Tracy Serafini  
Communications & Public Relations  
Department of Medicine  
501 Smyth Road, Box 206  
Ottawa, ON K1H 8L6  
613 737 8765  

Available online in PDF format at thinkOttawaMedicine.ca  

Danielle Parmar  
nineteen Sixteen Creative Inc.  

Trevor Lush  
Trevor Lush Photography  

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All persons profiled in this Annual Report have agreed to their appearance and have approved their individual stories.
CHARTING OUR COURSE:
Investing in Each Other to Advance, Achieve and Excel

Department of Medicine 2012–2013 Annual Report
OUR VISION
To be recognized as the #1 choice Department of Medicine in Canada for patients, students, residents, fellows and staff.

OUR MISSION
We will perform the highest quality clinical research and medical education in an environment that focuses on quality and safety of care for all patients.

OUR VALUES
RESPECT
We will treat patients, trainees, staff and colleagues with dignity and equity, recognizing individual, gender and cultural differences and diversity.

QUALITY
We will always strive for excellence in patient care, research and education.

COLLABORATION
We will work together for the good of all members of the Department, The Ottawa Hospital and the University of Ottawa, to improve health, education and research in the Champlain LHIN.

ACCOUNTABILITY
We will value the highest standard for professionalism, fairness and transparency in an environment of, advocacy for, and accountability to, the communities we serve, as well as all members of the Department of Medicine.
The Department of Medicine is an innovative academic health care leader focused on advancing, developing and delivering cutting-edge medical research, outstanding patient care and high-quality education that prepares future generations of health care professionals.

Through strong and visionary leadership and with its exceptional people, the Department of Medicine is creating outstanding opportunities for current and future health care practitioners. By building bridges that link expertise, learning, knowledge and hands-on practice the Department of Medicine is improving patient care locally, nationally and internationally.

As a major department within the University of Ottawa, Faculty of Medicine, and The Ottawa Hospital, and valued partner of The Ottawa Hospital Research Institute, Ottawa’s Department of Medicine actively brings together close to twenty sub specialty medical divisions, physicians, researchers, educators, administrators and future health care professionals in an open, inclusive, supportive and inspiring culture.
A leader takes people where they want to go. A great leader takes people where they don't necessarily want to go, but ought to be.

— Rosalynn Carter

DEPARTMENT OF MEDICINE
EXECUTIVE COMMITTEE

From left to right:
Dr. Erin Keely (Vice Chair, Medical Education)
Dr. Philip Wells (Department Chair and Chief)
Dr. Kevin Burns (Vice Chair, Research)
Dr. Alan Karovitch (Vice Chair, Finance)
Dr. Michele Turek (Vice Chair, Clinical Services)
Ted Waring (Chief Administrative Officer)
Dr. Susan Dent (Vice Chair, Patient Quality & Safety)
A MESSAGE FROM THE CHAIR AND CHIEF

It is my great pleasure and privilege to bring you the University of Ottawa and The Ottawa Hospital Department of Medicine 2012-2013 Annual Report.

I am particularly grateful to the Department Executive, Drs. Burns, Keely, Dent, Turek, Karovitch and Ted Waring without whom my job would be impossible. Through their leadership, we have had significant accomplishments in their portfolios. The key messages are delivered by these individuals in the pages of this report. I won’t reiterate the successes that we have had, but rather, speak to our future plans. I am in the final year of my five year mandate and I believe that we have made significant progress in the Department, such that the theme of the current report is that of “Charting our Course”. Significant foundations have been laid over the past 4 ½ years to enable us to achieve a high level of success. I believe these foundations are such that in most cases the “course” requires only minor modifications. However, we are open to opportunities and have several plans to continue to improve, grow and evolve.

In the area of the Clinical Services, from the inpatient perspective, we will be building on our partnerships with The Ottawa Hospital to ensure we meet key patient safety and quality outcomes and meet provincial goals on quality-based performance metrics. We are anticipating further quality-based performance metrics to be forthcoming and we will be working towards ensuring these are met before they are mandated. Importantly, in ambulatory care, which represents a significant proportion of our clinical work, indeed we have over 650,000 ambulatory care visits per year, we are looking at how we can restructure. Key components of the restructuring will include accurate ways to track our wait times, changes in the referral processes to make them more automated and seamless, and changes in the way we provide consultation by emphasizing and growing e-consultation. A more accurate accounting of the details of our ambulatory activity will enable us to: 1) understand how much of our growth needs to be outside the walls of The Ottawa Hospital; 2) determine the relevant physician partnerships; and 3) work more closely with our local health integration network.
In the Quality and Safety realm, we have introduced a program of mandatory quality projects that are methodologically sound. Our plan is to grow our academic activity in this area in all divisions in the Department of Medicine and to work on these projects in a more collaborative manner. We aim to grow physicians’ academic careers in the area of Patient Quality & Safety.

In Research, it has become clear to us that a priority is to develop research scientists, starting at the level of the medical school, through the residency program, and into Fellowship programs. It is our plan to develop integrated research career paths that start at the medical student level. We plan to grow a Fellowship program that will address the needs of Fellows from financial, clinical, research, advocacy and career path perspectives. It is also our plan to create a program for Fellowships that crosses the entire Department. Developing the scientists of tomorrow can no longer be a process left to chance. Individuals must be nurtured, mentored, encouraged and supported to ensure we have adequate scientists for the future. For our current scientists, we are working closely with the University, in their Destination 2020 Campaign, in an attempt to raise funds for endowed research chairs. Our practice plan is evolving to provide more funding for protected time for research. Under the leadership of Dr. Burns, our mentorship program is now flourishing in the research realm and has already resulted in many successes for our junior scientists.

Education must always be a priority. We continue to be national leaders in academic productivity in education. Our University will create a new Department of Innovation in Medical Education which will have significant leadership from several members of the Department of Medicine. We will continue our financial contributions and intellectual contributions to this new department. We are putting greater emphasis on mandatory requirements for continuing professional development of our Faculty. We are in discussions with the Vice Dean of Continuing Medical Education at the University of Ottawa to further enhance our role in CME and develop plans that will result in success for the Department and the University.

This year marks the end of our Think Ottawa Medicine campaign which started when I began in this position. The purpose of this campaign was to brand the Department, increase our visibility at the Hospital and the University and, to emphasize to members in the divisions of the Department of Medicine, the value of belonging to a department. I believe this campaign has been successful and it is now time for us to move to the next step, which is to rally the members under the banner of the Faculty of Medicine, University of Ottawa, and to increase the visibility of the University through our Department.

The University has been an excellent financial partner with us over the last five years, providing funding for Research Chairs, Fellowships and educational pursuits. As the University moves to its Destination 2020 Campaign with an emphasis on research, internationalism, bilingualism, and the student experience, we will be an integral part of that. Our University is an institution on the rise. We currently rank 2nd in Canada in research intensity in Medicine, we are ranked 3rd in Canada and 54th in the world, out of 800 medical schools, for citations, 4th overall in Medicine in Canada for research (QS World University rankings), and we are 5th in Canada for research impact.
The medical school at our Faculty of Medicine continues to be one of the most fully accredited medical schools in Canada. The Department of Medicine is a major and proud partner with the University and we look forward to further success together, in the coming years.

Philip S. Wells  MD FRCP C MSc
Professor of Medicine
Chair and Chief, Department of Medicine
2012-13 was an especially challenging year with financial uncertainty and significant downward pressure on our budgets. Despite this, the Department of Medicine continued to look for ways to develop and support important initiatives in our clinical, research, and academic programs. Many of these initiatives are detailed elsewhere in this report.

From the Executive Suite we continued to build and refine our communication tools such as the annual report, the Physician HR newsletter and departmental website. In addition we created an administrative newsletter — *The Robin*, to acknowledge the many contributions made by our administrators to this great Department. *The Robin* is a feel good publication that, among other things, highlights staff and their accomplishments and also provides reminders, tips and insight on general matters of importance.

As well, we implemented a new, more inclusive "Years of Service" program for our administrative staff. The new program recognizes current administrative staff for service time provided to either the Department of Medicine or their stakeholders regardless of paymaster.

The Department of Medicine Human Resources Office continued to expand its services and as a result were very active throughout the year. An HR Advisor was hired to help with the workload and this was timely as we added 27 new faculty (16 full-time and 11 part-time). Over the past year, we screened thousands of administrative CV’s on behalf of our physicians, assisted with the interviews of hundreds of candidates and hired 19 admin staff. We also organized several labour market opinions and passed an audit by Service Canada with flying colours. Since March 2009, our administrative & support staff has increased by an amazing 50%. Currently more than 142 people are employed directly by the Department of Medicine.
Improving engagement, accountability and collaboration between our many administrative staff and Department executive staff continued to be a priority. A new on-boarding process was implemented for all new hires that included a more thorough introduction to both the Department and their respective Divisions. A follow-up call or visit from our HR office shortly after their start date ensured that the admins’ expectation of their new role was being met. New division head assistants were given an opportunity to meet one-on-one with key executive suite staff members as part of an expanded orientation. For staff interested in advancing or obtaining new skills, we provided them with opportunities and necessary support to complete these career endeavours. In addition to supporting individual growth, we held focus groups, retreats and team building events to increase engagement within this Department. We continued to work closely with the Division Heads and their assistants to foster stronger ties with divisions and programs in and outside of our primary practice plan.

Attendance at Department of Medicine events such as the Winter Party, Recognition Ceremony, and Medical Student Career Night, continued to grow and in some cases, necessitated moves to larger venues.

While the Department’s administration continued to build on recent successes it was also forced to adapt to new stakeholder requirements. The implementation of the harmonized sales tax on physician administrative and teaching stipends required substantial departmental and practice plan resources and necessitated a total restructuring of our billing procedures with the Faculty. The Department now invoices the Faculty for all these stipends on behalf of its 400+ members across the Ottawa Region.

As both medical education and patient care expands into the community setting, this Department has increasingly had to focus beyond the walls of The Ottawa Hospital, thus adding considerable complexity to what we do. In response to this, we created a Department of Medicine Business Unit and hired two program analysts to review, evaluate, and make recommendations to the Chair on existing and emergent issues. The first projects, a review of the bariatric medicine program and a review of the ambulatory care clinics, were nearing completion at the end of this academic year. This new office will allow us to keep up with the pace of change, to accelerate knowledge translation and ultimately improve patient care.
In closing, working in an environment where change occurs on a daily basis takes a considerable amount of patience, flexibility and resolve. I would like to thank all of our staff for helping us move the bar and advance towards achieving our vision of being recognized as the #1 choice Department of Medicine in Canada.

Ted Waring MBA
Chief Administrative Officer
This past year marked another period of continued healthy budget support for a variety of academic and clinical domains. Importantly, we continued to provide salary support to educators and researchers and fund fellowships in both of these portfolios.

However, 2012–2013 was not without its challenges. Changes to the OHIP schedule of benefits affected the Department’s finances and our academic AFP has expired and has yet to be renegotiated. Despite these major challenges, we continue to be a leader in financial oversight of academic priorities and financing of important projects and initiatives.

As head of the department’s largest practice plan (University Medical Associates – UMA), I am continuously impressed by the board’s enthusiasm for financing high value academic endeavours and important educational and clinical initiatives. Without question, the UMA board and the Department of Medicine Executive persistently strive to make decisions that enable our members to succeed.

We continue to support established educational positions at the University of Ottawa, topping up salaries and stipends. Ongoing support of the Methods Centre allows our researchers access to world-class statistical support, study design and study management. Supporting a PhD educator via AIME each year enables our Department to conduct world-class medical education research and curriculum development. Continuous support of the Distinguished Teachers Program at the University of Ottawa offers mentoring and further enhancement of medical education for those pursuing a teaching career path.
UMA/Department of Medicine Budget

Sources for Department of Medicine Funding

- AFP Funding — Phase I and III
- Tithe Income
- University Funding
- Research Tax Credits
- Hospital Funding
- Heart Institute/Oncology/Contributions
- Others

Redistribution and Expenses from UMA Pooled Funds

- AFP Allocation Award
- AFP III Clinical Repair
- Admin Stipends (Division Heads/Finance Reps)
- GFT Benefits
- Chair & DoM Executive (Vice-Chairs)
- Special Leaves (Maternity/Disability)
- Program Support
- UMA Business Office
- Dept of Medicine — Executive Admin

Program Support (expenditures)

- Research & Project Awards
- Methods Centre
- Education Awards (incl AIME)
- Fellowship Awards
- Patient Quality Awards (& training)
- Promotion Awards
- Recruitment Awards
- Fund for PhD Educators
Our budget structure gives us the financial flexibility to pursue our growth strategy and to advance and excel in key areas. New pools of funding have been allocated to support a variety of departmental chairs, a departmental fellowship director and a research mentorship program. The UMA budget now also provides funding for the departmental Patient Safety and Quality Committee and as a result, every division is committed to Safety & Quality and each division is funded for a Safety & Quality research project.

Our financial plan allowed for the creation of a Communication and Public Relations Officer and a departmental CAO, who has been able to streamline many of our financial policies and processes.

The UMA billing office has dramatically improved its efficiency and remains dedicated to ongoing financial viability. The billing office management has created a close working relationship between the billing office, our Department Executive/CAO and the individual divisions. These improvements will ensure our billing remains efficient thus contributing to our overall success, academically and otherwise.

In the last year we completed the update of our partnership agreement. I believe the language of this new agreement is clear and still retains flexibility to allow for future decision-making. As always, we continue to support our Department members through paid maternity, disability and sabbatical leaves. We have created a generous pension plan for our employees.

Even after the substantial investments outlined above, we managed to have a surplus at the end of the last financial year. This allowed UMA members to receive an end of year allocation.

I look forward to another successful budget year and I remain confident that we can continue to drive forward the academic, clinical and educational priorities that have been a hallmark of our department to date.

Alan Karovitch MD FRCPC M.Ed.
Associate Professor of Medicine
Vice-Chair Finance
DIVISION HEADS

Reflects the period of July 1, 2012 to June 30, 2013.

- Dr. Rob Beanlands  Cardiology
- Dr. John Kim  Critical Care
- Dr. James Walker  Dermatology
- Dr. Erin Keely  Endocrinology & Metabolism
- Dr. Alexander Sorisky  Endocrinology & Metabolism
- Dr. Linda Scully  Gastroenterology
- Dr. Allen Huang  Geriatrics
- Dr. Marc Rodger  Hematology
- Dr. Mark Tyndall  Infectious Diseases
- Dr. Alan Karovitch  Internal Medicine
- Dr. David Stewart  Medical Oncology
- Dr. Peter Magner  Nephrology
- Dr. David Grimes  Neurology
- Dr. Lionel Zuckier  Nuclear Medicine
- Dr. José Pereira  Palliative Care
- Dr. Sue Dojeiji  Physical Medicine & Rehabilitation
- Dr. Shawn Aaron  Respirology
- Dr. Doug Smith  Rheumatology
DEPARTMENT FACULTY PROMOTIONS

Reflects the period of July 1, 2012 to June 30, 2013.

- Dr. Alan Forster  
  Full Professor  
  Internal Medicine
- Dr. Stan Hamstra  
  Full Professor  
  Internal Medicine
- Dr. David Picketts  
  Full Professor  
  Neurology
- Dr. Gonzalo Alvarez  
  Associate Professor  
  Respirology
- Dr. Marc Carrier  
  Associate Professor  
  Hematology
- Dr. John Kim  
  Associate Professor  
  Critical Care
- Dr. Janine Malcolm  
  Associate Professor  
  Endocrinology & Metabolism
- Dr. Brendan McCormick  
  Associate Professor  
  Nephrology
- Dr. Pablo Nery  
  Associate Professor  
  Cardiology
- Dr. Derek So  
  Associate Professor  
  Cardiology
- Dr. Nha Voduc  
  Associate Professor  
  Respirology
NEW FACULTY POSITIONS (FTA & PTA)

Reflects the period of July 1, 2012 to June 30, 2013.

- Dr. Nikolai Steffenhagen  Neurology
- Dr. Esteban Gandara  Hematology
- Dr. Michael Hartwick  Critical Care
- Dr. Grégoire Le Gal  Hematology
- Dr. Peter Liu  Cardiology
- Dr. Dawn Sheppard  Hematology
- Dr. Scott Millington  Critical Care
- Dr. Camille Munro  Palliative Care
- Dr. Allen Huang  Geriatrics
- Dr. Girish Nair  Gastroenterology
- Dr. Paula Enright  Palliative Care
- Dr. Lionel Zuckier  Nuclear Medicine
- Dr. Melissa Toupin  Hematology
- Dr. Kara Nerenberg  Internal Medicine
- Dr. Aun Yeong Chong  Cardiology
It’s no use saying, ‘We are doing our best.’ You have got to succeed in doing what is necessary.

— Winston Churchill
The practice of medicine is constantly in evolution. Currently, there is appropriate emphasis placed on cost consciousness and thoughtful ("Choosing Wisely") decision-making as well as an understanding for transparency and accountability in the clinical care that we deliver. To this end, it has become evident that physicians must consider and lead change. We should strive to deliver care that is innovative and collaborative and value added. How this can be achieved in the existing financial climate is the challenge that we all face.

As can be seen in this year’s annual report and on the website, there are a number of clinical care initiatives that showcase continuing, integrated and evidence-based tertiary care. These initiatives are designed to offer the best care for patients in an environment that is supportive and also provides patients with much-needed clinical information that can then frame their care decisions. Many programs cut across departments and health care disciplines, collaborating towards a common goal of excellence in patient care. These collaborations also enable us to advance each other’s competencies. Examples include the TAVI program at the Heart Institute, Multidisciplinary Thyroid Cancer Consultations, and the Complex Airway Clinic.
In the inpatient environment, many divisions have dedicated consult services in support of our surgical, obstetrical and ER colleagues. This strategy enables us to focus departmental resources (both clinical and technical) on providing optimal care of patients with complex high risk conditions — the bread and butter of academic tertiary care medicine. The ER is the site where clinical pressure is most acute and is the conduit to admission for 70% of the Department’s admissions. In the past couple of years, despite an increase in patient encounters (representing 30% of the total within The Ottawa Hospital), our divisions have maintained a reasonable ER consult time while decreasing length of stay and in-hospital mortality. We understand that the ER is best supported with a robust and responsive ambulatory care program. Consequently, many divisions have implemented an acute referral process to decant the ER and defer admissions.

In the past year, we have begun the process of rethinking how we can provide the best possible patient care and improved consultative services to our colleagues. This will probably involve an active redesign of our practices with a view to coordinating with our community partners while promoting the concept of high-value specialist care.

**Integrating and Instructing Critical Care**

**Point-of-Care Ultrasound at The Ottawa Hospital**

Point-of-care ultrasound (POCUS) refers to a goal-directed ultrasound (US) exam performed by the treating physician in order to answer a well-defined question relevant to the immediate care of a patient. From humble beginnings, the POCUS program has grown to become an integral part of the contemporary practice of critical care, and there is growing international consensus that POCUS should be mandatory in the training of ICU physicians.
Currently, the most widely accepted use of POCUS involves improving procedural safety. The placement of central venous catheters (CVC) under US guidance is considered to be standard-of-care, and recent literature suggests that procedures such as lumbar puncture, pleural drainage, and paracentesis can all be done more safely and/or efficiently using US.

The use of point-of-care echocardiography to guide the hemodynamic management of critically ill patients is becoming widely practiced, with research suggesting that front-line providers can reliably learn to identify common pathological states such as pericardial tamponade and severe left ventricular dysfunction. The principle advantage, beyond instant 24-hour availability, lies in the fact that the treating physician is performing the scan and is thus intimately familiar with the clinical details and hemodynamic evolution of the patient. Repeated scans can be performed at regular intervals to assess the impact of specific interventions such as fluid loading.

Finally, the most cutting-edge application of POCUS involves its use in identifying the etiology of dyspnea or hypoxemia. Long thought to be useless with respect to the lung, US has recently been shown to be more reliable than chest x-ray for diagnosing common conditions such as pneumothorax, lung consolidation, and pulmonary edema. This reliability combined with the fact that it can be deployed instantly and without radiation gives this technique tremendous potential.

Despite the potential applications outlined above, there is currently insufficient scientific literature on the evaluation of how critical care trainees acquire and retain the skills necessary to competently perform POCUS. Instruction of this skill set, where it exists, is extremely variable between centers with little agreement on how to assess learner competency.

At The Ottawa Hospital (TOH) use of POCUS is increasing, but in an unstructured fashion. While use of US for procedural guidance is very common (especially for CVC insertion), the other indications described above are employed sparingly, mainly due to lack of structured training for staff physicians and house staff. To address these obstacles an educational module was integrated into the existing ICU clinical environment at TOH in 2012, designed to instruct the fundamental skills of critical care POCUS.

The instructional component of the POCUS curriculum is multifaceted, and adheres to international expert opinion with respect to training goals and instructional methods. Learners complete a self-directed online multimedia-learning module over twelve months with approximately 40 hours of educational content. At 2-3 month intervals they participate in small-group hands-on practice sessions with learning objectives synchronized to those of the online module. The hands-on sessions involve practicing on standardized patients, high-fidelity US simulators, and real ICU patients. Learners are encouraged to practice independently, and offered support in terms of supervised practice and image review.
To ensure that patient safety is protected during the learning process, a 3-part strategy has been developed:

1. Two novel assessment tools are being developed as part of the curriculum, one using a high-fidelity US simulator and the other involving actual ICU patients.

2. A system of image archiving and transparent reporting is being developed.

3. A system of quality assurance (QA) is being initiated to ensure that US scans performed by learners are meeting safety standards in terms of quality and reporting.

POCUS is not restricted to the ICU, and therefore collaboration with other TOH departments is another important facet of this initiative. Partnerships with Anaesthesia and Emergency Medicine, both traditional POCUS providers, are being formed in order to develop shared teaching and safety initiatives. While it appears inevitable that POCUS will expand rapidly to include other medical specialties and new clinical applications, it is essential that patient safety is protected during the development phase. Expanded use of POCUS should be viewed as a tremendous opportunity to improve patient safety and clinical outcomes through use of US technology, provided that the scholarly work to determine effective learning methods is undertaken.

Nuclear Medicine Reduction-of-Dose Initiatives

There has been a multi-pronged effort within the Division of Nuclear Medicine at TOH to reduce the amount of radiopharmaceuticals used for diagnostic and therapeutic applications. These interventions are designed to maintain diagnostic and therapeutic efficacy while decreasing radiation exposure to patients, families and medical caregivers such as technologists and physicians.

The efforts to reduce doses align with international campaigns to reduce patient exposures from all medical modalities (“Image Wisely”) and with the regulatory doctrine of “ALARA” (as low as reasonably achievable). While previously-used dosages of radiopharmaceuticals are demonstrated to be safe and not associated with any demonstrable increase in risk, current reductions are based upon embracing a philosophy of customized prescribing, advances in gamma-camera hardware and software that allow for more efficient imaging, and a better understanding of the response of thyroid tissue to smaller dosages of radioactive iodide.

Therapeutic Applications

Traditionally the ablation of remnant thyroid tissue after total thyroidectomy for thyroid cancer was achieved with relatively large and standardized dosages of radiiodine. Recently groups in France and in England published results of their respective trials using a third of the amount of radioactive iodine in selected patients while retaining similar efficacy [N Engl J Med 2012; 366:1663-73 and N Engl J Med 2012; 366:1674-85]. The Division of Nuclear Medicine decided to proactively investigate this method.
The principal investigator of the French group, Dr. Martin Schlumberger, was invited by Dr. Francois Raymond and colleagues from the Division to Ottawa to present this approach and discuss issues related to implementation of the low dose protocol. Dr. Schlumberger returned in September of 2012 to lecture at a Division-sponsored “Thyroid Cancer Day” where the low-dose protocols were further elucidated and shared with the clinical stakeholders. For over one year, with the assistance of Drs. Xuan Pham and Eugene Leung, the Division has successfully implemented this low-dose protocol for selected low-risk patients.

**Imaging Applications**

In the diagnostic realm, the Division of Nuclear Medicine, working with Dr. Chris Johnson and colleagues in the Division of Cardiology at the General campus, and assisted by Alan Thibeau, Sheila Dowell and the technologist group, successfully implemented a weight-based dosing regimen which reduces the dosage of radiopharmaceutical used for myocardial perfusion imaging by up to half wherever feasible.

In recent years, effective imaging has been challenged by increasing size of patients, which limits visualization across a myriad of modalities and even challenges the weight- and size-bearing of the hardware. In ultrasound and echocardiography, abundance of soft tissues reduces transmission of sound waves; in radiology and nuclear medicine, excessive soft tissues result in attenuation and scattering of the imaging photon. It could be argued that this increase in average patient size has resulted in an incremental growth in the amount of radiopharmaceutical used in the nuclear medicine lab; it certainly has thwarted efforts to reduce standard doses.

By rejecting the usual formulation of “one size fits all”, in the new TOH paradigm patients are evaluated based on their weight and habitus and a reduced dosage of radiopharmaceutical is prescribed wherever possible. In addition, several of the newer gamma-cameras employ “resolution recovery” software which uses iterative reconstruction to partially compensate for soft-tissue scattering. With the assistance of Drs. Terrence Ruddy and Glenn Wells and following the lead of their colleagues at the University of Ottawa Heart Institute, Dr. Bola Sogbein and Sunil Thakrar of the Division of Nuclear Medicine have started testing the effectiveness of these techniques in further reducing the dosage of radiopharmaceuticals used for cardiac perfusion (“nuclear stress test”) and wall motion (“MUGA”) studies.

The implementation of the low-dose thyroid cancer therapy protocol and the weight-based myocardial perfusion imaging protocol highlights efforts of the Division of Nuclear Medicine to minimize radiation exposure to patients, staff and the public based on evidence-based practice. Further implementation of resolution-recovery methods, currently being tested, will provide major additional advances in radiation reduction while maintaining diagnostic and therapeutic efficacy.
Centre of Excellence for Treatment of Resistant Hypertension: Establishment of Renal Sympathetic Denervation Program

Uncontrolled hypertension remains amongst the most significant risk factors for adverse cardiovascular outcomes. In Canada, despite major progress in the awareness, diagnosis, and treatment of hypertension over the past decade, about 35% of patients with hypertension remain sub optimally controlled.

Resistant Versus Pseudoresistant Hypertension.

Amongst patients with diagnosed and treated hypertension 5-10% have resistant hypertension defined as blood pressure (BP) > 140/90 mmHg while on 3 or more BP lowering drugs including a diuretic. Some of these patients have pseudoresistant hypertension caused by missed white coat phenomena which is prevalent in up to 20% of hypertensive patients, and which could be identified by 24-hr ambulatory BP monitoring as offered by the Renal Hypertension Program at The Ottawa Hospital-Riverside Campus and Hypertension Unit at the University of Ottawa Heart Institute. Other major causes of pseudoresistance include the failure of physicians to optimize BP lowering regimens and patients’ non-adherence to blood pressure lowering drugs. Overall, in tertiary care hypertension clinics, less than 5% of patients with hypertension remain uncontrolled either because of true resistant HTN or an inability to tolerate multiple BP lowering drugs. This number is significant given overall prevalence of hypertension among adult Canadians is over 20%.

Interplay Between Kidneys and Central Sympathetic Nervous System

Central sympathetic outflow is high in patients with resistant hypertension and appears to play a significant role in its maintenance. There is a substantial body of evidence indicating that renal nerves contribute to the development and perpetuation of hypertension. The efferent sympathetic nervous outflow to the kidneys stimulates renin release, enhances tubular reabsorption of sodium and water, and reduces renal blood flow. Moreover, renal central sympathetic afferent projections have significant sympathoexcitatory effects on central sympathetic outflow.

Renal Sympathetic Denervation in Humans

In 2009, results of a non-randomized proof-of-concept study showed that percutaneous catheter-based renal sympathetic denervation is feasible in humans. Data from this trial and a subsequent, small randomized clinical trial by the same research group in patients with resistant hypertension have shown significant and progressive decrease in BP. Studies on central sympathetic outflow assessed from muscle sympathetic nerve activity by microneurography from the peroneal nerve showed a decrease in muscle sympathetic nerve activity in parallel to decreases in blood pressure, and support the hypothesis that a decrease in central sympathetic outflow is a major mechanism of blood pressure lowering by renal sympathetic denervation. RSRA has been reported as being safe.
Renal Sympathetic Denervation Program in The Ottawa Hospital (TOH)/
University of Ottawa Heart Institute (UOHI)

Renal sympathetic denervation has been approved by Health Canada for treatment of resistant hypertension. Drs. Marcel Ruzicka (Hypertension Specialist and Nephrologist) and Dr. Michael Froeschl (Interventional Cardiologist) took the initiative to bring this new method to TOH/UOHI. Dr. Froeschl completed training in Renal Sympathetic Denervation in Germany. Dr. Ruzicka reviewed available evidence and established indication criteria for this treatment here. Other hypertension specialists, Drs. Frans Leenen, Brendan McCormick, Cedric Edwards, and Swapnil Hiremath all significantly contributed to the development of this program. Dr. Adnan Hadziomerovic, interventional radiologist, is now fully trained in renal sympathetic denervation and performs procedures with Dr. Froeschl. The first two patients underwent successful and uncomplicated procedures in June 2012. Over the period of last 12 months, 16 patients were evaluated for renal denervation, and 8 met the inclusion criteria and underwent the procedure. We have not encountered any procedure related complications.

Our program is now involved in two trials. Firstly, we were successful in obtaining funding from the TOHAMO Innovation Project Competition 2012-2013 for our project titled: ‘Centre of Excellence for Treatment of Resistant Hypertension: Establishment and critical evaluation of efficacy, mechanisms and safety of renal sympathetic radioablation’. A crucial component of this study is a program “Education on diagnosis and treatment of resistant HTN”. As resistant HTN is frequently misdiagnosed and consequently poorly treated, we are developing teaching sessions for family physicians, general internists, and subspecialists in our region, to make them aware of issues related to diagnosis of true resistant HTN and to educate them on the novel treatment options.

Secondly, Drs. Marcel Ruzicka and Michael Froeschl are site co-principal investigators and members of the steering committee for “A Pragmatic Randomized Clinical Evaluation of Renal Denervation for Treatment of Resistant Hypertension (PaCE) trial” funded through the MaRS Excellence in Clinical Innovation and Technology Evaluation program and Medtrons Canada.

Overall we are very excited that we were able to develop this multidisciplinary program at the TOH/UOHI and that this program brings progress into treatment of patients with resistant hypertension within our region.
Know then thyself, presume not God to scan,
The proper study of mankind is man,
Placed on this isthmus of a middle state,
A being darkly wise, and rudely great.
With too much knowledge for the sceptic side,
With too much weakness for the stoic’s pride,
He hangs between; in doubt to act or rest;
In doubt to deem himself a god, or beast;
In doubt his mind or body to prefer;
Born but to die, and reasoning but to err;
Alike in ignorance, his reason such,
Whether he thinks too little, or too much
Chaos of Thought and Passion, all confused:
Still by himself abused or disabused;
Created half to rise, and half to fall;
Great lord of all things, yet prey to all;
Sole judge of truth, in endless error hurl’d:
The glory, jest, and riddle of the world!

— Alexander Pope, Essay on Man, 1717
Gwynne is still an eco-freak — he loves nurturing his micro environment at his home in Chelsea in the company of his raucous pet rooster, Obama.
DeeDee, and my family has given meaning and purpose in my life. So I feel, as I reach my agonal years, how very fortunate I have been. (At 67, I always think when people describe me as middle aged: “do you know many 134 year old people?”). I was born of an émigré family, from Wales to the old enemy, England, to find work after the 2nd war in 1946. Rationing was still in place. I was a beneficiary of the Marshall plan; USA largesse that accelerated the rebuilding of Europe. The universal health coverage of the NHS, in combination with free education to university level and state pensions to avoid elder poverty, were all introduced at this time. This is the main force that has acted upon my life to permit me to become successful. To say such a thing, ‘successful’, or ‘clever’ would have been impossible for me to admit in earlier epochs of my life. It would have felt arrogant, ‘big-headed’: The English class system, in which I was raised as a working class kid, would never have permitted this in the workforce.

