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All persons profiled in this Annual Report have agreed to their appearance and have approved their individual stories.
A PANORAMIC VIEW

DEPARTMENT OF MEDICINE
2013–14 ANNUAL REPORT
A PANORAMIC VIEW

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 healthcare 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.

**Department of Medicine Executive Committee**
From left to right: Dr. Erin Keely (Vice Chair, Medical Education), Dr. Philip Wells (Department Chair and Chief), Ted Waring (Chief Administrative Officer), Dr. Susan Dent (Vice Chair, Patient Quality & Safety), Dr. Kevin Burns (Vice Chair, Research), Dr. Michele Turek (Vice Chair, Clinical Services), Dr. Alan Karovitch (Vice Chair, Finance)
March 2014 marked the end of my first five-year mandate as Department Chair and Chief. Over this period I am very happy and extremely proud that the members of the Department of Medicine have contributed to many achievements and successes: increases in grant funding, significant increases in publications, strategic recruitment of new faculty, introductions of innovative quality programs and development of patient quality and safety initiatives. I am particularly proud of our leadership role in medical education in Canada.

However, despite these successes I realize it is important to periodically zoom out, re-evaluate and retool. This is exactly what we have done with our strategic planning exercise this year. Through extensive consultation we analysed the priorities of our partners (University of Ottawa Faculty of Medicine, University of Ottawa Health Research Institute, The Ottawa Hospital and other partner hospitals) and through our committee structures, we performed an extensive SWOT analysis. This provided us with a panoramic view of the department, which served as the impetus for our strategic planning process. This process began with concept mapping from our physicians and scientists. We continued with extensive consultation at committee levels, ranking and categorizing of members priorities, departmental retreats in May and September, analysis of our organizational structures, and an evaluation of medical administrative literature. After several months we have arrived at a comprehensive plan for the next five years.

To implement the plan, we have flattened out our org chart, eliminated committees where necessary and created team structures to allow for extensive membership participation. Many of these teams will have finite life spans and very specific and directed goals that will be actionable. Project management utilizing non-physicians will become the modus operandi of the department. The team objectives and goals will support our obvious strengths in the area of cardiovascular research, oncology research, clinical trials, knowledge synthesis research and medical education research. We will evolve our clinical processes and quality and safety initiatives to focus on The Ottawa Hospital corporate objectives and to ensure continued growth and research in the areas of strength mentioned above.

It also became evident through this process that physician wellness, advancement and recognition need to be better addressed. In response we have created the new portfolio “Physician advocacy leadership and support” that will be led by a new Vice Chair.

I am grateful to The Ottawa Hospital and the University for granting me a second mandate and I look forward to continue working with the remarkable physicians, administrators, and trainees within this department to accomplish our new mission.

Philip S. Wells
MD FRCP C MSc
Chair and Chief, Department of Medicine
University of Ottawa & The Ottawa Hospital
Chair’s Highlights

Honours and Awards

- **Kwan Chan** (Cardiology) awarded the University of Ottawa Faculty of Medicine Award of Distinction and Service

- **Andrew Pipe** (Cardiology) awarded the Academy of Medicine’s Ottawa Physician of the Year Award for 2014

- **Dr. Michael Froeschl** (Cardiology) and **Dr. William Dalziel** (Geriatrics) awarded the 2013 Education Award by the University of Ottawa Office of Continuing Medical Education for their exceptional participation in CME activities.

- **Dr. Catherine Dubé** (Gastroenterology) selected by Cancer Care Ontario (CCO) to be the Clinical/Medical Lead for the Ontario colorectal cancer screening program (coloncancercheck).

- **Dr. Loree Boyle** (General Internal Medicine) and **Dr. Pierre Bourque** (Neurology) awarded The Ottawa Hospital Clinician Recognition Awards.

- **Dr. Chris Bredeson** (Hematology) elected as Vice-President and incoming President of American Society for Blood and Marrow Transplantation (ASBMT).

- **Dr. Lothar Huebsch** (Hematology) recipient of the 2013 André Peloquin Memorial Award, University of Ottawa Faculty of Medicine for his excellence in clinical teaching.

- **Dr. Curtis Cooper** (Infectious Diseases) recipient of the CFID Dr. John M. Embil Mentorship Award in Infectious Diseases.

- **Dr. Mark Clemons** (Medical Oncology) received the Dr. Michael Chrétien Researcher of the Year Award for leading a seminal study that has changed how metastatic breast cancer is treated around the world.

- **Dr. Fraser Scott** (Endocrinology & Metabolism) awarded the Earle W. Crampton Award for Distinguished Service in Nutrition.

