

# ANNUAL REPORT

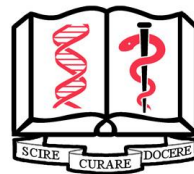
## DEPARTMENT OF MEDICINE

### 2013

Submitted by Dr. James Martin, Chair

Compiled by Ms. Josée Cloutier, Senior Administrative Coordinator

*(This report has been updated with new website links)*



## INDEX

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>UNIT STATUS UPDATE</b>	<b>4</b>
<b>SELECTED DIVISIONAL ACTIVITIES AND HIGHLIGHTS</b>	<b>4</b>
<b>CONCLUDING REMARKS</b>	<b>16</b>
<b>APPENDICES</b>	<b>17</b>

## EXECUTIVE SUMMARY

The Department of Medicine spans three major sites, the MUHC, JGH and St Mary's with a mix of basic scientists, clinical scientists and clinician educators. Its scientists are members of the MUHC Research Institute and the Lady Davis Institute. The research productivity of Department members is high; publications from the MUHC numbered 1197 (for year 2012, the most recent data available, a modest increase from 2011) and from the JGH 436 in year 2013. Publications cover a broad range of research interests from basic biomedical science to population health ( <https://www.mcgill.ca/deptmedicine/research/publications> ). The research performed was supported by \$67,177,378 in funding at the MUHC and \$20,872,331 at the JGH. There have been many members honoured in the past year. A complete list of prestigious honours, awards and prizes conferred on members of our Department is available at the following website link:

[https://www.mcgill.ca/deptmedicine/files/deptmedicine/summary\\_honoursawardsprizes\\_2013.pdf](https://www.mcgill.ca/deptmedicine/files/deptmedicine/summary_honoursawardsprizes_2013.pdf)

Undergraduate teaching is provided by members of the Department of Medicine in many departments within and outside the Faculty of Medicine. Our members were heavily involved in the revised curriculum for medical students, from the conceptual to the implementation phases. Graduate students are supervised through the Division of Experimental Medicine. However many students are supervised in other departments through cross-appointed members. The Division of Experimental Medicine is under new leadership; *Dr. Anne-Marie Lauzon* has taken the helm and is actively reviewing courses and planning new ones. The Division currently had 322 students registered in diploma, MSc and PhD programs in 2013. Student bursaries garnered were valued at \$2,499,969, an increase of 10% from 2012. There are numerous workshops and research symposia organized by the different divisions of the Department of Medicine as well as the Division of Experimental Medicine that provide excellent opportunities for students to present their work and to receive constructive criticism. Over the year 2013, the Experimental Medicine Graduate Student Society created the Academic Discussion Group in order to improve the current curriculum of the Experimental Medicine Program. A committee was created that was comprised of ~5 students, ~5 professors, and 2 Post-Docs. Their main goal was to submit a report with recommendations for the new director for new course development to better address the current needs of the students. A review of the curriculum is in progress in the Division of Experimental Medicine. A complete report for the Division of Experimental Medicine is available at the following website link:

[https://www.mcgill.ca/deptmedicine/files/deptmedicine/experimentalmedicine\\_lauzon.pdf](https://www.mcgill.ca/deptmedicine/files/deptmedicine/experimentalmedicine_lauzon.pdf)

Members of the Department make many contributions to scholarly communities locally, nationally and internationally, maintaining the excellent profile of the Medical Faculty and the University abroad. The major challenge is the renewal of academic leadership in the divisions of the Department. The many adversities facing the Department are no doubt limiting enthusiasm for leadership roles. The increasing administrative burden for no perceptible increase in productivity is no doubt at the root of the problem. The continued lack of engagement of clinical and academic leadership in the administration of the MUHC is a particular problem facing faculty members at this site. The inability to renew due to lack of tenure track positions is threatening our future and undermining morale. The lack of a career path for clinician investigators on career awards is a looming issue of considerable magnitude.

The move of the Royal Victoria Hospital to the Glen site and the reconfiguration of the Montreal General Hospital site are major projects that will no doubt disrupt teaching and research functions considerably in their initial phases but will provide modern facilities that ultimately will greatly enrich the lives of faculty members and trainees alike. The JGH is also undergoing transformative changes with new buildings and renovated spaces in existing buildings that will also bring new opportunities for research and teaching.

## UNIT STATUS UPDATE

The Department will continue under the leadership of *Dr. James Martin* who was appointed as permanent Chair of the Department in January 2014, following his interim tenure of the position from 2012.

Despite the challenges mentioned in the Executive Summary above, the Department of Medicine continues to enjoy success in its missions of teaching, research and the delivery of high quality and innovative clinical care. Its members provide teaching in many departments in the Faculty of Medicine and in other Faculties. Accreditation of the residency training programs of various divisions of the Department by the Royal College of Physicians and Surgeons of Canada and the Collège des médecins du Québec occurred. A number of divisions are looking to renew their leadership and search committees are actively searching for the best academic candidates to head these hospital divisions and to assume concurrent responsibility for the University divisions. Integration across hospital sites is progressing with successful biannual division directors meetings at Holmes Hall. Despite current financial constraints there is a dedicated core of academically oriented physicians complemented by strong medical scientists that is committed to maintaining research and teaching excellence and to preserve the traditions of the McGill Department of Medicine.

## SELECTED DIVISIONAL ACTIVITIES AND HIGHLIGHTS

### **ALLERGY AND CLINICAL IMMUNOLOGY**

**Research** - The Division was productive both in basic and clinical research with 104 manuscripts published in peer-reviewed journals. Members were successful in obtaining new grants or renewals of operating grants from the CIHR and they currently hold 67 grants (four more than last year). *Dr. Ann Clarke* was the principal investigator of a study evaluating the genetic and environmental factors in peanut allergy. *Dr. Danuta Radzioch* has initiated a phase II study of fenretinide to treat Cystic Fibrosis. *Dr. Ciriaco Piccirillo's* grant was ranked first in the CIHR Immunology review committee and he renewed a Canada Research Chair Tier II award. Members gave a total of 51 presentations at national and international meetings.

**Teaching** - The major highlight of the year was the accreditation of the Division's training program by the Royal College. A total of 28 graduate (22 PhD, 6 MSc) and 5 postdoctoral fellows were trained by members of our division. *Dr. Martin Olivier's* student was recognized as having presented the best biomedical thesis in France. Division members taught in 35 Undergraduate, Graduate and Medical School Courses (Microbiology & Immunology 9, Physiology 7, Biochemistry 6, Genetics 3, Experimental Medicine & Medicine 3, other 8). Division members supervised 51 Honors & Graduate Students.