Of course, the neo-conservative economic system of the 70’s introduced of public wealth will understand the error of their ways and realise that the common good is the basis of a well-ordered, fair, productive and healthy society. The phrase “capitalism is the race to the bottom” has been truly proven in this Anglo-Saxon crassest form of capitalism. Hopefully, this form of capitalism will be altered before we irrevocably damage “Gaia, Mother Earth”.

However, by the time I was 25, a doctor from a big London medical school, fast runner, on the University rugby team, regular dates with pretty girls, I felt I was really something. So how has society “knocked the edges off me” and demonstrated that I am not a big shot, but rather an extremely fortunate human being who happened to be in the right place at the right time. I was a white male from the Empire, kindled by the post-war equality and sense of a common good. I am a social democratic success, with some effort and talent from me. This ‘social-democratic’ belief still exists in the Scandinavian countries but has been lost, squandered, in the Anglo-Saxon countries by greed, self interest and short-term goals of laissez-faire economic progress.

Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay.

— Oliver Goldsmith, The Deserted Village, 1770

by Margaret Thatcher and Ronald Reagan, under the tutelage of the economist, Milton Friedman, is directly opposed to this belief system deriding it as the “nanny state”. Hopefully, the neo-conservative, privatisers

A quote above from Tony Judt’s book, which bears the title of Goldsmith’s poem, may explain my belief system more articulately than I am able.
We know what things cost but have no idea what they are worth. We no longer ask of a judicial or legislative act: Is it good? Is it fair? Is it just? Is it right?

“Something is profoundly wrong with the way we live today. For thirty years we have made a virtue out of the pursuit of material self interest: indeed, this very pursuit now constitutes whatever remains of our sense of collective purpose. We know what things cost but have no idea what they are worth. We no longer ask of a judicial or a legislative act: is it good? Is it fair? Is it just? Is it right? Will it help bring about a better society or a better world? Those used to be the political questions, even if they invited no easy answers. We must learn again to pose them.”

What this has to do with the Department of Medicine or the hospital may become clearer as I ask: is not The Ottawa Hospital $30 million in debt and yet an expensive part of the society manufacturing illness faster than we can provide care.

So what are the life events that shaped this belief system?

1. At 25, I went to work in a huge hospital in South Africa (RSA). My brother and sister were members of ‘anti-apartheid’ movement and I wanted to discover what it was all about. The hospital was called the King Edward VIIIth hospital (Now ‘the Nelson Mandela School of Medicine’) and was the only black teaching hospital in RSA. I saw racial cruelty and poverty on a scale I could never have imagined. The police brutality and their immunity from justice are hard to describe to those used to being treated fairly. The black activist, Steve Biko, ‘jumped’ from the 7th floor of police headquarters to his death (like many before him), while the police ‘tried to prevent him’! After a year my black colleagues trusted me enough to talk about their lives. Almost all had spent some time in jail; mostly for pass law offences (being in a designated white area), or activism (stopping a policeman beating their friends). They were incredibly smart clinically, as there were no tests, only their eyes, ears, hands and brain. Black doctors were paid 60% of white Drs., Indian Drs. 70% and ‘coloureds’ (mixed races) 80%. This was a good deal: black nurses 50%, most black trades <10%. One colleague told me; “when poverty is so rife that the police can buy information for a packet of tea, control is total”. At 3 AM, after a particularly busy day and night call, I asked my black colleague why his fellow citizens never said thank you to me, even though I was polite and fairly competent. “You are one of the ones doing it to them!” he said. I left soon afterwards, back to the UK, sad that I was classed as one of the racists.

2. I was fortunate to find a post in Neurology in my teaching hospital, St. Mary’s, now Imperial College.
One of my staff doctors was Sir Roger Bannister, the first person to run a mile in under 4 minutes. The usual British hierarchy meant that, despite working 80-100 hours per week, with alternate nights on call, he didn’t know my name until I had to ask him for the day off to go with the University team to play rugby against his old university, Oxford. He was still besotted with sport, so, following this day off, he deigned to talk to me on occasions. I didn’t tell him that, despite their team bringing in a Welsh international ringer, we still beat them. However, Sir Roger did me one of the greatest favours in my life. He wrote to Moran Campbell in McMaster and helped speed my way into modern medicine and teaching. I started my respirology fellowship in McMaster in 1974. There I was taught by fantastic people, ‘problem based learning,’ ‘clinical physiology’ and ‘clinical epidemiology’. This has fundamentally shaped my way of understanding and teaching medicine: evidence based clinical physiology. In Britain, in that era, asking questions was tantamount to sycophancy. Thus, imagine my horror when the Mac medical students asked “where did you get your evidence for this or that?” I was incensed, assuming that this was a criticism of my presentations. I owe the students a debt of gratitude for, after a couple of pints and a think and my resentment having worn off, I realised that they were right: they needed to assess the evidence. They were true life-long, evidence based learners and helped me join this vital tribe.

3. I continued my training in the USA with a fellowship in Gastro-enterology, mostly liver disease, in the Case Western University in Cleveland. The Cayahoga River was so polluted, it was ablaze as we were playing rugby on the adjacent ‘flats’. An interesting society; the city core a necrotising, dangerous slum, while the adjacent townships were amongst the wealthiest in the country; a huge gulf between rich and poor. The hospital porters carried guns. However, fabulous teaching and nobody was turned away from this county hospital. The expensive hospitals sent all their difficult cases to us.

4. In 1978, I returned to the UK as a consultant physician. Mrs. Thatcher was starting her hatchet job on the health service, so resources were very limited. Most of my colleagues saw private patients. Many rarely saw their NHS patients, leaving it up to their rather junior and poorly supported residents. One called his health care work his missionary service. Believing that ill health was mostly confined to the very young, the very old and the poor, I refused to do private work. Thus, the bulk of the work devolved on us loonie left. In this era, as an ‘eco-freak’, I ran for the local “green party” with the ongoing firm belief that there are no healthy living things without a healthy planet. In 1984, after five years in the NHS and despairing of the state of the system, I returned to Canada to work at the, then called, Ottawa General Hospital.
5. As director of the 12 bed ICU, I was the sole ‘intensivist’. My respirologist and good friend André Péloquin, now sadly deceased, covered me in the ICU on alternate weekends. We were amateurs in a rapidly evolving field. No ID specialist or trained intensive care specialist other than in London, Ontario; the legend Bill Sibbald. However, I knew that I fit in perfectly when I asked a perfectly bilingual ICU nurse to speak to me more in French try to improve my skill. “You will have to speak to me slowly, like you speak to a child”, I said. When she replied, “Well, that’s how we speak to you in English”! I knew I could grow in this less hierarchical structure. We could become a true team; modern parlance would be ‘an interdisciplinary team’ but I would classify it as a team of equals with different insights and strengths. The European hierarchical model in which I had been raised did not permit real interdisciplinary thought. Thus, the doctor was the big cog, with minions around, mostly spinning their cognitive wheels; inhibited from bringing forth their insights. This was hugely wasteful of a range of understanding, imagination and insight. Care was inevitably limited. This is even more evident when one realises the bulk of the actual care is provided, not by the physician, but by the nurses, pharmacists, RTs, physios and increasingly, the social worker. Drs. are, more often than not, the small cogs in this health care wheel. However, as a small cog we are, still, a vital, facilitating (or inhibiting) member of this team. This understanding is one of my proudest accomplishments; to be, with Pierre Cardinal and my other young colleagues, a member of a team of fabulous human beings who each see the pie of human illness from different perspectives but all with the same desire to give thoughtful, compassionate care.

How much longer do I have to live? My prostate and back are buggered, my breath gets increasingly short, my brain increasingly perplexed. So I must focus on more defined goals. This increasingly reverts to Newton’s famous comment; “if I have seen further it is because I stand on the shoulders of giants”. The moral and scientific advancements over the last three centuries, and particularly over the last 50 years, have permitted this present generation to rapidly acquire enormous amounts of information and attitudes that permeate our whole societies. We, the most fortunate and educated of this era, have taken from these old and recent roots incredible

“To be authentic is to live as one wishes others to live, to be honest is to admit that this is possible.”

— Tony Judt, Thinking the Twentieth Century, 2012
nourishment in the form of attitudinal and intellectual knowledge. Hopefully, this will permit us to act as a strong tree trunk to support the future generations of aspirants for the next phase of society’s development. We have the opportunity to live more vital and more contented lives. We will live longer than many who suffered “the short and brutish” lives of the hunter-gatherer or of a farm labourer in the 13th century. However, there is an increasing tendency for us to live in comfortable silos. I feel us old doctors must try to inhabit the inchoate regions of integration of these silos. Hopefully, this will help the current clever (knowing what to do) colleagues grow towards intelligence/wisdom (knowing why to do it).

Thank you to Canada, the hospital and the Department of Medicine for fertilising my growth, such as it is.
Up Close and Personal

TS  What one invention would most improve your life?
GJ  A USB port in the side of my head.

TS  What is your favorite time of day and why?
GJ  I have five children. Bedtime.

TS  Do you have a nickname?
GJ  When a friend was asked if he had a good word for me, the expletive was unpublishable.

TS  Name a favourite movie, sports hero, band, or individual musician.
GJ  Beethoven, my kids ask me if I am listening to his fifth racket again!

TS  If you could trade places with anyone in the world for one day, who would it be? Why?
GJ  Steven Hawkins. To be able to understand something truly well in a brain that is not always distractable, impulsive, cyclothymic.

TS  What was the last book you read?
GJ  I re-read *Adam Bede* by my favourite author, George Eliot. She (Mary Anne Evans) had to write under a male name because women were regarded as the ‘weaker vessel’ at this time. All of her novels attest to the stupidity of this belief.
GLOBAL HEALTH

The Office of Global Health at the Faculty of Medicine continues to benefit from the contributions of the Department of Medicine through the support of its Director, **Dr. Anne McCarthy** (Infectious Diseases). Online educational modules ([www.actionglobalhealthlh.ca](http://www.actionglobalhealthlh.ca) under education) as well as other resources are available through the Office of Global Health ([globalhealth@uottawa.ca](mailto:globalhealth@uottawa.ca)). As part of Global Health community outreach the office has established a Global Health Journal Club, which meets monthly during the academic year and residents, students and staff are encouraged to present. In addition, messages are posted every two weeks on a ListServ, providing information on global health related activities within Ottawa and beyond. All are welcome to participate in these events by contacting the Office of Global Health.

This past year, **Dr. Anne McCarthy** was honored to receive the Dr. John M. Embril Mentorship Award in Infectious Diseases, recognizing her mentorship particularly related to Global Health.

Many members of our Department continue to carry out global health efforts though their work with populations in need locally, in Northern Canada and internationally.

The Division of Infectious Diseases continues to support the primary care clinic that they have helped to establish in Georgetown, Guyana, under the leadership of **Drs. Bill Cameron, Mark Tyndall** and in collaboration with Dr. Karam Ramotar in the Microbiology Laboratory, Department of Pathology. In addition, **Dr. Cameron** has collaborative multi-million dollar research related to HIV with Africa, including the Canada-Africa Prevention Trials (CAPT) Network Grant to Build African Capacity for HIV/AIDS Prevention Trials. He also is Co-PI for the Operational research on adolescent HIV/STI prevention strategies in Entebbe, Uganda and voluntary male circumcision in Edendale, KZN, SA. He also continues to lead the International Health Collaboration in HIV with Pietermaritzburg Metropolitan Hospital Complex, Department of Medicine, South Africa as well as the Ottawa-Guyana Medical Collaboration. He has been successful in establishing Memorandum of Understandings that include the Ministries of Health with both Pietermaritzburg, South Africa and Georgetown, Guyana.

**Dr. Curtis Cooper** is engaged in a research and educational collaboration with a group of HIV and HCV researchers based at the Pavlov University in St Petersburg, Russia. He is a cohort researcher with several HIV organizations (TASO, Mildmay) based in Uganda and is a member of the Canadian Society of International Health’s Global Hepatitis Network.

**Dr. Chris Glover** is collaborating with Qingdao Municipal Hospital in Qingdao, China to establish a new Heart Institute and improve quality of cardiac care in collaboration with **Dr. Marino Labinaz**, Dr. Thierry Mesana (Cardiac Surgery) and Heather Sherrard (UOHI).
Under the direction of Dr. Andrew Pipe, the Ottawa Model for Smoking Cessation was recently recognized by Accreditation Canada as a Leading Practice, and has been adopted internationally by a number of organizations including the health department (ASSE) of Uruguay. Dr. Pipe was presented with the Dr. Jeff Turnbull Contributions to International Health Award this past year in recognition of these efforts.

Dr. Anne McCarthy continues to collaborate with the World Health Organization as part of the Technical Expert Group on Malaria Chemotherapy. She is also the co-director of the Asian Clinical Tropical Medicine Course, a two-week course that takes part in Bangkok, Thailand in collaboration with Mahidol University and the University of Minnesota. This course is designed for healthcare providers with experience and/or a special interest in clinical tropical medicine or infectious diseases. New this coming year is an optional clinical 2-day course in Siem Reap, Cambodia at the Angkor Hospital for Children. The course consists of unique lectures, demonstrations, workshops, and clinical rounds in various hospitals in Thailand. Lectures, workshops, and demonstrations will involve the entire group. Clinical rounds will be in small groups. Lecture topics include: Clinical Management of Malaria, Diagnosis and Treatment of Leprosy, Eosinophilia in Immigrants, Lymphatic Filariasis, Schistosomiasis, and Helminthiasis.

Anne McCarthy MD FRCPC DTMH
Professor of Medicine
Director, Office of Global Health
Faculty of Medicine, University of Ottawa
Dr. Anne McCarthy is running late. Despite being slightly rushed today, she quickly brushes it off, puts a smile on her face, and gets on with the business at hand — a dance lesson with husband Ernie.

This is just one of many physical activities she will enjoy this week, including hockey, running, soccer, and her great love, swimming. The love of water is not surprising. A native of St. Johns, NL, Anne has the friendly, disarming and unpretentious personality common to so many born and raised on the east coast.

Dr. McCarthy’s desire to practice medicine may have been sparked in part by her father’s struggle with renal failure or her mother’s work as a nurse. However, Anne states that she never planned very much with respect to her early career. She claims that like with most things in her life, she just sort of fell onto this path. “I credit getting into medical school to my girlfriend who is now a journalist. We sat down with a pot of tea and wrote my application,” she recalls. “I didn’t even have an interview.” She applied even before finishing her bachelor’s degree, and remarks, “at the time it sounded interesting”.

Since then, Anne has spent the better part of her three-decade career falling into things that sounded interesting.

While in her first year of medical school Anne joined the military. “I went through MOTP, the medical officer training program. Once you passed your first year of medical school, you could join the military and they paid for your second, third and fourth year, as well as internship. You paid back three years of service.” Anne describes being in the military as — you guessed it — interesting. For the first two years of her 20 years in the military, she worked as a GP on Prince Edward Island, as a member of the medical crew working closely with the 413 Search and Rescue Squadron, performing air med evacuations around Atlantic Canada. Turning the backs of planes and helicopters into mobile Intensive Care Units was an exciting start to a diverse career.
Anne McCarthy and her husband have a lot of fun taking dance lessons at the Arthur Murray Dance Studio. It’s not serious, it’s not competitive, but they love it.
“I came here [Ottawa] to do medicine for a year, to sort of finish my contract with the military and I enjoyed medicine and was offered a position in the program”. As she was contemplating subspecialty training the military needed a Tropical Medicine specialist, however, with no Royal College Accredited Program in Tropical Medicine, Anne began her subspecialty training in Infectious Diseases. She used her elective time to get Tropical Medicine training, including a term at the London School of Hygiene and Tropical Medicine in the UK, completing a diploma in tropical medicine and hygiene.

Fast forward to the present day: Dr. Anne McCarthy now sees hundreds of patients in her tropical medicine clinic located at The Ottawa Hospital Module G Clinic. In this clinic, Anne treats both routine and complicated travelers prior to their departure, as well as anyone who has crossed an international border and has a travel-related illness. She has a particular interest in the prevention and treatment of malaria; “in Canada last year there were about 500 cases of malaria, which is 3 to 5 times per capita of what the US has and we consistently have that,” she says. “I think it’s because 20% of Canadians are foreign born. People go home to wherever home is, so there’s increased risk and, Canadians seem to have or make a priority about travelling and they do sample the world it seems.”

In addition to being a tropical medicine specialist, and one of the only physicians in the Department of Medicine to earn substantial awards in both medical education and clinical research, Anne is devoted to her role as the first Director of Global Health at the University of Ottawa. Each year between 50 and 100 medical students travel abroad to complete international medical electives. Although many participants and their host communities share mutually enriching experiences, that is not the case in every instance. Anne has heard unsettling stories of students in low-resource environments who are expected to perform procedures for which they have not been trained, often with little or no supervision. "It's tough for these medical students," she says, "who have to constantly remind people what their competence is and why they're there when they obviously do not have objectives that match what the host community expects."

Under Anne’s leadership the Office of Global Health is building a foundation for undergrads, postgrads and faculty to carry out safe and ethical international experiences, for the combined benefit of themselves and the host communities. The building blocks she has created come in the form of policies for mandatory pre-departure training, on-line interactive education resources and pocket guides for both global health and global volunteerism. Many of these tools are the result of Anne’s research. Internal grants from the Department of Medicine have significantly contributed to her success at the office by
helping to inform the curriculum. “We’ve tried to incorporate not only what’s in the literature but findings from our own research, so that the curriculum can be evidence based.” The University of Ottawa is one of the first universities in Canada to develop a global health curriculum for all 2nd year medical students, and not just those doing Global Health electives. It now incorporates ten different sessions into its integration unit, recognizing the need for people who are going to practice medicine in Canada to understand global health issues.

At the end of the day Anne is happy with how things turned out. “I think life is luck — a little bit of luck and then what you do with it. I served for 20 years in the military and that provided opportunities. I’m sure if I hadn’t done that, I wouldn’t be doing what I’m doing now. Like I said at the beginning, I never really had a major plan for any of this. I just sort of fell into stuff and it’s been a great, great adventure.”
Up Close and Personal

TS What one invention would most improve your life?
AM Transporter. I would like to be able to work in Africa during the day and be home for dinner at night and not have to travel.

TS If you wrote an autobiography, what would be the title?
AM “You Did What?!?”

TS What’s your favourite funny story about yourself, embarrassing or otherwise?
AM There are way too many funny stories about me! I am a bit of spaz. Um, I guess one that comes to mind was when myself and a classmate were travelling through Europe…after doing electives as medical students, we were on Euro-Rail. I honestly can’t remember which train station we came into, but we came into a train station, I had a big back pack on my back, I was going down the stairs and I slipped and fell and I was a turtle, trapped on my back. I couldn’t get up, mostly because I was laughing uncontrollably.

TS If you could have dinner tonight with a famous person of your choice (dead or alive), who would it be?
AM I’d love to have dinner with Nelson Mandela, I am so impressed by his lack of anger and his sound compassionate and forgiving outlook despite all the hardship he went through.

TS What was the last book you read?
AM The Hunger Games. Myself, my husband and my daughter read the series on a recent vacation and we all fought over the books constantly.

TS What’s the one thing about you few people know?
AM That I hold the junior 3000m race walking record, in the province of Newfoundland [17:05:5].
Someone’s sitting in the shade today because someone planted a tree a long time ago.
— Warren Buffett
MEDICAL EDUCATION

The Department of Medicine believes that investing in education will help us achieve, advance and excel. We, primarily through the University of Ottawa Medical Associates, provide over $4 million annually to support teaching activities across the education spectrum, leadership roles within the education portfolio, career educator salary awards, research/innovation grants and administration positions.

LEADERSHIP & EXCELLENCE IN EDUCATION

Undergraduate Education

Members in the Department of Medicine are deeply committed to quality undergraduate education. Last year, we provided approximately 30% of all undergraduate teaching hours and ePortfolio coaches within the Faculty of Medicine.

Recognizing the importance of introducing subspecialty programs to medical students early on in their education, once again The Department sponsored an annual Medical Student Career Night. This event provided an opportunity for candid one-on-one discussions between our physicians and medical students about the realities of choosing a career path in one of Medicine’s subspecialties. 100 medical students took part in interactive discussions with many faculty members.
Post Graduate Education

Core Internal Medicine Program

Our core Internal Medicine training program, lead by Dr. Cathy Code and her Associate Program Directors (Drs. Chris Johnston and Jim Nishikawa), is responsible for 86 trainees at the PGY-1 through PGY-3 levels.

This past year action was taken to address physician fatigue and resident duty hours. After engaging stakeholders, reviewing the evidence and doing an environmental scan, consensus was obtained to move forward with a senior resident night float system for covering the Clinical Teaching Units. This was implemented as a 12-month pilot, starting in July 2013. Evaluation strategies include a detailed time and motion study being lead by Drs. Allen Huang and Alan Forster and the impact on professionalism being lead by Drs. Anna Byszewski and Heather Lochnan.

Moving forward, our priorities for the 2013-2014 academic year include ongoing evaluation of the night float system, revision of the academic half day curriculum and development of ultrasound training modules and videos to supplement procedure skills teaching.

Subspecialty Programs

In our 16 fully accredited subspecialty programs, the Department is training 109 residents. Under the leadership of Dr. Heather Clark, the University of Ottawa received Royal College of Physicians and Surgeons of Canada approval for a two year residency program in General Internal Medicine. This program will begin July 2014.

Our faculty members continuously strive to improve our training programs. Some of the many innovations that were implemented this year include the development and evaluation of a bronchoscopy assessment tool (Dr. Nha Voduc); curriculum development in point of care ultrasound including high-fidelity simulation, practice on standardized patients and longitudinal hands on practice (Dr. Scott Millington); Coach Simulated Patient Encounters to provide immediate practice for palliative and end-of-life discussions. (Drs. José Pereira and Christopher Barnes).
Fellowship Programs

The Department of Medicine is committed to developing, promoting and ensuring excellence in fellowship programs offered to trainees who have completed their Royal College training requirements or equivalent. As a result of this commitment a new position was created, Director of Fellowships, and we appointed Dr. Jolanta Karpinski to lead this initiative. Under her leadership an environmental scan is underway which will include a 360-degree assessment of the logistical, educational and organizational requirements to support, strengthen and grow our fellowship programs.

LEADERSHIP ROLES IN EDUCATION

Our members hold key leadership roles within the Faculty of Medicine including:

- Vice Dean Undergraduate Medical Education
  - Dr. Melissa Forgie
- Assistant Dean Student Affairs
  - Dr. Louise Laramée
- Director of Curricular Delivery
  - Dr. Robert Bell
- Pre-clerkship Director Anglophone stream
  - Dr. Heather MacLean
- Director of Clinical Skills – Anglophone stream
  - Dr. Barbara Power
- Director of Clinical Skills- Francophone stream
  - Dr. Louise Laramée
- Lead for ePortfolio
  - Dr. Anna Byszewski
- Director, Distinguished Teachers Program
  - Dr. Robert Bell
- Director, MD/PhD Program
  - Dr. Michael Schlossmacher
- Director, Clinician Investigator Program
  - Dr. Jonathan Angel
- Associate Director, AIME
  - Dr. Sue Humphrey-Murto
- Acting Assistant Dean, AIME
  - Dr. Stan Hamstra
Sue is a rheumatologist and maintains an active clinical practice at both the Arthritis Center as well as the Women’s Health Center, but she is perhaps best known for her work in medical education. Looking back, Sue recalls falling in love with teaching in the second year of medical school; this fascination would inspire her to complete a Master’s in Education through the University of Toronto and eventually to her clinician-educator career path.

“I never pictured myself doing research in education. I pictured myself just being a really good bedside teacher. That was my first love.”

AN INTERVIEW WITH
DR. SUE HUMPHREY-MURTO
MD, FRCPC, MEd

Some people try to do it all, to be everything for everyone. Dr. Susan Humphrey-Murto has a better approach: she gives people the tools to do it for themselves, and gives herself room to have a life. This kind of balance is unusual in the medical community, where so many dedicated and brilliant people burn out from trying to do too much. This could easily have been Sue’s experience, given her impressive list of accomplishments.

It was during her Masters degree that Sue discovered an interest in the theories of teaching and began to explore concepts like standard-setting and the consequences of pass-fail cut-off points. She was mentored by Dr. Meridith Marks in her position as Assistant Dean at the Academy for Innovation in Medical Education (AIME), a role Sue would later find herself stepping into.

Other important mentors along the way included Craig Campbell, Jeff Turnbull and peer-mentoring from Claire Touchie and Timothy Wood. Support from her division head — Doug Smith has also been key.
Sue’s favourite weekend activity involves anything athletic. Biking, skiing, what have you — just getting outside and being active is what she enjoys most.
AIME has a mandate to be “an international leader of innovation in medical education”, and to provide an environment where research can flourish and breakthrough advances can be made. While it has provided enormous support for researchers at the University, the entire project almost collapsed when Dr. Marks fell ill early on.

Taking on the role of Acting Dean of AIME meant a major sacrifice for Sue as she was forced to step down from her position as Director of the Ottawa Exam Center. Since the majority of her own research ran through the Center, her own research productivity declined.

“I think the important thing to remark is that many people stepped in,” Sue insists. These kinds of statements come up often when talking with Sue: she is always the first to give credit to the team that she works with, recalling the sacrifices of others more readily than her own. Sue is, as always, straightforward about her reasons for making the change.

“We were at risk of losing AIME. There were not a lot of people of my ‘vintage’ who were qualified or willing/available.”

The directorship of the Ottawa Exam Center passed to Dr. Debra Pugh, who continues to benefit from Sue’s mentorship and guidance in her own medical education projects. Sue, meanwhile, has stepped down from her role as Acting Dean, though she continues to be highly involved in AIME as the Acting Associate Director and the Director of the AIME/uOSSC Fellowship program. Still, it is hard to believe that anyone would give up such an exciting position, but Sue has always had her priorities straight.

“I was really enjoying rheumatology and I was really enjoying medical education research and I thought, ‘if I take this on I am going to have to give up one or both,’ and I wasn’t going to let my family suffer as a result of that. At the end of the day, I think it was a good choice because Stan has done great things for AIME.”

AIME certainly has made enormous strides since the days of its first inception. Presenting as a force to be reckoned with at national and international conferences, medical educators from AIME are easily recognizable and form a sizeable chunk of presenting scholars, despite having a much smaller number of educators compared to Toronto or the University of British Columbia. The first AIME Medical Education day in 2008 saw about 70 participants. In 2013, that number has risen to 150.

Much of this increase in activity is due to Sue’s involvement with young researchers; she forms part of a research group that has received hundreds of thousands of dollars in grants and has presented at local, national and international conferences. Sue also supports young educators, mentoring many of them directly; Sue will tell you that she feels that mentorship is part of her job, and working with a group she describes as “smart and keen” has been, in her own words, “an absolute pleasure.” It’s no surprise that she has been nominated for several mentoring awards through the University, but even in this Sue insists that her role was never as a solo superhero. “Let’s be very clear: it’s a team effort.”
Let’s be clear, it’s a team effort.

When Sue isn’t at work, you can find her being active: biking, skiing, anything athletic. She spends a lot of time with her husband and kids, with whom she shares a “warped sense of humour,” and though she sometimes feels like she can never give all the things in her life all the time that they deserve, she admits that she is enormously proud of her least-known accomplishment: creating a balanced life.

“I have a great family life and I have a great work life. My kids are thriving at school, my husband’s thriving at work, I’m thriving at work, and yet we do seem to have family time. For me, that’s just golden.”
Up Close and Personal

TS  What one invention would most improve your life?
SH  A wife… okay maybe cloning.

TS  What’s your favourite funny story about yourself, embarrassing or otherwise?
SH  I think what frustrated my poor mother was my attire. As a child, I did not like to “dress up”. My mother was always dressed to the nines, and would apparently spend hours looking for just “the right pair of leotards” and I’d go out and play football and have the knee ripped out after a minute. My daughter did acquire the dress-up gene!

TS  If you could trade places with anyone in the world for one day, who would it be? Why?
SH  I would love to be Sidney Crosby the day that he scored the goal that won the Gold medal for Canada.

TS  If you could trade places with anyone in the Department of Medicine for one day, who would it be? Why?
SH  Dr. Anne McCarthy (Infectious Diseases). Who wouldn’t want to travel… just travel the world looking for bugs.

TS  What actor would play you in a movie about your life?
SH  Lindsay Wagner (Bionic Woman)… in her younger years.

TS  What’s the one thing about you few people know?
SH  I’m really warm and fuzzy but I think my exterior is very businesslike; that comes across as being kind of cold at times.
CONTINUING PROFESSIONAL DEVELOPMENT OF OUR FACULTY

The Department of Medicine Grand Rounds continued to be refined to meet the needs of our audience. Highlights of Grand Rounds in 2012-2013 included Dr. Dale Dauphinee, invited speaker for our annual Dr. Ian Hart Medical Education Lecture. Dr. Dauphinee, discussed "Best Evidence Medical Education (BEME)- Have we lost our way in executing Ian Hart’s vision for BEME".

New additions to Grand Rounds included a Global Health lecture by Dr. Anne McCarthy entitled, "Global Health, the Department of Medicine and Beyond," as well as two lectures delivered by the Patient Quality and Safety Committee.

In collaboration with AIME, the Department of Medicine continued to provide several opportunities for individuals looking to enhance their skills and understanding of medical education. These include the Health Education Scholar’s Program, AIME/UOSSC fellowship, the Distinguished Teachers Program offered through the Undergraduate Office and a medical education fellowship for a post PGY-5 year. Through the leadership of Dr. Sue Humphrey-Murto, the University of Ottawa will also be offering the RCPSC Clinician Educator Diploma in the upcoming year.

RESEARCH & DEVELOPMENT IN MEDICAL EDUCATION

Successful Medical Education Research Grants funded by the Department of Medicine for 2012-2013 were:

- Residents as Leaders (RaLS): Evaluating program process, outcomes and impact (Dr. Jolanta Karpinski PI).
- Growing the academic mission: An environmental scan and needs analysis of fellowship programs (Dr. Jolanta Karpinski PI).
- The Missing Piece: Determining our Faculty Members’ Perceptions of Professionalism in the Learning Environment; Adaptation and Validation of the Learning Environment for Professionalism Survey for completion by Members of the Department of Medicine (Dr. Heather Lochnan PI).
- Progress Testing — is there a role for the OSCE? (Dr. Deb Pugh PI).
- The True Impact of Patients and Workplace Related Barriers on Bedside Teaching (Dr. Claire Touchie PI).
- Internal Medicine Residents Duty Hours – Time & Motion Pilot Study (Dr. Allen Huang PI).
Our educators disseminated their scholarly work at the local, national and international level; key publications include:


**Varpio L, Bell R, Hollingworth G, Jalali A, Haidet P, Levine R, Regher G.** Is transferring an educational innovation actually a process of transformation? *Advances in Health Sciences Education* Vol 17, issue 3 (2012);357-367


### Recognition of Outstanding Faculty

Members of the Department of Medicine are recognized both locally and nationally for their excellence in medical education.

The Meridith Marks Educator Award for Innovation and Scholarship in Medical Education, recognizes excellence and commitment to scholarship in this domain. This past year it was awarded to **Dr. Lara Varpio**, the first medical education research PhD hired by Meridith at the Academy of Innovation in Medical Education (AIME). Dr. Varpio’s passion and enthusiasm for research in medical education is contagious and has elevated the Department of Medicine and the University of Ottawa profile in medical education across Canada and internationally.