- **Drs. Michael Rudnicki** (Neurology) and **Peter Tugwell** (Rheumatology) appointed as Officers of the Order of Canada. Dr. Rudnicki was recognized “for contributing to scientific breakthroughs in the area of muscle development and for his leadership in stem cell research.” Dr. Tugwell was recognized “for his contributions as an epidemiologist reducing global disparities in health care access.”
High Impact Papers

**New England Journal of Medicine**


**Nature**

Hakim AM. Perspective: silent, but preventable, perils. 2014; 510:S12

**The Lancet**


**Journal of the American Medical Association**


**Annals of Internal Medicine**


**Circulation**


**British Medical Journal**


**Public Library of Science**

Faller E, McVey M, MacPherson P. IL-7 Receptor recovery on CD8 T-cells isolated from HIV+ patients is inhibited by the HIV Tat Protein. 2014; 9:e102677


Grants

$3 million (over 3 years) of Federal funding went to the Pallium Program of Canada to support training in palliative and end-of-life care to frontline health care providers. Dr. José Pereira (Palliative Care) is the Pallium Foundation Director and Scientific Officer.

Dr. Jonathan Angel (Infectious Diseases) was part of research team involving TOH, CHEO, and University of Ottawa, which will play a major role in a project that aims to find a cure for HIV and contribute to the global effort to put an end to AIDS. The project was awarded $8.7 million through the Canadian Initiative for HIV Cure Research.

Dr. David Birnie (Cardiology) is UOHI co-PI on ‘Canadian Atrial Fibrillation Stroke Prevention Intervention Network (CAF-SPIN);’ part of the June 2013 ICRH Emerging Network Grants Competition. $18 million over 5 years.

Dr. Duncan Stewart (Cardiology) (PI), Dr. Phil Wells (Hematology), UOHI Theme Leader, Dr. Peter Liu (Cardiology) and UOHI co-applicant Drs. Rob Beanlands and Thais Coutinho (both Cardiology) were funded for 5 years from the June 2013 ICRH Emerging Network Grants Competition for ‘Vascular Network across Canada.’ $6.4 million.

Dr. Shawn Marshall (PM&R) received an Operating Grant for $1.3 million from CIHR for his Candrive Prospective Older Driver Study.

Dr. Martin Chasen (Palliative Care) received an Operating Grant for $373,422 from CIHR for his Multimodal Exercise, Nutrition and Anti-inflammatory Treatment For Palliation of Cancer Cachexia: the MENAC study

Dr. John Bell (Neurology) has been awarded The Cancer Society Impact Grant, which will be used for research to tailor cancer-fighting viruses for pancreatic cancer. The funding amount is $1,244,770.

Drs. Michael Schlossmacher and David Park (both Neurology) have been awarded a five-year team grant in the amount of $2.5 million from the CIHR to study the role of a specific gene (LRRK2) in three debilitating chronic diseases: Parkinson’s, Crohn’s and leprosy.

Drs. Dar Dowlatshahi and David Grimes (both Neurology) are part of $28.5 million initiative funded by the Ontario Brain Institute to investigate neurodegenerative disorders such as Alzheimer’s disease, Vascular Dementia, Parkinson’s and ALS.
Dr. Alan Tinmouth (Hematology) and the University of Ottawa Centre for Transfusion Research (UOCTR) have been awarded $718,286 by Canadian Blood Services.

Drs. Rashmi Kothary and Jodi Warman (both Neurology), are two of four co-principal investigators in the newly launched Canadian Neuromuscular Disease Network resulting from a $575,613 investment from a CIHR Network Catalyst grant from the CIHR Institute of Musculoskeletal Health and Arthritis and $155,820 from Muscular Dystrophy Canada.

Drs. Ruth McPherson and Robert Dent (Both Endocrinology & Metabolism) were successful in obtaining a $853,441 grant from the Open Operating Grant Competition for “Molecular Basis of Weight Loss Variability in Response to Energy Restriction”.

Dr. Redouane Bouali (Critical Care) Jeff Turnbull Contributions to International Medicine Award

Dr. Christopher Johnson (Cardiology) Going the Extra Mile Award

Drs. Joe Abunassar (Cardiology) and Andrew Aw (Hematology) Peter MacLeod Ambassador Award for Outstanding Resident

Dr. Kevin Burns (Nephrology) Department of Medicine Vision Award

Donna Young (General Internal Medicine) Chairman’s Cornerstone Award
Dr. Mark Clemons (Medical Oncology)
Department of Medicine Mentorship Award

Dr. Debra Pugh (General Internal Medicine)
Meridith Marks Educator Award for Innovation and Scholarship in Medical Education

Dr. Mylène Côté (Core Residency Program)
Resident Award for Excellence in Medical Education Scholarship (Senior)

Dr. Rachel Goodwin (Medical Oncology)
Resident’s Choice Clinical Teaching Award

Drs. Christopher Tran, Marlène Mansour, Daniel Yokom and Daniel Ramirez (Core Residency Program)
Chief Resident Awards

Department at a Glance

461 Physician Members:
- 251 Full Time Academic (FTA)
- 135 Part Time Academic (PTA)
  - 47 Scientist
  - 5 Emeritus
  - 23 Adjunct

295 FTA and Scientists:
- 127 Assistant
- 89 Associate
- 76 Professor
- 3 Lecturer
Message from the Chief Administrative Officer

Reflecting on our achievements in 2013–14 was particularly important this past year. In December, the Department underwent an external review, mandatory at the end of a Chair’s first term. The reviewers spent two full days interviewing faculty, key stakeholders and staff, plus many more hours combing through 581 pages of supporting documentation that detailed the inner-workings of this Department.