**Involvement in the community** - Scientific: Division members participated on Scientific Review Committees for a variety of agencies including the MUHC, the Military, CANFAR, CIHR, FRSQ and NIH. *Dr. Norbert Gilmore* was chairman of the Scientific Review Committee of the Ontario HIV Treatment Network; *Dr. Piccirillo* was chairperson for the Immunology Community of Practice for FOCIS, an international advisory committee for the elaboration of the scientific program for the annual meetings. *Dr. Chris Tsoukas* served as chairman of NIH/NIAID special emphasis panel on the Vaccine Network Leadership Group and is the founder of the MUHC Kalema Humanitarian Mission to improve HIV related healthcare facilities in rural Tanzania.

**Clinical Innovation** - There are ongoing innovative interdisciplinary programs to care for patients with atopic diseases, autoimmunity and immune deficiency at three of the McGill affiliated hospitals. A tertiary care program in atopic disease for adults provides daily drug and food challenges. The Primary Immune Deficiency clinic has added *Dr. Martine Lemire* to the group. At the JGH, an "upper airways multidisciplinary clinic" covers both the medical and surgical needs of patients with inhalant allergies.

## **CARDIOLOGY**

At the MUHC, the creation of the Valve Centre as a combined medical and surgical team working from bench to bedside was initiated and funding was obtained. At the JGH, *Dr. Lawrence Rudski*, an internationally recognized authority in echocardiography of the right heart, assumed the role as Divisional Director.

**Research** - At the MUHC, the discovery of a genetic variant predisposing to aortic valve disease was co-led by *Dr. George Thanassoulis* and colleagues and selected by "Québec Science" Magazine as one of the top 10 scientific discoveries of 2013. First-in-man were done in the field of cardiac assist devices. Key areas of research at the JGH revolved around pulmonary hypertension, clinical epidemiological studies and trials, congenital heart diseases, frailty as a risk factor for surgery and the cardiac effects of hormones. *Dr. David Langleben* was a co-author on a paper testing a novel treatment for pulmonary hypertension in the New England Journal of Medicine. Collaborative work with the Faculty of Engineering in the design of a novel percutaneously placed device aimed to replace complex congenital surgery in high risk patients is proceeding. A major CIHR team grant was awarded to *Dr. Thanassoulis* who will lead the genetic component of a study to evaluate the determinants of increased risk of cardio-vascular diseases in HIV infected individuals. Other CIHR grants were awarded to *Drs. Vidal Essebag* and *Mark Eisenberg*.

**Teaching** - The McGill Adult Cardiology Training Program was successful in recruiting a record number of core Cardiology Residents. The Program created the first-ever Quebec Cardiology Resident Career Fair held in conjunction with the Canadian Cardiology Society Congress in Montreal.

**Involvement in the Community** - The Division held an inaugural event on heart health at the MGH. A pamphlet "The MUHC Cardiology Team, Taking Care of your Heart and Much More" was created highlighting all the programs and key research in Cardiology at the MUHC. A Cardiology Web-Ex was created with monthly web-ex presentations for the community cardiologists in the McGill's Réseau universitaire intégré de santé (RUIS).

**Clinical Innovation** - *Dr. Negareh Mousavi* was recruited at the MUHC to start a cardio-oncology program. A program for Interventional treatment of patients suffering from atrial fibrillation but intolerant of anti-coagulation was initiated. The use of device therapy for left atrial appendix closure was initiated with great success. At the JGH, *Dr. Caroline Michel* pioneered a program in cardiac palliative care with related presentations and research program. *Dr. Igal Sebag* led the introduction of 3-dimensional echocardiography into routine clinical practice.

## **CLINICAL EPIDEMIOLOGY**

The MUHC Division has seen a change of leadership with the appointment of *Dr. Kaberi Dasgupta* as Director. The research performance of this Division has continued to be excellent with some publications receiving special recognition. Members have played major roles in professional organizations. Division members also received a high level of media coverage.

**Research** - Among the many areas of research are developments in point-of-care testing strategies in HIV infection, strategies to change behaviour among patients with diabetes, health informatics systems, helminth infections in Peru, coronary artery disease in women and various psychosocial aspects of health. A search of the international competition "Accelerating Science Award Program" and "*Pai*" yields over 1.3 million hits. Likewise a search of "Chest pain in women" and "*Louise Pilote*" yields over 1 million hits. *Dr. Dasgupta's* work examining gestational diabetes and its impact in families was discussed in a special Globe and Mail supplement.

**Teaching** - *Drs. Dasgupta, Nitika Pant Pai, Sasha Bernatsky* and *Maida Sewitch* taught the epidemiological research methods course targeting residents and fellows in clinical programs, using an active learning classroom

(Education Building 627). Their interactive approach was highlighted by Teaching and Learning Services at McGill, <http://www.mcgill.ca/teachingsnapshots/kaberi-dasgupta>. Several courses at the Department of Epidemiology, Biostatistics, and Occupational Health are led by members of the Division of Clinical Epidemiology. The Division members also supervise a large number of postdoc, PhD, MSc, and resident/fellow research students.

**Involvement in the community** - *Dr. Dasgupta* organized a preconference workshop/assembled an expert panel for Vascular 2013, Canadian Diabetes Association. *Dr. Sewitch* lectured to the Kateri Memorial Hospital Centre and Edge Water Cafe and Grill, Kahwanake on risk of colorectal cancer. *Dr. Michal Abrahamowicz* was nominated Co-Chair of the new International Initiative for Strengthening Thinking about Analyses of Observational Studies (STRATOS). *Drs. Sara Ahmed* and *Susan Bartlett* hosted a CIHR-sponsored meeting at McGill on Developing and Implementing a Patient Reported Outcome Evaluation Platform in Canada. *Dr. Theresa Gyorkos* was Director of the 2013 École d'été on Globalization, held this year at McGill University.

### **CRITICAL CARE**

Some of the members of the hospital Department of Critical Care are appointed within the Department of Medicine. They contribute considerably to departmental academic activity.