### Additional Award Recipients of Note

**Dr. Loree Boyle** received the 2013 PAIRO Excellence in clinical teaching award.

**Dr. Debra Pugh** received the University of Ottawa Educational Advancement and Innovation in Postgraduate Medical Education Award.

**Dr. Gianni D’Egidio** received the Department of Medicine Resident Choice Teaching Award.

On December 12th, 2012 the Faculty of Medicine held their Awards in Education honoring students and faculty members. Several awards went to members in the Department of Medicine including:

**Dr. Bob Bell** — Educator Award Professional Competency

**Dr. Louise Laramée** — Prix de l’educateur Competence

**Dr. Mark Tyndall** — Prix de l’educateur Competence

**Dr. Sylvie Grégoire** — Prix de l’educateur Competence

**Dr. Barb Power** — Educator Award Person Competency
Dr. Michael Froeschl — Educator Award Communicator Competency.

Dr. Tony Weinberg — Award for Excellence, Continuing Medical Education

Dr. Debra Pugh — Award of Educational Advancement & Innovation in Postgrad Medical Education

WHAT’S NEXT?

The Department of Medicine is committed to enhancing innovations in our education programs. We will improve our support for clinician teachers and educators interested in developing, implementing and evaluating teaching innovations.

Our new Director of Fellowships will provide invaluable direction to the Department, which will enhance our current fellowship programs and chart a path for future expansion.

We will continue our work in physician fatigue and patient safety. We will evaluate the recently launched night float system and look at other ways of mitigating physician fatigue.

Erin Keely MD FRCPC
Professor of Medicine
Vice-Chair, Medical Education
Discovery consists not in seeking new lands but in seeing with new eyes.

— Marcel Proust
MEDICAL RESEARCH

Research is central to the mission of the Department of Medicine (DOM): Members of the Department recognize that research is a core value that must be supported, nurtured, and sustained across all Divisions.

In 2012-2013, the Department demonstrated the importance of research by “talking the talk, and walking the walk”. Through its practice plan (UMA), the DOM invested ~$5M into its research programs, with funding of Research Salary Awards (~$4M), Developmental Research Grants, Research Priority Grants, and Research Fellowships.

What is the payoff for this significant investment? The answer is simple: Members of the DOM led the way in generating new knowledge, obtaining major peer review grants to answer critical medical questions, and publishing their research findings in journals of high scientific quality, which will ultimately improve patient care around the globe.

What is the evidence that the DOM is a leader in research? Again, the answer is straightforward: Last year The Ottawa Hospital (TOH) and its research institute, the OHRI, ranked 6th amongst Canada’s top 40 research hospitals according to data from Research Infosource Inc. Members of the DOM contribute more than 80% of the clinical research output of the OHRI, and accordingly we are particularly proud of this high ranking. It is therefore not surprising that in 2012, 13 members of the DOM were recognized by Thompson Reuters Essential Science Indicator for global citation indices in the top 1% of their field over the past 10 years. These highly-cited researchers include Drs. Dean Fergusson, Mark Freedman, David Grimes, Jeremy Grimshaw, Paul Hebert, Marc Rodger, Michael Rudnicki, Duncan Stewart, Rhian Touyz, Peter Tugwell, Mark Tyndall, Phil Wells and George Wells.
Important work of the Research Advisory Committee (RAC): In 2012-2013, the RAC met monthly to adjudicate grant and fellowship applications, review data for allocation of research salary awards, modify existing programs, and implement new initiatives.

A research-intensive DOM relies on the expertise of its members to ensure that our processes are fair and transparent, and I am very grateful for the dedication and hard work of our committee members, as well as other Department members who have been invited to contribute to the peer-review process.

Mentorship: The year witnessed an expansion of the Research Mentorship Program, to include not only young investigators, but researchers at the mid-career level and those whose career paths are not primarily focused on investigation. By July 2013, Mentorship Committees were established for more than 20 individuals in the DOM. Feedback from initial mentorship meetings has been very positive, and it is hoped that this program will address some of the barriers encountered by researchers in the Department, such as inadequate time protection, lack of collaboration and infrastructure support, and funding challenges.

Support for young investigators: Since January 2013, the DOM has acquired the services of Dr. Rosendo Rodriguez, a highly skilled research assistant who has met with several young investigators to guide them with regards to problem formulation, literature reviews, and grant preparation. Indeed, Dr. Rodriguez’ counselling had a positive impact on the quality of applications received at the DOM grants competition in May 2013, and this can only serve to enhance the success rate for members of the Department in obtaining peer-review grants (e.g. CIHR).

DOM Research Highlights: There were many research highlights in 2012-13, but some clearly deserve special mention. Our Department Chair, Dr. Phil Wells, was recipient of the Dr. J. David Grimes Research Career Achievement Award from the OHRI in 2012, in recognition...
of his outstanding contributions to the diagnosis and management of patients with deep vein thrombosis. The Wells' Criteria for diagnosis of pulmonary embolism are recognized and used internationally, and have helped thousands of patients. Indeed, it is remarkable that Dr. Wells continues to rank within the top 2-3 researchers in the DOM on an annual basis, despite his extensive administrative commitments. He is an outstanding role model for young investigators in the DOM, and indeed all clinical researchers.

Two other members of the Thrombosis group were recognized in the past year for their research achievements. Dr. Marc Carrier was awarded a New Investigator Award from the Heart and Stroke Foundation of Canada (HSFC) to investigate a novel cancer screening strategy for people with unexplained venous thrombosis. Dr. Carrier was also presented with the Faculty of Medicine Distinguished Young Professor Award at a Faculty Ceremony in February 2013. Dr. Marc Rodger, Head of the Division of Hematology, received a Career Investigator Award from the HSFC, which will allow him to continue his outstanding research on thrombotic disorders in pregnancy.

In the Division of Neurology, Dr. Michael Schlossmacher was awarded the Bhargava Research Chair in Neurodegeneration, made possible by a $1M gift from Sam and Uttra Bhargava and their family. This award recognizes Dr. Schlossmacher’s world-class research on Parkinson’s disease. In 2013, Dr. Antoine Hakim was named as an inductee into the Canadian Medical Hall of Fame, joining the ranks of other notable scientists such as Dr. Frederick Banting, Dr. Wilder Penfield, and Dr. William Osler. Dr. Hakim was recognized for his vision and perseverance in establishing the Canadian Stroke Network. In the Division of Endocrinology and Metabolism, Dr. T. C. Ooi was chosen by his peers to receive the 2013 Physician Scientist Award at the Canadian Lipoprotein Conference, in recognition of his contributions to clinical research on lipid disorders.

With regards to Peer-Review Grants, Dr. Greg Knoll from the Division of Nephrology was awarded a $13.85 M grant as a co-principal investigator (CIHR), for creation of a National Transplantation Research Network in Canada. Dr. Knoll will be leading a team investigating the ethical and legal barriers limiting organ donation. Announcement of this major grant occurred at a press conference in Ottawa, led by the Federal Minister of Health Leona Aglukkaq, and received extensive press coverage across the country.
Further on, you will read about many of the research highlights in 2012-13 that have resulted in high-impact publications. The Department is particularly proud to note that research by its members spans the 4 pillars of health research, from Biomedical Science to research affecting populations. In fact, there are several examples where laboratory scientists in the DOM have teamed up with clinical researchers in an attempt to "translate" knowledge gained from experimental models to help humans affected by disease. An example of such a collaboration is the work of Dr. Duncan Stewart (Division of Cardiology and Scientific Director, OHRI) and Dr. Lauralyn McIntyre (Division of Critical Care) who are conducting the first study in humans to determine the safety and efficacy of adult stem cells (mesenchymal stromal cells) in sepsis. In the past year, they have published the first comprehensive review looking at the safety profile of these stem cells in clinical use. This is a great example of a collaboration between two clinician scientists, working in different disciplines of health research, which can serve as a model for rapid implementation of "bench to bedside" research findings into clinical practice.

Kevin D. Burns  MD CM, FRCPC
Professor of Medicine
Vice-Chair, Research
Michael's favorite spot in Ottawa is the site of Samuel de Champlain's statue. He says it reminds him of de Champlain's curiosity driven explorations that made history and of a little known explorer by the name of Alexander MacKenzie. Listening to Michael's passionate description, the parallels between these early explorers and his own life begin to take shape.
Many people have described Dr. Michael Schlossmacher as a "man of the world" — by definition sophisticated, well traveled and well read. He has an appreciation for the arts and culture, and can converse on just about any subject. Added to that, he has completed several Harvard University based training programs, has been named as an inventor on several patents for research discoveries in Alzheimer’s and Parkinson’s, and is the recipient of two prestigious Research Chairs (the Bhargava Research Chair in Neurodegeneration and a Canada Research Chair in Parkinson’s Disease and Translational Neuroscience). He is also a practicing neurologist at The Ottawa Hospital, a senior scientist at The Ottawa Hospital Research Institute and an Associate Professor of Medicine at the University of Ottawa.

While he describes himself as curious, most others would portray him as humble. He is not interested in fame or fortune, but passionate about discovery. For him, success is not measured by accolades or by how many publications he has. He insists that for a physician-scientist, success is mainly measured by how one’s research has actually improved patient care.

“There is nothing more important in our daily life as neurologists and in our scientific work than to recognize our limitations, and to be humbled by the fact that when it comes to the field of neurodegeneration, we have not fixed anything yet. This, despite huge investments made by our societies.”

— Dr. Michael Schlossmacher
it comes to the field of neurodegeneration we have not fixed anything yet. This, despite huge investments made by our societies. From Socrates, he quotes “when it comes to the science of knowing, I know that I do not know a thing”. When he had to study ancient Greek in high school, he did not appreciate the full implication of what the great philosopher was trying to convey, but working with patients and on neurodegenerative diseases have made it clear to Michael what Socrates meant.

Michael left a promising career in Boston to move his family to Ottawa in 2006 where he was drawn to join a collaborative network of scientists that focus on Parkinson disease; that network is called the Parkinson’s Research Consortium.

“I was intrigued by the multidisciplinary effort that Ottawa had built with the creation of the PRC. I shared their philosophy that by bringing different people together with complimentary skill sets and the shared vision of doing something about Parkinson’s as a team rather than an assembly of soloperformers, we will make it more likely to succeed and bring change to the clinic.”

He refers to Canada as the country that best combines the things he loves about Europe and the United States without some of the handicaps that physicians and scientists face there. “I also wanted to go and join a smaller academic center because I have seen at my former workplace, where I have spent a total of 16 years, that the scientific rivalry can be immense; as a result, this intense scientific competition is often prohibitive to the pursuit of teamwork. When you are based at a very prestigious institution that promotes the survival of the ‘fittest’ soloperformer according to its academic incentive plan — but does not necessarily value the success by teams to the same degree — it will foster egocentric behavior. In contrast, when you are at a smaller academic institution that still wants to grow, its stakeholders and scientists know that they have to reward the success by teams. As a result, investigators are more likely to help each other.”

Dr. Schlossmacher is a physician-scientist that views the world from angles that are not often utilized. He tries to make it a habit to regularly read one out of four medical and scientific journals that are not neuroscience oriented, often before he falls asleep. “Some really novel ideas that changed how my team does pursue research goals originated from this habit”. He explains that the reading of literature that is outside of a person’s particular expertise will allow you to gain new perspectives regarding unsolved problems. In particular, he has learned to appreciate that in most common diseases that affect mankind it is a combination of genetic susceptibility, environmental triggers including the exposure to microbes, and the passage of time, that produces the disease outcome under investigation.
For example, he cites his recent idea that the LRRK2 gene, which has been independently linked to the risk to develop Parkinson disease, leprosy or Crohn’s disease, may be primarily functioning in the immune system as a potentially game changing concept. “This gene has been studied extensively by neuroscientists, but no consensus had emerged as to how LRRK2 could possibly play 2 or more different roles in 3 separate disorders. One night I was reading a series of articles that highlighted a central role of similar genes in the immune system, namely how plants, invertebrates and mammals are fighting infections, and a light bulb went off.” By bringing together experts from the disciplines of molecular immunology, infectious diseases, neuroscience and genetics, Michael approaches his research on LRRK2 now with a wide angled lens.

As a result, his team, which also includes several other researchers from Ottawa as well as colleagues from Toronto and Montréal, was invited to submit a large team grant application to the Federal Government in October to further fund this approach. “You never know whether the funding agency and referees are ready for a novel concept, but business as usual has not solved anything in Parkinson’s disease over the last 50 years!”

Michael is clearly uncomfortable talking about any accolades. About his personal history however, he is more open; he is happy to share surprising anecdotes about growing up in Austria, such as when he worked as a waiter in bars and restaurants, or when he held a part-time job in medical school that paid well during the ball and gala seasons. “I had to dress up as Emperor Franz Joseph to welcome North American tourists to balls in the former Imperial Palace of Vienna.”

His sense of curiosity and passion for research likely stem from his father, a trained chemist; his desire to become a physician and work with people certainly comes from his mother. “It is difficult to go to a restaurant or to shop with my father”, he laughingly says. “For example, when he orders a bottle of mineral water he does not drink from it until he has studied and fully understood the label on the bottle. And if it is in a different language, he will want to understand what the meaning is in that different language until he fully captures all the nuances.” From his mother, Michael says, he inherited her ability to think outside the box, to challenge medical conventions, and to be a people oriented person. “My mother looks at people with caring eyes like a general practitioner; she has an amazing knack to recognize pathology. My quest for pattern recognition represents a trait that I have clearly inherited from her.”
Born in Paris and raised in Vienna, Michael uses a combination of his natural charm and diplomacy as tools during his Wednesday clinics. The patient he sees typically suffer from movement disorders and often cognitive dysfunction. He runs late with almost every one of them. “Taking the extra time to build a strong connection with these individuals and their loved ones is essential”, he says. “A strong rapport may someday help when I need to discuss difficult topics with them, such as convincing them to give up driving, or talking about an unpleasant diagnosis that is linked to an incurable neurodegenerative disorder, or implementing end-of-life care measures as well as discussing the consent to perform an autopsy.”

In June of 2013, Michael was named as an inventor along with three colleagues from the United States on a worldwide patent for work that he is done. The idea is how to possibly exploit for therapeutic purposes the effects of a gene called GBA1 on the processing of a protein called alpha-synuclein in the brain. GBA1 mutations represent the most common genetic risk factor in humans to develop either Parkinson’s or the related disorder called dementia with Lewy bodies. “The idea for the biochemical link came to me from reading an article in the New England Journal of Medicine one evening in the fall of 2004. I came home, saw it, speculated on a possible biochemical interaction, and wrote it down. Three years later the science started to fall into place, and today we have an exciting partnership with a pharmaceutical company in Massachusetts that wants to license the discovery from my former employer to accelerate their drug development program.”

While this development excites him, Dr. Schlossmacher is quick to point out that such progress is not necessarily worth anything — yet. “For people who suffer from an incurable illness, the bar is much higher. To really make a difference, we have to either be able to offer more reliable tests for diagnostic purposes, or have developed better therapeutic options that allow for cause-directed intervention. Until we have reached that goal we are only carrying out exciting academic work; the onus is on us to finally deliver solutions for those people who put all of their faith and hope into our capabilities.”
Up Close and Personal

TS  What is your favorite time of day and why?
MS  Any time is good but not between 4 AM to 7 AM. I strongly dislike my alarm clock.

TS  What makes you laugh?
MS  What makes me really laugh (where my diaphragm goes into spasms) is the teasing by my siblings, in particular by my two sisters. The relentless attack by my siblings on my character and personality — I find that very entertaining.

TS  What is your favorite funny story about yourself, embarrassing or otherwise?
MS  There are two episodes and they both relate to airport events. In the fall of 2012, I checked in at the Ottawa Airport to travel to New York City using a preprinted boarding pass. I proceeded through customs, dropped my luggage onto the conveyer belt, and cleared US immigration services. When I arrived in New York I tried to collect my luggage, which however had never left Ottawa because I had omitted to obtain a tag for it. Instead, it had been put into a special container to be examined as a potential security threat. A similar event happened in April 2009 when I was invited to give a talk in Paris, France. I was late in preparing my talk, which was scheduled to be delivered within three hours after my arrival. Preoccupied upon landing with work on my computer and the identification of the appropriate bus to board from Charles de Gaulle airport into the city, I completely forgot to pick up my suitcase (which by the way had been properly tagged). This piece of luggage also ended up in a box in a special containment area. It took me almost three hours to disembark from the bus, return to the airport, identify the location of the suitcase, and then head back into the city to arrive at the lecture hall. I had minutes left before I was scheduled to speak. That evening I met up with my siblings to celebrate our mother’s 70th birthday. They had a field day…
TS  If you could only eat three foods a day, what would they be?
MS  Nutella, Brussel sprouts and fish.

TS  If you could trade places with anyone in the Department of medicine for one day, who would it be? Why?
MS  Marilyn Colley, the executive administrative assistant to Dr. Phil Wells. To observe the behavior of each person, that either comes to complain about some issue or to request something from the chairman of the department, would be an interesting perspective.

TS  What was the last book you read? What is the best book you have ever read?
MS  I read two books recently that were very informative: One was “The Rumsfeld Rules”; the other one was “Spark”. It is impossible to answer the other question. There are too many genres, too many books read, and too many different stages in my life that were associated with good books. However, if I were to pick a very memorable one, it would be “Leonardo da Vinci, artist and scientist”.

TS  Name your favorite movie, sports heroes, band, or individual musicians.
MS  I have always been a Rolling Stones fan. I do not consider athletes heroes. For me, heroes are normal, every day people that are able to carry out extraordinary things under extraordinary circumstances.
INTERNAL RESEARCH FUNDING (2012-13)

The DOM ran two competitions for Internal Research Funding and granted awards to its Members in the following categories:

Research Priority Grants:

Dr. J. Angel (Infectious Diseases) and Dr. John Bell (Medical Oncology) received a Research Priority Grant entitled: “The study of recombinant Maraba virus as a potential approach to eliminate cells that constitute the HIV reservoir”.

Dr. Doug McKim (Respirology) and Dr. Mark Freedman (Neurology) received a Research Priority Grant entitled: “Lung volume recruitment for lung function and cough impairment in multiple sclerosis”.

Dr. David Allan (Hematology) and Dr. Richmond Sy (Gastroenterology) received a Research Priority Grant entitled: “Augmenting Immune Modulatory Properties of Mesenchymal stromal cells in Patients with Crohn’s Disease”.

Drs. Swapnil Hiremath and Ayub Akbari (Nephrology) and Dr. Dean Fergusson (Clinical Epidemiology) received a Research Priority Grant entitled: “The Prevention of Acute Kidney Injury following Contrast-Enhanced Computed Tomography: A Pilot Trial of Oral Fluid versus Intravenous Saline”.

Dr. Vicente Corrales-Medina (Infectious Diseases) and Dr. Girish Dwivedi (Division of Cardiology) received a Research Priority Grant entitled: “Vascular inflammation as measured by 18FDG-PET/CT scan during acute pneumonia: A feasibility study”.

Developmental Research Grants:

Dr. Curtis Cooper (Infectious Diseases) received a Developmental Research Award for his project entitled: “Regulation of hepatic VLDL production: A novel strategy to treat HCV infection”.

Dr. Dar Dowlatshahi (Neurology) received a Developmental Research Award for his project entitled: “Clinical Outcomes Following Parafascicular Surgical Evacuation of Intracerebral Hemorrhage: A Pilot Study”.

Dr. Dawn Sheppard (Hematology) received a Developmental Research Award for her project entitled: “Life-Threatening Toxicity Following Fludarabine-Based Therapy for Chronic Lymphocytic Leukemia: Clinical and Genomic Predictors”.

Dr. Anne McCarthy (Infectious Diseases) received a Developmental Research Grant for her project entitled: “Determining the optimal malaria chemoprophylaxis for travellers: Decision Analysis modeling to inform Public Health Policy”.

Department of Medicine 2012-13 Annual Report
Dr. Esteban Gandara (Hematology) received a Developmental Research Grant for his project entitled: “Rivaroxaban for the Prevention of Restenosis after Intrainguinal Percutaneous Transluminal Angioplasty for Critical Limb Ischemia- The RIFLE study”.

Dr. Rakesh Patel (Critical Care) received a Developmental Research Grant for his project entitled: “Determining the Safety of Enoxaparin Prophylaxis in Critically Ill Adults with Severe Renal Insufficiency.”

Research Fellowships:

Dr. Amber Molnar (Nephrology) received a research fellowship for two years to study “The diagnosis and prevention of acute kidney injury and the long-term morbidity and mortality associated with AKI”.

Dr. Sunita Mulpuru (Respirology) received a research fellowship for one year for her research project called “Impact of Respiratory Viral Testing on Hospital Mortality, Length of Stay and Need for Critical Care in Adult Patients Hospitalized with Infectious Respiratory Symptoms”.

Dr. Lana Castellucci (Hematology) received a research fellowship for one year for her research project called “Evaluating Risk of Delayed Bleeding in Critically Ill Trauma Patients”.

Canada Research Chairs (2012-13)

The following Members of the DOM held Canada Research Chairs this past year:

Marjorie Brand (Hematology)  Regulation of Gene Expression
Jeffrey Dilworth (Neurology)  Epigenetic Regulation of Transcription
Jeremy Grimshaw (Clinical Epidemiology)  Health Knowledge Transfer and Uptake
Michael Rudnicki (Neurology)  Molecular Genetics
Michael Schlossmacher (Neurology)  Parkinson’s Disease and Translational Neuroscience
Peter Tugwell (Rheumatology)  Health Equity
Kumanan Wilson (General Internal Medicine)  Public Health Policy
Discoveries and Breakthroughs

Drs. Paul Wheatley-Price (Medical Oncology), Brian Hutton (OHRI) and Mark Clemons (Medical Oncology) produced one of the most cited papers of 2012 (including interviews on United States media networks) on their study evaluating The Mayan Doomsday’s effect on survival outcomes in clinical trials.


Drs. Carl van Walraven and Alan Forster (General Internal Medicine) developed a new scoring system for assessing the risk of a patient dying or requiring urgent readmission within 30 days of discharge from hospital.

van Walraven C, Wong J, Forster AJ. Derivation and validation of a diagnostic score based on case-mix groups to predict 30-day death or urgent readmission. *Open Med* 2012; 6(3):e90-e100

Dr. Mark Clemons (Medical Oncology) published results from a clinical trial that determined the appropriate dosing interval of drugs commonly used to combat bone disease in breast cancer that has metastasized to bone. The study found that administering pamidronate less frequently (Q12 weeks) in women with a low-risk form of the condition was as effective as administration Q 3-4weeks. This work was published in “The American Journal of Clinical Oncology”. Dr. Clemons also published the world’s first tool to predict whether cancer patients are likely to suffer from chemotherapy-induced nausea and vomiting.


Dr. Darryl Davis (Cardiology) discovered that human blood and cardiac stem cells synergize to enhance cardiac repair when co-transplanted into the ischemic myocardium.

Dr. Vicente Corrales-Medina (Infectious Diseases) was lead author on a review article published in “The Lancet” examining the adverse effects of pneumonia on the cardiovascular system.


Drs. Lauralyn McIntyre (Critical Care) and Duncan Stewart (Cardiology) published the first comprehensive review examining the safety profile of adult stem cells (MSCs). MSCs appear to have a good safety profile, although future trials will require rigorous reporting of adverse events.


Drs. David Park and Michael Schlossmacher (Neurology), in collaboration with the Parkinson Research Consortium developed a mouse model that mimics a familial form of early onset Parkinson disease.


Dr. Dean Fergusson (Clinical Epidemiology) published the results of a clinical trial that tested whether fresh red blood cells are associated with better outcomes for transfusion patients, compared to stored blood from blood banks. This research was published in the high-impact “Journal of the American Medical Association (JAMA)”. Dr. Fergusson also published a key paper in the “British Medical Journal” showing that steroid treatment given to patients after tonsillectomy was associated with a higher risk of readmission to hospital due to bleeding.


Dr. Neil Reaume (Medical Oncology) and colleagues published a paper assessing the role of longitudinal clinical for oncology trainees — Continuity clinics in oncology training programs in Canada.


Dr. Dar Dowlatshahi (Neurology) and his team were featured in *The Lancet* for use of stop motion imaging to diagnose intracerebral hemorrhage. This technique, called dynamic CT angiography, allowed the research team to see ongoing bleeding, which facilitates early operation on these patients.


Dr. Alexander Sorisky (Endocrinology and Metabolism) and his team demonstrated that interleukin-1 beta, a factor made by macrophages, blocks the formation of mature fat cells, which has furthered our understanding of the interaction between the immune system and accumulation of fat tissue.

Molgat AS, Gagnon A, Foster C, Sorisky A. The activation state of macrophages alters their ability to suppress preadipocyte apoptosis. *J Endocrinol* 2012; 214(1):21-29

Dr. David J Stewart (Medical Oncology) paper on “Fool’s gold, lost treasures, and the randomized clinical trial”

Stewart DJ, Kurzrock R. Fool’s gold, lost treasures, and the randomized clinical trial. *BMC Cancer* 2013; 13:193 was officially designated as “highly accessed” based on the number of downloads

Dr. Kevin Burns (Nephrology) and his team discovered that overexpression of a protein called “ACE2” by the glomerular podocyte significantly attenuated the development of diabetic kidney disease in mice, a finding that could lead to targeting of this enzyme for therapy.


Dr. Alan Forster (General Internal Medicine) demonstrated that physician ordering of unnecessary MRI's for lower back pain resulted in longer wait times for other patients who are in need. This work received national media coverage.

Dr. David Allan (Hematology) discovered that endothelial colony forming cells (ECFCs) are recruited to areas of injured blood vessels by specific signaling mechanisms. This could lead to cell-based therapies to activate ECFCs for specific types of injury.


Research led by Dr. Marjorie Brand (Hematology) could help people with Beta-thalassemia, a condition that results in profound anemia. Her research showed how repressing 2 specific proteins that work together to keep the embryonic genes inactive in adults can actually reactivate the embryonic beta-globulin gene in adult cells. This work could have implications for the development of treatments of beta-thalassemia.


Dr. Michael Rudnicki (Neurology) and Julia von Maltzahn discovered that injecting a novel human protein called Wnt7a into muscle affected by Duchenne muscular dystrophy significantly increases muscle size and strength.


Dr. Rashmi Kothary (Neurology) and colleagues made an important discovery about spinal muscular atrophy (SMA). They found a connection between SMA and defects in pancreatic function with respect to glucose processing. This finding points to the need to assess metabolism when determining therapeutic plans for this condition.


Dr. Johnny Ngsee (Neurology) and colleagues discovered a new mechanism that provides insight into a familial form of amyotrophic lateral sclerosis (ALS). The critical role played by a gene called VAPB causing pores in the nuclear membrane was established by Dr. Ngsee’s team.

Dr. Jeremy Grimshaw (Clinical Epidemiology) and team published the world’s first guidelines addressing ethical considerations for cluster-randomized trials.


Dr. Duncan Stewart (Cardiology) collaborated with Dr. William Stanford to develop a new approach for production of induced pluripotent stem cells (iPSCs). These stem cells are potential alternatives for embryonic stem cells.


Dr. Michael Schlossmacher (Neurology) led a team of researchers who showed that the concentration of a protein called alpha-synuclein is decreased early in Parkinson’s disease, an effect that is not caused by drug treatment.


Dr. Paul MacPherson (Infectious Diseases) and his team discovered that a small protein called interleukin-7 (IL-7) can regulate its activity to affect a person’s immune response to viral infection. This finding may help in developing therapies using IL-7 to boost immune response.

Ghazawi FM, Faller EM, Sugden SM, Kakal JA, MacPherson PA. IL-7 downregulates IL-7Rα expression in human CD8 T cells by two independent mechanisms. Immunol Cell Biol 2013; 91(2):149-158

Dr. David Picketts (Neurology) showed that a gene mutation responsible for a severe form of intellectual disability also plays a role in muscle growth and repair. These findings represent an important advance in understanding the mechanisms for complex neurodevelopmental disorders caused by defects in the process of DNA replication.

Dr. Alan Forster (General Internal Medicine) demonstrated the importance of contacting patients about their prescriptions using an automated phone system, which received media coverage on the CBC.


Dr. Michael Rudnicki’s lab (Neurology) made a ground-breaking discovery that adult muscle stem cells can be induced to become brown fat cells, a form of “good fat” that could play an important role in the fight against obesity. This work received wide-spread media coverage.


Dr. Michael Rudnicki (Neurology) and his team discovered a unique pair of proteins that turn on a genetic switch telling a muscle stem cell to become a committed muscle cell. Understanding this mechanism has potential for therapies to help muscle wasting diseases.


Dr. Jeremy Grimshaw (Clinical Epidemiology) conducted a study to show that training to enhance the patient’s role in decision making can result in a reduction in antibiotic prescriptions for respiratory infections.


Dr. Fraser Scott (Endocrinology and Metabolism) and his team demonstrated that diet is a major environmental promoter of autoimmune type 1 diabetes.


Dr. David Birnie (Cardiology) published the BRUISE Control Trial in New England Journal of Medicine.

Dr. Phil Wells and Thrombosis Fellow Kerstin Hogg (Hematology) published an article in *JAMA Internal Medicine* on the importance of QALY in making health care decisions.


Dr. Dean Fergusson and Dr. Jeremy Grimshaw (Clinical Epidemiology) co-authored a *PLOS Medicine* paper that gives recommendations on how to make preclinical animal research more effective. They developed a preclinical research checklist based on previously published systematic reviews.


Dr. Carl van Walraven (General Internal Medicine) and colleagues identified factors that increase the risk of surgical infection, including smoking, obesity, chronic diseases and duration of operation. They then developed an on-line calculator that takes these factors into account to predict a patient’s risk of infection.


Drs. David Conrad (Hematology) and John Bell (Medical Oncology) developed unique virus-derived particles that can kill human blood cancer cells in the lab and eradicate the disease in mice with few side effects. Story in *Medical Xpress, CBC, Ottawa Citizen, CTV, Metro, Windsor Star, New Medical* and *Huffington Post*.


Dr. Curtis Cooper (Infectious Diseases) was co-author and the Ottawa site lead part for a clinical trial published in *Lancet Infectious Disease*. The study examined the effect of antiviral agent, boceprevir, on patients infected with both HIV and Hep C.

**Noteworthy Grants**

**Dr. Shawn Aaron** (Head, Division of Respirology) received a grant from Cystic Fibrosis Canada to study why acute viral infections worsen the chronic bacterial infections found in the lungs of patients with CF.

**Dr. Mark Clemons** (Medical Oncology) and **Christina Addison** were awarded a grant by the High Impact Clinical Trials (HICT) Program of the Ontario Institute for Cancer Research to identify risk factors for bone-related problems experienced by patients being treated for breast cancer that has spread to the bone.

**Dr. John Bell** (Medical Oncology) was awarded a multi-million dollar grant from Terry Fox Foundation. Funding will allow the Canadian Oncolytic Virus Consortium to continue their work as a trans-Canadian Network of clinical and basic scientists focused on the application of oncolytic viruses as a way to treat cancer.

**Dr. Glenn Goss** (Medical Oncology) was awarded a grant by the Ontario Institute of Cancer Research, High Impact Clinical Trials, HICT Endorsed Trials program to evaluate the levels of asymmetric dimethylarginine (ADMA) and its regulator dimethylarginine dimethylaminohydrolase (DDAH) in circulating in lung cancer patients treated with the VEGFR inhibitor cediranib and determine its association with and ability to predict development of hypertension.