The final report was overwhelmingly positive, full of laudatory statements and peppered with adjectives such as outstanding, excellent, strong, robust, innovative, supportive, and engaged. It also highlighted the strength of our academic financial structure and made specific mention of Dr. Wells’ outstanding leadership over the past five years.

Perhaps it was best summarized by the following statement:

“The bar has clearly been raised to enhance performance in clinical care, teaching and research”.

While we tend not to seek out the spotlight, external validation of our personal and collective achievements is immensely important and satisfying. We spend innumerable hours working to advance the academic and clinical missions so that we can bolster the trainee experience and improve the lives of our patients.

Over the past year we’ve had the pleasure of welcoming several physicians to our Department including 19 full-time and 7 part-time faculty. We also recruited a combined 13 clinical scholars and locums. We processed 45 cross-appointments and adjunct professor requests/renewals as well as administered privileges for 70 fellows. We also, despite being required to adjust to the very public and seemingly daily changes made to the foreign worker review process, were able to recruit four high-profile foreign clinician scientists/investigators. We hired 27 new administrative staff, 15 of which were hired for new or expanded roles and we coordinated 24 internal transfers.

Our stakeholders continued to tighten their policies and procedures resulting in more accountability from departments. The effects were experienced most during the administration of the appointment process. To meet the new demands we quickly recognized the need for more support from our divisions, in particular their executive administrators. In March 2013, the Department organized its first Division Head Assistant Retreat, which reviewed these new processes and outlined best-practices to ensure an effective appointment process. Ongoing, the Department created a forum that will foster team spirit and provide direct support to this very important group.

Despite the continued uncertainty surrounding healthcare funding, the Department, and its various practice plans were able to provide significant direct and indirect funding to support the tripartite mission at all of our affiliated hospitals and research centres. Examples include increased funding for clinical and research fellows and for recruitment of new faculty. Several of these initiatives are detailed elsewhere in this report.
Our leadership recognizes that challenges remain. We are working hard to refine our programs ensuring that we balance the need for transparency with the pressure to increase the bureaucracy. We are also acutely aware of the need to keep moving the bar higher so we will continue to explore new ways that help us work smarter, not harder. To this end, towards the end of the 2013–14 academic year we embarked on the development of a new strategic plan. Together with our partners, we will paint a comprehensive picture of what could and should be tackled in the years ahead.

Edward Waring  MBA
Chief Administrative Officer

If you just focus on the smallest details, you never get the big picture right.

— Leroy Hood
Division Heads

Reflects the period of July 1, 2013 to June 30, 2014.

Dr. Rob Beanlands
Cardiology

Dr. John Kim
Critical Care

Dr. Ken Kobayashi
Dermatology

Dr. Erin Keely
Endocrinology & Metabolism

Dr. Alexander Sorisky
Endocrinology & Metabolism

Dr. Alaa Rostom
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, 2013 to June 30, 2014.

Dr. Mark Clemons
Full Professor
Medical Oncology

Dr. Ben Chow
Full Professor
Cardiology

Dr. Dean Fergusson
Full Professor
Clinical Epidemiology

Dr. Edward Lemaire
Full Professor
Physical Medicine & Rehabilitation

Dr. Doug McKim
Full Professor
Respirology

Dr. Michael Schlossmacher
Full Professor
Neurology

Dr. Christina Addison
Associate Professor
Medical Oncology

Dr. David Allan
Associate Professor
Hematology

Dr. Lauralyn McIntyre
Associate Professor
Critical Care

Dr. Lisa Mieleniczuk
Associate Professor
Cardiology
# New Faculty Positions (FTA & PTA)

Reflects the period of July 1, 2013 to June 30, 2014.