**Research** - The group's basic research interest continues to revolve around muscle pathophysiology as it relates to critical care and in particular to COPD, sepsis, and prolonged mechanical ventilation. A translational research program quantifying human diaphragmatic contractility at the bedside and its molecular mechanism has been established. Members are actively investigating and publishing on the role and impact of ventilator associated respiratory infections and on the utility of an ICU outreach or consultation service. The effects of aging in healthy subjects on muscle mitochondrial function are an important area of research performed in collaboration with the Department of Kinesiology. The regulation of cell energetics and metabolism and host defense against infection are additional major areas of investigation.

**Teaching** - *Dr. Salman Qureshi* spearheaded the revised Respiratory Physiology component of the Med I curriculum. In addition to contributions to teaching in undergraduate and graduate level courses in Experimental Medicine and in various other departments, intensive didactic teaching is provided to trainees, aimed at the medical-surgical residents rotating through the ICU's at both sites (MGH; RVH). Given the constraints imposed by the residents' contract, alternate means of providing this teaching/learning experience are being explored.

### **DERMATOLOGY**

The Dermatology service has re-organized patient care volumes to accommodate tertiary and quaternary care for the majority of patient care practice within the hospital clinics.

**Research** - The most significant achievement and highlight for this year is *Dr. Denis Sasseville's* appointment as staff mentor for research. Residents enrolling in the program of clinical research will have the opportunity to graduate under the supervision of *Dr. Sasseville*. Major research themes are contact dermatitis and the molecular diagnosis of cutaneous lymphoma.

**Teaching** - The Division has a strong program for resident education. Members of the Division also contribute to medical student teaching.

## **ENDOCRINOLOGY AND METABOLISM**

The Division continues to enjoy major successes in its clinical and research activities, which are exemplified in by our members publishing in top-flight journals and being invited to international venues (see below). Some of the members have also been actively involved in advising the new teaching curriculum in Medicine. A major donation to the Division's long-term fundraising is being followed up with an initiative for short, medium and long-range fundraising towards the establishment of an MUHC Institute of Excellence in Endocrinology and Metabolism to support research, clinical activity and outreach to the community.

**Research** - *Dr. Simon Wing* organised the Zavalkoff Symposium which brought 4 Israeli researchers to McGill to exchange scientifically with Division members. *Dr. Maia Kokoeva* and her trainees were invited to the prestigious Keystone symposium on neuronal and control of energy balance to present new findings on the hypothalamic control of weight gain. *Drs. Louise Larose* and *Jun-Li Liu* were on the organizing committee of the 4th International Diabetes and Metabolism meeting, Chicago, and the World Congress on Endocrinology, Raleigh. Many of the members obtain new and/or continued support for the CIHR (*Drs. Martine Culty, Stéphane Laporte, Richard Kremer, Vassilios Papadopoulos, Nicole Bernard, Svetlana Komarova, Shafaat Rabbani, and John White*). Areas of research interest include steroid metabolism, reproductive endocrinology, bone metabolism, diabetes and protein metabolism.

**Teaching** - *Dr. Wing* was on the basic science sub-committee for the new Medical School Curriculum. *Dr. David Morris* taught physicians in Haiti on Endocrinology by teleconference on a 6-weekly basis.

**Clinical Innovation** - A fellowship in Bone Metabolism was established. A new clinic for obesity was established.

## **GASTROENTEROLOGY**

The McGill Division of Gastroenterology has developed strong academic and specialized clinical programs. New staffs have been recruited expanding expertise in areas such as Inflammatory Bowel Disease (IBD), liver fibrosis and viral hepatitis. Novel clinical programs in liver disease, colorectal cancer screening, esophageal disorders and inflammatory bowel disease (IBD) have complementary research programs. The residency training program was recertified by the Royal College.

**Research** - The first pilot Randomized Clinical Trial in the world assessing a hemostatic powder in malignant GI bleeding is near completion. There is a strong research program in (IBD) and it is an integral part of a North American IBD Genetics Consortium that is NIH funded. The McGill IBD Research Group with *Dr. Ernest Seidman's* laboratory has extensive collaborations with McGill scientists, across Canada (Montreal, Sherbrooke, British Columbia, Toronto, and Ottawa), in the USA (UCLA, U Chicago, Mayo Clinic, Mt Sinai) and Europe (U College Cork, Ireland). *Dr. Alain Bitton* is co-project leader on a major Genome Canada/CIHR grant with the aim of translating genetic discoveries into a personalized approach to treating the inflammatory bowel diseases. *Dr. Giada Sebastiani* was awarded a Chercheur Boursier Clinicien (junior 1) award from FRQS and was invited to join an international group of scientists who developed a new tool to evaluate quality of studies about non-invasive assessment of liver fibrosis (FibroSTARD study). *Dr. Mamatha Bhat* returned from a fellowship at the Mayo clinic and obtained a CIHR Research Fellowship for Health Professionals in order to pursue 5 years of advanced research training in hepatology and liver cancer. She is completing her PhD under the supervision of *Dr. Nahum Sonenberg*. There is also an active program on viral hepatitis being run in conjunction with members of the immunodeficiency group. A research study evaluating steatohepatitis in IBD patients was initiated.

**Teaching** - The Division has a strong teaching presence from medical students to fellows in training. There are weekly academic half days that provide teaching to residents. There are monthly web conferences (Basic Science Lecture series) connecting the National GI Training Programs. Members deliver teaching to students in Med 1 in gastrointestinal physiology. There is also a first clinical exposure of students, integrated within the Physicianship

course. *Dr. Peter Ghali* serves as Chair of undergraduate education in Internal Medicine. He redesigned the undergraduate curriculum at the clerkship level in conjunction with the UGME, the TCP implementation committee, the departments of Neurology and General Surgery. Several faculty members serve as Osler Fellows. There is a therapeutic endoscopy training fellowship, of which there are only three in Canada. The esophageal ultrasound training program has the second largest clinical exposure in the country. There is an IBD fellowship program which has 1 to 2 clinical research fellows per year. *Dr. Kevin Waschke* was awarded the Canadian Association of Gastroenterology (CAG) young educator award for his contribution to teaching beyond McGill and for developing the CAG e portal educational site. *Dr. Waschke* also received the Canadian Association of Medical Education (CAME) – Certificate of merit

**Clinical Innovation** - The Division has innovative programs in advanced endoscopy, hepatology and IBD. The MUHC GI Division with *Dr. Alan Barkun* is spearheading the assessment of endoscopic quality for the Provincial Colorectal Cancer Screening Program. The JGH acquired a highly sophisticated endoscope for the bile ducts (spyglass). The MUHC is the first centre in the province to provide endoscopic high frequency ablation of pre-malignant lesions of the esophagus. The Division also provides advanced techniques in small bowel imaging which include videocapsule imaging and small bowel enteroscopy, performing the greatest number of such procedures in the province. The Division is creating a centre of excellence in the area of non-invasive assessment of liver fibrosis and fatty liver; equipped with Quebec's first fibroscan device. A similar device has been acquired at the JGH. The MUHC is the first centre in Canada to successfully complete a complex brachytherapy, external beam radiation therapy, liver transplantation protocol for intrahepatic cholangiocarcinoma.