**Dr. Michael Schlossmacher’s** team (Neurology) received a grant from the Michal J. Fox Foundation to explore whether a certain gene’s response to bacterial and viral infection can play a role in the development of Parkinson’s Disease. The study will be carried out with Drs. J. Tomlinson, E. Brown, Dr. D. Philpott, and will explore LRRK2’s role in the immune system as it relates to Parkinson’s.

**Dr. David Picketts** (Neurology) received a grant from the Cancer Research Society to explore the effect of a gene called PHF6 (Plant Homeodomain finger protein 6) on a common form of leukemia (T-ALL). Understanding its role in our immune system (in the creation of T-cells) will help identify novel therapeutics to treat T-ALL.

**Dr. Jeremy Grimshaw** (Clinical Epidemiology) received a grant from Ontario’s Ministry of Health and Long-term Care to support production and updates for dozens of Cochrane Systematic Reviews. This grant will help fund publication of 18 new Cochrane Reviews, updates for 18 existing Cochrane Reviews, and production of 18 new protocols.

**Dr. Rashmi Kothary** (Neurology) received an operating grant from CIHR to explore the role of a structural protein (dystonin) that is critical for neurons to function properly. Defects in these structural proteins can contribute to neurodegenerative disorders such as ALS, Alzheimers, Parkinsons and Hereditary Sensory Autonomous Neuropathy. By understanding the exact role of dystonin, Dr. Kothary hopes to provide insight into the causes and origins of these disorders.
Dr. Dar Dowlatshahi (Neurology) is co-PI on a CIHR funded operating grant that will compare the health-care cost and medical benefits of oral blood thinners taken by seniors. This study will use data for patients who have experienced bleeding while on blood thinners and compare the older drug, warfarin, to the newer blood thinners.

Dr. Christina L. Addison (Medical Oncology) was awarded a grant by Prostate Cancer Canada to evaluate the role of beta1 integrins in controlling the metastasis of prostate cancer to the bone and investigate putative mechanisms of its modulation of this process including its ability to induce EMT and cell invasion.

Dr. Gonzalo Alvarez (Respirology) received a CIHR grant — Modeling the impact of interventions for tuberculosis control in Inuit communities. Grant is in collaboration with investigators from McGill University Health Centre Research Institute. This grant will continue his work on TB in Canada’s northern communities and build on his TAIMA TB grant.

Dr. Shawn Aaron (Respirology) was awarded a clinic incentive grant from Cystic Fibrosis Canada for 2013-2014.

Dr. Greg Knoll (Nephrology) is co-PI on a multi million national transplant initiative funded by CIHR and other agencies, which will be aimed at increasing donations. Dr. Knoll will be leading a team looking into the ethical and legal barriers limiting donations. The story was published in The Ottawa Citizen on April 22nd. It also appeared in CTV News, Ottawa Sun, Sun News network, Le Droit, CBC.ca and The National.

Dr. Derek Jonker (Medical Oncology) initiated a multinational trial through by NCIC Clinical Trials Group to evaluate a first-in-class cancer stem cell inhibitor (BBI608) in patients with colorectal cancer. As the principle investigator for the study known as CO.23, he will be responsible for overseeing the trial being run in Canada, Australasia, Japan and the United States, which will enroll between 650 and 950 patients.

Dr. Ran Klein (Cardiology) was awarded a NSERC Discovery grant entitled: “Improving the accuracy of cardiac PET with motion-free imaging”. Dr. Rob deKemp (Cardiology) is co-applicant.

Dr. Lisa Mielniczuk (Cardiology) was awarded a HSF grant as PI: 2013-2016 Title of Proposal: Right Ventricular substrate metabolism as a predictor of right heart failure in patients with pulmonary arterial hypertension.

Dr. Duncan Stewart and Dr. David Courtman (Cardiology) were awarded a grant from Stem Cell Network for work in a clinical trial led by Dr. Lauralyn McIntyre (Critical Care). The group will use modulating stem cells derived from bone marrow to treat septic shock.

Dr. Jason Tay (Hematology) received a RCT Mentoring award from CIHR to conduct a trial examining the optimal level of red blood cells in patients receiving a bone marrow transplant to treat blood cancer. RCT Mentoring awards encourage future leaders in trials research.
Dr. Lauralyn McIntyre (Critical Care) awarded a Knowledge Synthesis Grant from CIHR to undertake a review that pulls together evidence on the use of mesenchymal stromal cells (MSCs) to treat acute lung injury. If sufficient evidence exists, they will proceed with a clinical trial for this therapy. She is currently using MSCs to treat septic shock.

Dr. Christina L. Addison (Medical Oncology) was awarded a substantial grant by the Canadian breast cancer Foundation to study the mechanism by which integrin-Focal adhesion kinase signalling controls metastasis of breast cancer to the bone and its subsequent growth and response to therapy there, and evaluate the efficacy of FAK targeting agents in inhibiting bone metastasis growth in preclinical models.

Dr. Marc Rodger (Hematology) received a Knowledge Synthesis Grant from CIHR to combine and analyze data from 6 studies in order to clearly understand the effectiveness of a blood thinner in preventing pregnancy complications.

Dr. Alex Sorisky (Endocrinology and Metabolism) and colleagues awarded a CIHR operating grant to investigate a novel protein that may play a role in obesity and diabetes.

Dr. John Bell (Medical Oncology) awarded a sizeable CIHR operating grant to study the potential of using cancer-killing oncolytic viruses to treat pancreatic cancer.

Dr. Jason Tay (Hematology) received a RCT Mentoring award from CIHR to conduct a trial examining the optimal level of red blood cells in patients receiving a bone marrow transplant to treat blood cancer. RCT Mentoring awards encourage future leaders in trials research.

Dr. Xiaohui Zha (Endocrinology and Metabolism) received a 2013 CIHR operating grant — Regulation of Inflammatory Response and Cholesterol efflux by ABCA1.

Dr. Michael McBurney (Medical Oncology) received 2013 CIHR Operating grant — SirT1 mediates adaptation to chronic stress and resistance to chronic disease and a 2013 Synapse Mentorship Award (Research Group) Program for Cancer Therapeutics.

Dr. Dean Fergusson (Clinical Epidemiology) received 2013 Operating grant — Transfusion Requirement in Cardiac Surgery III (TRICS III).
CIHR Operating Grants 2012-13

Dr. Shawn Aaron (Respirology): The Canadian Respiratory Research Network; Exploring the Origin and Progression of Airway Disease.

Dr. Paul Albert (Neurology): Coupling domains of the 5-HT1A receptor.

Dr. Robert Ben, Dr. David Allan co-I (Hematology): Improving the Cryostorage of Blood Products Using Novel Small Molecule Cryoprotectants.

Dr. Kevin Schwartzman, Dr. Gonzalo Alvarez (Respirology) Co-PIs: Modeling the impact of interventions for tuberculosis control in Inuit communities.

Dr. Jonathan Angel (Infectious Diseases): Regulation and Function of Soluble IL-7 Receptor Alpha (CD127) in HIV Infection.

Dr. Edward Mills, Co-I: Drs. DW Cameron and Curtis Cooper (Infectious Diseases): Assessing the role of aging in HIV disease progression in Africa.


Dr. Michael Gollob (Cardiology): Novel Molecular Targets and Mechanisms of Human Atrial Fibrillation (ranked number 1 CIHR CSB, mark 4.6).

Dr. Derek So (Cardiology): Reassessment of Anti-Platelet therapy using InIndividualized Strategies – Modifying Acute CoroNary Syndrome Algorithms based on Genetic and Demographic Evaluation: The RAPID-MANAGE Pilot study.

Dr. Jean DaSilva (Cardiology): Altered Angiotensin II AT1 Receptor in Cardiac and Renal Disease: Translational Development of Novel F-18 Labeled Ligands for PET Imaging.

Dr. Alan Forster (Internal Medicine): Information systems-enabled outreach program for Adverse Drug Events.

Dr. Rashmi Kothary (Neurology): Dystonin - a cytoskeletal linker protein critical for neuronal function.

Dr. Johnny Ngsee (Neurology): Loss of VAPB Function in Amyotrophic Lateral Sclerosis-8 (ALS8).

Dr. Michael Rudnicki (Neurology): Genetic Regulation of Myogenesis.
Dr. Jason Tay (Hematology), Co-i: Drs. David Allan (Hematology), Dean Fergusson (Clinical Epidemiology), Alan Tinmouth (Hematology): Transfusion of Red Cells in Hematopoietic Stem Cell Transplantation: The TRIST Study.

Dr. Mario Tiberi (Neurology): Signaling mechanisms of D1-class dopaminergic receptors.

Dr. Phil Wells (Hematology): New Oral Anticoagulants for the Prevention of Venous Thromboembolism in High-Risk Ambulatory Cancer Patients: A Randomized Placebo-Controlled, Double-Blind Clinical Trial.

HONOURS & AWARDS

Drs. Phil Wells (Department of Medicine Chair), David Picketts (Neurology) and Vahab Soleimani (Neurology) were honoured at the 2012 Ottawa Hospital Gala on November 17th. Dr. Wells received the Dr. J. David Grimes Research Career Achievement Award. Dr. Soleimani, who works in the regenerative medicine lab of Dr. Rudnicki, received the Dr. Ronald G. Worton Researcher in Training Award. Dr. Picketts received the Dr. Michel Chretien Researcher of the Year Award.

Dr. Dar Dowlatshahi (Neurology) was awarded a HSF New Investigator award in the 2013 HSF Ontario Personnel award competition. Drs. David Birnie, Michael Gollob and Lisa Mieleniczuk also received personnel awards from HSF in this same competition.

Dr. Marc Carrier (Hematology) received a New Investigator Award from HSF to investigate a novel cancer screening strategy for people with unexplained venous blood clots.

The American Medical Writers Association gave special recognition to contributors — Drs. Jeff Perry, Christian Vaillancourt, Carl van Walraven (General Internal Medicine), Ian Graham, Jason Frank and Steve Choi for contributions they made to The Research Guide: A Primer for residents, other health care trainees, and practitioners. The book has received AMWA’s prestigious 2012 Medical Book Award.

Dr. Michael Schlossmacher (Neurology) and his team were awarded the prestigious Annals of Neurology prize, awarded for outstanding contribution to clinical neuroscience. A paper published in 2011 that revealed the first link between mutations in the GBA gene and the hallmark accumulation of a protein called alpha-synuclein within the brains of people with Parkinson’s was a major reason for the award.

The Ottawa Hospital and Canadian Blood Services announced a partnership that will make TOH the first collection site in a new national cord blood bank, part of the OneMatch Stem Cell and Marrow Network. In 2013, the program will expand to Toronto, Edmonton and Vancouver. Dr. David Allan (Hematology) is the Medical Director of the OneMatch Cord Blood Bank. Story was covered by Ottawa Citizen, CBC, Radio Canada, Sun News, Metro, Le Droit, CFRA, Top News.
Dr. Antoine Hakim (Neurology) was named as one of the 2013 inductees into the Canadian Medical Hall of Fame, joining the ranks of others such as Dr. Frederick Banting, Dr. Wilder Penfield, Dr. William Osler, Norman Bethune, Tommy Douglas and Terry Fox. Only two people from Ottawa have received this honour — Dr. Wilbert Keon and Dr. Hakim. Dr. Hakim is recognized for his vision and perseverance in establishing the Canadian Stroke Network.

Dr. Michael Schlossmacher (Neurology) officially became the Bhargava Research Chair in Neurodegeneration on October 18th. The Chair was made possible by a $1 million gift from Sam and Uttra Bhargava and family. Dr. Schlossmacher is a world-leading Parkinson’s researcher.

Dr. Esteban Gandara (Hematology) won the Peter Garner Award for the highest rated scientific presentation at the North American Society of Obstetric Medicine Annual Meeting in October 2012 for his work on a systematic review examining LMWH dose reduction in the secondary prevention of pregnancy-associated VTE.

Dr. Ruth McPherson (Cardiology) was recipient of the prestigious CSATVB Scientific Excellence Award sponsored by the Canadian Society for Atherosclerosis, Thrombosis and Vascular Biology. The award is given for an active researcher for consistently outstanding and innovative research in the area of atherosclerosis, thrombosis and/or vascular biology.

Dr. Robert Roberts (Director, University of Ottawa Heart Institute, Cardiology) received the Annual Achievement award at the 2012 Canadian Cardiovascular Congress, which recognizes an established investigator working in cardiovascular research in Canada. ‘I always wanted to give back to the country where I got my training and hoped that the research I had done was global and would affect Canada.’

Dr. Peter Liu (Cardiology) new Scientific Director of University of Ottawa Heart Institute, gave the keynote address entitled: “Innovation through Collaboration: Research Lessons from studying heart disease” at OHRI’s 12th Annual Research Day.

Dr. John Bell (Medical Oncology) was one of the first recipients of the Order of Ottawa, a civic award established by City Council to recognize exceptional citizen contributions to life in Ottawa.

Dr. Rashmi Kothary (Neurology) was appointed as Deputy Scientific Director, OHRI. He will serve as a member of all OHRI review and recruitment committees. He will also represent OHRI internally and externally as an alternate for Dr. Duncan Stewart.

Dr. Frans Leenen (Cardiology) was selected as a Distinguished Physiologist for the “Living History Program” of the American Physiology Society.

Dr. TC Ooi (Endocrinology and Metabolism) was chosen to receive the 2013 Physician Scientist award at the Canadian Lipoprotein Conference in September 2013.
Dr. Marc Rodger (Hematology) was awarded a 2013-2014 Career Investigator Award from the Heart & Stroke Foundation. Funding will allow him to continue examining whether thrombophilia causes pregnancy complications.

Dr. Lynn Megeney (Cardiology) received a Queen's Diamond Jubilee Medal for his work, which shows at the molecular level, how cell death or cell suicide is a vital process in normal biology. He is also credited with providing the first evidence of heart muscle stem cells in adults, which is now the focus of research groups around the world as they work to translate this knowledge into improved patient care.

Dr. Keith Wilson (Physical Medicine and Rehabilitation) was the winner of the 2013 Award for Research Excellence from the Canadian Association of Psychosocial Oncology (CAPO). Dr. Wilson’s research has focused on the psychosocial and spiritual needs of cancer patients facing the end of life.

Dr. Marc Carrier (Hematology) was presented with the Faculty of Medicine Distinguished Young Professor Award.

Dr. Jean DaSilva (Cardiology) was named the 2013 UOHI Basic Science Investigator of the Year.

Dr. Ben Chow (Cardiology) was been named the 2013 UOHI Clinical Science Investigator of the Year.

Dr. Mary-Anne Doyle (Infectious Diseases) has received the CIHR Canadian HIV Trials Network (CTN) Postdoctoral Fellowship Award for the 2013/2014 fellowship year. Her project, supervised by Dr. Curtis Cooper, is entitled: “Preventing the Progression of Liver Fibrosis with Metformin in HCV-HIV co-infected patients.” Dr. Doyle has also received a grant from the CTN Funding Opportunity Competition for the same project.

Lyndsay Murray from Dr. Rashmi Kothary’s (Neurology) lab won an Emerging Investigator award from FightSMA and the Gwendolyn Strong Foundation. Both organizations are dedicated to defeating childhood neuromuscular disorder spinal muscular atrophy (SMA). The award is designed to draw strong innovative talent into SMA research. Dr. Murray was the only Canadian winner of the award.

Dr. Michael McBurney’s (Cardiology) Cancer Therapeutics Program won CIHR’s 2013 Synapse Award for Mentorship in the research group category. The award recognizes the efforts of a group that has made exceptional efforts to promote health research among Canada’s high-school students.

Dr. Kumanan Wilson (General Internal Medicine) assumed the newly created Chair of Public Health Policy position. This Chair position is funded by OHRI, The Ottawa Hospital and the Department of Medicine.

Dr. Peter Liu (Cardiology) was awarded the Recognition of Excellence Award from Hypertension Canada for C-CHANGE (Canadian CV Harmonized Guidelines Endeavour). Dr. Liu is the Director of C-CHANGE.
RESIDENT RESEARCH DAY

This annual event is dedicated to enhancing a resident’s educational experience, providing a mentoring relationship with faculty members and an opportunity to better understand the connection between research and clinical care. **Dr. Alan Forster** chaired the event for the final time in 2013 and after serving eight years in this role **Dr. Curtis Cooper** will be stepping in to assume the Director position. Many thanks to Dr. Forster for his long-standing dedication and outstanding leadership to our residents.

We were very fortunate to have Dr. Jeanne Huddleston, Co-Director, Health Care Systems Engineering Program as our keynote speaker this past year. She shared her perspectives of Learning from Every Death: Research that Saves Lives. We are most grateful to her for joining us.

**Drs. Chris Bredeson, Alan Forster, Carl van Walraven** and **Curtis Cooper** donated their time and research expertise in judging the poster and oral presentations — many thanks to all of them.

RESIDENT AWARD WINNERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Award Category</th>
<th>Title of Project</th>
<th>Supervisors</th>
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<tbody>
<tr>
<td>Moira Rushton</td>
<td>Oral Presentation Award (PGY1)</td>
<td>Treatment Outcomes for Early Stage Male Breast Cancer: A Single Centre Retrospective Case-Control Study</td>
<td>Dr. Susan Dent</td>
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<tr>
<td>Chris Tran</td>
<td>Oral Presentation Award (PGY2)</td>
<td>Does the Structure of Clinical Questions Affect the Outcome of e-Consultations?</td>
<td>Dr. Erin Keely</td>
</tr>
<tr>
<td>Tom Tran</td>
<td>Oral Presentation Award (PGY3)</td>
<td>A Single Slice Measure of Epicardial Adipose Tissue Can Serve as an Indirect Measure of Total Epicardial Adipose Tissue Burden and is Associated with Obstructive Coronary Artery Disease</td>
<td>Dr. Ben Chow</td>
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Amber Molnar: Oral Presentation Award Winner (PGY5)
Title of Project: Association Between Pre-operative Statin use and Acute Kidney Injury Biomarkers in Cardiac Surgery
Supervisors: Dr. Amit Garg at Western University

Tadeau Fantaneanu: Overall Poster Presentation Award Winner (PGY4)
Title of Project: Understanding the Genesis of “Neurophobia” A Mixed Methods Study of Trainee’s Perceptions of Neurology Education
Supervisors: Dr. Asif Doja at CHEO

Resident Research Day continues to be an important part of the Department’s ongoing dedication to provide strong academic research environments for our trainees and we look forward to next year’s event.
AN INTERVIEW WITH
DR. DEAN FERGUSSON
MHA, PhD

Dr. Dean Fergusson is the Program Director and Senior Scientist of the Clinical Epidemiology Program (CEP) at The Ottawa Hospital Research Institute (OHRI). He is not literally a Dean, however; much to the confusion of some visiting students many years ago.

In 1998, Peter Tugwell (the former Chair of Medicine) asked him for a favour: would he, Dean Fergusson, take a group of medical students on a tour around the Civic campus? “They were from Thailand, I think. It was 11 o’clock on Friday…I showed up in jeans and a T-shirt.”

While Dr. Fergusson thought that the little tour was “no big deal”, the students clearly took the visit much more seriously. “One by one, they came in, they bowed, and they handed me a gift, either a little trinket or flowers. My office was small at the time…my desk was littered.” Friendly and outgoing as always, Dean completed the tour and finally convinced the students, who seemed to be in awe, to laugh a little. It was only afterwards that he learned of the mix-up: an error in translation meant that they thought he was actually the Dean of the Faculty of Medicine at the University!

“I thought about this after, and I was wearing the rattiest jeans and rattiest T-shirt that day. No wonder they were so confused”.

While he no longer gives tours, Dean Fergusson is still providing direction and assistance, and enjoying face-to-face interactions with people. In a world where email has become the standard form of communiqué, Dean is unique. In his role as Director, he prefers a good old fashioned phone call or drop by and feels that this open-door policy can be a more efficient way of providing advice, mentorship and support to CEP’s scientists, clinical investigators and support staff. He sees his role as more than an advisor, “I need to act as their champion and make life easier for them”.

Department of Medicine 2012-13 Annual Report
Dean loves the Black Sheep Inn — legendary live music venue in Wakefield, Quebec. He lives and breathes music. He and his wife head up to the Black Sheep at least once a month, sometimes more because for them, there is nothing better than seeing early musical talent.
Because of his extensive and productive collaboration with local, national, and international colleagues as a methodologist and clinical trialist Dean played a major role in the development of the Ottawa Methods Centre. Established in 2006, this world-class facility provides advice and assistance on study design, database development, statistical analysis and more. With the aim of enhancing research and bringing together talented people, the Ottawa Methods Centre has proven effective. Pre-Centre, clinical researchers pulled in between 7 to 8 million dollars in research funding per year. Today, post-Centre, that number is closer to 20 million. Part of that success comes from Dean's integrated philosophy that the centre must be open to all regardless of their financial resources. "I don't think somebody showing up at our door needs to have money in order to access the Methods Centre. As the first conversation, it shouldn't be about cost recovery and the ability to generate revenue. It stifles great ideas and people's enthusiasm to do research." He has stuck to that philosophy with the belief that if you are open to all you are enhancing and enabling a heck of a lot more research that will pay off in terms of more grants, larger grants, and industry partnerships.

"The compliment I get from people is 'I wish we had what the Ottawa research community has.' I think we've been at the forefront of how clinical research should be conducted," he says and comments on Ottawa's unique supportive environment, "It's not just the excellence and attitude in the Department of Medicine or OHRI or CEP, it's all of us together, pulling in the same direction. There is nowhere else in Canada that has what we have — it's absolutely phenomenal."

The term phenomenal could also be used to describe Dean's own research accomplishments. The results of his BART trial were published in the New England Journal of Medicine in 2008, and changed the worldwide practice of blood loss management in cardiac surgery. His recently concluded ARIPI trial, which studied the clinical effects of stored red blood cell transfusions, will likely have international implications on the procurement of donated blood. As well, his ongoing ABLE study, regardless of its conclusion, will result in a major change or affirmation of clinical practice, health policy and management of blood supply. The study compares standard issue red cells to red cells stored less than 7 days to determine whether storage time will decrease 90-day mortality.

It’s not just the excellence and attitude in the Department of Medicine or OHRI or CEP, it’s all of us together, pulling in the same direction. There is nowhere else in Canada that has what we have — it’s absolutely phenomenal.
“If we are to improve outcomes in critically ill patients, we need to address this fundamental and, as of 2013, unanswered question.” Over his research career he has secured over $69 million in peer-reviewed research monies including over $27 million as a principal investigator – he’s clearly doing something right!

Aside from practice-changing transfusion research, Dean’s work evaluating the association between serotonin reuptake inhibitors (SSRIs) and attempted suicide was published in the British Medical Journal and received worldwide attention. "Results of our study guided the Food and Drug Administration in the US to expand a black-box warning to not just children and adolescents, but adults as well.” More importantly, Dean’s work spawned worldwide debate on the need for large, definitive trials in psychiatry with clinically meaningful outcomes.

When he isn’t mentoring or conducting research of his own, Dean can often be found at the Black Sheep Inn in Wakefield, Quebec. Describing himself as a man who “live(s) and breathe(s) music”, Dean and his wife, Natalie, will take any opportunity to visit their favourite spot over the bridge. While it ranks as their #1 weekend activity he admits that he’s been there on weeknights as well, though he still manages to get up early and go the gym…most days.

Besides music, Dean is a big soccer fan and confirmed – on tape – that he is a long-time Habs devotee. Otherwise, the best part of the day, for Dean, is the evening; he can take a walk with his wife and his chocolate lab and relax after a hectic day. On the weekend, he sheepishly admits to a love of gardening, another favourite pastime he inherited from his family.

These days, Dean’s office is a little bigger than it was back in 1998 but he is still the same friendly, outgoing, down to earth person who would still wear jeans and a t-shirt to work every day if he could.
Up Close and Personal

TS  What one invention would most improve your life?
DF  Automated email response with artificial intelligence software.

TS  What was your favourite toy/game as a child, and why?
DF  I was a huge Lego fanatic. Just do whatever you want. It’s not like today where you get a kit and you have to build something — you had to use your imagination.

TS  Name a favourite movie, sports hero, band, or individual musician.
DF  There are 2 bands that do it for me; Tom Wilson fronts one, he’s got a band called Lee Harvey Osmand. So, I don’t know if you remember a band called Junkhouse, he was in that. Tom Wilson is one of Canada’s most incredible singers and songwriters. He’s on a level of Leonard Cohen and Gordon Lightfoot. And the other is the Skydiggers.

TS  If you could trade places with anyone in the world for one day, who would it be? Why?
DF  It would probably have to be a sports figure. Either someone from the Montreal Canadians or Liverpool, I’m a big Liverpool fan, a football club fan. So, the ability to either coach or play, for 1 day…that would be kinda cool.

TS  If you could take a trip anywhere for 30 days with money not being a consideration, where would you go and what would you do?
DF  Fly fishing in the B.C. interior.

TS  What’s the one thing about you few people know?
DF  Ahhhh, oh boy [funny look on his face]…. Well I love to garden. My mom was a gardener. A couple of my uncles were gardeners. I mean, like, real gardeners.
PATIENT QUALITY & SAFETY

High achievement always takes place in the framework of high expectation.

— Charles Kettering
Patient quality and safety is one of the four priorities of the Department of Medicine. In 2010 the Department of Medicine created a patient safety and quality committee to support this initiative. The committee, which has representation from all divisions, has worked hard over the last year, with a focus on improving the quality of care delivered to patients at The Ottawa Hospital.

Current projects include:

1. **Morbidity and Mortality Rounds:** Improvement in the quality of care of patients is an on-going process. The committee recognizes the importance of reviewing patient care in order to optimize health care delivery. This past year each member of the Patient Quality and Safety (PQ&S) committee was asked to establish (or in some instances enhance) regular morbidity and mortality (M&M) rounds in their respective divisions. Any significant issues of concern identified at M&M rounds are reviewed at the PQ&S committee meetings. In this manner any systemic issues (e.g. establishment of code status on admission) can be discussed with the ultimate goal of developing global solutions across all divisions.

2. **Referral Process:** In 2012, the committee identified the need for a standardized approach to new patient referrals for outpatient clinics at The Ottawa Hospital. A questionnaire was distributed to all divisions to identify the strengths and weaknesses of the patient referral process. There was a terrific response with all divisions providing feedback on their referral process. Based on this information, we are now in the process of developing a template for outpatient referrals which will be web based and accessible on
our website at www.thinkottawamedicine.ca. The ultimate goal is to provide consistent and timely access for all our ambulatory care patients at The Ottawa Hospital.

3. **Hand-over tool**: The development of a hand-over tool for physicians was identified in 2011 as an important patient safety and quality initiative. The introduction of modified work hours for residents raised significant concerns among committee members about the safe and timely transfer of patient information, between physicians, during the evening and weekend call periods. The Ottawa Hospital has now recognized the importance of this initiative and a committee (with representation from staff, residents and IT) has been meeting on a regular basis over the last several months. A number of computer-based models have been reviewed with a goal to launch a prototype in the first quarter of 2014.

**GRANT COMPETITION**

In 2012, the Department of Medicine held the 1st Patient Quality and Safety grant competition and awarded approximately $125,000 to 6 successful applicants. Grant recipients presented the results of their projects at Medicine Grand Rounds in the spring and fall of 2013. This year (May 2013) the committee took a different approach by asking all divisions to submit one project with the proviso that the respective divisions would provide matching funds (up to a maximum of $20,000 per project) to those made available by the Department of Medicine. This approach was met with enthusiasm across the board; we awarded $140,908.65 in Departmental funding. We look forward to hearing about these projects in the coming year.
EDUCATION

We have a dedicated group of individuals in our patient quality and safety committee. This year several members will be taking part in educational opportunities to further enhance their skills.

**Dr. Ed Fitzgibbon** is currently registered for the Improving Quality and Patient Safety: The Physician Leadership Program. Past members who have also completed this program are **Drs. Delvina Hasimja, Jennifer Beecker** and **Janine Malcolm. Dr. Nahid Azad** attended the Patient Safety Education Program (PSEP-Canada) as well as the 2013 TOH conference on Risk Management.

The Department of Medicine is dedicated to ensuring the best quality of care for our patients. The PQ&S committee will continue to work over the coming year to ensure our patients receive the best and safest care possible.

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**Susan F. Dent** MD FRCPC
Vice-Chair, Patient Quality and Safety
AN INTERVIEW WITH
DR. CARL VAN WALRAVEN
MD, FRCPC, MSc

While still in medical school, Carl van Walraven bought himself a doctor’s bag. It was the classic kind, flat-bottomed with rounded sides, a collapsible metal frame mouth that springs open for easy access. As per tradition, the bag was supposed to be monogrammed with the owner’s three initials. Oddly, the initials on Carl’s bag read G.U.Y. When asked if he bought the bag from someone else he replied, “No. I’m a guy, and so I picked that.”

This is just one example of the quirkiness Carl possesses — you know the kind of quirkiness that only comes from brilliance. Picture a man who wanted to be a doctor from an early age, not for the usual reasons, but because “the doctor in our town didn’t have to go to church”, a man who has a broad and deep knowledge of many topics, is smart, really smart, we’re talking Sheldon Cooper smart. A man who has laser focus when solving complex problems and derives incredible pleasure from it. And then on top of that imagine his sense of humour is as quick as Billy The Kid and as dry as the Sahara. This, in a nutshell, is Dr. Carl van Walraven.

Don’t be misled though: when it comes to the business of doctoring Carl never jokes around. He is incredibly dedicated and devoted to his patients and is described by many as ‘a doctor that always makes the right decisions for all the right reasons’. He tells his patients to call him Dr. Van and personally hands each one of them his card—almost unheard of these days—so they can contact him directly with questions or emergencies. He does this he says because it’s the right thing to do. “Patients see so many doctors when they are in hospital they can’t keep track. It’s peace of mind for them to know who to call if they need help.” In clinic, he
Carl's favourite time of day is morning because it's quiet. He's often in his office well before the crack of dawn enjoying the uninterrupted silence that comes with being the first one in.
often sees patients with highly complicated ailments, most of them undiagnosed — colleagues describe him as the guy who can figure these things out.

Outside of patient care, the remainder of Carl’s workweek is dedicated to using administrative databases for Health Service research. It’s research that examines how healthcare is actually delivered in our system and figures out ways to make it better. It’s a career choice he made following an interesting fellowship spent in Toronto at the Institute for Clinical Evaluative Sciences (ICES). While there he taught himself to program so as to be capable of solving problems in this highly problem oriented environment. And while he found programming painful at the beginning, once he learned and used the skill it became the most effective way to get things done. “The less you rely on other people, the more productive you can be. If you can do it yourself, you’re a lot more efficient.”

In 2010 Carl helped establish ICES at the University of Ottawa. “I love ICES. I love the idea of being able to answer questions without having to collect data. When you think about a study, all your work, all your time and money is spent on collecting data. So, if you can answer a question without having to, then it’s a lot more efficient.” And shorter. Carl’s record for a study between starting the analysis and finishing the paper is a remarkable single week. “That’s the beauty of these administrative data sets. As long as you are aware of their limitations, you can use them to answer questions that we probably would not have been able to answer previously.” ICES allows researchers to study people before they come in and, more importantly, after they leave the hospital, collecting data on things like time of death, time of re-admission etc. In his opinion ICES has increased the research capability of local researchers. “I think that the research done at ICES has changed how people look at healthcare because our practice atlas, published in ’94 to ’97 made people aware that outcomes could be measured and they quantified healthcare delivery. People started thinking about monitoring these outcomes to figure out if we as a system are going to be better or worse”.