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Dr. Nataliya Milman</td>
<td>Rheumatology</td>
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<tr>
<td>Dr. Justine Chan</td>
<td>General Internal Medicine</td>
</tr>
<tr>
<td>Dr. Vivien Parker</td>
<td>Neurology</td>
</tr>
<tr>
<td>Dr. Hassan Mustafa</td>
<td>General Internal Medicine</td>
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<tr>
<td>Dr. Tom Nguyen</td>
<td>Neurology</td>
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<tr>
<td>Dr. Sanjay Murthy</td>
<td>Gastroenterology</td>
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<tr>
<td>Dr. Michael Ong</td>
<td>Medical Oncology</td>
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<tr>
<td>Dr. Alaa Rostom</td>
<td>Gastroenterology (Division Head)</td>
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<tr>
<td>Dr. Catherine Dubé</td>
<td>Gastroenterology</td>
</tr>
<tr>
<td>Dr. Hussein Abujrad</td>
<td>Endocrinology &amp; Metabolism</td>
</tr>
<tr>
<td>Dr. Kenneth Kobayashi</td>
<td>Dermatology (Division Head)</td>
</tr>
<tr>
<td>Dr. Yoko Schreiber</td>
<td>Infectious Diseases</td>
</tr>
<tr>
<td>Dr. Judy Shiau</td>
<td>Endocrinology &amp; Metabolism</td>
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<tr>
<td>Dr. Ellamae Stadnick</td>
<td>Cardiology</td>
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<tr>
<td>Dr. Girish Dwivedi</td>
<td>Cardiology</td>
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<tr>
<td>Dr. Thais Coutinho</td>
<td>Cardiology</td>
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<tr>
<td>Dr. Pierre Villeneuve</td>
<td>Hematology</td>
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<tr>
<td>Dr. Deanna Quon</td>
<td>Physical Medicine &amp; Rehabilitation</td>
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<tr>
<td>Dr. Manish Sood</td>
<td>Nephrology</td>
</tr>
<tr>
<td>Dr. Mark Campbell</td>
<td>Physical Medicine &amp; Rehabilitation</td>
</tr>
<tr>
<td>Dr. Arleigh McCurdy</td>
<td>Hematology</td>
</tr>
<tr>
<td>Dr. Jeffrey McCurdy</td>
<td>Gastroenterology</td>
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<tr>
<td>Dr. Shane English</td>
<td>Critical Care</td>
</tr>
<tr>
<td>Dr. Tiago Mestre</td>
<td>Neurology</td>
</tr>
<tr>
<td>Dr. Edward Clark</td>
<td>Nephrology</td>
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<tr>
<td>Dr. Sharon Chih</td>
<td>Cardiology</td>
</tr>
<tr>
<td>Dr. Jodi Warman</td>
<td>Neurology</td>
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</table>
The Ottawa River and valley, seen from Gatineau Park
CLINICAL CARE
Each and every day the Department of Medicine continues to strive for a health system that works for everyone. For those complex patients that are either admitted for acute care or in our ambulatory clinics and services, our 400-plus clinicians provide comprehensive, coordinated and continuous care. There are conflicting and increasing demands on our clinicians as they orchestrate and deliver clinical care. These include the daily decision-making necessary to thoroughly evaluate patients, but we have also been tasked to ensure that such care is delivered with a definite quality focus reinforced by appropriate best practices and accountabilities. Therefore, at the behest of our Chairman and supported by our membership, the Department of Medicine underwent a strategic planning initiative. This provided the Clinical Services Committee an opportunity to reflect on our strengths and weaknesses and identify key areas for improvement and development. We understand that our mission is to deliver patient-centred care that is evidence based, high quality, and efficient. We will utilize new knowledge and techniques but always emphasizing the importance of incorporating research and education into the care we provide. It is well recognized that we must work towards more comprehensive patient centred-care that moves beyond the in-patient experience, optimizing partnerships with community and regional programs to ensure that we deliver the clinical outcomes that all patients deserve. We will push to create new care models that provide post-discharge “safety nets”.

The Department has devoted renewed energy and resources to our clinical portfolio. In April of this year, we established the position of Medical Director of Ambulatory Care and commissioned Dr. Greg Rose to fill this new role. Dr. Rose will work closely with the Department of Medicine, The Ottawa Hospital and others focusing on the review of current ambulatory practices, establishing processes to collect and report relevant wait list information, creation of a Departmental wide referral system, and developing business models for expanding ambulatory care both within and outside of The Ottawa Hospital.

We need standardized care processes that will help eliminate unnecessary testing and procedures. We will need wide-ranging services that comprise novel models of care or innovations and promote optimal resource allocation. All of these combined should enable us to deliver effective, efficient, equitable and sustainable patient care across all our programs. This is not new and not unique, but necessary to move us forward as a department.

Across all our divisions, our physicians collaborate with partners and organizations as well as the patients within our practices to improve the health and well being of those we care for. This includes working with national organizations with the aim to improve wait times or organ donations, positively influencing the health and outcomes of patients by promoting healthy lifestyle choices and leading initiatives that can support crucial mobilization of resources for especially vulnerable populations. We utilize the special and unique links we have with our patients and communities and this can translate into effective change. Examples include the aboriginal strategy espoused in Medical Oncology (including lung cancer research and surveillance) and outreach programs in TB and rheumatology and cardiology provided to Northern Canadian regions that bring evidence based patient centered care to these regions without requiring such patients to leave their communities.