**Contributions to scholarly communities** - The Division has made significant contributions to scholarly activities and communities outside McGill in the past year. These include (i) Steering committees for National Consensus Guidelines in IBD (*Dr. Bitton*), European Consensus Guidelines in Liver Fibrosis (*Dr. Sebastiani*), European Guidelines on Hepatic encephalopathy (*Dr. Philip Wong*); (ii) Editorial Boards of national and international Journals (*Drs. Barkun, Bitton and Seidman*); (iii) Organization and contribution to the Post-graduate course, Scholar's course and conferences at the Canadian Association of Gastroenterology annual meeting (*Drs. Barkun, Wong and Washcke*). *Dr. Seidman* was elected President of the World Congress of Pediatric Gastroenterology and Hepatology. *Dr. Josee Parent* serves as the current President of the Quebec Association of Gastroenterology. *Dr. Seymour Mishkin* received an Achievement Award from Health Canada for 15 years of service and has also been elected as the Governor of Quebec for the American College of Gastroenterology.

### **GENERAL INTERNAL MEDICINE**

Specific areas of growth currently include quality improvement, peri-operative medicine, vascular health and medical obstetrics. Excellence and leadership in clinical care, research and education are integral building blocks for accomplishing the divisional mission.

**Research** - Clinical Research Units with a thematic focus have been set up, combining clinical excellence, research and education. These include the vascular health unit at the MGH, the thrombosis clinic at the JGH, the pre-op clinic at the MGH and the medical obstetrics clinic at the RVH. Members were invited to deliver major lectures in international meetings. *Dr. Susan Kahn*: "Improving patient outcomes after deep venous thrombosis", the D. Eugene Strandness Memorial Lecture at the American Venous Forum Annual Meeting in Phoenix, AZ; and Post-thrombotic syndrome: Evidence-based update on prevention and treatment at the XXIV Congress of the International Society on Thrombosis and Haemostasis (ISTH) in Amsterdam. *Dr. Suzanne Morin*: Les fractures atypiques du fémur associées à l'utilisation des biphosphonates at the 44th Laurentian Conference of Rheumatology, Québec. *Dr. Stella Daskalopoulou*: Women in Cardiac Sciences Lecture: Women, Hypertension and Stroke, Canadian Cardiovascular Congress. *Dr. John Hoffer*: Dr. Rogers Prize Lecture: The Abram Hoffer Collection at the University of Saskatchewan, Orthomolecular Medicine Today, 42d Annual International Conference in Toronto. *Dr. Linda Snell*: Plenary Presentations: University College London Excellence in Supervision conference in London, UK and Latin American Conference on Residency Education in



Santiago, Chile. Major research grants were obtained by *Dr. Pilote* (Vascular Network-ICHR Emerging Network and CIHR CAN-AIM Team DSEN Targeted Research Prospective Study); *Dr. Vicky Tagalakis* (CIHR Statin use and the prevention of recurrent venous thromboembolism in the elderly: The STAVENO study); *Dr. Suzanne Morin* (CIHR Operating Grant - The effect of dietary calcium intake as compared to calcium supplementation on vascular and bone health in postmenopausal women); *Drs. Dev Jayaraman and Laurence Green* (Technology Evaluation in the Elderly for iDECIDE study, part of National Centres for Excellence, one of three centres in Canada). *Dr. Stella Daskalopoulou* received a Chercheur Boursier Junior 2 award from FRQS.

**Teaching** - *Dr. Michelle Elizov* was named Director of Medical Education of the McGill Division of General Internal Medicine. A first visit to Haiti by 2 GIM staff to develop teaching as part of the McGill University Global Health Initiative took place. *Dr David Hornstein* launched the first McGill-wide GIM Pre-Op Rotation which started in August 2013. The Division held the GIM Academic Day in which the Université de Montréal participated for the first time.

The McGill General Internal Medicine residency program (R4-R5) was accredited as a specialty program of the Royal College in 2013. McGill's program was one of the first programs in the country to be accredited. In July 2013, 10 new residents joined the Program for a total of 22 residents for the 2013-14 academic year, the largest number of residents in the program's history. In the fall 2013, the program successfully matched 7 new residents who will join the program in July 2014. Strengths of the program include its weekly academic half-day that is videoconferenced to many centres in the outlying regions of the McGill University RUIS; innovative workshops in career planning, health advocacy and practice management; and its Clinical Scholars Program (CSP). The curriculum includes research seminars, workshops by Internal Medicine Division members active in research and a mentored clinical research project. Since the program's inception, several residents have presented their findings at local, national and international meetings. In 2013, the GIM Division hosted its second Annual GIM Research Day in the first collaboration with the Université de Montréal, which featured research presentations by McGill graduating residents, Université de Montréal residents and Division faculty. *Dr. Thomas Maniatis* delivered the 12th Annual A.M. Edwards Lectureship in Clinical Education at the University of Alberta.

**Involvement in the Community** - *Drs. Suzanne Dube and Patrick Willemot* work in Northern communities as general internists and *Dr. Steven Grover* leads the McGill CHIP in cardiovascular prevention. *Dr. Willemot* was asked to provide GIM consultation to Chisasibi. He added this to current consultations to the Nunavik Ungava coast.

**Clinical Innovation** - *Dr. David Hornstein* was named Program Director of a new Peri-Operative Medicine Program.

## **GERIATRICS**

One of the greatest achievements of the Division has been the development of the Centre d'Excellence in Aging and Chronic Disease whose mission is to propose innovative services and to develop educational material for chronic disease management. The Centre was successful in obtaining a planning grant from the CIHR. The first launch of a call for proposals was made and two innovative clinical projects were supported. At the provincial level, the Division of Geriatric Medicine is participating with the Ministry of Health in the implementation of memory clinics as part of the provincial Plan Alzheimer.

