Loos RJ, Wang TJ, Jarvelin MR, Whittaker JC, Hingorani AD, Hyppönen E. Causal Relationship between Obesity and Vitamin D Status: Bi-Directional Mendelian Randomization Analysis of Multiple Cohorts. *PLoS Medicine*[IF: 15.8]. 2013 Feb;10(2):e1001383. doi: 10.1371/journal.pmed.1001383.

--Wood AR, Perry JR, Tanaka T, Hernandez DG, Zheng HF, Melzer D, Gibbs JR, Nalls MA, Weedon MN, Spector TD, Richards JB, Bandinelli S, Ferrucci L, Singleton AB, Frayling TM. Imputation of Variants from the 1000 Genomes Project Modestly Improves Known Associations and Can Identify Low-frequency Variant - Phenotype Associations Undetected by HapMap Based Imputation. *PLoS One* [IF: 4.1]. 2013 May 16;8(5):e64343. doi: 10.1371/journal.pone.0064343. Print 2013.

--Yaghootkar H, Lamina C , Scott RA, Dastani Z, Marie-France Hivert MF, Warren LL, Stancáková A, Buxbaum SG, Lyytikäinen LP, Henneman P, Wu Y, Cheung CYY, Pankow JS, Jackson AU, Gustafsson S, Zhao JH, Ballantyne CM, Xie W, Bergman RN, Boehnke M, Bouazzaoui FE, Collins FS, Dunn SH, Dupuis J, Forouhi NG , Gillson C, Hattersley AT, Hong J, Kähönen M, Kuusisto J, Kedenko L, Kronenberg F, Doria A, Assimes TL, Ferrannini E,



Hansen T, Hao K, Häring H, Ingelsson E, Knowles JW, Lindgren CM, Nolan JJ, Paananen J, Pedersen O, Quertermous T, Smith U, the GENESIS consortium, the RISC consortium, Langenberg C, Lehtimäki T, Liu CT, Loos RJF, McCarthy MI, Morris A, Vasan RS, Spector TD, Teslovich TM, Tuomilehto J, van Dijk KW, Viikari JS, Zhu N, Semple RK, Sinaiko AR, Palmer C, Walker M, Lam KSL, Paulweber B, Mohlke KL, Duijn CV, Raitakari OT, Bidulescu A, Wareham NJ, Laakso M, Waterworth DM, Lawlor DA, B Meigs JB, Richards JB, Frayling TM. Adiponectin in Insulin Resistance and Type 2 Diabetes. *Diabetes*[IF: 8.9] 2013 Jul 8. PMID: 23835345

--Zheng HF, Duncan EL, Yerges-Armstrong LM, Eriksson J, Bergström U, Leo PJ, Leslie WD, Goltzman D, Blangero J, Hanley DA, Carless MA, Streeten EA, Lorentzon M, Brown MA, Spector TD, Pettersson-Kymmer U, Ohlsson C, Mitchell BD, Richards JB. Meta-Analysis of Genome-Wide Studies Identifies MEF2C SNPs Associated with Bone Mineral Density at Forearm. *Journal of Medical Genetics*. [IF: 5.7] Epub April 19, 2013. PMID: 23572186

### **Oriana Yu**

--O. Yu, W. Foulkes, Z. Dastani, R.M. Martin, The PRACTICAL Consortium, The CRUK GWAS Investigators, and J.B. Richards. An assessment of the shared allelic architecture between type 2 diabetes and prostate cancer. *Cancer Epidemiology Biomarkers and Prevention*, 22(8):1473-1475, 2013

--O. Yu, H. Eberg, M. Benayoun, A. Aprikian, G. Batist, S. Suissa, L. Azoulay. Use of statins and risk of death and metastasis in patients with prostate cancer. *Journal of Clinical Oncology*, Nov. 4, PMID: 24190110, 2013

### **Andrew Karaplis**

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--Liu XL, Lu YS, Gao JY, Marshall C, Xiao M, Miao DS, Karaplis A, Goltzman D, Ding J. Calcium sensing receptor absence delays postnatal brain development via direct and indirect mechanisms. *Mol Neurobiol*. 2013 Dec;48(3):590-600.