We do so many extraordinary things, but we still need to keep our eye on the prize. As evident in this Annual Report and across all our divisions, our members have focused
efforts on noteworthy innovations that can truly smooth the way for patients as they navigate our hospitals and clinics and ensure that the care that we deliver provides the clinical outcomes they deserve.

Michele Turek  MD FRCPC
Associate Professor of Medicine (Cardiology)
Vice-Chair, Clinical Services

Clinical Initiatives

Pituitary Disorders Clinic

Pituitary adenomas are a common, diverse group of tumors associated with increased morbidity and mortality. At The Ottawa Hospital, over 100 patients present for evaluation, and treatment of pituitary adenoma yearly. The standardization of care and development of best practices has been shown to reduce practice variation, improve patient care and decrease ineffective resource utilization. As such, a quality improvement project was undertaken by the Division of Endocrinology and Metabolism to develop a standardized multidisciplinary management protocol for this patient population.

An environmental scan consisting of a retrospective chart review, a survey of health care professionals, and a patient focus group was performed to collect data regarding the referral process, imaging, biochemical work-up, management and follow-up of patients with pituitary adenoma at TOH as well as information concerning the patient journey, access to clinical care and the quality of patient education materials.

The chart review identified inconsistencies and opportunities for improvement in time from referral to endocrinology assessment, initial biochemical work-up, imaging, and time to referral to neurosurgical evaluation. The patient focus group identified five areas of priority for improvement, which ranged from patient education and information, enhancing system navigation and communication to identifying opportunities for use of technology to enhance visit coordination to minimize the number of follow-ups.

A patient advisory group consisting of multidisciplinary representation from the Divisions of Endocrinology and Metabolism and Neurosurgery, and patient volunteers drawn from the patient focus groups was convened to aid in the development of a patient education evening and information booklet. The pituitary information evening for patients and families together with the revised information booklet will be launched in October 2014.

Work is ongoing towards the creation of a standardized integrated management protocol for patients with pituitary disease. Projects include the development of elements such as triage criteria, a central triaging process, and standardized documentation to continue to improve the patient experience and clinical outcomes for patients with pituitary disease.

This project was funded by the Patient Quality and Safety Committee Research/Innovative Awards Program.
The Ottawa Hospital Cancer Centre Systemic Therapy Triage Unit

The Division of Medical Oncology at The Ottawa Hospital (TOH) benefits greatly from a close working relationship with TOH Emergency Department (ED). At the same time, we feel that there is substantial benefit to both patients and TOH if we are able, to the extent possible, to divert patients from the ED and manage patients in a different setting. With this in mind, the division operates a Medical Oncology/Cancer Centre Triage/Stretcher Bay Unit to rapidly assess appropriate patients who require urgent attention between scheduled clinic appointments. This may include patients with symptoms related to their malignancy or to treatment toxicity, and also includes patients for whom we receive abnormal lab or radiology reports that require urgent attention. This Unit is one of only a few fully operational Cancer Centre Triage Units in the country.

Having the ability to treat patients in our Triage/Stretcher Bay Unit often eliminates the requirement for the patient visit to the Emergency Department, permitting us to either admit the patient directly to TOH or else to prescribe a course of action that enables them to return home. The Unit is staffed by General Practitioners in Oncology supplemented by fellows and residents (as part of their oncology training). These physicians work together with a highly trained nursing care team Monday to Friday 0900–1700 hours.

In addition to offloading the ED, the Unit has several other benefits. For example, patients strongly prefer it to the ED since long wait times are avoided. It helps our inpatient team since it improves their efficiency by reducing the frequency with which they need to leave the ward to attend to patients in the ED. It helps clinic efficiency since sicker patients can be diverted from routine clinics and given the attention they require.

Photopheresis—progress towards offering a new treatment for Graft Versus Host Disease in the Champlain LHIN

For many years, the Blood & Marrow Transplant (BMT) program has been advocating for funding to establish a local photopheresis program. Photopheresis is a treatment offered to patients suffering from a severe form of chronic Graft Versus Host Disease (cGVHD). This can be a severe and disabling multi-system medical complication that occurs in some patients who receive a blood or marrow transplant from a donor. Photopheresis is currently not available in the Champlain LHIN, despite its availability in other large Ontario centres. The requirement to travel long distances for extended periods of time has prevented many Ottawa area patients from accessing this effective treatment.

In the fall of 2013, the Division of Hematology, in partnership with the TOH Cancer Program, applied to the Champlain Local Health Integration Network (LHIN) for one-time funding to purchase a Cellex Photopheresis machine. After months of continued advocacy, the Division was notified in spring 2014 that the application was successful. With the funding to purchase the equipment secured, advocacy for operational dollars from Cancer Care Ontario (CCO) continues. While we have received notice from CCO that operating dollars have been earmarked for our program, they are finalizing their implementation plan before flowing us the funding. We are very optimistic that by the next annual report, TOH will be offering this state of the art treatment to affected BMT patients closer to home.
An interview with

DR. JIM WALKER
Dermatologist
In grade 13, after a mediocre academic performance in the fall term, and showing a rare character for self-assessment, Jim took charge of his future in a sentinel realization “If you want to take control of your life,” he said to himself, “you’ve got to perform better than this.” Medicine followed. It was an applied version of the sciences which he enjoyed, something that would pay the rent and provide independence. Plus, he’d be doing something worthwhile. After graduating from Western, he did a rotating internship, to try his hand at different fields.