While he says he isn’t that connected to his Dutch culture he does admit to having the Dutch directness, meaning he doesn’t hold back. Recently, Carl told a room full of residents interested in pursuing research careers, “If you want to be a winner, don’t hang out with losers”. This little nugget of advice was the icing on the cake to his talk about successful grant writing. While he himself doesn’t write a lot of grants he was quick to point out the necessity to hitch one’s wagon to the right horse early on. “If you want to be a hard worker, you work with a hard worker. If you want to be a
successful researcher, you hang out with a successful researcher. And down the road you may just get an easier admission into the club simply by association.”

With someone as intellectually gifted as Carl you would think that typically his responses to questions would be deep and meaningful, but this isn’t necessarily the case. At the age of nine, he read *Are you there God? It’s me, Margaret*. Really? Is there an educational and deeply philosophical reason for him reading this famous novel about pre-teen female angst? No. “Our TV broke. Dad didn’t get it fixed for 2 years and so I basically just read, I read anything I could get my hands on”.

Today Carl is still an avid reader, albeit a much different genre. Light reading for him these days include titles such as *The Disappearing Spoon: And Other True Tales of Madness, Love, and the History of the World from the Periodic Table of the Elements*. As for that medical bag, it accompanied him on a recent home visit with an elderly patient. In a world where house calls are a thing of the past, this action is another testament to the devotion ‘Dr. Van’ has to his patients.
Up Close and Personal

TS What one invention would most improve your life?
CV One that answers these types of questions.

TS If you wrote an autobiography, what would be the title?
CV Will There Ever Be A Rainbow?

TS If you could only eat 3 foods, what would they be?
CV Beer, steak, and coffee.

TS If you could trade places with anyone in the world for one day, who would it be? Why?
CV It would be my daughter, so I could figure out how she thinks.

TS If you could trade places with anyone in the Department of Medicine for one day, who would it be? Why?
CV It wouldn't be Al [Dr. Alan Forster] because I hate his clothes. He's a bad dresser.

TS If you could have dinner tonight with a famous person of your choice (dead or alive), who would it be?
CV Jonas Salk, he's the Napoleon of medicine.

TS What actor would play you in a movie about your life?
CV Pierce Brosnan as the younger Carl and Robert De Niro as the older Carl.

TS Name your favourite movie, sports heroes, band, or individual musicians.
CV I love Ella Fitzgerald and my favourite movie is Spinal Tap.
DIVISIONAL REPORTS

Every successful individual knows that his or her achievement depends on a community of persons working together.

— Paul Ryan
DIVISIONAL REPORTS

CARDIOLOGY

66 Faculty Members • 13 Residents • 22 Fellows

Clinical Activities

Clinical Task Force has been established, chaired by Dr. Chris Glover (members include Drs. Rob Beanlands, David Birnie, Lloyd Duchesne, Mike Froeschl, Lyall Higginson and Lisa Mielniczuk). The task force has enhanced patient care on UOHI’s consult services.

Dr. Girish Nair is leading the development of therapeutic arrhythmia ablation in adult congenital heart disease and in epicardial ventricular tachycardia. A Heart Failure Service has been established, led by Dr. Lisa Mielniczuk. The 500th heart transplant was performed at the University of Ottawa Heart Institute in November 2012. Under the direction of Dr. Marino Labinaz, the Interventional Cardiologists have developed three programs for 1) the treatment of chronic total occlusion; 2) severe mitral regurgitation with mitral clipping; and 3) renal sympathetic denervation for refractory hypertension. MRI and CT RFPs have been submitted by Drs. Ben Chow and Sandy Dick, as well as Mary Dalipaj.

In the last year, the Division of Cardiology has recruited Dr. Peter Liu, Imaging; Dr. Girish Nair, Electrophysiology; Dr. Ellie Stadnick, Heart Failure; Dr. Aun-Yeong Chong, Intervention.

Programs Impacting the Community

A Regional Heart Failure Network committee is also being developed under the guidance of Dr. Lisa Mielniczuk and Heather Sherrard. Dr. Andrew Pipe leads the Joint UOHI-Champlain Cardiovascular Disease Prevention Network Family Health Team Leadership Table, with help from Drs. Rob Beanlands, David Birnie, Ben Chow, Lisa Mielniczuk and Girish Nair. Drs. Rob Beanlands, Ben Chow and Ross Davies have served on the Ministry of Health Advisory Panel for Appropriate Use Criteria of Diagnostic Testing. Dr. Kwan Chan and Dr. Antonio Sanfilippo are implementing accreditation in Echocardiography for Ontario. Dr. Lisa Mielniczuk has developed discharge standardization in Heart Failure. Other initiatives helping our region include the Regional Smoking Cessation Program, Healthy Schools 2020 and the Healthy Foods in Champlain Hospitals Program — all led by Dr. Andrew Pipe and his team in Prevention and Rehabilitation. Dr. Andrew Wielgosz is the site PI for the Prospective
Urban Rural Epidemiological Study (PI: S. Yusuf, McMaster), which will enroll 14,000 residents of the Champlain Region over 12 years to measure behavioural, physical and biological variables to better understand the development of cardiovascular outcomes. Dr. Joel Niznick has developed a cardiovascular management website (CV toolbox) which is a resource to educate patients, allied health staff, multidisciplinary care team members, medical students and physicians.

**Programs Impacting Global Health**

Dr. Chris Glover is now collaborating with Qingdao Municipal Hospital in Qingdao, China to establish a new heart institute and improve quality of cardiac care in collaboration with Dr. Marino Labinaz, Dr. Thierry Mesana (Cardiac Surgery) and Heather Sherrard (UOHI). Under the direction of Dr. Andrew Pipe, the Ottawa Model for Smoking Cessation was recently recognized by Accreditation Canada as a Leading Practice, named as a main initiative in the 2013-2018 provincial health plan of New Brunswick, and has been adopted internationally by organizations including National Health Services of England, Colorado Department of Public Health, and the health department (ASSE) of Uruguay.

**Educational Activities**

Dr. Michele Turek participated in and helped organize the 3rd Annual Canadian Cardiac Oncology Network Conference held in Ottawa. Drs. Mike Froeschl and David Birnie organized the Eastern Ontario Cardiovascular Summit — a regional cardiac symposium, June 2013. Dr. Rob Beanlands chaired the Molecular Function and Imaging Symposium, June 2013. Dr. Luc Beauchesne will direct consult service training.

**Research Activities**

Members of the division secured >$3.3 million in new grants for 2012-13 (nine operating grants, five personal support awards, five scholarship/fellowship awards).

Career support grants were awarded to Drs. Rob Beanlands, David Birnie, Michael Gollob and Lisa Mielniczuk.
Led by Dr. Andrew Pipe, Prevention and Rehabilitation holds five grants totaling more than $2.5 million from HSF, MOH, Public Health Association of Canada and Pfizer. (Note: $1.67 million to support Ottawa Model for Smoking Cessation implementation in nine respiratory clinics and nine diabetes education programs in Ontario, New Brunswick and British Columbia.)

**Key Peer Reviewed Grants**

Gollob M (PI). CIHR. Novel Molecular Targets and Mechanisms of Human Atrial Fibrillation (ranked number 1 CIHR CSB, mark 4.6).

Mielniczuk L (PI). HSFO. Right Ventricular substrate metabolism as a predictor of right heart failure in patients with pulmonary arterial hypertension.


DaSilva J. CIHR. Altered Angiotensin II AT1 Receptor in Cardiac and Renal Disease: Translational Development of Novel F-18 Labeled Ligands for PET Imaging.


**Noteworthy Publications**

Drs. Rob Beanlands and Kwan Chan were guest editors of special imaging issue of the Canadian Journal of Cardiology, which included papers by Drs. Ben Chow, Girish Dwivedi, Lisa Mielniczuk, and Terry Ruddy.

Members of the division published over 100 peer-reviewed articles this past year. Key publications include:


Mc Ardle,B.A.; Dowsley,T.F.; Dekemp,R.A.; Wells,G.A.; Beanlands,R.S. Does Rubidium-82 PET Have Superior Accuracy to SPECT Perfusion Imaging for the Diagnosis of Obstructive Coronary Disease?: A Systematic Review and Meta-Analysis. *J Am Coll Cardiol* 2012; 60(18):1828-1837

**Honours and Awards**

**Awards**

- Chief Resident, Dr. Ben Hibbert awarded 2013 Trainee Excellence in Education Award (Canadian Cardiovascular Society).

- University of Ottawa Heart Institute Investigator of the Year Awards to Dr. Ben Chow (Clinical Science) and Jean DaSilva (Basic Science).

- Dr. Michael Froeschl awarded the University of Ottawa Undergraduate Medical Education Communicator Competency Award for 2012.

- Dr. Michael Froeschl awarded The Ottawa Hospital Professionalism Award for 2012, on behalf of the Medical Staff Association.

- Dr. Marino Labinaz awarded the Department of Medicine Vision Award for 2012.

- Dr. Andrew Pipe awarded the Department of Medicine Jeffrey Turnbull Contributions to International Medicine Award for contributions to global health.

- Dr. Michel Le May accepted the Lumen Global Achievement Award on behalf of the Ottawa STEMI Program.

- Dr. Rob Beanlands awarded 2013 Hermann Blumgart Award (Society of Nuclear Medicine).
• Queen's Diamond Jubilee Medal awarded to **Drs. Rob Beanlands, Michael Froeschl, Lyall Higginson and Andy Wielgosz**.

• UOHIAOMO Awards were distributed to **Dr. Luc Beauchesne** (Post Graduate Teaching) and **Dr. Michael Gollob** (Basic Research).

**Leadership**

• **Dr. Marino Labinaz** was named as the Leadership Chair in Interventional Cardiology in 2012.

• **Dr. Chris Glover** named as the Director of Clinical Cardiology.

• **Dr. Ben Chow** named as Director of Cardiac Imaging.

• **Dr. Lisa Mielniczuk** named as the Director of Heart Failure.

• **Dr. Michael Froeschl** named as the Director of the Residency Training Program.

• **Dr. Ross Davies** was appointed Director of CME for the Division of Cardiology.

• **Dr. Nadine Gauthier** named as the Content Expert for the Cardiovascular Block and the Director of Undergraduate Education in Cardiology.

**Other**

• **Dr. Lisa Mielniczuk** was an invited committee member for the Medical Advisory Committee for Pulmonary Hypertension Association of Canada and the Canadian Thoracic Society Pulmonary Vascular Disease Steering committee.

• **Dr. Luc Beauchesne** appointed to CCS Guidelines Committee.


CLINICAL EPIDEMIOLOGY

2 Faculty Members • 4 Fellows • 4 Doctoral Students • 4 Masters Students

Overview

The Division of Clinical Epidemiology is an integral part of enhancing and enabling research excellence in the Department of Medicine. Aside from conducting their own research enterprises, Drs. Dean Fergusson and Jeremy Grimshaw contribute a significant amount of time to the Department’s research activities through collaborations, consultations, mentorship, training, and liaisons with The Ottawa Hospital Research Institute (OHRI) and The Ottawa Hospital. The focus of the Division is conducting practice-changing research that meets high standards in terms of the questions we ask and the methods in which we answer. To further support research, Drs. Grimshaw and Fergusson founded the Ottawa Methods Centre in 2006 to provide dedicated expertise in study design, statistics, data management, and continuing education. The combination of talented clinical researchers and senior methodologists has created a dynamic, multi-talented and productive research environment within the Department of Medicine.

Educational Activities

In addition to a successful and dynamic research agenda, Drs. Grimshaw and Fergusson have been very active in the education, mentoring, and training of University of Ottawa graduate students, residents, and fellows. Dr. Fergusson teaches EPI7113: Advanced Topics in Systematic Reviews and Meta-Analyses. In terms of supervision and mentorship, Dr. Grimshaw currently supervises 4 Masters and 2 PhD students and Dr. Fergusson currently supervises 5 Masters and 2 PhD students. In terms of postgraduate training, he has taken the lead in developing clinical research workshops and lectures for the University of Ottawa Departments of Otolaryngology-Head & Neck Surgery, and Surgery. The series exposes residents to the basics of clinical research including statistics, study design, and ethics. The development of these workshops stemmed from previous lectures and workshops that he has given over the years to Divisions within the Departments of Medicine and Surgery. The series has taught basic clinical research principles to over 300 residents since its inception in 2007. In addition, Dr. Fergusson provides significant methodological and statistical mentorship to academic researchers and clinical investigators at the University of Ottawa and The Ottawa Hospital.

Contributions to Administration

Drs. Grimshaw and Fergusson have been very active in the education, mentoring, and training of University of Ottawa graduate students, residents, and fellows. Dr. Fergusson teaches EPI7113: Advanced Topics in Systematic Reviews and Meta-Analyses. In terms of supervision and mentorship, Dr. Grimshaw currently supervises 4 Masters and 2 PhD students and Dr. Fergusson currently supervises 5 Masters and 2 PhD students. In terms of postgraduate training, he has taken the lead in developing clinical research workshops and lectures for the University of Ottawa Departments of Otolaryngology-Head & Neck Surgery, and Surgery. The series exposes residents to the basics of clinical research including statistics, study design, and ethics. The development of these workshops stemmed from previous lectures and workshops that he has given over the years to Divisions within the Departments of Medicine and Surgery. The series has taught basic clinical research principles to over 300 residents since its inception in 2007. In addition, Dr. Fergusson provides significant methodological and statistical mentorship to academic researchers and clinical investigators at the University of Ottawa and The Ottawa Hospital.

Contributions to Administration

Dr. Fergusson is the Director of the OHRI Clinical Epidemiology Program. He provides institutional oversight and stewardship for over 50 Scientists, 300 Clinical Investigators, and staff and providing a robust, supportive, and dynamic environment for them to conduct their research.
Research Activities

Dr. Jeremy Grimshaw leads the internationally renowned Knowledge Translation group. They are recognized as a world leader in implementation science, patient-decision aids and patient/provider decision-making. Key entities within the KT program are KT Canada, Patient-Decision Aids Research Centre, the Canadian Cochrane Network and Centre, four Cochrane entities, and the Knowledge to Action Research Program. Dr. Grimshaw continues to garner international acknowledgment for the training of local, provincial, national and international stakeholders in knowledge translation and implementation science.

Dr. Fergusson is an active member and former Director of The University of Ottawa Centre for Transfusion Research. The UOCTR is a well-established research group with an international reputation for producing high quality evidence in transfusion medicine and organ transplantation. The research of the UOCTR is recognized and supported within The Ottawa Hospital Research Institute and The Ottawa Hospital strategic priorities. Dr. Fergusson has designed and conducted practice-changing trials including BART assessing antifibrinolytics in cardiac surgery, and the ABLE, ABC & ARIPI studies assessing age of stored blood in adult, paediatric, and neonatal critical care respectively. In 2012-2013, Dr. Fergusson collaborated on the design and conduct of clinical trials in the Divisions of Critical Care, Infectious Diseases, Nephrology, Medical Oncology, and Respiratory.

Key Peer-Reviewed Grants

Dr. Grimshaw holds $5.2 million as PI (predominantly CIHR — including KT Canada and Cochrane Canada), $2.17 million as co-I (predominantly CIHR funding), and $378 thousand contract funding (MOHLTC and CADTH). Recent grants include a CIHR funded study exploring innovative analytical and procedural approaches to improving the informativeness of systematic reviews of complex interventions. Dr. Fergusson was a principal investigator on 4 grants and co-investigator on 17 grants awarded in 2012-13.

Key Publications

99 manuscripts were published by the Division of Clinical Epidemiology in 2012-2013. Key high-impact publications include the following:


McIntyre LA, Tinmouth A, Fergusson DA. Intravenous iron therapy for treatment of anaemia. *BMJ* 2013; 347:f5378


Weir MC, Grimshaw JM, Mayhew A, Fergusson DA. Decisions about lumping vs. splitting of the scope of systematic reviews of complex interventions are not well justified: A case study in systematic reviews of health care professional reminders. J Clin Epidemiol 2012; 65(7):756-763


Guideline Development and Dissemination

Dr. Grimshaw co-authored a background paper to inform the Institute of Medicine Panel on Clinical Practice Guidelines We Can Trust that was published as a series of three papers in Implementation Science:


Dr. Grimshaw is also an active member of the AGREE Collaboration and a co-Investigator on a CIHR funded grant to further develop the AGREE Instrument (the current gold standard for appraising clinical practice guidelines).
CRITICAL CARE

15 Full-Time Faculty Members • 9 Residents • 3 Postgraduate Fellows

Clinical Activities

Critical Care delivered clinical care to over 1000 critically ill patients at both the Civic and General Campus Intensive Care Units (ICU) in 2012. Critical Care also maintained a strong presence in managing acute in-patient emergencies with the Rapid Assessment of Critical Events (RACE) team, present at both the General and Civic sites. The RACE team provided assistance for over 1200 patients at both sites combined, and follow-up for over 1700 in-patients. Critical Care continued its expansion of care for acutely ill patients in the Neuroscience Acute Care Unit, in direct collaboration with the Division of Neurology and Division of Neurosurgery. The NACU provided care for over 1000 patients.

Programs that have had an impact on the community

Critical Care believes the REACHout initiative (below) will have portability and applicability to all institutions wishing to institute system-level change to clinical care for critically ill patients.

Educational Activities

The following represents some of the Critical Care-led innovations in medical education for 2012-2013:

REACHout: A collaborative project and feasibility study to improve the care of critically ill patients of the Champlain LHIN — Implementation Phase

Delivery of optimal care for critically ill patients requires a well-coordinated system of infrastructure, policies, and clinical tools to support care teams and individuals. As part of a system level intervention, a needs assessment and gap analysis of the current practices at Cornwall Community Hospital (CCH) and of the collaborative processes between CCH and The Ottawa Hospital (TOH) was completed in 2011-2012. The Development/Deployment phase is now underway. This development includes complex interventions to improve patient care, safety, and collaboration. This will include education, tool development, and system changes based on the findings of the needs assessment, and target health practitioners, teams, organizations, and inter-site collaboration. It involves an exploratory trial based on the MRC framework for complex intervention examining the long-term outcome of increased capacity for care for critically ill patients. The REACHout initiative represents a system-level tool for knowledge translation that potentially will bridge medical education to effect change in clinical care.
Royal College of Physicians and Surgeons of Canada Simulation Instructor Training (SET) Course

Advances in technology and a growing body of evidence showing the effectiveness of simulation has encouraged educators to incorporate a wide variety of simulation modalities within existing and new curricula. Simulation educator training is variable across Canada, but currently there is no standard at the national level for simulation educator training and competency. In response to this identified need, the RCPSC assembled a task force of simulation experts to plan and develop a National Simulation Educator Training (SET) Course. Both Drs. Cardinal and Kim were selected as leads to develop the RC SET course.

In 2012, work on this national training course focused on the core competencies related to designing, implementing and conducting simulation-based learning and education sessions. The first pilot RC SET course was delivered in January 2013 in Ottawa. Subsequent SET courses have now been delivered in Manitoba, with plans to disseminate to academic centers in Canada, and internationally.

Research Activities

Critical Care continues to maintain a successful translational research program. 270 patients were enrolled in randomized clinical trials. From a faculty perspective, eleven Principal Investigator research grants and twenty co-Investigator grants were awarded in 2012, totally over 2.5 million dollars.

Key Peer Reviewed Grants

Hébert P (PI), McIntyre L (co-PI). CIHR. Age of Blood in the Resuscitation of Critically Ill Patients (ABLE Trial).

Seely A (PI), McIntyre L (co-PI). CIHR. Weaning and Availability Evaluation (WAVE) a multicenter evaluation of altered heart rate and respiratory rate variability to predict extubation failure.

McIntyre L (co-I). CIHR. Early determination of long-term Prognosis in critically ill patients with Severe Traumatic Brain Injury (TBI-Prognosis multicenter prospective study).

McIntyre L (co-I). CIHR. Heparin Anticoagulation to Improve Outcomes in Septic Shock: The HALO Pilot.

Noteworthy Publications

A total of 34 peer-reviewed publications were authored by Critical Care faculty in 2012. Highlighted publications include:


Arntfield RT, Millington SJ. Point of care cardiac ultrasound applications in the emergency department and intensive care unit — a review. *Curr Cardiol Rev* 2012; 8(2):98-108


**Honours and Awards**

- **Dr. John Kim** was promoted to Associate Professor.
- **Drs. Hilary Meggison, Redouane Bouali, Joseph Po, Michael Hartwick** and **Erin Rosenberg** were awarded the TOH Angel awards for 2012, in recognition of their exemplary roles as advocates for patient care at The Ottawa Hospital.
- **Dr. Joseph Po** received a NTM-A (NATO Training Mission — Afghanistan) Commendation
- **Dr. Aimee Sarti** (Critical Care Fellow) was the 2012 winner of the Critical Care Rick Hodder Scholarship Award and the Department of Medicine Resident Award for Excellence in Medical Education Scholarship.
DERMATOLOGY

20 Faculty Members • 14 Residents • 1 Fellow

Dermatology has been a Division within the Department of Medicine at both the Civic and General Hospitals since the 1960s. Since amalgamation to form The Ottawa Hospital in 1998, Dermatology has been an active Division at both the General and Civic campuses, providing mainly ambulatory care, inpatient and emergency consultation services. The Division manages approximately 16,050 outpatient visits annually and performs an estimated 400 in-patient consultations. In addition we see close to 3000 patients at the Children’s Hospital of Eastern Ontario and additional patients at Elizabeth Bruyère and St. Vincent’s.

Dr. Kenneth Kobayashi is our new Division Chief as of mid-August 2013 and is filling the big shoes of Dr. James Walker who has stepped down after fulfilling two terms as Division Chief for the past ten years. Dr. Walker will remain on board as FTA and continue to spearhead the fundraising for the new Dermatology Centre of Excellence (see below). The Division is grateful for all of the initiatives and leadership that Dr. Walker provided during these years of evolution to bring the Division to its present point, and we wholeheartedly thank Dr. Walker for this.

Clinical Activities (New or Developing)

A general dermatology clinic at the Civic Campus is now being run by Dr. Jennifer Lipson and Dr. Lauren LaBerge on Wednesdays with a great variety of patients, and thus provides a broad educational experience for our Residents and Medical Students.

Dr. Carly Kirshen has graduated from her dermatology residency. Apart from working in her office at 1081 Carling Ave and staffing a remote clinic in Kempville she is also engaged in teaching activities and on-call coverage in the Division.

Educational Activities

Our Residency Training Program remains the gem of our Division. We have successfully trained over 80 dermatologists since the inception of this program in 1967. This program has always been fully accredited by the Royal College of Physicians and Surgeons. Our Program Director for the academic year of 2012/13 was Dr. Simone Fahim. We provide a full spectrum of clinical and academic opportunities for our trainees. Our clinics include adult general and paediatric dermatology, as well as specialty clinics for cancer, contact dermatitis, psoriasis, Mohs surgery, melanoma-pigmented lesions, leg ulcers and systemic therapy of skin diseases. In addition our residents attend clinics in Iqaluit with Dr. Jacqueline Shukle, and are supported for numerous electives around the world. We provide strong one-on-one mentorship for all our residents. In addition we provide classroom and clinical teaching for medical students and residents from other specialties.
We have had 2 recent Fellows, Drs. Zaki Taher (2011-2012) and Roni Munk (2012-2013), in the Cutaneous Laser Surgery and Cosmetic Dermatology fellowship program. This program is offered at Laserderm under the Directorship of Dr. Sharyn Laughlin.

Research Activities

**Dr. Jennifer Beecker:** (1) Patient Quality and Safety - studying the process of dermatopathology reporting at TOH compared to Canada and the U.S.; (2) melanoma and pigmented lesions, with (a) a meta-analysis of melanoma and indoor tanning; (b) studying the effect of a Pigmented Lesion and Melanoma Clinic on the quality of life of patients; and (c) the studying the effectiveness of a Pigmented Lesion and Melanoma Clinic when teaching dermoscopy to residents; and (3) pain management by dermatologists in Canada (“Gaps in Pain Management in Dermatology” project).

**Drs. Louis Weatherhead, Caroline Heughan, Jennifer McIssac** and **Chloe Ward:** Research project (funding: Dept Medicine Quality and Safety Ctte) on “The Rate of False Positive sentinel Nodes in patients with Metastatic Melanoma”.

**Dr. Steven Glassman:** (1) Adipocytes, aldosterone and vascular function in hypertension (Principal Investigator: R Touyz. Dept of Medicine Grant); (2) Subclinical cardiovascular dysfunction in psoriatic arthritis (Principal Investigator: B Chow. Heart Institute Funding); and (3) PSOLAR registry study (Psoriasis and ustekinumab - Janssen-Ortho).

**Dr. Melanie Pratt, Division Director of Research:** (1) Collaborating with the North American Contact Dermatitis Research Group, on several projects including: Occupational Contact Dermatitis in Hairdressers; Effects of Immunomodulatory agents on Patch Testing; Occupational Contact dermatitis in food service workers; Patch Test Reactions associated with Sunscreen Products; An Update of Steroid Allergy over 10 years from 2002-2012; (2) ongoing study with Drs. Peter Hull (U Sask) and **Alexandra Kuritsky** “Filaggrin Mutation and Cell Mediated allergic Contact Dermatitis/polysensitization Study”(Canadian Dermatology Foundation and Astellas Pharma); (3) creation of a Database to capture Data on Biologic and Systemic Therapies for severe inflammatory and immunologic skin diseases; and (4) Project on the ”Historical Review of Patch Testing over the past 2 centuries: From Theory to Therapy” — a component of the “Great Innovations of Dermatology Program” – World Congress of Dermatology 2015, Vancouver (Dr. Brandon Worley co author)

Noteworthy Publications

Members of the Division published 19 peer-reviewed articles this past year including the following:


Honours and Awards

Dr. Harvey Finkelstein represented our Division as Royal College Examiner in Dermatology in 2012.

Guardian Angel honour roll for 2013 included Dr. Julie Lacroix (resident).

Dr. Jillian Macdonald was named a Guardian Angel for the second time.

The Future

We are focusing on malignant dermatologic disorders since the prevalence of skin cancers is increasing and the cure rate for malignant melanoma is directly related to early recognition and appropriate treatment. Inflammatory conditions, such as severe psoriasis and complex eczematous disorders, and chronic wounds are very disruptive to individuals’ quality of life and will also be a priority for the Division. These cancerous, inflammatory and ulcerative conditions can be managed more optimally, given a better practice environment. To effectively address these challenges, we will soon open a Dermatology Centre (The Centre) within The Ottawa Hospital. The Centre will be located on the fourth floor in the Parkdale Clinic building at the Civic campus, where our phototherapy units and new Mohs surgery suites are currently located. The Centre will be in alignment with The Ottawa Hospital priorities: cancer, minimally invasive care, tertiary care, and chronic disease management.

The Centre will allow us to effectively manage the challenges above and to further grow academic dermatology in Ottawa.

Existing services will be upgraded. This will include a larger capacity for Mohs micrographic cancer surgery, phototherapy, contact dermatology, the melanoma-pigmented lesion clinic, cutaneous ulcer service, and general dermatology.

New elements and services will be added. This will include a Melanoma rapid diagnosis and management clinic, Solid Organ Transplant clinic, Teledermatology services and a Biologics treatment clinic for severe skin diseases.
Translational clinical research will be nurtured and expanded and a clinical trials unit will be added. We hope that, ultimately, the progressive introduction of a basic sciences research program in dermatology will also support this clinical research.

An education centre will promote the transfer of knowledge and skills relevant to dermatology for dermatologists in practice, our residents, medical students, and the general public.

Our comprehensive plan will enable a reduction in hospitalization for severe skin diseases and malignancies through the provision of comprehensive outpatient care, and earlier diagnosis of malignant melanoma at a curable stage.

The Division members and staff at all levels are excited and all are fully engaged and ready for the challenge of having a world class Dermatology Centre. We eagerly await the impressive positive impact it will have on our patients’ care.

**ENDOCRINOLOGY & METABOLISM**

20 Faculty Members • 4 Residents • 1 Fellow

**Clinical Activities**

The Division of Endocrinology and Metabolism provides 20,000 outpatient visits per year at the Foustanellas Diabetes and Endocrine Centre at the Riverside Campus and inpatient consultation services at both the General and Civic Campuses. In addition to this, we provide multidisciplinary clinics in pituitary disorders (Civic Campus), cystic fibrosis-related diabetes (General Campus) and Obstetric Medicine (General Campus).

**Improved Foot Ulcer Risk Screening**

The Division of Endocrinology and Metabolism is committed to improving the quality of care that we provide. This year, under the leadership of Dr. Janine Malcolm, our focus was on improving the identification of individuals with diabetes at high risk for foot ulcers. Foot ulcer risk assessment and stratification, referral processes, documentation and patient education were standardized and implemented at 15 weekly diabetes clinics attended by 11 Endocrinologists, medical residents and 9 nurses over an 8-month period. Quality improvement strategies including chart audits, learning sessions, current and future state mapping, and stakeholder surveys, enabled an understanding of practice variations, user needs and concerns, and environmental factors impacting care. Evidence based clinical protocols and resources were developed, tested and adjusted through a series of rapid change cycles. Performance expectations and targets were developed and shared. Progress was measured and communicated weekly.
Since the implementation of the process, the rate of newly referred patients receiving a standardized foot exam and risk assessment has increased from 48% to over 90%. Patients are informed of their risk, educated, referred if required, and charts are flagged for follow-up. Patients and practitioners are highly satisfied with the practice changes.

The foot care screening process piloted at The Ottawa Hospital (TOH) is now being disseminated across the Champlain LHIN. Over 70 Diabetes Nurse Educators have been educated on the tool with plans to roll it out to primary care providers in the fall.

Phase 2, improving the management of foot ulcers for patients with diabetes, is now in progress.

Funding for this project was provided by a Department of Medicine Patient Quality and Safety Award.

**Dissemination of Tools for Inpatient Management of Diabetes**

Over the last 5 years, improved diabetes care has been part of TOH quality plan. Members of the division have led many initiatives, including the now widely used preprinted insulin order sheet. We have shared our tools and lessons learned with national and regional partners through workshops and presentations. The newly established Champlain LHIN Hospitals Diabetes Network will facilitate collaboration across institutions.

**eConsultation Continues to Grow**

Under the leadership of Dr. Erin Keely, Dr. Clare Liddy (Dept of Family Medicine) and Amir Afkham (Champlain LHIN), the Champlain eConsultation service continues to grow. As of June 30, 2013, ~ 20% of LHIN’s primary care physicians from 50 different clinics had submitted over 1250 eConsultations to 26 specialty services. 12% of these were directed to Endocrinology and Metabolism. The specialist provided an answer without requesting further information in 89% of cases with > 90% of cases taking < 15 minutes for the specialist to complete. Seventy-five percent of cases were answered in <3 days. The service was perceived as highly beneficial to providers and patients in > 90% of cases. In 40% of submitted cases, a traditional referral originally contemplated by the primary care provider was ultimately avoided. Through funding from eHealth Ontario, the Champlain LHIN and the Department of Medicine, we are able to continue to sustain and evaluate this service.

We are now working towards an eReferral service, in which all consults will come through electronically. This will improve efficiencies and allow triage to eConsultation when appropriate, avoiding face-to-face referrals when not necessary. The workflow analyses and templates are completed, and we will be going “live” with this service in the fall.
Educational Activities

The Division of Endocrinology and Metabolism provides education across the spectrum of undergraduate, postgraduate and continuing professional development.

We have a fully accredited Endocrinology and Metabolism training program led by Dr. Janine Malcolm. There are currently 5 trainees. Innovations this year include the establishment of an “Endo Resident” clinic. This clinic, occurring monthly, was developed with the primary objective to allow trainees the time and opportunity to develop and refine their consultancy skills and explore in depth the pathophysiology of endocrine and metabolic disorders. Cases are carefully selected to meet educational objectives. Each trainee is assigned to see one patient and then attend a post-clinic conference, where the trainee presents a detailed discussion of their cases to the attending physician and other trainees.