**Research** - Research in neurobiology and dementia, informatics, health services, frailty, pharmacoepidemiology, nutrition, rehabilitation, emergency medicine, long term care, pain and education continue to represent the existing strengths of the Division with programs that cross hospital, department and university lines and in some cases integrate bench-to-bedside-to population. Among the different research partners with whom the Division of Geriatrics collaborates is the Solidage Research Group on Frailty and Aging, a joint McGill/ Université de

Montréal research group led by *Drs. François Béland* and *Johanne Monette* based at the Lady Davis Institute. *Dr. Béland* with the collaboration of *Drs. Lawrence Rosenberg* and *Gerry Batist*, and other LDI researchers were successful in obtaining a \$4 M grant (2012-2016) from the Programme stratégique de développement innovant (PSDI) of FRQS to study and implement transformational changes for efficient management of chronic diseases. *Dr. Howard Bergman* with *Dr. Béland* leads a major international initiative to further our understanding of frailty as a vulnerability with funds from the CIHR (2012-2016). *Drs. José Morais* and *Bergman*, gave major keynote presentations at the Second France-Québec conference on dementia, Académie Nationale de Médecine, Paris, France and the 7th CCD Canadian Conference on Dementia, Vancouver, respectively. The 16<sup>th</sup> Annual McGill Division of Geriatric Medicine Research Day was held jointly with the MUHC Division of clinical epidemiology on May 8, 2013. There were about 80 attendees, mainly graduate students from McGill but also from Université de Montreal and UQAM. There were 12 oral presentations and 9 poster presentations with a great diversity of topics pertaining to aging, ranging from biological sciences and clinical services to population studies and evaluative research. Prizes for best oral and poster presentations were given to students for both basic and clinical sciences

**Teaching** - The Division continues to receive more than 100 3<sup>rd</sup> and 4<sup>th</sup> Year Medical Students a year as a mandatory clerkship rotation in our 4 major teaching sites. The clerkship curriculum has been updated and contains innovative web-based methods for teaching and evaluation. Geriatric Medicine faculty is also involved in teaching two modules in Introduction to Patients as well as the integrated course in the first year. The Division supervises residents from PGY-one in Internal Medicine (including Neurology and other subspecialties with a mandatory year in Internal Medicine), Family Medicine for a one-month "selective" ("mandatory elective") rotation; and residents from Psychiatry for a one-month elective rotation in Geriatric Medicine. Learning objectives and a detailed "reading package" on CD-ROM containing up-to-date readings on "geriatric syndromes" and care of the older adult in specific care settings (hospital care, peri-operative care, ER, ICU, primary care, homecare, nursing home, and Psychiatric practice) are given to each resident. Mandatory academic requirements include presentation at each site's monthly Geriatrics journal club, attendance at any on-site Geriatrics rounds or teaching sessions, and attendance at monthly McGill Division of Geriatric Medicine Grand Rounds, including "meet the professor" small group trainee tutorial sessions with the visiting expert before each grand rounds; in addition to mandatory attendance at all resident teaching in the resident's base training program.

**Involvement in the community** - The Division contributed, through *Dr. Morais*, to organizing the first International Montreal Conference of GRAPA (Groupe de recherche en activité physique adaptée), entitled "Muscle: From humans to cells" that was held in Montreal on May 3-4, 2013.

## **HEMATOLOGY**

The Hematology Division has strong research and teaching programs linked to areas of distinct clinical strengths.

**Research** - *Dr. Jaroslav Prchal* is a member of a large international consortium which has successfully applied to the National Cancer Institute in the United States for funding for research and clinical trials in myeloproliferative disorders. *Dr. Sarit Assouline* has ongoing research projects with 2 hematology residents as well as 2 internal medicine residents. She is currently the McGill representative to the Investigational New Drug group of the NCIC and has brought to the hospital a number of innovative phase I and phase II clinical trials through the Clinical Research Unit at the JGH. *Dr. Mark Blostein* has contributed significantly, in past years, to the area of the basic science of venous thromboembolism. He is a co-investigator on four major peer review nationally funded clinical trials examining optimal strategies for the peri-operative management of anticoagulants. *Dr. Nathalie Johnson* obtained a CIHR operating grant. At the MUHC, *Drs. Michael Sebag* and *Chantal Séguin* have FRQS/CIHR funding for personal support and operating grants to advance programs in myeloma and avascular necrosis. *Dr. Jean-Pierre Routy* has continued a high impact research in the field of HIV. *Dr. Patricia Pelletier* has been

named "Experte en médecine transfusionnelle" for the McGill RUIS. New hires to strengthen research will come on board this year, *Dr. Kelly Davison* is developing McGill specific practice guidelines for lymphoma. *Dr. Véronique Naessens* will be returning to the RVH in July 2014 after two years of formation complémentaire in hemoglobinopathies and will strengthen the academic mission of the combined pediatric and adult program.

**Teaching** - Members are heavily involved in the training of residents. *Dr. Gizelle Popradi* has developed and implemented a McGill Stem Cell Transplant program. *Dr. Patricia Pelletier* runs the blood bank training for all the fellows who train at the MUHC. In-patient SCTP training is at the RVH site. *Dr. Assouline* provides the morphology teaching for hematology fellows. The molecular laboratory serves as the sole laboratory engaged in teaching of molecular diagnostics to hematology fellows. *Dr. Blostein* supervises two graduate students in the Department of Physiology and a post-doctoral fellow in the Division of Experimental Medicine. He is also member of the Royal College of Physicians and Surgeons advisory committee for the Clinical Investigator Program. *Dr. Johnson* supervises two MSc level graduate students in the Division of Experimental Medicine. *Dr. Chantal Cassis* has been appointed Program Director of the McGill University Teaching Program.

**Clinical innovation** - There are several areas of particular strength. The MUHC has three provincially designated sub-specialty programs including stem cell transplant, Hemophilia and Thalassemia. The designated clinics are housed at the RVH and the MCH, and include combined adult and pediatric programs. The JGH's stem cell transplant program continues to remain a strong component of the McGill bone marrow transplant program. The JGH has an official designation from the Ministry of Health as a center for autologous stem cell transplants. The Molecular Diagnostics Laboratory supports the allogeneic transplant program at the MUHC by providing molecular assays for chimerism post-transplant. *Dr. Assouline* is responsible for the treatment of adult patients with Gaucher's disease for the province of Quebec. There is also a large clinic for myeloproliferative disorders.