In the end, he saw in dermatology a potentially independent practice; he wouldn’t need to rely on the decisions of others for success. “Dermatology was visual, hands-on, and had a good balance of medicine and surgery. It was a good fit with having a physician wife, an active lifestyle and wanting a family I could be involved in raising.”

Jim grew up in Hamilton, Ontario, in its west end. Westdale was one of the province’s first planned neighbourhoods, and his parents chose the area most particularly. They valued education and gave him easy access to every stage of it, from primary school to university. They encouraged him to better himself, and to persevere. He learned the value of hard work and, quite profoundly, the importance of chance. Life can go either way if you let it, and even if you don’t. His parents passed away when he was still young, but not before entrenching strong values in Jim and his older loving brother Dennis, who was also a role model for Jim. In this, Jim learned to value life. “Life is a temporary phenomenon. You have to enjoy it when you have the opportunity, and you should commit to do something worthwhile and productive during that time.”

Doctor James Walker is a tall, long-limbed man occupying a small office. This makes him seem larger still. He works at a simple wooden desk under exposed pipes. Across from him, the teeming bookshelves are well-lit by a south-facing window. It’s a practical workspace, with no signs of plumage. Jim has a firm handshake, and a deep and gritty voice, which he uses for precision. All-in-all, down to the spectacles and neatly trimmed moustache, he has a more-or-less Victorian presence. One expects the flash of a pocket watch. All visible signs speak of conservatism and competence. But when he laughs, he laughs loudly, and with his eyes. He jokes about food and drink and has a sincerity that, as his patients attest, puts you at ease. What stands out about the man is his deliberateness. Purpose and resolve thread through his stories. His achievements in career, athleticism and activism are, quite frankly, extraordinary and, as many of his colleagues will tell you, he is responsible for growing and developing the Division of Dermatology into much of what it is today.
that intense pain in your thighs, or acute shortness of breath, but you can push through all that, if you have the drive and your goals are clear. That realization was very important because your mind limits what you can do in so many pursuits in life.”

Jim calls himself “staunchly, maybe stubbornly Canadian”, and can’t really guess whether that’s the cause or the result of training so hard to represent his country. It was during and shortly after his time in competition that the tobacco industry continued to make inroads into sport. Fast-forward to the early 1980s when Steve Podborski, one of the “Crazy Canucks” won the “Export ‘A’ Cup”, and refused the trophy in what Jim calls a “sentinel event”. Dr. Andrew Pipe, then physician for the Canadian alpine ski team and whom Jim credits as the driving force behind the nascent

Sports had evolved similarly for Jim. Raised in a healthy green area, he was always active and played his fair share of sports: football, basketball, track and field. But again showing that rare character for self-assessment, he was honest with himself about his body type, natural talents and desire to perform at a high level. He tried a wide range of games, and disqualified himself from the unlikely ones. Roger Jackson, Tokyo Olympic gold medalist in rowing summered on the same lake as Jim’s family. Now elite rowing, Jim observed, was a sport of strength, endurance, persistence, mental toughness and long limbs. Eight years later, Roger and Jim rowed together, for Canada, in the 1972 Olympic Summer Games in Munich.

And while rowing was a sound decision, the experience had its own lessons, of lifelong value. “You want to think you’re as good as or better than the next guy, but in fact you have limitations. Probably the main thing I learned in rowing is that though we all have physical limits, your mind is the major limiting factor, your mind can hold you back. You’re concerned about
Physicians for a Smoke-Free Canada, contacted him to get involved. "It was such an oxymoron to be associating tobacco with sport," Jim says. "This had to go." By 1988, Canada was said to have some of the toughest anti-tobacco laws in the world and the Calgary Winter Games were the first ever smoke-free Olympics.

It was something of an activist’s endeavour for Dr. Walker, and it gratified him to see results. Doctors helped establish the science, and to establish the problem of tobacco promotion and addiction as societal. They politicked and advocated from a position of credibility and esteem, which was rather unique to the situation. The farmers, the industry and the lobby groups all had something big to gain from tobacco promotion, but the doctors were actually losing money by spending their time on Parliament Hill and working for an end game of fewer clients, not more. "Twenty five years ago, we were fighting to get tobacco out of The Ottawa Hospital," he says. "When I started out here in 1977, some senior physicians would smoke in clinic, while seeing a patient! It seemed so ludicrous. We had to divorce tobacco from sport and from health-care."