Over the past year, with strategic planning in collaboration with The Ottawa Hospital Bariatric Centre of Excellence, our Division is pleased to introduce a new Bariatric Medicine Fellowship Training Program. This fellowship is open to physicians certified in Family Medicine or Internal Medicine (with or without sub-specialty training) who wish to receive advanced training in Bariatric Medicine. Optional streams include that of clinician, educator, and researcher. Our first fellow will begin in the fall of 2013. This initiative has been supported by the Department of Medicine and a Fellowship Award from Nestle Health Science.

The 8th Annual Endocrine and Diabetes CME for primary care doctors was another success with attendance by 128 physicians, and 14 healthcare professionals. This year the focus was on common endocrine and metabolic problems faced by primary care physicians in their day-to-day practice.

Our members continue to hold major leadership roles within the Department of Medicine Education portfolio. Dr. Heather Lochnan is the Director of Continuing Professional Education and Dr. Erin Keely is Vice-Chair, Education. Dr. Amel Arnaout is replacing Dr. Heather Lochnan as the Content Expert for the Endocrinology Block in the second year of the undergraduate program.

Research Activities

We are linked to the Chronic Disease Program of The Ottawa Hospital Research Institute (OHRI) led by Dr. Alexander Sorisky, and we contribute to the vascular health priority of the OHRI and the Department of Medicine.

Over the past year, we have been active in our role as a specialty site within the JDRF Canadian Clinical Trial Network for type 1 diabetes research. We have been actively recruiting for two trials are now underway in Ottawa. One trial examines the potential role of metformin in older patients with type 1 diabetes to prevent vascular disease.
The other trial aims to find the best way to ensure optimal care for patients with type 1 diabetes as they transition from pediatric to adult care, and is being carried out in collaboration with CHEO. Our research retreat, held May 2013, for our faculty and residents was a great success. Dr. Mark Walker, Chair of the Department of Obstetrics and Gynecology was our invited speaker and reviewed research findings on how obesity is altering obstetric medicine.

Our Annual Visiting Professor Day was held 16 April 2013. Dr. Lynne Barbour, from the University of Colorado, is an expert in endocrine and metabolic complications of pregnancy. She presented at the Department of Medicine Grand Rounds, discussed challenging case presentations with Division members and trainees, and presented a research seminar on obesity and maternal-fetal medicine.

In conjunction with a divisional initiative in metabolic dysfunction related to chronic hepatitis C infection, a Lipid Symposium was held in September 2012, concentrated on triglyceride-rich lipoproteins and their role in HCV replication and clearance. The agenda and impressive invited faculty, organized by Dr. T.C. Ooi, included speakers from several cities in Canada, as well as from the United States and Taiwan.

Members of The Division of Endocrinology and Metabolism had $2,104,939 in grants for 2012-2013.

Key Peer Reviewed Grants


Ooi TC. Heart & Stroke Foundation. Effect of loss-of-function PCSK9 variants on postprandial lipemia

Scott F. CIHR. Antimicrobial peptides and M2 macrophages as new targets for intervention in type 1 diabetes

Sorisky A. Heart & Stroke Foundation. MAPping adipose tissue malfunction in obesity: macrophages, adipose cells and PDGF

Zha, X. Heart & Stroke Foundation Grant-in-Aid. Cholesterol Cycling as a Metabolic Sensor to Regulate Lipogenesis in Mammalian Cells
Noteworthy Publications

Members of the Division of Endocrinology and Metabolism published 56 articles this past year. Key publications include:

**Dent R**, Gervais A. Five things to know about weight gain induced by psychotropic agents. *CMAJ* 2013; **185**(10):898


Molgat ASD, Gagnon A, Foster C, **Sorisky A**. The activation state of macrophages alters their ability to suppress preadipocyte apoptosis. *J Endocrinol* 2012; **214**: 21-29

Ma, L, Dong F, Zaid M, Kumar A, **Zha X**. ABCA1 enhances TLR4-stimulated IL-10 secretion through PKA activation. *J Biol Chem* 2012; **287**(48):386-97

Honours and Awards

- **Dr. Teik Chye Ooi**: Recipient of the Physician Scientist Award for 2013 from the Canadian Lipoprotein Conference.

- **Dr. Mary-Anne Doyle**: Awarded a CTN Postdoctoral Fellowship Award for the 2013/2014 fellowship year from the CIHR Canadian HIV Trials Network’s (CTN’s) Postdoctoral Fellowship Adjudication Committee. (supervisor-Dr. Curtis Cooper, Div of Infectious Diseases).
GASTROENTEROLOGY

9 Faculty • 6 Residents • 1 Fellow

The Division of Gastroenterology is undergoing significant change. Challenges at the hospital level, with respect to endoscopy time, have led to reorganizations of programs. There is now an increased emphasis on determining efficiency of endoscopy. The hospital has, however, committed to building a new endoscopy unit at the Civic campus in the next 2 years. There is an opportunity for significant reorganization with this and the division looks forward to being involved in the planning. In the past year, two staff physicians have retired, Dr. Ramzi Abunassar and Dr. Claude Massicotte, and we thank them for their contributions over the years. Dr. Ramy Abaskharoun has transferred to the Queensway Carleton Hospital and we hope to continue our collaborations with him.

Importantly, however, we have recruited new members. Dr. Catherine Dubé and Dr. Alaa Rostom are back from the University of Calgary, where they both have held several academic and administrative roles. Both Dr. Dubé and Rostom trained in Gastroenterology at the University of Ottawa and were staff physicians at TOH for 5 years before moving to the University of Calgary. Dr. Rostom has assumed the role of Chief of the Division of Gastroenterology. Dr. Dubé will continue her focus on Quality Assurance in Endoscopic procedures and will be the Lead for the Ottawa Colon Cancer Screening Program. We have also recruited an excellent young researcher from the University of Toronto, Dr. Sanjay Murthy. Dr. Murthy, a graduate of the University of Ottawa Medical school, completed his Fellowship training in GI in Toronto and has completed a Masters in Epidemiology there. He has published extensively in high impact journals on several aspects of care and clinical research of patients with IBD. He has also acquired extra training in Nutrition and will take over the care of the out-patient TPN program.

Clinical Activities

The Division of Gastroenterology continues as a strong clinical department with highly skilled Therapeutic Endoscopists. Dr. Sylvie Grégoire, Dr. Avi Chatterjee and Dr. Harry Dhaliwal collaborate closely with members of the Department of Surgery in the non-operative management of patients with malignant bowel obstructions. Endoscopic insertion of stents by this team improves the quality of life of many patients and allows for the successful use of other treatment modalities such as radiation or chemotherapy in patients who are not operative candidates. The Therapeutic Endoscopy Team also insert stents in obstructed bile ducts, relieving jaundice and preventing severe infections such as cholangitis. Dr. Chatterjee also collaborates and carries out research projects with the Radiation Oncology Service, inserting Fiducials into the pancreas under Endoscopic Ultrasound guidance. These Fiducials guide directed local radiation of non-operative pancreatic malignancies and this is a promising additional technique for Radiation Oncology therapy.
Dr. Richmond Sy, Dr. Lili Oliveira and Dr. Nav Saloojee continue to care for a large cohort of patients with complicated Inflammatory Bowel Disease (IBD). They have more than 150 patients on Immuno-modulator treatment. Plans are underway to develop a Centre of Excellence in IBD. An IBD clinic, to be held in conjunction with a specialized IBD nurse, Dietician and IBD surgeon is to be rolled out by January 2014. The IBD physicians are also moving their offices to one site at The General Campus. This space will also include offices for their 2 research assistants, The IBD nurse and a Research Fellow. Dr. Manal Bokhary, one of our Gastroenterology Residents, who has completed her GI training, is embarking on a year-long IBD Fellowship here and is involved in several clinical research projects.

Dr. Linda Scully and Dr. Shaw-Stiffel manage patients with advanced Liver Disease. They collaborate with Dr. Cooper, from the Division of Infectious Disease, in the management of patients in the Viral Hepatitis Clinic. In conjunction with the Hepatologists at The University of Toronto and McGill Liver Transplant Programs, more than 200 Ottawa area patients are managed pre and post-liver transplant.

Education

The Division of Gastroenterology continues to have a strong GI Fellowship Program with six GI trainees this year, five of whom are enrolled in the Royal College Fellowship program and one trainee funded through a program from Jamaica. All of our Canadian Fellows passed the Royal College Examinations in Gastroenterology in October 2012. Two Fellows went on to further training in Therapeutic Endoscopy, one here and one in The United States. Of our GI Residents who have just completed their 2 years of training, one (Dr. Ramy Antar) obtained a clinical position in Montreal, Dr. Ahmad Kadhim is embarking on a Motility Fellowship at the University of Toronto and Dr. Erin Kelly won the prestigious CASL (Canadian Association for the study of the Liver) Training Fellowship Award. She is going to spend 18 months at UCSF with Dr. Norah Terrault in a Liver Disease Fellowship. She has also started a Masters in Clinical Trials through the University of London (UK). She will be returning to the University of Ottawa on completion of this training.

Dr. Ralph Lee continues with his Masters in Medical education, through the University of Dundee, Scotland. His thesis proposal was accepted and he is now completing the project. Dr. Lee has been the Chair for the GI Block for the Second Year Medical School teaching and has done an outstanding job revising the curriculum and objectives this year.

Dr. Richmond Sy and Dr. Shaw-Stiffel organized another excellent symposium “Update in Liver and Inflammatory Bowel Disease”. There were more than 100 attendees at this half-day symposium, including Gastroenterologists from Gatineau, Kingston and Montreal.

Dr. Richmond Sy is a Royal College Examiner in Gastroenterology. Dr. Nav Saloojee has been participating in the Distinguished Teacher Program at The University of Ottawa.
Research Activities

Research Rounds, organized by Dr. Chatterjee, continue to be held monthly. The GI staff and residents had 10 oral and/or poster presentations at The Canadian Digestive Disease Week, February 2103, Victoria, BC.

1. Lam, M, Al Hegagi A, Chatterjee A. In-Hospital Proton Pump Inhibitor use and cost analysis-a single centre experience.


3. Dawkins Y, Champion M. Severe perianal disease with no evidence of luminal Crohn's responding to Adalimumab.

4. Kelly E, Cooper C. HCV Antiviral treatment outcomes compared between clinical trial participants and recipients of routine standard of care.

5. Antar R, Cooper C. Does obtaining a liver biopsy predict Hepatitis C antiviral treatment outcomes? A retrospective analysis.

6. Kadhim A, Chatterjee A. FOBT may better predict the presence of left-sided adenomas.

7. Bell C, Avruch L, Chatterjee A. EUS-guided implantation of solid platinum seeds vs gold coil seeds for SBRT.


9. Kelly E, Cooper C. Alanine aminotransferase decline on Hepatitis C virus antiviral therapy has limited utility in predicting treatment response.


Research Projects and Funding

Dr. Richmond Sy is involved in 11 Industry multicentre trials of Immune-modulators in patients with moderate to severe Ulcerative colitis or Crohn's Disease. As well, he has 2 chart review projects: 1) investigating the causes and outcomes of Emergency Room visits for IBD patients and 2) Admission/Readmission review in IBD patients.

Dr. Chatterjee is Chair of the Ottawa Pancreatic Cancer Research Group. He was a recipient, along with Dr. John Bell, of a $50,000 Ontario Institute for Cancer Research Grant to support the EUS FNA Feasibility Trial.
Dr. Chatterjee received a grant of $20,000 from The Department of Medicine Patient Quality and Safety Committee to investigate whether EUS-guided FNA of pancreatic cancers improves patient outcomes. Dr. Chatterjee is also collaborating with Dr. Brent Zanke in a study of the genetics of patients with colorectal cancer, looking at single nucleotide polymorphisms as indicators of colon cancer risk. 241/1000 patients have been recruited and this grant is supporting 50% of Dr. Chatterjee’s Research Co-ordinator’s salary for 2 years.

Honours and Awards

Dr. Erin Kelly, a Resident in Gastroenterology, was awarded one of only 2 Fellowship Training Awards from the Canadian Association for the Study of the Liver. She is going to spend 18 months in Liver Disease training at the University of San Francisco, under the direction of Dr. Norah Terrault.

Dr. Sylvie Grégoire was awarded the “Prix pour la competence communicateur” for her involvement in the French stream GI Block teaching.

GENERAL INTERNAL MEDICINE

31 Faculty Members (3 Clinical Scholars) • 4 Residents (PGY4)

The Division of General Internal Medicine remains active academically and clinically. The division is committed to excellence in clinical care with a focus on patient quality and safety, medical education and health care system performance. General Internal Medicine continues to be at the forefront of systems innovations and patient care initiatives at The Ottawa Hospital.

Clinical Activities

In-Patients — The Division of General Internal Medicine cares for a large volume and proportion of TOH in-patients, mostly in the setting of the Clinical Teaching Units. There are six units, three at each of the Civic and General campuses. These include fourteen monitored (Civic eight and General six beds) and four telemetered beds (Civic). Over six thousand patients were admitted to the CTU's over the past twelve months. Almost all are referred from The Ottawa Hospital Emergency Department (more than 7,000 referrals). There is also a 40-bed non-teaching unit, supervised by attending physicians from the Division and staffed by 4 Physician Assistants. In addition to the in-patient units, General Internal Medicine provides an inpatient consultation service to other departments and divisions, staffed by a designated attending physician and by senior medical residents.
A second consult service for ward-based referrals was piloted in 2013 and will continue into next year. This will allow one team to provide excellent peri-operative care on the wards and one team to dedicate its efforts on patient care and flow in the Emergency Room.

**Out-Patients** — General Internal Medicine out-patient clinics are conducted at two sites, General and Riverside. We see more than 5,000 patients per year in ambulatory care settings. One third of those are new consults. The clinics include a specialized preoperative evaluation assessment unit for patients with known medical illness. These clinics are operated under the guidance of Dr. James Chan and Dr. Krista Wooller. This unit sees approximately 500 consultations per year and operates four days a week. The clinic works closely with the PAU and liaises with our ward based peri-operative consult service. Our Rapid Referral Clinics operate five days a week and decant patients from the CTU’s and the Emergency Room. It also serves as our fellows/longitudinal clinic. This clinic saw approximately 2,000 patients last year. Dr. Heather Clark has been instrumental in maintaining this initiative. As well as General Medical clinics, our medical staff participate in special interest clinics namely Medical Complications of Pregnancy, HIV, Diabetes, Pulmonary Hypertension, Thrombosis and Weight Management.

Our new recruit Dr. Kara Nerenberg has initiated a post partum vascular risk reduction clinic. This is a new clinical initiative that correlates with her research interests.

Divisional members participate in the Champlain LHIN e-consult pilot project. Dr. Alison Dugan acts as the Consultant Internist for Baffin Island and the administrative liaison between The Ottawa Hospital and the Nunavut Specialist Physician Group.

**Administration Roles**

General Internal Medicine members occupy a variety of key leadership roles.

**Dr. Cathy Code** — Secretary Treasurer TOH medical staff.

**Dr. Alan Forster** — Scientific Director of Performance Measurement at the Ottawa Hospital and Medical Director at The Ottawa Hospital Centre for Patient Safety. He is also an Executive in Residence at the Telfer School of Management.

**Dr. Glen Geiger** — Chief Clinical Information Officer, The Ottawa Hospital.

**Dr. Alan Karovitch** — President of the North American Society of Obstetric Medicine and Vice Chair of finance for the Department of Medicine, University of Ottawa.

**Dr. Leanne Reimche** — Senior Clinical Evaluator in Biologic and Genetics Therapy at Health Canada.

**Dr. Jeff Turnbull** — Chief of Staff at The Ottawa Hospital.

**Dr. Carl van Walraven** — Site Director ICES@uOttawa.
Educational Activities

The division of General Internal Medicine remains very active in important educational endeavors. A highlight is this year’s acceptance by the Royal College of Physician and Surgeons of Canada of a two year General Internal Medicine subspecialty training program. Our General Internal Medicine Program Director, Dr. Heather Clark, spearheaded this work at the University of Ottawa with the help of one of our Clinical Scholar Dr. Samantha Halman. We also developed a formal curriculum for bedside teaching and cardiac simulation teaching at the University of Ottawa uOSSC led by Dr. Melissa Rousseau, Dr. Vlad Contreras-Dominguez and Dr. Catherine Gray.

Dr. Craig Campbell: Director of the Office Professional Affairs at the Royal College of Physician and Surgeons of Canada.

Dr. Heather Clark: Division Program Director and Internal Medicine Clerkship Director at the University of Ottawa.

Dr. Cathy Code: Core Internal Medicine Program Director, Department of Medicine, University of Ottawa.

Drs. Vladimir Contreras-Dominguez and Isabelle Desjardins: Associate Directors Medicine Clerkship, University of Ottawa.

Dr. Samantha Halman: Undergraduate endocrinology curriculum (francophone stream) and the undergrad OSCE chief examiner for the francophone stream. University of Ottawa.

Dr. Steve Kravcik: Chair of Faculty Appeals Committee University of Ottawa.

Dr. Jim Nishikawa: Associate Program Director (Core) Internal Medicine Program University of Ottawa and Internal Medicine examiner performance auditor at the Royal College of Physician and Surgeons of Canada.

Dr. Debra Pugh: Director of the Ottawa Exam Centre; Vice Chair of Central Examination Committee, Medical Council of Canada

Dr. Claire Touchie: Chief Medical Education Advisor at the Medical Council of Canada, senior research associate, Academy for Innovation in Medical Education, University of Ottawa.

Dr. Krista Wooller: Director of Link Block at the University of Ottawa.
Research Activities

The division has maintained an internationally recognized active research program.

Areas of interest include patient safety, resource utilization and public policy. This work is facilitated by both The Ottawa Hospital comprehensive Data Warehouse (largely developed by members of General Internal Medicine) and the ICES satellite unit. The physicians primarily involved are well funded by peer-reviewed agencies and have a very impressive publication record.

The division is also active in medical education research. Areas of focus include student and resident assessments, procedure skills and feedback processes.

Key Peer Reviewed Grants

The members of our division have been very successful in obtaining grants for a variety of research endeavors.

Forster A, Van Walraven C. Information systems-enabled outreach program for adverse drug events.

Forster A, Van Walraven C, Wilson K. The use of eTriggers to systematically detect and manage adverse events.

Forster A. The use of e-Triggers to systematically detect, review and analyze in hospital deaths.


Karovitch A. Improving Hand Hygiene compliance using behavioural theories.

Pugh D, Touchie C, Chan J. Can a first impression change within the context of an OSCE station?

Van Walraven C. Improving Patient Safety and Chronic Disease Management with a New Generation of Health Information Technologies.

Van Walraven C. Virtual Ward to Reduce Readmissions after Hospital Discharge.

Wilson K. Emerging team in rare diseases: achieving the “triple aim” for inborn errors of metabolism.

Wilson K. Infant outcomes in the first year of life associated with maternal H1N1 vaccination.
Noteworthy Publications

Members of the Division of Internal Medicine published 79 peer-review articles this past year. Key publications include:

**Campbell C.** The role of ePortfolios in supporting continuing professional development in practice. *Med Teach* 2013; **35**:287–294

**Forster A, Van Walraven C.** Comparing methods to calculate hospital-specific rates of early death or urgent readmission. *CMAJ* 2012; **184**(15):E810-E817


**Touchie C.** Teaching and assessing procedural skills: A qualitative study. *BMC Med Educ* 2013; **13**:69

**Van Walraven C, Forster A.** Urgent readmission rates can be used to infer differences in avoidable readmission rates between hospitals. *J Clin Epidemiol* 2012; **65**: 1124-1130


**Wilson K.** Vaccine and immunization surveillance in Ontario (VISION). Using linked health administrative databases to monitor vaccine safety. *Vaccine* 2012; **30**(43):6115-6120

Quality and Collaboration

General Internal Medicine has been actively involved in many Ottawa Hospital quality projects.

Our Patient Safety and Quality committee is lead by Dr. Delvina Hasimja. Our Division is spearheading a project looking at decreasing foley catheter use and lowering the rate of catheter associated urinary tract infections.

Other highlights include;

- The Ottawa Hospital — Quality Improvement Project. Examining factors of readmission rates in General Internal Medicine.

- Dr. Glen Geiger has spearheaded a care process management project using iPads that will improve the circle of care on General Internal Medicine Clinical Teaching Units. This year the project will involve updating patient status and consult requests communication between General Internal Medicine and the Emergency room using iPads.
• The members of General Internal Medicine were the first physicians to participate in a variety of other pilot projects including e-med reconciliation.

Honours and Awards

• **Dr. Loree Boyle** was awarded the 2013 PAIRO Excellence in Clinical Teaching Award for the University of Ottawa. This award was established in 1982 and is now a well recognized way for residents to acknowledge clinical teachers who have excelled in their role.

• **Dr. Samantha Halman** and **Dr. Melissa Rousseau** are 2013 recipients of the Department of Medicine's Medical Education Research bursary award. The award supports Clinical Scholars in the Department of Medicine who have an academic focus in Medical Education.

• **Dr. Alan Forster** was promoted to Full Professor at the University of Ottawa.

• **Dr. Gianni D’Egidio** completed his Master’s Degree in Human Factor Engineering at the University of Toronto.

• **Dr. Debra Pugh** was awarded her Master’s in Health Promotions Education from the University of Illinois at Chicago. She also won the 2012 award for Educational advancement and innovation in PGME at the University of Ottawa. She received the award for her work in “enhancing the teaching and assessment of procedural skills in Internal Medicine”.

• **Dr. Isabelle Desjardins** was awarded the AIME/uOSSC Fellowship in Medical Education/Simulation for 2013-2014.

• **Dr. Kumanan Wilson** was appointed Senior Scientist in The Ottawa Hospital Research Institute Clinical Epidemiology Program.

• **Dr. Kumanan Wilson** has assumed the newly created Chair of Public Health Policy position. This Chair position is funded by OHRI, The Ottawa Hospital and the Department of Medicine.
GERIATRIC MEDICINE

10 Faculty Members • 2 Residents

Clinical Activities

In 2012-13, the Division of Geriatric Medicine continued to build on three priority areas:

1. The MOVE-ON project (Mobilization Of Vulnerable Elders – ONtario) involves the early mobilization of hospitalized older adults to avoid complications of deconditioning. This project is part of the Senior Friendly Hospital Initiative at The Ottawa Hospital.

2. A delirium program. We are starting with identification, assessment and management of delirium in patients older than 75-years in the post-operative period following a hip fracture.

3. Expansion of the Geriatric Consultation team, in partnership with Geriatric Psychiatry to include Clinical Nurse Specialists in behavior management to develop a Behavior Management and support consultation service for elderly patients. This new service will focus on hospitalized older patients who have agitated behaviors. External funding from the Champlain LHIN made this program possible and was the result of an intense lobbying effort by the Regional Geriatric Program and Geriatric Psychiatry.

The next steps for 2013-2014 will be to explore ways to identify more seniors admitted to TOH who would benefit from targeted Geriatric assessment and interventions designed to avoid functional decline. The MOVE-ON project is expected to undergo expanded deployment across TOH thanks to continued MOH funding.

Programs that have had an impact on the community

The Regional Geriatric Program of Eastern Ontario (RGPEO) under the medical leadership of Dr. Frank Molnar and the program director Mr. Kelly Milne continues to provide proactive leadership in the community to optimize the health and independence of older adults in the Champlain LHIN Region. The integrated and tightly managed services comprising of the Geriatric Emergency Management (GEM) program and Geriatric Assessment Outreach Teams (GAOT) continue to have significant favorable impacts on avoidable ER visits and hospital admissions through timely interventions involving community services coordination and outpatient Geriatric assessment. This past year GEM assessments were completed on over 3,500 older adults across the Champlain LHIN and GAOT provided more than 2000 home assessments.

The RGPEO was also the dominant force behind a Champlain LHIN dementia management plan and also initiated a region-wide falls prevention initiative. The Division and RGPEO were also involved in consultations and feedback to Dr. Samir Sinha’s Ontario Seniors Strategy report.

Dr. Anna Byszewski is the representative for the RGPs of Ontario for the Episode of Care, Hip and Knee replacement, and Hip fracture, for Health Quality Ontario. She also serves

**Dr. Allen Huang** participated as a witness to the Senate Standing Committee representing the Canadian Geriatrics Society on the issue of off-label medication prescribing and its impact on older adults.

**Dr. Frank Molnar** is the representative for the Canadian Geriatrics Society on the National Wait Times Alliance and is the Senior Editor and Author for the sections on Dementia and Aging of the Canadian Medical Association Fitness-to-Drive Guidelines.

**Drs. Lara Khoury** and **Barb Power** were interviewed by The Ottawa Citizen about the MOVE-ON project and the article appeared in the April 27, 2013 edition.

**Educational Activities**

The Division of Geriatric Medicine is actively involved in all levels of education: Undergraduate, Postgraduate and external Continuing Education.

**Dr. Anna Byszewski** is the Anglophone Co-Director of the Professionalism Curriculum for Years 1 & 2 at the University of Ottawa where she piloted the P-Mex tool for the evaluation of student professionalism. She is also the assistant Anglophone Co-Chair of the “E-Portfolio” Program and the Geriatrics rotation coordinator for all medical students and residents. She is actively involved in several educational research projects.

**Dr. Barb Power** is the Anglophone Director of the Clinical Skills Program at the University of Ottawa. This undergraduate program includes Interviewing Skills; Physical Skills Development; the Community Preceptor Program and Link Block which is the first month of Clerkship. Dr. Power is involved in a research study looking at the use of standardized patients to teach clinical skills. In addition she is the postgraduate program director for Geriatric Medicine.

**Dr. Bill Dalziel** served as the content expert for the core teaching of Geriatric Medicine during the Integration Block.

The University of Ottawa Geriatric Medicine postgraduate training program ranks among one of the best in Canada. Two residents finished their training and are poised to take on their new responsibilities: one a community Geriatrician to be based at the Queensway Carleton Hospital and the other as an academic Geriatrician with a focus on the Francophone population based at the Montfort Hospital. Welcome to our new colleagues!

The RGPEO hosted its annual Geriatric Education Day “Engage” in March 2013 and welcomed Dr. John Puxty, from Queen’s University as the Keynote Speaker. It was evaluated highly and attended by over 300 Healthcare Professionals.

The RGPEO holds monthly Regional Geriatric Rounds and routinely broadcasts the live presentations to over 40 satellite sites connected by the Ontario Telehealth Network.
The members of the Geriatric Division actively participate in the training of CCAC assessors serving the local LHIN as well rural LHINs throughout Ontario.

Our members regularly participate in a variety of educational activities including: the Department of Medicine Grand Rounds, RGPEO rounds, local service multi-disciplinary educational rounds, and national and international conferences and meetings.

Research Activities

Research in the Division continues to thrive and will start to take on new avenues of investigation as the chief of the Division, Dr. Allen Huang establishes his research program.

Key Peer-Reviewed Grants

**Power B, Khoury L.** TOHAMO Innovation Fund. MOVE-ON project at The Ottawa Hospital.

**Byszewski A.** University of Ottawa Postgraduate Office. Learning environment survey project.

**Byszewski A.** Department of Medicine — Medical Education Research Grant. Learning environment survey project.

**Power B, Khoury L.** CAHO/MOH. MOVE-ON project at The Ottawa Hospital

**Power B.** University of Ottawa. The Evaluation of PSD Booklets.

**Huang A.** Department of Medicine Medical Education Research. Internal medicine residents duty hours — Time & Motion pilot study.

Noteworthy Publications

Members of the division published 32 peer-reviewed publications in 2012-2013 with notable publications including:


Honours and Awards

- **Dr. Azad** was awarded the Canadian Certified Physician Executive designation from the Canadian Medical Association.
- **Dr. Molnar** completed his term as the Secretary-Treasurer of Canadian Geriatrics Society. He is the Co-founder and Associate Editor-in-Chief of the new Canadian Geriatrics Society on-line CME journal.
- **Dr. Power** was awarded the “Educator Award - Person Competency” by the University of Ottawa medical school for 2012.
HEMATOLOGY

22 Faculty Members • 6 Residents • 8 Fellows

Clinical Activities

Caring for thousands of patients

Every year, our physicians and staff care for thousands of patients with blood diseases. In 2012/13, we provided clinical consults to over 10,000 patients at The Ottawa Hospital (TOH) within the program areas of Benign & Malignant Hematology and Thrombosis. In addition, thousands of additional Thrombosis patients across the LHIN have access to our specialists through our busy satellite clinics and telemedicine program.

Commitment to patient safety and access

In 2012/13, the Division of Hematology submitted a proposal for funding to support improving our wait times for hematology consults. The proposal outlined a phased approach: first, we would develop consistent, Division-endorsed triage criteria and wait time targets; second, we would develop a new database to track all consults; and third, we would evaluate our data to identify and resolve areas for improvement. Our proposal was endorsed by the Patient Safety and Quality Committee, and we have nearly completed the first two phases of our project. Full implementation of our project will continue in the 2013/14 year, with a commitment to ongoing evaluation and achievement of our wait time goals.

Top marks in patient satisfaction

The BMT / Acute Leukemia inpatient ward (5West) continues to rank first in patient satisfaction across all TOH wards. In April-June 2013, 75% of patients rated care on 5W as "excellent," surpassing the next highest ranked unit by more than 8%.

Growing clinical practice

In 2012/13, the Division of Hematology successfully recruited two new physicians: Dr. Melissa Toupin joined the Division in January 2013 and treats both malignant and benign hematology patients; Dr. Arleigh McCurdy will join the Division in autumn 2013 and will focus on patients with multiple myeloma and related disorders.

In early 2013, the Thrombosis clinic moved from the Civic into our new outpatient space and consolidated all of our benign Hematology clinics from across the city to Module H at the General Campus. These state of the art and new ultrasound, lab and clinic facilities will help us to better serve our patients.
Educational Activities

Division-wide rounds
In 2013, we initiated Division-wide Hematology rounds, to supplement the ongoing Thrombosis, Malignant and BMT rounds. These Division-wide rounds are one avenue to foster collaboration and shared learning across the Division, and have been well received and attended.

Fellowship program
The Division is committed to training the highest level trainees. We want to be known as ‘the place’ leaders come to develop and grow. We have post-hematology residency training fellowship programs in Thrombosis, Malignant Hematology and Transfusion that include clinical, research and education streams.

Education coordination
In 2012/13, the Division of Hematology hired a full time Education Coordinator, Darlene Roy, to coordinate all educational activities as well as the residency and fellowship program. Darlene has initiated a variety of improvements, including electronic evaluations of rounds through One45.

Research Activities
The Division of Hematology is a very active and successful research group, with 10 OHRI scientists (half of our Division members), 16 OHRI clinical investigators and about 30 research staff (managers, coordinators, and assistants). Our research spans the clinical specialties of Thrombosis, Malignant Hematology and Benign Hematology / Transfusion Medicine with dozens of studies underway at any time.

Noteworthy Publications
We are proud to report that in 2012/13, our Division members published 145 peer-reviewed articles, representing approximately 20% of all OHRI publications this year. Another 8 have been accepted and are awaiting publication, and 4 others have been submitted. This has been an extremely successful and prolific year for Hematology research!

Here is a small sample of the high impact papers published:


**Key Peer-reviewed Grants**

We are thrilled to report that we received $7,419,038 in funding for 43 peer reviewed grants in the academic 2012/13 year, representing approximately 10% of the total OHRI peer-reviewed funding this year. For 70% of these grants, our division members were PIs or co-PIs.