**Involvement in the community** – *Dr. Margaret Warner* has been the president of the Association of Hemophilia Clinic Directors of Canada for the last two years and sits on the executive of the Canadian Hematology society. *Dr. Chaim Shustick* is a founding member and continues to contribute to the International Myeloma Association, contributing to decisions on all international clinical trials. *Dr. Popradi* has been on the executive and helped organize the content of the Canadian Bone Marrow Transplant Group. *Dr. Assouline* has participated in INESSS to review drugs for lymphoma. *Dr. Blostein* has been a Member, for the third year in row, of the Doctoral Research Awards A (DRA) and Canada Graduate Scholarships Master's Awards A (CGA) committees at CIHR. *Dr. Johnson* is the Director the provincial lymphoma tissue banking activities of the Banque de cellules leucémiques du Québec.

### **INFECTIOUS DISEASES**

The Division leadership has changed as *Dr. Don Sheppard* has taken over as Director. There has been outstanding success in operating grant and salary support competitions. Together with members of the Respiratory Division, *Dr. Marcel Behr* led efforts to manage the large tuberculosis outbreak in the Aboriginal community. The efforts of the combined clinic were recognized with the Department of Medicine Outreach Award. A new Tropical Diseases fellowship was instituted and a McGill University Tuberculosis Centre was established.

**Research** - Members secured multiple new operating grants from CIHR, PSR-MDIEE, and industrial partners, most notably including a \$12.3 million, four-year award from the Quebec Ministry of Finance and Medicago Inc. to develop plant-made virus-like particle vaccines to prevent viral pneumonias in the elderly. *Dr. Yves Longtin*, a new recruit to the JGH, received a Junior I Chercheur-Clinicien award and *Dr. Marina Klein* received a prestigious Chercheur National award. Notable publications dealt with the role for vitamin D in tuberculosis and the molecular mechanism of *Aspergillus* adherence to host tissues. Similarly pivotal clinical studies reported on the identification of a new fungal pathogen in the *New England Journal of Medicine*; the largest outbreak of measles in North America; diagnostic methods in the control of *C. difficile* colitis.

**Teaching Activities** - A new fellowship in Tropical and Parasitic Disease is in the final stage of approval by the Faculty with secured funding for the first fellow, who will start in 2015. The Infectious Diseases and Medical Microbiology training programs received full Royal College approval in the recent accreditation visit. *Dr. Michael Libman* was appointed as Director of Courses for the American Society for Tropical Medicine and Hygiene.

**Involvement in the community** - The MUHC TB clinics won the Department of Medicine outreach award in 2013 for their work on the TB outbreak. *Dr. Christina Greenaway* (JGH) and co-investigators were awarded a \$900,000 CIHR Grant looking at the accessibility to care for refugees under the new federal health program changes.

**Clinical Innovation** - During 2013 at the MUHC, we began the process of integrating and streamlining the outpatient activities of the Infectious Diseases and Chronic Viral Illness Services in anticipation of the move to the Glen site. At the JGH site, *Dr. Marty Teltscher* has begun the implementation of an antimicrobial stewardship program. The Chronic Viral and Immunodeficiency Service (CVIS) saw a merger of the MGH and the MCI units. A clinical and research hepatic elastometry (Fibroscan) clinic was instituted for the evaluation of liver diseases.

#### ***MEAKINS-CHRISTIE LABORATORIES (MCL)***

These laboratories dedicated to fundamental research in respiratory diseases have continued to be productive, publishing well and training and graduating students and postdoctoral fellows. *Dr. Qutayba Hamid* has been reappointed for a second 5-year term. Investigators were successful in securing 6 CIHR grants despite the difficult funding climate. A major workshop was held on the overlap syndrome of asthma and chronic obstructive lung disease caused by smoking.

**Research** - All of the investigators continue to enjoy adequate funding to pursue active research programs that span a range of disciplines including biophysics, molecular biology, physiology, genetics, immunology and biochemistry. More than 80 articles were published in excellent journals. A large cohort of graduate students and post-doctoral fellows is being supervised currently. The laboratory hosts over 10 undergraduate students each summer from which graduate students are recruited.

**Teaching** - A new course on the Molecular Biology of Disease: Environmental Toxicants has been organized by faculty members at the MCL and is offered through the Department of Pathology.

**Involvement in the community** - Members of the faculty are active in grant reviewing in all of the major agencies in Canada and the US in the area of respiration (CIHR, NSERC, CCFF, NIH).

#### ***MEDICAL BIOCHEMISTRY***

This division has engaged in rationalization of services as a result of budgetary constraints, in particular at the MUHC. The MUHC laboratory has passed Accreditation Canada's Inspection.

**Research** - Among the research interests at the MUHC are disorders of lipid metabolism, inborn errors of metabolism and toxicology. A number of strong papers have been published in these areas in 2013. At the JGH, proteomics research to be translated into diagnostic application has resulted into funding from Genome Canada, Genome BC and Genome Quebec as part of a trans-Canadian research group. This will involve the implementation, optimization and testing of new protein assays in a clinical laboratory setting. The links of vitamin D deficiency to inflammatory bowel disease and vitamin C deficiency in hospitalized patients are strong research interests.

**Teaching** - Both the MUHC and JGH sites provide teaching at all levels from medical students to specialty resident training in medical biochemistry. Observerships are frequently provided to MDs wishing to spend brief periods in the laboratory.

**Involvement in the community** - At the JGH, *Dr Elizabeth MacNamara* participated in refresher courses for family physicians and lectured at the International Forum on Health, Salon Business Intelligence and Colloque sur les soins de santé personnalisés. As part of the collaboration between the JGH laboratory and the Ministry of Health, Gansu, China, *Dr. MacNamara* lectured extensively in China on laboratory management and diagnostic medicine.

**Clinical Innovation** - At the MUHC, we saw the introduction of new equipment to permit more efficient analysis of immunosuppressant drugs. The JGH Diagnostic Laboratory has been selected to do supra-regional tests by the Quebec Government.

### **NEPHROLOGY**

*Dr. Andrey Cybulsky* has been reappointed as Division Director. The kidney transplant program performed a record number of 107 transplants in 2013. Progress was made in the establishment of a satellite dialysis unit to replace chairs lost with the move to the Glen. Clinical activity of this nature is essential to support the faculty members and to allow them to dedicate time to research and teaching.

**Research** - The basic science research program of the Division has been productive. *Dr. Cybulsky* gave an invited lecture at the American Society of Nephrology Annual Meeting in Atlanta.