As a direct result of Jim’s evolving skills in development and persuasion, the Mohs Micrographic Surgery Unit opened its doors at The Ottawa Hospital in 2009. Jim had to fight tooth and nail because of a lack of funding. "It is the only service of its kind in Eastern Ontario, and it took some convincing, but senior management at TOH bought into the goal. The medical case for the Unit was straightforward enough: the treatment is minimally invasive, and has the highest cure rate for many complex skin cancers. It’s an outpatient procedure, and requires no general anaesthetic nor in-patient beds." But, while radiotherapy costs three or four times as much per tumour treated, the funding comes from
a different silo. Radiotherapy is case-funded by Cancer Care Ontario, and registers as revenue. The Mohs costs, on the other hand, though less, are coloured red. While Jim was most certainly the driving force to bring Mohs surgery to TOH, he is quick to credit the skills and support of Doctors Jeff Turnbull, Adam Mamelak and Jillian Macdonald as well as a large support team, in being instrumental to the success of the endeavour. Dr. Walker is thankful for his time on the front lines at Parliament Hill for giving him the tools for such challenges. “I think my experience with the tobacco fight definitely helped me become a better division head. It’s probably helped me even more in the fundraising spheres. You don’t learn these things in medical school.”

By fundraising sphere he means his ongoing effort to get the new Dermatology Centre of Excellence built. By the time the concept was ready to become reality, Ontario had become a have-not province and TOH budgets were very tight. Jim learned he’d personally be responsible for fundraising efforts to finance the project. And as good-luck would have it, one of Jim’s friends, Frank Tierney introduced him to Charlie Logue and other influential and generous community members. They teamed up with the TOH Foundation and together have raised over 3 million dollars in less than 2 years. Mr. Logue has passed on, but the Dermatology Centre will be named in his honour.

As a young man, Jim believed he’d never marry a physician. “Too intense,” he laughs. But then he pauses for a moment, a long moment—visibly moved and starts again. “At the Olympics, rowers were among the taller men, and high jumpers among the taller women,” he explains. “They marched the Canadian team into the stadium by height, so we were almost side-by-side. That’s when Louise Hanna caught my eye. About 10 days later I was in the Olympic Village on crutches. I had sprained my ankle when a Danish rower fell on me at a party after the rowing competitions were complete. One night as I was coming back from dinner I stopped to rest my foot... and Louise walked by. I was mindful enough to seize the moment and stuck out my crutch. We started chatting, she was just entering medicine. I remember thinking, ‘this could be special’. I made sure I met her on the flight home.” Two years later they were married, and went on to produce two beautiful children, Kate and Brad. “Sometimes the gold you are seeking is not the gold that you find.”

Try as we may, luck plays its role in our lives. Jim never uses that word, but he is sure to give chance its credit at every turn. To be born into advantage, to lose one’s parents so young, to share a lake with a gold medalist, to marry the woman of your dreams: “These things shape a person, but the opportunities are sometimes beyond our control. The challenge is to recognizes these opportunities and determine how to pursue them.”

Dr. Walker is the sort of fellow who likes to leave things better. Profession and community “dovetail together”, as he puts it. He pauses to acknowledge that, all over the world, there is injustice, inequality and lost opportunity. People can be unlucky by birth, by physical problems or social ones. But, he says, while we are not all created equal, provision for at least a fair chance for all is the proper function of a just society. “Along with that goes some responsibility. If you are more gifted, and have more success, then you have a social responsibility to at least be decent, if not to do something beneficial toward the common good.”

Jim also credits much of his success to picking good partners. Roger Jackson in rowing, Nordau...
Kanigsberg (his partner in Dermatology for 28 years) and of course Louise, his wife of 40 years. He also gives much credit to previous Division Heads in Dermatology including; Drs. Kanigsberg, Jack Adam and JP DesGroseilliers.

Looking to the future, he is also very optimistic. "I am very pleased to leave the leadership of the Division in the very capable hands of Dr. Ken Kobayashi."

James Walker’s career is an example of technique, and worthy ambition. “Exceptional things, he says, aren’t likely going to happen by chance, but sometimes you have to take chances.” He quotes Jack Donohue: “If you shoot for the stars and miss, you might hit the moon.” Jim stepped down as Division Head in 2013 after serving his two-term maximum. He considers himself very fortunate to have worked with two such fine Department Heads as Jeff Turnbull and Phil Wells and many other wonderful Division Heads. Jim continues to see patients, and to serve Physicians for a Smoke-Free Canada, as a Director and Secretary Treasurer. His efforts to fund and plan the new Dermatology Centre of Excellence are ongoing.

It might be the doctor’s most admirable quality, a healer and an Olympic athlete, that 40 years later, he still can’t believe his good luck.
Which living person do you most admire?
The single mother who raises her children to be responsible, educated, contributing adults

What is the trait you most deplore in yourself?
Impatience.