A few of our key peer-reviewed grants are highlighted below.

**Carrier M** (PI). Heart & Stroke Foundation of Canada. Screening for occult cancer in patients with unprovoked venous thromboembolism.

**Carrier M** (PI). Heart & Stroke Foundation of Canada. The Management of Subsegmental Pulmonary Embolism: A Prospective Cohort Study (SUSPECT/SSPE).

Tay J (PI). Myeloma Canada. A Dose Escalation Study of Total Marrow Irradiation (TMI) And Autologous Stem Cell Transplantation (ASCT) For The Treatment Of Relapsed Or Refractory Multiple Myeloma (MM).


Honours and Awards

• Dr. Jason Tay received a Randomized Controlled Trial (RCT) Mentoring award from CIHR to conduct a trial examining the optimal level of red blood cells in patients receiving a bone marrow transplant to treat blood cancer. Dr. Tay’s study will determine if there are any benefits or harms in having a lower or higher red cell count during the recovery period after blood stem-cell transplantation. RCT Mentoring awards are meant to develop future leaders in trials research.

• Dr. Marc Rodger has been awarded a Career Investigator Award from the Heart and Stroke Foundation. This funding will allow him to continue examining whether thrombophilia causes pregnancy complications. Experts in pregnancy complications have said there is an urgent need for well-designed studies that determine the degree of risk posed to pregnancies by thrombophilia and whether blood thinners prevent these complications. Dr. Rodger is conducting cohort studies and randomized trials that are the largest of their kind in the world and aim to definitively answer these important questions.

• Dr. Chris Bredeson was elected President of the Canadian Blood & Marrow Transplant Group. This group is a member-led, national, multidisciplinary organization providing strategic leadership to drive excellence in clinical care, research and education within the Canadian blood and marrow transplant field.

• Dr. Melissa Forgie was recently appointed to the International Women’s Forum.

• Dr. Marc Carrier was promoted to Associate professor through the Faculty of Medicine at the University of Ottawa.
INFECTIOUS DISEASES

19 Faculty Members • 4 Residents • 3 Fellows

The Division of Infectious Diseases is a highly academic division committed to quality patient care. The division is involved in the education of medical students, Masters and PhD candidates, interns and residents, and Infectious Disease fellows. The division has a mandate to provide regional infectious disease consultation as well as regional infection control advice to the Champlain region of Eastern Ontario and West Quebec. Dr. Mark W. Tyndall is the Chair of the Division and through his leadership and commitment the division strives to become nationally and internationally renowned.

Clinical Activities

Key regional programs are:

- The Immunodeficiency Clinic providing multidisciplinary care for HIV/AIDS patients.
- The Regional TB Program in collaboration with Ottawa Public Health,
- The Regional Multidisciplinary Viral Hepatitis Program,
- The Hospital and Regional Infection Control Program
- Infectious Disease inpatient and outpatient consultation based at both the Civic and General campuses with affiliation to the Queensway Carleton, Montfort and Elizabeth Bruyère Continuing Care.

The Antimicrobial Stewardship Program (ASP) for The Ottawa Hospital (TOH) that was initiated by Dr. Gary Garber has continued to expand under the current leadership of Dr. Virginia Roth and Dr. Kathryn Suh.

Dr. Curtis Cooper, Director of The Ottawa Hospital and Regional Hepatitis Program, along with Dr. Sunil Varghese (Clinical Fellow) have introduced a TeleMedicine and regional outreach program to serve patients in Eastern Ontario, Northern Ontario, and Iqaluit.

Dr. Bill Cameron, along with Dr. Juthaporn Cowan (Resident), have developed and executed The Immune Globulin Replacement Program for Primary and Secondary Hypogammaglobulinemia at The Ottawa Hospital Infectious Diseases Clinic. Previously the care of the Primary Immune Deficiency (PID) and Secondary Immune Deficiency (SID) was fragmented and subcutaneous Immunoglobulin (SCIG) was not used in the Ottawa area.

Dr. Anne McCarthy’s Tropical Medicine and International Health Clinic remains an important clinical and research resource. As the Director of the Canadian Malaria Network, she has led efforts to increase the number of sites providing parenteral therapy for severe malaria across the country.
Achievements (2012-2013)

Dr. Raphael Saginur, with Dr. Gregory Rose developed an Infectious Disease Clinical Program at St. Vincent Hospital. This improves services to a group of severely, chronically ill individuals, alleviating the need for patient transport and improving information flow while reducing costs.

Dr. Curtis Cooper directs The Ottawa Hospital Regional Hepatitis Program, that has emerged as a leading centre nationally for Hepatitis C clinical management. The program boasts an excellent team of physicians, nurses and allied health professionals. The Ottawa Hospital Regional Hepatitis Program also has a very strong research component and has been an important contributor to the expanding knowledge about Hepatitis C management and treatment.

Dr. Yoko Schreiber completed her M. Sc. in Epidemiology (Thesis: Mobility and migration and health related outcomes among people who use drugs in Ottawa-Gatineau) and joined the Infectious Diseases faculty.

Goals and Upcoming Activities

Dr. Paul MacPherson’s anoscopy clinic and anal cancer screening program for HIV+ MSM has been approved and will be seeing patients by the end of 2013. The incidence of anal cancer among HIV positive men is 50-100 times that in the general population. The purpose of this program is to detect dysplastic lesions and ablate them prior to the development of anal cancer.

Dr. Gregory Rose, Dr. Paul MacPherson, and Dr. Sunil Varghese (Clinical Fellow) have just opened the Outpatient Parenteral Antibiotic Therapy (OPAT) Clinic at The Ottawa Hospital – Civic Campus to provide rapid access to antibiotic therapy with a focus on skin and soft tissue infections.

Dr. Paul MacPherson and Dr. Mark Tyndall are working on shared care of HIV+ individuals with primary care professionals (PCP). Hospital-based specialists have traditionally managed HIV care in Ottawa, which is likely unnecessary for many HIV positive individuals who are virally suppressed on effective combination Antiretroviral Therapy (cART). PCP involvement should prevent gaps in patients’ primary and preventative health care.

Dr. Yoko Schreiber’s activities over the coming year involve assessing and implementing antibiotic stewardship in First Nations communities. In addition, she is establishing a research and clinical relationship with Meno Ya Win Hospital in Sioux Lookout by making infectious diseases consultation available through telemedicine, with the goal to improve quality and access to care.

Educational Activities

The University of Ottawa Adult Infectious Diseases Training Program offers a fully accredited Royal College two year training in the subspecialty led by Medical Education Program Director, Dr. Craig Lee. The program captures the full breadth of clinical infectious diseases spanning outpatient and inpatient consultative care.
There is close collaboration and integration of our program with colleagues in both the Pediatric Infectious Diseases and the Medical Microbiology Training Programs.

Research Activities

The Hepatitis C research group led by Dr. Curtis Cooper participated in an international study in HCV antiviral therapy in HIV-HCV co-infection that has doubled HCV treatment success rates (61% versus 27%).

The HIV basic sciences program led by Dr. Jonathan Angel continues to be a National leader in HIV pathogenesis and vaccine development. Dr. Paul MacPherson is the Principal investigator in the research on “Interleukin-7 Receptor Expression and Function in CD8 T-Cells during HIV Infection and its Role in Modulating CTL Activity”.

Drs. Kathryn Suh and Dr. Virginia Roth have been leading research into better preparing hospitals for the increasing risk of antibiotic resistant organisms, including refocusing VRE control measures to improve infection control standards for all patients.

Dr. Anne McCarthy is involved in ongoing collaborative research through the international GeoSentinel Surveillance Network and is a founding member of CanTravNet — the Canadian Travel Medicine Network — that is a network of clinical experts in travel and tropical medicine from across Canada. She is also working on two research studies: the Ottawa Malaria Decision Aid study and the Malaria Decision Analysis Modeling study for the Canadian Malaria Network.

Dr. Raphael Saginur is participating in a CIHR-funded group developing international guidelines on the ethics of cluster-randomized trials (CRTs). CRTs are an increasingly utilized research design, applicable to a variety of studies including public health initiatives, and difficult to conceptualize and oversee from a research ethics perspective.

Dr. Yoko Schreiber is involved in a Health Canada review of antimicrobial utilization at Northern nursing stations. She is also involved in research to provide quality improvement in the treatment of common infections through development of region specific guidelines in Northern Ontario.

Dr. Mark Tyndall has been active in the promotion and development of harm reduction programming for people who use drugs. He has established a research site based in the downtown area of Ottawa where there is recruitment of a large prospective cohort study PROUD (Participatory Research in Ottawa: Understanding Drugs). He has been leading a group of public health and community members who are committed to operating a supervised safe injection site in Ottawa.

Dr. Yoko Schreiber completed a study investigating the relationship between mobility and migration and health risk behaviours among drug users in Ottawa as part of her M. Sc. in Epidemiology. This work bridges her involvement as a co-investigator in the PROUD cohort, where she will specifically focus on the health of Aboriginal drug users.
Key Peer Reviewed Grants

Angel J. CIHR. Regulation and function of soluble IL-7 receptor alpha (CD127) in HIV infection.

Tyndall M. Ontario HIV Treatment Network (OHTN). Comparison of Two Directly Administered Treatment Strategies to Improve Adherence among Injection Drug Users.

Cooper C. Canadian HIV Trials Network-Pilot Operating Grant Funding. Preventing the progression of liver fibrosis with Metformin in HCV-HIV co-infected patients with insulin resistance.


Cameron W. CIHR. Innate, Adaptive and Mucosal Immune Responses in HIV-1 Exposed Uninfected Infants: A Human Model to Understand Correlates of Immune Protection.

Cameron W. Global Health Research Initiative (GHRI). Synchronicity Forum of Canadian/African vaccine and prevention research teams.

MacPherson P. CIHR. The HIV Tat Protein Removes the Interleukin-7 Receptor from the Surface of CD8 T-Cells.

MacPherson P. CIHR. The Canadian HIV Quit Smoking Trial: Tackling the co morbidities of depression and cardiovascular disease in HIV + smokers.


Noteworthy Publications


**Honours and Awards**

- **Dr. Curtis Cooper**. Ontario HIV Treatment Network (OHTN). Applied HIV Research Chair Award. Expanding Community Access, Retention and Participation in HCV and HIV-HCV Care and Treatment.

- **Dr. Anne McCarthy** Department of Medicine Educator Award

- **Dr. Yoko Schreiber** Department of Medicine Research Fellowship Award
MEDICAL ONCOLOGY

22 Faculty Members • 7 Residents • 5 Fellows

Clinical Activities

The Ottawa Hospital Cancer Centre (located at the General Campus of The Ottawa Hospital and The Irving Greenberg Family Cancer Centre at the Queensway-Carleton Hospital) provides world class Medical Oncology care for the Champlain LHIN Region of Ontario. To help with the outpatient workload, the Division employs full time and part time General Practitioners in Oncology to work alongside Medical Oncology faculty members. The Cancer Centre also employs 32 outpatient chemotherapy nurses, 34 clinic nurses, and 1 Nurse Practitioner who leads our innovative Wellness Beyond Cancer Program.

Unique to The Ottawa Hospital Cancer Centre is our Triage Unit which assesses medical oncology patients with urgent medical issues. It is one of only a few fully operational Cancer Centre triage units in all of Canada, and substantially reduces Emergency Room visits by cancer patients.

The Division also operates a 32 bed inpatient program also supported by General Practitioners in Oncology.

The number of new medical oncology patients seen by the division continues to grow at an average rate of 6% per annum, with 4726 new oncology patients seen in 2012-2013 and a projected number of 5,628 by 2014/15. This past year, there were 41,300 Systemic Therapy follow up appointments and 31,805 Systemic Therapy Suite visits.

Programs that have an impact on the community

The Division oversees systemic therapy of cancer for all patients in the Champlain LHIN. To facilitate patient access, we operate clinics and treatment facilities at the Irving Greenberg Family Cancer Centre in the west end of Ottawa, as well as overseeing chemotherapy delivery at centres in Pembroke, Renfrew, Winchester and Hawkesbury. In addition to providing all oncology services in the Champlain LHIN, we also serve cancer patients from Baffin Island.

Presently we are also working in partnership with Telemedicine to review and develop opportunities to further enhance and improve Patient Centred/World Class Care.
Educational Activities

The Medical Oncology Training Program (MOTP) had another successful year under Director **Dr. Neil Reaume**, with three residents graduating. In addition, **Dr. Tim Asmis** was appointed Director of the Fellowship program, which continues to grow and attract Canadian and International trainees for clinical and research specialization following completion of their medical oncology training.

The program has continued to evolve with the establishment of highly successful research rounds, cardiac oncology rounds and longitudinal clinic rounds. The program has also adopted social media to get out the word about hot topics from rounds or breaking news about the program (twitter.com/ottawamedonc).

Our residents organized a great 2-day retreat including a fabulous talk by Dr. Ophira Ginsburg on International Health and Women’s Cancer. As well, the trainees selected **Dr. Rachel Goodwin** as this year’s winner of the Golden Throat Award for Best Teacher.

This past academic year has been one of the most productive years for research from trainees. Ottawa was the leading program at the Canadian Association of Medical Oncology Annual Meeting, with current and former trainees on eight abstracts, including an oral presentation by **Dr. Moira Rushton** for research she did with **Dr. Susan Dent** on breast cancer. This abstract also won her an award at the Department of Medicine Resident Research Day.

Trainees were also successful internationally, with four abstracts at the Annual Meeting of the American Society of Clinical Oncology (ASCO), including an award-winning poster by **Dr. Stephanie Brule** on colon cancer (under the mentorship of **Dr. Rachel Goodwin**). **Dr. Dimitrios Simos’** research on ASCO’s top 5 guidelines for breast cancer was profiled in the ASCO Review recently.

Publications included **Dr. Jeffrey Sulpher** on lung cancer pathology (Clinical Lung Cancer) and **Dr. Patricia Moretto** with a guideline on management of small cell bladder cancer (Canadian Urologic Association Journal).

The program looks forward to the upcoming academic year, with plans to incorporate simulation at the uOSSC and the use of ASCO eModules in the curriculum. Thanks for our success should also go out to our exceptional program coordinator Arlette Mendicino who coordinates trainees from all levels including undergraduate, residency and fellowship.

Research Activities

The research of the Division encompasses clinical, translational and basic cancer research, with 50 clinical investigators and basic scientists. The predominant activity of the division is in the area of clinical research, where the Division supports a large clinical trials office accounting for 200 open trials with approximately 60 actively accruing. This activity is
supported by 40 clinical research staff including the Administrative Director Meri-Jo Thompson. 65% percent of the trials are Co-operative Group and Investigator-led and 35% are industry-led trials. Embedded in the clinical trials group is a very active Investigational New Drug (Phase 1) Group, which is rapidly developing an international reputation for high quality and effective new anti-cancer drug development. This activity has led to numerous publications in high impact journals (please see attached publications) including the New England Journal of Medicine, the Journal of Clinical Oncology and Clinical Cancer Research.

In the area of translational research, cancer clinical researchers have worked collaboratively with other Divisions in the Department of Medicine, Department of Pathology, basic scientists in the OHRI, the OHRI Methods Centre, McGill University, Ontario Institute of Cancer Research and NCIC CTG researchers to enhance cancer research in the Division. Collaborators include Drs. Jim Dimitroulakos, Christina Addison, Ian Lorimer, John Bell, Michelle Turek, Michael Rudnicki and Phil Wells among others. These collaborations have enhanced the translational components of ongoing or proposed clinical trials.

Key Peer Reviewed Grants — Top 6 of 17


Clemons M. Integrin-FAK Signaling Axis as a Principal Mediator of Breast Cancer-Induced Bone Metastasis. Funding Agency: Canadian Breast Cancer Foundation. PI: Christina Addison, Co-I: M Clemons, G Singh, A Joy.


Jonker D, Carrier M, Allan D, Mamazza J, Smith A, Tagalakis V, Jonker D, Wells P. CIHR. The Use of Extended Peri-operative Low Molecular Weight Heparin to Improve Cancer Specific Survival Following Surgical Resection of Colon Cancer. A Randomized Controlled Trial. PI: M Carrier Co-Applicant: D Jonker.

Peer-Reviewed Publications — Top 10 of 75 total


Honours and Awards:

Dr. Jean Maroun received the Jack Aaron Award for 2012-2013, awarded annually to a healthcare professional who has been key to advancing the academic environment at The Ottawa Hospital Cancer Centre.

NEPHROLOGY

19 Faculty Members • 2 Clinical associates • 2 Residents • 6 Fellows

Clinical Activities

The Ottawa Hospital’s Renal Program provides multi-disciplinary world class care across the spectrum of Kidney Disease. We are the largest clinical program in Ontario and one of the largest in Canada. We are a centre of excellence in several areas, including vascular access (in collaboration with Interventional Radiology & Vascular Surgery) & peritoneal dialysis access (in collaboration with Urology).

Many division members are involved in national guideline development and dissemination. Others play key roles in the Ontario Renal Network, the provincial renal agency now responsible for Kidney Disease care and funding in Ontario. The Nephrology Division Head, Dr. Peter Magner, as ORN’s Interim Medical Director and Provincial Lead for CKD Funding, is playing a major leadership role in transforming and improving renal care for all Ontarians.

Sustained Low Efficiency Dialysis (SLED) launched last year in collaboration with the Department of Critical Care Medicine has had tremendous success; more than 100 patients have been treated with SLED at The Ottawa Hospital so far. It has now replaced the more costly and cumbersome CRRT in both ICUs at the General and Civic campuses, and will expand to the University of Ottawa Heart Institute this fall. The Ottawa Hospital’s Renal Program is rapidly developing a unique expertise and becoming a leader in this novel way of providing renal replacement therapy for critically ill patients.

In collaboration with Division of Cardiology, we offer Renal Sympathetic Radioablation to treat patients with severe drug-resistant hypertension. This innovative therapy is just starting in Canada, with The Ottawa Hospital being one of the first centres to offer this option.
Programs that have had an impact on the community

This year, in collaboration with the Queensway Carleton Hospital our dialysis program opened a new satellite hemodialysis unit that provides care to 48 end-stage-renal-disease patients. To keep pace with the growing population west of Ottawa, the unit will expand this year to accommodate 60 patients who will receive their regular renal treatments much closer to home.

We have created a permanent Treatment Options nursing position where a specially trained nurse offers education about the different home dialysis modalities and provides home visits to any end-stage-renal-disease patient in our program. This will help to increase patient independence, leading more patients to pursue dialysis at home, a key priority of the Ontario Renal Network.

With the help of Home Care nurses from CCAC, we have enhanced efforts to keep patients out of hospital and on home peritoneal dialysis. At Residence St-Louis, we have opened the first Assisted Peritoneal Dialysis program in a Long Term Care Facility in Ontario. The Ottawa Hospital’s Renal Program is innovating once again by providing a convenient and cost effective solution to keep more patients out of hospital on home peritoneal dialysis.

We have expanded our telehealth clinics yet again. We now provide consultations and follow-up to patients in Cornwall, Carleton Place, Hawkesbury and multiple communities in Nunavut.

We participate in fund raising activities for patients with kidney disease including: Alive to Strive, Steering Towards Hope, and the Kidney Foundation Walk.

Educational Activities

Nephrologists are heavily involved in teaching at the undergraduate and post-graduate level, and play major roles in the administration of the Faculty of Medicine, University of Ottawa, and at a national level, including:

- Dr. Bob Bell: Leader Unit 1, (Eng), Undergraduate Curriculum
- Dr. Bob Bell: Co-Director, Distinguished Teacher Program Undergraduate Medical Education
- Dr. Bob Bell: Director of Curricular Delivery, Undergraduate Medical Education
- Dr. Pierre Antoine Brown: Content Expert Unit 1 (Fr)
- Dr. Ann Bugeja: Content Expert Unit 1 (Eng)
- Dr. Cedric Edwards: Director of Nephrology Subspecialty Program
- Dr. Stephanie Hoar: Chair of Postgraduate Education Committee, Dept of Medicine
- Dr. Jolanta Karpinski: Associate Director, Specialties Unit, Royal College of Physicians & Surgeons of Canada
- Dr. Jolanta Karpinski: Director, Fellowships, Dept of Medicine since May 2013
• **Dr. Jolanta Karpinski**: Acting Vice Dean, PGME July 2012-Dec 2012

Very positive feedback received for innovative series of seminars, instituted last year, covering core curriculum topics for junior residents rotating through the Nephrology service.

We have expanded our Clinical Fellowship program, and now offer post-specialty training in Transplant & Home Dialysis.

**Drs. Ayub Akbari** and **Jolanta Karpinski** piloted an innovative tool to track teaching activities of division members, available on iPad or online. The tool allows documentation of teaching activities in the moment. To date, 15 Division members have entered over 900 teaching activities over 6 months. The aim is to facilitate the updating of individuals’ teaching dossiers and reporting of activities into system like STAR.

**Dr. Jolanta Karpinski** presented a showcase about uOttawa PGME at ICRE 2012.

**Dr. Ayub Akbari** developed a CME online module for the Canadian Medical Association on the topic of CKD.

**Drs. Ann Bugeja** and **Bob Bell** are participants in the Distinguished Teacher Program at the Faculty of Medicine.

**Research Activities**

It was a very successful year for research, in terms of productivity (new discovery) and extent of peer-reviewed grant support.

At the Kidney Research Centre (KRC), basic science studies focused on diabetic nephropathy and the pathogenesis of kidney disease progression received ongoing grant support from the CIHR, the Kidney Foundation of Canada, the Heart and Stroke Foundation, and the Department of Medicine (**Drs. K. Burns, D. Burger, T. Fairhead, C. Kennedy, R.L. Hébert, R. Touyz**).

The members of the clinical research arm of the KRC have also been successful in competition for project grants (e.g. **Dr. Greg Knoll** is co-leading a national kidney transplant research program, funded by CIHR, and **Dr. Marcel Ruzicka** has received funding from TOHAMO Innovation Fund to study renal denervation for the treatment of resistant hypertension) and are active in enrolling patients in many clinical trials (> 15 clinical studies ongoing in 2013).

Total operating grant support from peer-review agencies was > $2 M in 2012-13. In addition, **Dr. Greg Knoll** is co-PI (with Dr. Lori West) on a CIHR-funded national transplant research program, for $13.5 M over 5 years. Research salary support awards were ~ $800 k (includes research fellowships, studentships, University of Ottawa Clinical Research Chair (for Dr. G. Knoll), and Department of Medicine salary awards for research).
Key Peer-Reviewed Grants

Burns K. CIHR. Translational Research on the Role of Tubular ACE2 in Kidney Disease Progression.


Kennedy C. CIHR. Validating Nox5 as a target for diabetic renal complications.

Touyz R. CIHR. Vascular pathobiology of TRPM7 channymes in hypertension.

Knoll G. CIHR. ICES Kidney Dialysis and Transplantation Program.

Knoll G. CIHR. The Canadian National Transplant Research Program: Increasing Donation and Improving Transplantation Outcomes.

Ruzicka M. TOHAMO. Renal Sympathetic Denervation for Resistant Hypertension.

Zimmerman D. Development of a “Phosphate counting program” on an iTouch to simplify self-management of dietary phosphate by patients with ESRD treated with peritoneal dialysis.

Key publications

62 manuscripts were published by members of the Division of Nephrology in 2012-13:


Nasrallah R, Robertson S, Karsh J, Hebert RL. Celecoxib modifies glomerular basement membrane, mesangium and podocytes in OVE26 mice, but ibuprofen is more detrimental. Clin Sci (Lond) 2013; 124(11)685-694


Guideline Development and Dissemination

- Dr. Deb Zimmerman (chair) CSN guidelines on intensive hemodialysis
- Dr. Marcel Ruzicka (chair) CSN guidelines on BP in CKD
- Dr. Brendan McCormick (member) CSN guidelines on BP in CKD
- Dr. Swapnil Hiremath (member) CSN guidelines on BP in CKD
- Dr. Ayub Akbari (chair) CSN guidelines on diagnosis & management of CKD
- Dr. Swapnil Hiremath (member) CANN-NET guideline on timing of initiation of dialysis
- Dr. Marcel Ruzicka (chair), Canadian Hypertension Education Program (CHEP) guidelines on Renal Hypertension
- Dr. Kevin Burns (member), CHEP guidelines on Renal Hypertension
- Dr. Swapnil Hiremath (member), CHEP guidelines Health Behaviours

Honours and Awards

- Dr. Deb Zimmerman received the Jean O’Callaghan Humanitarian award, from the Kidney Foundation of Eastern Ontario
- Dr. Ann Bugeja won the Alfred Coll volunteer leadership award, from the Kidney Foundation of Eastern Ontario
- Dr. Bob Bell was the Honorary President of the Graduating Class of 2013, (Anglophone), Faculty of Medicine, University of Ottawa
NEUROLOGY

26 Faculty Members • 20 Residents • 4 Fellows

Clinical Activities

The Neuroscience clinic at the Civic Campus has been renamed the Bhargava Neuroscience Clinic in honour of the $1,000,000 donation from the Bhargava family in support of Parkinson’s research. Consolidation of the Multiple Sclerosis Clinic has been nearly finalized with a centralized location for the clinic space on the 4th floor at the General Campus. There are now two clinical fellows to assist with clinical evaluations of patients. The MS clinic has also created a relationship with two pediatric neurologists to assist in the flow of patients once they become “adults” and to share in both research and educational efforts.

The Parkinson and Movement Disorders Clinic has expanded the care delivered to their patients with a Deep Brain Stimulation program. Working closely with the neurosurgeon, Dr. A. Sachs, individuals with various movement disorders will now have the option of having a surgical procedure to improve their quality of life that has been resistant to medication. The care of epilepsy patients will also be improved with the opening of an epilepsy monitoring unit where patients will be admitted to the hospital for up to five days to capture and more accurately document their seizures. This program will not only help in assessing individuals who might be candidates for epilepsy surgery but also identify the best treatment options for managing seizures.

The Stroke Prevention Clinic at The Ottawa Hospital with The Champlain Regional Stroke Network under the leadership of Dr. Grant Stotts ranked first overall in Ontario from the Ministry of Health in stroke care delivery. Measures of success included smoking cessation (first), hypertension treatment and initiating anticoagulation for atrial fibrillation. The national record for the delivering of TpA to an acute stroke patient to open a blocked blood vessel was set this year by Dr. Dar Dowlatshahi, at an incredible 12 minutes. The significant efforts by the entire regional stroke team have now made Ottawa the second fastest in Ontario on average for the “door to needle” time. The establishment of Stroke Fellowships and the recruitment of two clinical stroke fellows over the last year has benefitted acute stroke management in addition to the improved teaching and clinical research efforts for the entire group.

Many Division members continue to work closely with The Ottawa Hospital Foundation, local and national patient groups to develop and assist with fundraising in the Ottawa area. These efforts support not only local patient care and education but provide seed funding to foster research ideas. For example, in Parkinson’s disease 3 million dollars in research funding has been raised in Ottawa over the last 8 years. Dr. Christine De Meulemeester and the neurology residents support the Baffin-Ottawa program, through regular trips to Iqaluit.
Education Activities

Three neurologists are currently part of the Distinguished Teacher Program: **Dr. Heather MacLean, Dr. Beth Pringle** and **Dr. Chris Skinner. Dr. Heather Maclean** is leading a group called the Mindfulness Curriculum Working Group to implement new curriculum in undergraduate medical education that is to start in the 2014/2015 academic year. This group is creating an entire mindfulness course curriculum and workbook.

**Dr. Tadeu Fantaneanu**, a senior neurology resident with the assistance of **Dr. De Meulemeester** and **Dr. Maclean** from our division completed a study of medical students to understand the genesis of “Neurophobia”. This work was presented at the American Academy of Neurology Annual meeting and won the best poster at the Annual Resident Research Day.

**Dr. De Meulemeester** continues to lead the very successful adult neurology residency training program as well as the Chair for the Royal College Examination Board for Neurology. Also in her work with the Royal College she has helped in drafting the 2013 “Specialty Review of Neurology” document that will be used across the country.

Research Activities

Ottawa has played a key role in the successful 28.5 million dollar multicentre Neurodegeneration Integrated Discovery Grant from the Ontario Brain Institute. The clinical leads at The Ottawa Hospital, **Dr. Dowlatshahi** and **Dr. David Grimes** will be following Stroke and Parkinson’s disease patients over the next five years with the aim of identifying common factors that contribute to cognitive decline in individuals with broad neurologic diseases.

**Dr. Michael Schlossmacher** was part of team that received a patent in the United States for the “Treatment of Synucleinopathies” invention that seeks to explore the interaction of GBA1 and synuclein, which are two important genes that have been linked to causing Parkinson’s disease.

The Division has recruited a new clinician scientist, **Dr. Michel Shamy** who will add his research skills in the ethics of acute stroke trials to the already successful Ottawa Stroke Research Group. **Dr. Dowlatshahi** was awarded a five year Clinician-Scientist Phase 1 salary award from the Heart & Stroke Foundation of Ontario to improve the diagnosis and develop treatments for ongoing bleeding in a stroke victim. His innovative use of existing equipment could help previously untreated stroke victims and could be applied nationally to save lives.

The Brain and Mind Research Institute under the leadership of **Dr. Antoine Hakim** has been identified as one of the University of Ottawa’s top strategic priorities. **Dr. Mark Freedman, Dr. Heather MacLean** and **Dr. Michael Schlossmacher** were part of two of the winning teams in the uOBMRI inaugural grants competition.
Key Peer Reviewed Grants


Walker L, Rees L, Freedman MS, Cousineau D, MacLean H, et al. uOBMRI. Brief international cognitive assessment for multiple sclerosis (BICAMS): Canadian contribution to the international validation project.

Freedman MS. Multiple Sclerosis Society of Canada. Autologous Mesenchymal Stem Cell Transplantation: A potential Cell-Based Treatment for Inflammatory Forms of Multiple Sclerosis.

Schlossmacher MG. University of Ottawa-Hebrew University-IMRIC. Exploring the bi-directional link between GBA1 and SNCA.

Schlossmacher MG. Michael J Fox Foundation. A role for LRRK2 in host susceptibility and defense to microbial pathogens RFA: LRRK2 and Immune System Validation of FDA-Approved Drugs to Reduce Synucleinopathy in Two Mouse Models of Parkinson's.

Noteworthy Publications

Members of the division published 76 peer-reviewed articles this past year. Key publications include:


Honours and Awards

- **Dr. David Grimes**: Queen’s Diamond Jubilee Medal (2012). Nominated by the Parkinson Society Canada for leading the development of the Canadian Guidelines on Parkinson’s disease.

- **Dr. Mark Freedman**: 2013 Herndon Award for Outstanding International Journal of MS Care article.

- **Dr. Michael Schlossmacher**: 2012 Recipient of Annals of Neurology Prize (picked by editorial team as the most significant contribution in the preceding year), Annual Meeting of the American Neurological Association (Boston, MA., USA).

- **Dr. Michael Schlossmacher**: 2012 Appointment as Bhargava Family Research Chair in Neurodegeneration, The Ottawa Hospital and OHRI.

- **Dr. Antoine Hakim**: 2013 Named as an inductee into the Canadian Medical Hall of Fame.