**Teaching** - One of the Division members, *Dr. Tiina Podymow*, redeveloped the Med I Renal Physiology Course (as part of the new medical school curriculum). Members of the Division continued to lecture in approximately 20 different courses at McGill and MUHC.

**Involvement in the community** - *Dr. Murray Vasilevsky* was extensively involved in the development and growth of the Cree Renal Care Program.

**Clinical Innovation** - Plans were submitted to the Agence de Montréal for the establishment of a MUHC hemodialysis satellite unit on the island of Montréal.

### **NEUROLOGY**

**Research** - *Dr. Ron Postuma* secured a CIHR operating grant and delivered a plenary lecture titled "REM sleep behavior disorder and Clinical Diagnosis of Neurodegeneration" at the American Academy of Neurology.

**Teaching** - *Dr. Colin Chalk* was responsible for the conceptual work and detailed planning of 'Fundamentals of Medicine and Dentistry', the first 18 months of the new MDCM curriculum, launched in September 2013. *Dr. Stuart Lubarsky* oversees the transformation of ICM neurology into TCP neurology as the new MDCM curriculum unfolds.

**Involvement in the community** - *Dr. Anne-Louise Lafontaine* was co-chair of the local organizing committee and the Steering Committee of the World Parkinson Congress in Montréal in October 2013.

**Clinical innovation** - *Dr. Lafontaine* is working on the development of a novel approach to the care of Parkinson's disease by implementing a Navigator program for Parkinson's disease with a \$1 M funding from Renata Hornstein Parkinson Program and the MGH Foundation.

## **RESPIRATORY MEDICINE**

The Division has seen a change in leadership as *Dr. Kevin Schwartzman* has taken over as Director as of January 1, 2014, succeeding *Dr. Richard Menzies*.

**Research** - The Division members have continued to be productive in variety areas of research. *Drs. Menzies, Schwartzman* and *Madhukar Pai* participated in the publication of the Canadian Tuberculosis Standards 7th Edition. *Drs. James Martin* and *Jean Bourbeau* have key leadership roles in the newly formed Canadian Respiratory Research Network. *Dr. Marta Kaminska* received an ATS Foundation Outstanding Early Career Investigator Award. New research programs in ventilator induced diaphragm dysfunction (*Drs. Sabah Hussain, Peter Goldberg, Basil Petrof* and *Rassier* (Kinesiology)) and in skeletal muscle dysfunction in COPD patients (*Drs. Hussain, Bourbeau* and *Tania Taivasslo* (Kinesiology)) were established.

**Teaching** - *Dr. Schwartzman* is the Inter-university course (McGill-Laval) coordinator on Clinical aspects of research in respiratory diseases, a 3 credit course in a web-based distance learning format. *Dr. Salman Qureshi* coordinated the revised curriculum for Med I students. Division members teach extensively in the Division of Experimental Medicine and in a number of Departments (EBOH, Microbiology/Immunology, Physiology, Pharmacology, and Pathology).

**Involvement in the community** - *Dr. Kateri Champagne* was the principal author on a guide for the Collège des médecins du Québec on Sleep Disordered Breathing. *Dr. Anne Gonzalez* was an author on the American College of Chest Physicians - Guideline for staging lung cancer. Community-based research on TB was carried out by *Dr. Menzies* in Nunavik (CIHR-funded), in partnership with community groups and public health authorities. *Dr. Faiz Khan* engaged in teaching in Port au Prince, Haiti on aspects of the management of tuberculosis, arranged by US-CDC and the University of Florida. *Dr. Sean Gilman* participated in the Outreach Program in Haiti, creating a curriculum. and enhanced pulmonary training for pulmonary fellows in Port au Prince, in affiliation with Soutien Pneumologie Internationale. *Dr. Schwartzman* participated in the Conference Planning Committee, North America Region of the International Union against Tuberculosis and Lung Disease in Vancouver. *Dr. John Kimoff* was on the Organizing Committee of the 13th International Symposium on Sleep and Breathing in Montréal.

**Clinical Innovation** - *Dr. Gaston Ostiguy* worked on the implementation of the IMPACT Program for Smoking Cessation at the MUHC. *Dr. Kaminska* established a monthly sleep clinic in Valleyfield to allow timelier and easier access to sleep disorder diagnosis and treatment for a substantial population, including numerous truck drivers and heavy machinery operators. Ambulatory sleep testing is performed locally.

## **RHEUMATOLOGY**

The academic performance of the Division was excellent. There was a noteworthy presence on the international scene through plenary lectures, presentations and participation in organizing committees for major international conferences.

**Research** - Major areas of research concern scleroderma, systemic lupus, rheumatoid arthritis, fibromyalgia, tissue regeneration and eicosanoids in tissue injury and repair. CIHR operating funds were obtained for 3 of our members (*Drs. Sasha Bernatsky, Ines Colmegna* and *Evelyne Vinet*) addressing neurodevelopmental disorders in children born to women with systemic lupus erythematosus (SLE), cancer risk in systemic rheumatic diseases, and hematopoietic stem cells in rheumatoid arthritis. *Dr. Henri Ménard* delivered plenary lectures at the South African Rheumatology Association Meeting in Durban. *Dr. Colmegna* was an Invited speaker at the African League of Associations for Rheumatology symposium and the Argentinean Annual Rheumatology Meeting. *Dr. Vinet* received awards for excellence in research by a young investigator from the Canadian Rheumatology Association and the Pan-American League Against Rheumatism in Buenos Aires. *Dr. Bernatsky* led a national workshop, funded by CIHR and other agencies in Ottawa on rheumatic disease research using administrative data. *Dr. Marie Hudson* is the principal investigator on the Canadian Inflammatory Myopathy Study (CIMS). *Dr.*

*John DiBattista* was an invited speaker at the 13<sup>th</sup> International Bioactive Lipids Conference in San Juan, Puerto Rico, and a member of the organizing committee for the 11th World Congress on Inflammation in Brazil. *Dr. Joyce Rauch* established monthly research meetings including all the McGill rheumatology community, i.e. the “Rheumatology Research Group work-in-progress/seminar series”.

**Teaching** - Physicians going to Abitibi to provide clinical services took the opportunity to give CME sessions. Many summer students were mentored through research programs sponsored by the Canadian Arthritis Society and McGill University. Graduate students were supervised in basic science and epidemiology at the MSc, PhD and post-doctorate levels. *Drs. Beth Hazel* and *Christian Pineau* held the “Introduction to Rheumatology” course at the MUHC in July 2013 and attended by rheumatology residents from the entire province. *Dr. Laeora Berskon* developed a seminar teaching series for rheumatology fellows, GIM fellows, and endocrinology fellows in osteoporosis.