--Raison D, Coquard C, Hochane M, Steger J, Massfelder T, Moulin B, Karaplis AC, Metzger D, Chambon P, Helwig JJ, Barthelmebs M. Knockdown of parathyroid hormone related protein in smooth muscle cells alters renal hemodynamics but not blood pressure. *Am J Physiol Renal Physiol*. 2013 Aug 1;305(3):F333-342

--Romero JR, Youte R, Brown EM, Pollak MR, Goltzman D, Karaplis A, Pong LC, Chien L, Chattopadhyay N, Rivera A. Parathyroid hormone ablation alters erythrocyte parameters that are rescued by calcium-sensing receptor gene deletion. *Eur J Haematol*. 2013 Jul;91(1):37-45

--Wang YH, Qiu Y, Han XD, Xiong J, Chen YX, Shi HF, Karaplis A.

Haploinsufficiency of endogenous parathyroid hormone-related peptide impairs bone fracture healing. *Clin Exp Pharmacol Physiol*. 2013 Nov;40(11):715-23

--Zhu Q, Zhou X, Zhu M, Wang Q, Goltzman D, Karaplis A, Miao D. Endogenous parathyroid hormone-related protein compensates for the absence of parathyroid hormone in promoting bone accrual in vivo in a model of bone marrow ablation. *J Bone Miner Res*. 2013 Sep;28(9):1898-1911.

### **Michael Tamilia**

--Aaron Leong, Louise Rochon, Mark Trifiro, and Michael Tamilia. Co-existence of malignant struma ovarii and cervical papillary thyroid carcinoma. Accepted for publication *JCEM* Nov. 17, 2013, quick press release.

--Faisal Zawawi, Richard Payne, Veronique Forest, Alex Mlynarek, Michael Hier, Louise Rochon, Michael Tamilia. Ultrasound Guided Fine-needle Aspiration of Thyroid Nodules – Does size Matter ? Accepted for publication Dec. 16, 2013. *American Journal of Otolaryngology*

--Patrick Scheffler, Veronique Laforest, Michael Tamilia, Rebecca Leboeuf, Anca Florea, Noah Sands, Michael Hier, Alex Mlynarek Richard Payne. Serum thyroglobulin Improves sensitivity of the McGill Thyroid Nodule Score for Well-differentiated Thyroid Cancer. Accepted for publication Nov. 13, 2013 *Thyroid*.

--Payne R, Tamilia M Correlation of sentinel lymph node biopsy and tumor stage. Accepted for publication *Thyroid* Oct. 26, 2013

--Rickul Varshney, Veronique Forest, Faisal Zawawi, Louise Rochon, Michael Hier, Alex Mlynarek, Richard Payne, Michael Tamilia, McGill Thyroid nodule score – Does it help with indeterminate thyroid nodules ? Submitted for publication. 2013-11-30 *Journal of Thyroid Research*

--Saliba J. Payne R. and Tamilia M. Correlation of sentinel lymph node biopsy and post-operative stimulated thyroglobulin in patients with papillary thyroid carcinoma. Accepted for publication, *Endocrine Practice* 2013-08-23

### **Mark A. Trifiro**

--Beitel LK, Alvarado C, Mokhtar S, Paliouras M, Trifiro M. Mechanisms mediating spinal and bulbar muscular atrophy: investigations into polyglutamine-expanded androgen receptor function and dysfunction. *Frontiers in Neurology* 4:53, 2013.

--Wang E, Zou J, Zaman N, Beitel LK, Trifiro M, Paliouras M. Cancer systems biology in the genome sequencing era: Part 1, dissecting and modeling of tumor clones and their networks. *Seminars in Cancer Biology* 23:279-285, 2013.

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--Zaman N, Li L, Jaramillo ML, Sun Z, Tibiche C, Banville M, Collins C, Trifiro M, Paliouras M, Nantel A, O'Connor-McCourt M, Wang E. Signaling network assessment of mutations and copy number variations predict breast cancer subtype-specific drug targets. *Cell Reports* 5:216-223, 2013.

**3. Academic and community engagement service outside of McGill by individual members of the unit**

Members of the Division continue to serve in committees of granting agencies, editorial boards and to participate in other high level academic activities at national and international levels. Members have succeeded in the competing renewal of their grants as well as in obtaining additional support from peer-reviewed granting agencies.

**SECTION III - CONFIDENTIAL INFORMATION**

**1. Consulting activities:** None reported

Submitted by:

Mark Trifiro, MD  
Chief, Division of Endocrinology