NUCLEAR MEDICINE

7 Faculty Members • 6 cross appointments in Nuclear Medicine and Cardiology • 4 Residents

This was a pivotal year for the Division of Nuclear Medicine, marked with a change in leadership at both the physician and managerial levels. **Dr. Terrence Ruddy**, who successfully led the Division for 12 years, including overseeing the merger of the Civic and General campuses, creation of the Nuclear Medicine partnership plan, and introduction of a residency program, has finished his term and will now concentrate on his clinical, research and administrative duties within the Division of Cardiology. **Dr. Lionel Zuckier** was recruited as the new Chair and Chief, charged with maintaining excellence in teaching and clinical services and developing a greater research profile in the context of our new residency training program. On the administrative front, Alan Thibeau MRT (N), Corporate Manager, retired after 32 years of service in the Division of Nuclear Medicine, the last 8 as Manager, to take on the Corporate-wide role of Chief of Professional Practice for Medical Radiation Technology. Kathy Knight MRT (R) has assumed the role of Nuclear Medicine Corporate Manager in addition to her other responsibilities within Diagnostic Imaging.

New initiatives have included a restructuring of the administrative and office personnel within the Division. Laurie Bennet, who ably served as Administrative Assistant to **Dr. Terrence Ruddy**, relinquished her role to Bilquis Hyder Ali, Executive Program Administrator, who now supports both the administrative and educational programs within the Division.
Clinical Activities

We had a 77% “excellent” rating for the 2012 Tri Campus Patient Satisfaction Survey, one of the highest of all The Ottawa Hospital (TOH) imaging modalities.

We had an expansion of clinical FDG PET imaging in lymphoma to include 2 new indications.

We introduced scintigraphic imaging of the lacrimal ducts (dacryocystography) useful in identifying functional abnormalities of the tear ducts.

We received full accreditation of our Bone Mineral Densitometry unit, located at the Riverside campus, by the Ontario Association of Radiologists, spearheaded by technologist Jeyanthi Sivasambu MRT (N). This accreditation ensures that instrumentation and staff precision maintain the highest standard of quality and reproducibility.

Several initiatives designed to reduce radiation exposure to patients, workers and family members. These are highlighted elsewhere in the annual report.

- Adoption of a weight-based approach to patient dosing with our Myocardial Perfusion imaging protocol while preserving image quality.
- Reduction of amount of radioactive iodine used to treat thyroid cancer according to an evidence-based dosing regimen.

Several initiatives designed to promote more cost-effective imaging to the Division.

- Adoption of dual phase, single nuclide imaging for parathyroid imaging in comparison to the previous dual nuclide protocol, which was shown to add little incremental accuracy at a substantial cost.
- Clustered ordering of MIBG imaging for the diagnosis and stratification of Neuroendocrine tumours to permit a cost-effective approach to imaging.
- Substitution of capsule-based with liquid I-131 Nal therapy.

Programs impacting the Community

- Introduction of a comprehensive patient and physician guide, located on the TOH website designed for use by physicians and patients (www.ottawahospital.on.ca/nuclearmedicine).
- Support for pediatric oncologic care. Dr. Francois Raymond presented and discussed FDG-PET images at CHEO tumour board.
- Emergency response readiness for Radiation events. Dr. Lionel Zuckier, in conjunction with members of the Radiation Safety Group and Emergency Department Physicians, visited Nordion as part of a program to familiarize health professionals with the facility in case of a radiation emergency.
• Dr. Laurent Dinh continues to chair the Radiation Safety Committee, a responsibility he has carried for over 10 years. This crucial committee is entrusted with overseeing the safe use of radioactive substances at The Ottawa Hospital and Medical School. Colleague Dr. Xuan Pham serves as co-chair.

Educational Activities

Nuclear Medicine Residency Training Program, a five-year direct entry program directed by Dr. Laurent Dinh, has been growing since July 2010 when it was accredited by the Royal College of Physicians and Surgeons Canada; in 2012-13 there were 4 residents on board in different postgraduate training years. The faculty has remained very active and strongly committed to postgraduate teaching activities. In addition to weekly didactic lectures on various clinical topics, courses on Radiation Safety and Radiobiology were offered to the residents as part of their basic sciences curriculum in the past year. Mock oral exams were initiated to prepare the residents for the Royal College exam. For the upcoming year, the teaching schedule was consolidated and reworked to maximize efficiency. Teaching half-days were moved to Wednesday morning to dovetail with Interesting Case Conference and to minimize impact on clinical care. Major conferences and meetings are held on Tuesday afternoons.

A new initiative introduced during the last academic year was the Chief and Residents Workshop, a weekly meeting between the housestaff and the Division Chair, Dr. Lionel Zuckier, to focus on theoretical and research based topics.

Thyroid Cancer Day, a combined meeting of Institute Gustave Roussy and The Ottawa Hospital with the collaboration of the CSSS of Gatineau was held on September 25, 2012 at the Fairmont Chateau Laurier, Ottawa. Dr. Francois Raymond led the organizing committee. Drs. Laurent Dinh and Eugene Leung were among the sessions’ chairs and Dr. Xuan Pham was a member of the plenary discussion.

Nuclear Medicine Morbidity & Mortality Rounds, organized by Dr. Eugene Leung, were restructured to align with the Ottawa M&M Model to standardize and enhance quality of the rounds.

The Division hosted Dr. Peter Herskovitch, Director of PET at the NIH, and President Elect of the Society of Nuclear Medicine and Molecular Imaging, during a visiting professor visit to TOH. Originally hailing from Montreal, Dr. Herskovitch formally presented at City Wide Nuclear Medicine Rounds and Friday morning Neurology Rounds and spent considerable time with the residents discussing research and career paths.
Research Activities

Multiple investigator initiated research projects are underway and several have led to publications and abstract presentations, both oral and poster, at national and international meetings.

Grants and Contracts

Martineau P, a PGY2 in Nuclear Medicine, working with Dr. Zuckier submitted a Patient Quality and Safety Improvement Projects Grant funded by the Department of Medicine entitled “Factors Affecting the Reproducibility of Sentinel Node Lymphoscintigraphy in Malignant Melanoma”.

Dinh L. (co-I) Johnson & Johnson. Randomized Clinical Trial of a Modular Cementless Acetabular Metal on Poly Component versus a Monoblock Cementless Titanium Shell with Ceramic on Ceramic Bearing and CORAIL Stem: A Bone Mineral Density Study. He also serves as the local Principal Clinical Investigator on a multicenter study entitled An observational pilot study of 18F-Sodium Fluoride (Na 18F) whole body PET scan in patients for whom 99mTc MDP bone scans would normally be indicated.'

Following his involvement as local Principal Investigator on the large randomized multi-center Phase III trial, Dr. Eugene Leung presently serves as coinvestigator in an extended access program trial offering the bone therapy agent Radium-223 (Alpharadin) to patients with castrate-resistant prostate cancer.

Noteworthy Publications


Honours and Awards

- **Dr. Xuan Pham** has assumed the prestigious role of examiner for the Royal College in Nuclear Medicine. Dr. Wanzhen Zeng, has just stepped down following three years of examining for the College.

- **Dr. Bola Sogbein**, presently PGY-3 in nuclear medicine, won Honourable Mention prize for his contribution on Hepatobiliary Scintigraphy to the online Radiopharmacy Module Development Project, a trans-Canadian teaching initiative. **Dr. Bola Sogbein** also co-moderated the workshop titled ‘Biomarker Development and Technical Advances’ at the 6th Annual Symposium of the Molecular Function and Imaging (MFI), sponsored by the Ottawa Heart Institute.

- **Dr. Lionel Zuckier** gave an invited paper on SPECT/CT useful in nuclear oncology at the Canadian Association of Nuclear Medicine 2013 Annual Scientific Meeting, Jan. 24, 2013 in Quebec City. He also moderated the session Musculoskeletal PET & Experimental Imaging at the Society of Nuclear Medicine and Molecular Imaging meeting, Vancouver BC, June 10, 2013

**PALLIATIVE CARE**

18 Faculty Members • 3 Residents • 1 Fellow

**Clinical Activities**

The Division of Palliative Care provides clinical coverage at various settings and sites in the city and region. At The Ottawa Hospital — General and Civic Campuses, Division clinicians are part of an interprofessional team that provides consultation support in the inpatient units, emergency departments, and The University of Ottawa Heart Institute. In the past year, our team received 2,103 new referrals with 33% non-cancer diagnoses. At The Ottawa Hospital Cancer Centre, we provide 6 half-day outpatient clinics per week. One of the highlights of the past year was the introduction of a standardized template for Palliative Care consultations in the electronic medical record (EMR). There have been 449 new referrals to these clinics and 1,325 visits. We also provide 3 half-day clinics a week at the Irving Greenberg Family Cancer Centre campus at the Queensway Carleton Hospital. A total of 194 new referrals were made to those clinics with 502 visits. The Cancer Centre outpatient clinics provide consultation support to referring physicians, usually the centres' oncologist.
At Bruyère Continuing Care, Division staff provides clinical coverage on a 36-bed acute palliative care unit and the Palliative Pain and Symptom Management Consultation Service (PPSMCS) team of nurses and physicians provide consultation support to family physicians in the community. This past year saw a significant increase in the number of referrals to the acute palliative care unit; from 394 and 434 in the two previous years to 556 in the past year. Approximately 75% of these referrals are from acute care hospitals. The median length of stay has decreased from 17 days a year ago to 12 days this past year. The discharge rate has increased from 11.7% two years ago to 16.5%.

In the past year, 601 new referrals were made to the PPSMCS service. This is an increase from 570 and 587 in the past two years. During the past year, the service also received and made a total of 4,778 telephone calls for advice or information, mainly from physician and nurses in the community. The Bruyère Continuing Care – Élisabeth Bruyère Hospital also hosts the Palliative Rehabilitation Program. In this past year, there were 92 new referrals to the 8-week outpatient program for patients with progressive incurable illnesses who still have good functional levels. There were 61% of patients who were able to complete the full program and the mean wait time to enter the program was 35 days. In the next year, the priority will be to review the program so as to reduce the wait time and improve the completion rate. Patients who complete the program experience significant improvements in a number of parameters including physical and nutritional parameters, and symptom control.

Two Division physicians provide the medical coverage in the Palliative Care teams at the Queensway Carleton Hospital and the Montfort Hospital. A total of 376 new referrals were made to the team at the Queensway Carleton Hospital and 325 to the Montfort Hospital this past year.

Programs that have had an impact on the community

Our Division has been significantly engaged in the community. This includes the PPSMCS service that continues to build capacity in the community by supporting family physicians. The main success has been in the Family Health Team Palliative Care Project. Three out of the four clinics in the project now provide palliative and end-of-life care to their patients, including seeing palliative patients in their clinics and home visits and on-call service. Prior to the project 3 years ago, with the exception of some individual physicians, none of the family health teams provided end-of-life care.

Dr. José Pereira has been part of the initiative to build more residential hospice capacity in the city. In the past year, this has resulted in the opening of a new hospice at the Embassy West site in the city and the purchase of a facility in Kanata for the construction of a new hospice to be completed in 2 years’ time. Through the continuing professional development/continuing medical education activities of the PPSMCS service, an increased number of family physicians and nurses in the community have received palliative care education.
Educational Activities

The Division is involved in educational activities across the learning spectrum, from undergraduate and postgraduate curricula to continuing professional development in the community. In the undergraduate curriculum, the main focus is a 7-day Palliative Care block within the Integration Unit in the second year. All Division members are involved in providing the various case-based learning sessions, lectures and debates during that block. It also provides sessions in the 1st, 3rd, and 4th years of the undergraduate medical program. The number of medical students requesting rotations in the Palliative Care program continues to rise. This number rose to 48 in the last year. We provided a total of 88 hours of case-based learning in the undergraduate curriculum and facilitated 6 e-Coach groups. There were 29 hours of lectures given.

In the postgraduate program, in addition to our Palliative Care residents, we also had 52 residents from different specialties complete 2- to 4-week clinical rotations in the program (at Bruyère Continuing Care and The Ottawa Hospital). These included residents from Family Medicine, Internal Medicine, Anaesthesia, Psychiatry, Neurology, OB/GYN, Haematology, Radiation Oncology and Rehabilitation.

In the area of CME/CPD, our Division was involved in providing 3 Pallium Program LEAP courses in the region (each course is 2 days long) for family physicians, nurses and pharmacists. Other education activities included LEAP noon-time workshops, the Thursday Evening Series, bi-weekly City-wide Academic Rounds, Lunch and Learns on Fridays at Bruyère Continuing Care, Palliative Academic Half Days for residents, and weekly Journal Club Rounds (a total of 145 sessions in the past year). Working with our nursing colleagues, we provided 34 hours of CME teaching in the community plus 20 hours of teaching to the Family Medicine residents in the academic Family Health Teams. Our Team at the General Campus recently also started Mortality and Morbidity Rounds monthly.

In the past year, we had a Spanish Professor of Nursing do a 1-year sabbatical in our program and a physician from Portugal doing a 3-month fellowship. We continue to receive numerous requests from international physicians to do short observerships or rotations in our program. As part of the internationalization goal of the University of Ottawa, we hope to finalize a Memorandum of Understandings with 2 universities in Portugal in the coming year to facilitate academic exchanges.

Division members were invited to present keynote speeches and presentations at a number of national and international conferences in this past year. This included 40 oral presentations and 17 poster presentations at national and international conferences.

Research Activities

The Division has 2 research streams, a clinical stream and an educational research stream. The clinical stream has 3 areas of focus including Delirium, Cachexia and Palliative Rehabilitation, and Health Services. These are led by Drs. Peter Lawlor, Martin Chasen and José Pereira/Edward Fitzgibbon, respectively.
The education research, led primarily by Drs. José Pereira, Tara Tucker and Christopher Barnes, has been focusing on the use of simulated patients and competency evaluation instruments. In the past year, we received close to $800,000 of internal research funding and $66,000 in external funding. A large portion of the internal funding was for Dr. José Pereira for the Pallium Project, funded by the Gillin Family and Bruyère Foundation. There was $111,000 for the development of an electronic, central referral and triage system for patients being referred to the Palliative Care Unit and hospices (SMART Project). This is led by Drs. José Pereira and Peter Lawlor. Dr. Tara Tucker received $25,000 from the AMX Phoenix Project for her work in compassion fatigue.

Key Peer Reviewed Grants


Pereira J (PI), Lawlor P. Ministry of Health of Ontario Innovation Fund and the Champlain Local Health Integration Network. A System to Manage Access, Referrals and Transfers of Patients to Palliative Care Units, Services and Hospices in Ottawa (SMART); an e-referral process.


Noteworthy Publications

Division members published 19 peer-reviewed articles in this past year. The notable publications were:


Hall P, Byszewski A, Sutherland S, Stodel EJ. Developing a Sustainable Electronic Portfolio (ePortfolio) Program That Fosters Reflective Practice and Incorporates CanMEDS Competencies Into the Undergraduate Medical Curriculum. Acad Med 2012; 87(6):744-51


Bergsträsser E, Hain RD, Pereira JL. The development of an instrument that can identify children with palliative care needs: the Paediatric Palliative Screening Scale (PaPaS Scale): a qualitative study approach. BMC Palliat Care 2013; 12:20
Honours and Awards

- Dr. José Pereira, Samantha Zinke, Dr. Shirley H. Bush, Dr. Pippa Hall, Lynda Weaver, Dr. Jill Rice, Dawn Allen, Deborah Ummel, Dr. Bernard Lapointe, Lee-Anne Ufholz, Pamela Grassau: Best Poster Award, University of Ottawa, AIME Medical Education Day 2012 — A Systemic Review of Palliative Care Education Assessment Instruments.

- Dr. José Pereira: Queen Elizabeth II Diamond Jubilee Medal, Canadian Hospice Palliative Care Association.

IN MEMORIAM

Farewell to our Friend and Mentor

There are people that touch our lives forever. We’re blessed to have known them and fortunate to have learned from them. They are teachers, mentors, and they are friends.

On May 13, 2013, we lost such a person: Dr. Pierre Allard — a palliative care physician, a husband, a father, a grandfather, a researcher, and a mentor to hundreds of medical students, residents and colleagues.

Forever our teacher, Pierre wanted to give one last gift to his students and colleagues — his last lecture on going from a clinician to a patient, using himself as the case study. He also gave us the chance to thank him and say goodbye.

Pierre will long be remembered for his skills, research, exceptional medical care, his role modeling of interprofessional collaboration and care, and his volunteer work for missions in Burkina Faso, Africa to assist colleagues in that country develop palliative care.

Thank you Pierre for leaving your mark in our hearts and our in minds!

— José Pereira MBChB, DA, CCFP, MSc
DIVISION OF PHYSICAL MEDICINE & REHABILITATION

16 Faculty Members • 11 Residents • 1 Fellow

The Division of Physical Medicine and Rehabilitation (PM&R) continues to be the primary rehabilitation services provider in the Champlain LHIN, providing specialized world class inpatient, outpatient and outreach care for patients with amputations, brain injuries, spinal cord injuries, stroke, chronic lung disease, respiratory disorders, complex neurologic disorders, multiple sclerosis, complex orthopaedics, chronic pain, and communications disorders. We strive to improve our patients’ quality of life and to foster safe and independent living.

Clinical Activities

We have 100 inpatient rehabilitation beds located at Élisabeth Bruyère, The Ottawa Hospital General Campus and The Ottawa Hospital Rehabilitation Centre (TOHRC). The majority of the patients admitted to our inpatient programs gain the skills and confidence needed to return home. In addition to the active inpatient programs, which admitted and discharged over 1,000 patients last year, we have a busy outpatient program that registers over 50,000 patient visits per year.

Programs Impacting the Community

The CanVent program, a pulmonary rehabilitation non-invasive interventional program for persons with neuromuscular diseases, enhances patients’ quality of life in the community, reduces the requirement for tracheostomies and the need for acute care admissions. Dr. Doug McKim, CanVent Medical Director, has shared these results with the Champlain LHIN.

Dr. Jeff Blackmer continues his work as Executive Director of the Office of Ethics, Professionalism and International Affairs for the Canadian Medical Association. He is also the Chair, Canadian Expert Working Group, Pharmaceutical Sponsorship of Continuing Medical Education; a Member of the Board of Directors, Canadian Pharmaceutical Advertising Advisory Board; and President of the Canadian Association of Physical Medicine and Rehabilitation.

Dr. Nancy Dudek is an active member of the Advisory Council for the Canadian Paralympic Committee – Changing Minds, Changing Lives. Dr. Sue Dojeiji is a Paralympic Advisor for the Canadian Centre for Ethics in Sport. Dr. Hillel Finestone is an Ottawa Board Member for the Stroke Survivors Association. Dr. Lynne MacGregor works with the Canadian Paraplegic Association (CPA) and TOHRC staff to develop resources for patients with SCI.

Dr. Shawn Marshall co-chairs and is member of various committees for the Ontario Neurotrauma Foundation addressing issues of quality of life and treatment for individuals with ABI and mTBI.
Dr. Doug McKim is a consultant for the Critical Care Secretariat in the Ministry of Health and Long Term Care. Their mandate is to develop clinical tools to standardize and facilitate weaning of mechanically ventilated patients in Critical Care units.

Dr. Gerald Wolff created a Peripheral Nerve Trauma Clinic (along with Dr. K. Boyd of Plastic Surgery) – a combined EMG and peripheral nerve surgery clinic that is dedicated to the early assessment and treatment of those with severe peripheral nerve injuries. This is only the 3rd clinic in Canada offering this level of expertise and coordination of care.

Impact on Global Health
In addition to his contributions nationally, Dr. Jeff Blackmer is also the Chief Ethics Advisor to the World Medical Association; a Member of the International Board of Advisors, World Medical and Health Policy Journal; and working closely as a Consultant on Medical Ethics with the World Health Organization and its affiliates around the globe.

Educational Activities
PM&R is a 5-year direct entry RCPSC accredited residency program. The RCPSC accreditors have dubbed the uOttawa PM&R program as the "model for the country". PM&R successfully matched 2 new PGY-1’s in the 2013 CaRMS match. We look forward to welcoming Dr. Alison Anton and Dr. Kate Montgomery to our program next year.

PM&R is actively involved in the undergraduate curriculum. PM&R residents and faculty have acted as primary MSK and Neuro block lecturers and as Clinical skills tutors throughout the year. PM&R is actively involved in the link block placements at TOHRC and Élisabeth Bruyère and accommodates numerous trainees from across Canada.

Dr. Sue Dojeiji is a diligent supporter of the educational curriculum. She is the Chief Examiner for the RCPSC PM&R National Fellowship Examination (Term 2010-2014). Dr. Dojeiji also works as an education consultant at the RCPSC supporting the mandate of The Office of Education and the CanMEDs initiative and is the Co-chair for the Milestones National Communication Skills Summit.

Research Activities
The Division of PM&R is intensively engaged in a wide scope of research covering areas such as driving capability, amputee research, uses of virtual reality in rehabilitation, stroke rehabilitation, orthopaedic research, traumatic brain injury and spinal cord research, pediatric rehab and cerebral palsy as well as research into medical education which has significant impact across all specialties. PM&R currently has 25 active grants for a total funding of $21,820,823; has published 37 articles over the last year; and has provided 72 presentations, abstracts and workshops over the last year, both nationally and internationally.
Dr. Mark Campbell successfully obtained a uOttawa International Research Fellowship in Leeds, UK. He will conduct genetic and cellular based research on osteoarthritis. He will join the PM&R Faculty in October 2013 as a Clinician-Investigator. The Centre for Rehabilitation Research and Development facilitated a comprehensive review of the controversial Mild Traumatic Brain Injury (mTBI). This review will form the foundation for an innovative clinical and research program at TOHRC. No integrated program for mTBI currently exists in Canada.

Dr. Hillel Finestone and colleagues performed a randomized controlled trial to determine whether virtual reality (VR) therapy, as an adjunct treatment, improves balance, weight bearing on the affected side and exercise performance in stroke rehabilitation inpatients, and is safe and feasible. Rigorous randomized studies regarding the efficacy, safety and applicability of exercise training using VR — interactive simulations created with computer hardware and software — are lacking. The challenge now is to extend this intervention to community rehabilitation facilities. This study may be the first of its kind.

Key Peer-reviewed Grants


Trudel G, Lapner P, Laneuville O, Schweitzer M, Russell D, Rudnicki M, Uhthoff H. CIHR. Autologous Bone Marrow-Derived Cellular Augmentation in Rotator Cuff Repair


Noteworthy Publications


Honours and Awards

• Dr. Jeff Blackmer: Queen Elizabeth Diamond Jubilee Medal. He was nominated by CAPM&R for his work with PM&R, ethic and international affairs.

• Dr. Sue Dojeiji: Meridith Marks Award for Excellence in Medical Education — Canadian Association of Physical Medicine & Rehabilitation – June 2013.

• Dr. Nancy Dudek: “Fail to Fail” paper was recognized as the top paper in medical education by citation.
RESPIROLOGY

13 Faculty Members • 5 Residents • 3 Fellows

Clinical Activities

The Division of Respiratory Medicine offers general respirology outpatient clinics situated both at The Ottawa Hospital (Civic and General Campuses) as well as in community clinics in Ottawa and in the surrounding area. We serve as a tertiary care referral centre for the Champlain LHIN and for other areas of Eastern Ontario and Western Quebec.

We have a 16-bed inpatient unit at The General Campus of The Ottawa Hospital. Patients admitted to this unit have a multitude of illnesses including interstitial lung diseases, obstructive lung diseases, cystic fibrosis (CF), lung cancer, post lung transplants, and neuromuscular diseases which may require chronic ventilation.

Our division has numerous subspecialty clinics offering state of the art care to patients in our region. We hold a pulmonary hypertension clinic weekly at The University of Ottawa Heart Institute, there is a weekly cystic fibrosis clinic, there are several sleep clinics, bi-weekly pleurex clinics, lung cancer assessment clinics, neuromuscular diseases clinics, and bi-weekly tuberculosis clinics. Division members run an inpatient and outpatient pulmonary rehabilitation unit at The Ottawa Hospital Rehabilitation Centre, as well as an outpatient chronic ventilatory management unit for patients with neuromuscular diseases.

The division has 15 sleep medicine beds at the Civic Campus for overnight polysomnograms. Diagnostic and therapeutic bronchoscopies occur at both campuses. Medical pleuroscopies are done twice weekly by Dr. Kayvan Amjadi in the endoscopy suites. Endobronchial ultrasound guided biopsies of lung lesions and mediastinal lymph nodes are done regularly by Dr. Amjadi and Dr. Nha Voduc, as are airway stent insertions and airway laser therapy for endobronchial tumors.

Programs Impacting the Community

The Pleurex program has enabled patients with malignant pleural disease to be treated as outpatients and in the home, rather than as hospital inpatients. The CF adult program takes care of 115 patients with CF from Eastern Ontario and West Quebec.

Programs Impacting Global Health

Dr. Gonzalo Alvarez has been very active in promoting smoking cessation and TB prevention in Nunavut, Canada as well as in Pietermaritzburg, South Africa.
New Initiatives

4. Development of the Non Invasive Mechanical Ventilation Educational website. This modular website will be an important educational resource for patients, care givers and health care providers for individuals at-risk of or using ventilatory support.

5. CANVent Fellowship. The first CANVent Fellow completed 8 months of training (and one research project) and has returned to Université Laval to establish a more formal Neuro-Respiratory/Home Ventilation clinic.

6. Ventilator conversion. With the introduction of new ‘hybrid’ ventilators with pressure and volume capabilities, built-in alarms and back-up battery supply we have converted each of our patients (n=40) who are highly dependent on ventilatory support with two ventilators in their home, to the new technology, all as out-patients.

7. A multidisciplinary Interstitial Lung Disease Clinic has started at The Ottawa Hospital this year.

8. A bronchoscopy simulator is being used to teach mediastinal anatomy and endobronchial ultrasound to the respirology trainees.

Educational Activities

The Division of Respirology is highly committed to medical education at all levels. We provide elective rotations in respirology for interested medical students and residents in addition to a respirology training program and subspecialty fellowships in sleep medicine, interventional pulmonology, and respiratory management of neuromuscular disease.

Elective Rotation in General Respirology:

We offer 2-4 week elective rotations in clinical respirology. In the course of the rotation, the trainee will join the respirology housestaff team and participate in outpatient clinics, inpatient consultations and care of patients admitted to the specialized respirology inpatient service. The rotation will include exposure to pulmonary function testing, respiratory procedures (bronchoscopy, thoracentesis) and chest imaging. The exact content of the rotation will be tailored to the level and learning objectives of the trainee.

The elective rotation is open to all residents, as well as 3rd or 4th year medical students who have completed their clerkship rotation in Internal Medicine. Interested trainees are encouraged to contact us as soon as possible, as enrolment is limited in order to provide an optimal educational exposure for all housestaff.
Respirology Training Program

The University of Ottawa offers a 2 year (PGY 4-5) respirology training program, for residents who have completed 3 years of core internal medicine training. We strive to offer the best possible clinical and academic training in adult respirology, in a collegial and friendly environment. Our trainees benefit from a broad range of clinical exposures and an extensive educational curriculum. The clinical experience includes general respirology and specialized outpatient clinics, in both hospital- and community-based settings. Trainees are exposed in all relevant areas of respiratory medicine including sleep, critical care, interventional pulmonology, cystic fibrosis, pulmonary rehabilitation, and respiratory infectious diseases.

All trainees participate in the medical school curriculum, providing lectures and leading learning groups for medical students of all levels. Scholarly activity is encouraged. Mentorship and formal training in clinical research is offered.

The curriculum is designed to provide comprehensive training in all aspects of general respirology, with the flexibility for each trainee to tailor their education experience to best suit their unique career goals. Our trainees graduate to successful respirology careers in both academic and community settings.

Fellowship Training in Sleep Medicine and Interventional Pulmonology

For residents who have completed training Respirology, we offer separate 1-year fellowships in Sleep medicine and Interventional Pulmonology, under the supervision of Drs. Douglas McKim and Kayvan Amjadi respectively.

Research Activities

Research in the Division of Respiratory Medicine is focused in the areas of clinical research, and clinical and population epidemiology. Our research faculty is growing and has been very productive in recent years. Since 2003 members of our faculty have published first-author research publications in: The NEJM, Lancet, JAMA, Annals of Internal Medicine, CMAJ, The American Journal of Respiratory and Critical Care Medicine, as well as many other subspecialty journals. Members of our group hold a large number of peer-reviewed research grants from CIHR, The Ontario Thoracic Society, The Canadian Cystic Fibrosis Foundation, Public Health Agency of Canada and The Canadian Cancer Society.

Key Peer Reviewed Grants


Aaron S (PI). CIHR. Strategies to improve diagnosis and treatment of asthma in Canadians.

McKim D (Co-I). Jessie’s Journey. STEADFAST study (Stacking Exercises Attenuate Decline in Forced vital capacity and Sick Time). Randomized controlled trial of LVR in children with Duchenne Muscular Dystrophy.

McKim D (co-PI). National Multiple Sclerosis Society (USA). Lung volume recruitment and pulmonary function in Multiple Sclerosis. Co-Principal investigator

Noteworthy Publications


RHEUMATOLOGY

11 Faculty Members • 2 Residents

Clinical Activities

Operating out of The Arthritis Centre on the 6th floor of the Riverside campus, the Division continues to provide out-patient care to a large number of patients with particular focus on inflammatory joint disease and advanced therapeutics, connective tissue diseases, osteoporosis, pregnancy-related issues and vasculitis. Between 1000 and 1200 patients are seen each month. We provide consultation coverage for inpatients, outreach clinics in the Ottawa valley and Baffin Island and Dr. Doug Smith is involved in the LHIN e-consultation project. A major highlight was the recruitment of Dr. Nataliya Milman, who joined us on staff July 1, 2013. She has established a vasculitis clinic and is collaborating in a national and international database. A combined Dermatology and Rheumatology clinic has been established to enhance patient care and facilitate training in the two disciplines.

Programs Impacting the Community

The Advanced Therapeutics Program oversees the care of approximately 1000 patients on biologic agents for treatment of chronic inflammatory rheumatic diseases. Drs. Karsh and Smith have joined the Ontario Biologics Research Initiative, a provincial initiative to monitor use and safety of these agents in patients with Rheumatoid Arthritis.

Educational Activities

Faculty members are involved in educational activities at all levels of undergraduate and postgraduate medical education. Dr. John Thomson has been busy in his role as Program Director and is preparing for an external review coming in January, 2014. Our 2 subspecialty residents, Dr. Ines Midzic and Dr. Rajanjot Gill, have started their second year of training and both were successful in the Royal College examinations in Internal Medicine. Dr. Susan Humphrey-Murto continues to play a significant role in educational scholarship as a Senior Research Associate with the Academy for Innovation in Medical Education (AIME). Dr. Smith provides regular educational sessions for patients with Systemic Autoimmune Rheumatic Diseases and their families.
Research Activities

Dr. Peter Tugwell continues to be prolific in the areas of Knowledge Synthesis and Translation by Cochrane Canada, equity evidence aids and improving delivery of primary care for vulnerable populations. He is a co-investigator on grants totaling over $1 million in funding from CIHR. Dr. Humphrey-Murto is Member, Clinician Educator Area of Focused Competence Working Group, Royal College of Physicians and Surgeons of Canada and has a total of $122,634.00 grants for education.

Key Peer Reviewed Grants

Tugwell P (co-PI/ Senior Investigator) CIHR. Health equity impact assessment for migrants.

Wood T, Chan J, Humphrey-Murto S, Pugh D, Touchie C. Medical Council of Canada. Can a first impression change within the context of an OSCE station?

Notable Publications

Members of the division published 32 peer reviewed articles this past year including:

Tugwell P was an author on 21 publications in refereed journals. In addition he was senior author on 7 invited editorials in J Clin Epidemiol since July, 2012. One of these was entitled: What is ‘best evidence’? J Clin Epidemiol 2012; 65(11):1131-2


Honours and Awards

• Dr. Smith was awarded Le prix Marie-Therese Fortin on May 10, 2013 at the 44th annual meeting of the Laurentian Conference of Rheumatology. The award recognizes professional and humanitarian qualities in the care of patients with rheumatic diseases.