**Involvement in the community** - Members gave a substantial number of media interviews (*Drs. Ménard* and *Bernatsky*). *Dr. Hudson* was a spokesperson for The Arthritis Society and served as a medical advisor to the Arthritis West Island Self-Help Association (AWISH). *Dr. Rauch* was a member of the International Advisory Board. *Dr. Colmegna* was a member of the CIHR Clinical Investigation peer review committee and served on the editorial board of the Journal Rheumatology. *Dr. DiBattista* continued as Editor-in-Chief of “Inflammation Research”. *Dr. Mary-Anne Fitzcharles* served on the executive committee of the Quebec Pain Society, on the Canadian Rheumatology Association therapeutics committee and on the Royal College of Canada pain medicine sub-specialty committee.

**Clinical Innovation** - *Drs. Berkson, Colmegna, Pantalis Panopalis* and *Ménard* provided service to Abitibi-Ouest in rotation to this important part of our RUIS. The MUHC Young Adult Rheumatic Diseases (YARD) clinic directed by *Dr. Hazel* has continued to enhance its relationship with the Constance Lethbridge Rehabilitation Centre with the launch of “Ta Vie 2.0”, a comprehensive multidisciplinary programme for young adults with rheumatic diseases.

#### **UNDERGRADUATE EDUCATION**

*Dr. Peter Ghali* is Clerkship Director of Internal Medicine and Clerkship Site Directors are *Dr. Scott Owen* (MGH), *Dr. Beth Cummings* (JGH), *Dr. Lesley Meissner* (SMH) and *Dr. Ron Starra* (Gatineau). The student members of the UGME Committee, *Anais Hausvater, Emily Reynen* and *Melanie Bernstein* make invaluable contributions.

**Professional Skills** - The Department members participated in training the entire 2<sup>nd</sup> year medical school class, with an increase in numbers to 190 students. The 1-month long basic physical examination skills course received excellent reviews. This course will run again in 2014 as the Clinical Methods 2 course.

**Introduction to Internal Medicine (IIM)** - Over the last year, 184 second-year medical students and 2 DHCEU students completed the Introduction to Internal Medicine. The UGME Committee introduced new evaluation schema and removed the handbook from the website and transferred on D2L for more effective way of communicating the information to students. Overall, the strength of the course is its tutors, whose skill, enthusiasm, professionalism, and dedication made a significant impression on the students, as reflected by their reviews and comments. This course helps students develop the basics of clinical reasoning, and provides students with fundamental skills to allow success in clerkship.

**Clinical Clerkship in Internal Medicine** - The clerkship had a successful year. As always we tracked our accreditation standards. Students reporting that they received mid-rotation feedback: 98%; workload was adequate: 80%; learning facilities were adequate: 98%; mistreatment during their clerkship: 3%. The clerkship

took place at the four Montréal sites as well as Gatineau and 186 third- year medical students completed the Clerkship. The Committee added the HIV for the log book and introduced overnight call.

**Objectives** - Initiatives for the upcoming year include the reinstatement of an overnight call experience, revision of the clinic supervision process, and bolstering of the teaching objectives of the subspecialty component. For the new curriculum, the focus will be on providing a superior longitudinal outpatient experience in addition to the already strong inpatient exposure and Sub-specialty (CCU).

### **MCGILL INTERNAL MEDICINE RESIDENCY TRAINING PROGRAM**

*Dr. Ahsan Alam* was appointed Program Director, succeeding *Dr. Thomas Maniatis*. Dr. Maniatis continues to stay involved with the program, and as a member of the Royal College Specialty Committee in Internal Medicine, he is assured to play an active role in shaping residency training across Canada. Currently, the program is training 116 core internal medicine residents spread across 3 base teaching hospitals (41 at the JGH, 38 at the RVH, and 37 at the MGH). The CaRMS match was extremely successful, as all positions were filled in the first iteration. This summer 39 exceptional residents will join the training program. 21 come from McGill, 6 from the rest of Québec, 3 from the rest of Canada, 1 from the US, and 8 are international medical graduates from the Middle East and other countries.

The program received a “fully accredited” status from the Royal College of Physicians and Surgeons of Canada, a testament to the contributions by our residency training committee, faculty, and the high calibre of residents in the program. Several strengths were highlighted, such as the dedication of our hospital site directors, the varied patient populations and pathologies, the pioneering of a 16-hour call schedule, and the “highly qualified teachers and mentors providing outstanding clinical teaching and supervision”.

**Innovation** - Building on an existing project, the Program formally launched its Global Health Initiative in Haiti. Directed by *Dr. Michelle Elizov* and in partnership with Partners in Health (PIH) and St. Nicolas Hospital, a cohort of 3 senior residents and 4 faculty members travelled to Haiti to share knowledge with, and learn from, the local physicians and trainees. These residents and staff experienced pathology that is rarely witnessed in Canada and a unique life experience. McGill has been a leader in simulation-based training, and the program will expand its curriculum with the recent acquisition of Harvey®. This cardiopulmonary patient simulator allows examination of venous and arterial pulses, precordial movements, cardiac and pulmonary auscultation for many cardiac conditions. We foresee this to be a valuable training tool that will enhance the learning of our residents.

### **CONCLUDING REMARKS**

The Department continues to have a substantial output in teaching, research and clinical innovation. An increase in cohesiveness across the hospital sites is desired so as to promote more collaborative research and innovation in clinical programs. Attention to the academic culture in the hospitals is required and the displacement of outpatient activities from the hospital to office buildings outside the campus at the Glen site may threaten the strong commitment of clinicians to the MUHC. The career path for clinician scientists needs to be re-established through the provision of tenure-track positions. Consideration should be given to a review of all bureaucratic processes that are hindering productivity in research. Vigilance is required to ensure that the academic mission of the university hospitals is not forgotten in the process of ensuring compliance with ministerial requirements. Despite economic constraints on performance careful planning and inspired leadership will continue to allow the Department to maintain its academic standards.



## **APPENDICES**

The following appendices are part of this report and have been submitted separately:

Appendix I: Milestones (new hires, promotions, departures and salary awards)

[Appendix II: Honours, awards and prizes](#)

Appendix III: Consulting activities table

A copy of this report is available at the following website link:

<https://www.mcgill.ca/deptmedicine/about-us/annual-reports>