What is the trait you most deplore in others?
Blatant abuse of individuals or populations.

On what occasion do you lie?
Seldom, but it would have to be for someone’s clear and meaningful benefit.

What is your greatest regret?
Getting old before wise.

If you could change one thing about your family, what would it be?
That my parents lived longer to see their grandchildren.

What was the happiest day of your life?
The day Louise said yes.

How would you like to die?
Relatively painlessly with my brain intact, with enough time to put my life in order and say goodbye, but no long period of chronic illness.

What do you most value in your friends?
Honesty, sense of humour, put up with my foibles, but not hesitate to tell me off.

What is your motto?
I don’t have one, but try to lead a principled life.

What is the most valuable book you have ever read?
The Seven Habits of Highly Effective People—it has become my operative bible.
An interview with

DR. DEB ZIMMERMAN

Nephrologist
Life can be difficult. It can be even harder if you start it in less than ideal conditions. Dr. Deborah Zimmerman’s story reminds us that through determination, grit, and a bit of luck, anyone can overcome their circumstances and achieve extraordinary success. And although her Cinderella tale does not involve an evil stepmother, fairy godmother or even a glass slipper, it does involve a ‘prince’ and a hard fought triumph over adversity. “When I decided I wanted to go back to school I was working as an animal health technologist and was really unhappy with the limitations of my position; I wanted to make diagnosis. My husband Mike and I were living in a mobile home in Calgary at the time with a couple of dogs. So one day I came home from work and said, ‘I need to go back to school’. Mike, without hesitation, said ‘ok’. My husband is the most amazing person on the face of the planet. He’s the only reason I’ve been able to do all the things that I’ve done. Ever since he said ‘I do’, I’ve dragged him all over the place.”

For much of her life, Deb Zimmerman had to make do with very little. She comes from a large family—people who were farmers and worked in oil fields. Her mother, a super-tough lady, married young at a time when there weren’t many opportunities for women, worked three jobs after her divorce to support Deb and her brother. Ultimately it took 3 tries for her Mom to find the right life partner and as a result Deb’s family moved a lot. Perhaps partly for that reason Deb wasn’t an overachiever in school, and, in fact, almost didn’t graduate high school because of too many unexcused absences. “I was working at the Dog & Suds four nights a week to save money for college and I was going to school full time. I had what was called an X1 class that started at 8am, sometimes I just didn’t get up in time; I could do quite well without actually attending every lecture”.

Despite her challenging start she is today a successful Nephrologist who uses her expertise and influence to advance the health and well being of individual patients and communities living with kidney disease. Deb views success not only as a way to improve her own family’s life, but also as a means to improve the lives of other people by giving back. Her career thus far is broad in scope and accomplishment, placing her high among the unsung heroes of medical advocacy.

Dr. Deb Zimmerman is open, friendly and within moments of talking to her she feels familiar. She is petite; standing 5 feet, 4 inches and a mere 115 pounds, yet she is much bigger than her body gives her credit for. Composed of unassuming tenacity and grit, she stands tall and with sureness, indicative of the way she interacts with the world at large. She laughs frequently and says...
things like ‘crap happens’, ‘muckity-muck’ and ‘that’s just stupid’. Quite often, her voice gets really big, not to signify sincerity—although she is—but rather because of the passion she feels for the subject matter. Deb has been accused of having no filter when it comes to biting her tongue—or rather not biting her tongue—on issues that she has interpreted as an injustice. Hours spent actively outdoors have rendered her tanned and toned but the power that is visible on the outside only hints as to the magnitude of her inner strength. “When I was interviewed for a residency spot they asked me ‘what was the last book you read?’ and I said *The Cat in the Hat*. The interviewer looked at me and said, ‘No, I’m serious’ and I said ‘Yes, so am I’. But what I wanted to say was, ‘what the hell do you think I’m reading? I have a baby at home and I’m going to med school.’ I got in but I don’t think the competition was that stiff.” Her looks have been compared to Valerie Bertinelli (circa One Day at a Time) but if ever her life were captured on film she would cast Sandra Bullock as the lead. “I can relate to the characters she portrays, they are often just a bit different than everybody else. And there’s no doubt about it, in my division, I’m not quite the same as everybody else.”

Deb’s basic stance on life is that it is tough and sometimes unfair. Making it just a little bit better, especially for patients is a pursuit worth living. In 2002 she became the medical director of the home hemodialysis program, which allows patients requiring dialysis to get treatment in the comfort of their own home. For many people, the program has given them back the ability to carry on ‘normal’ lives. What it has also done, unfortunately, is transfer some of the cost from the healthcare facility directly to the patient. Dialysis requires an extraordinary amount of water and increases a patient’s home bill exponentially. Deb, together with a lawyer patient lobbied city council and now Ottawa home dialysis patients receive a $500 rebate each year. To our knowledge that does not happen in any other centre. Perhaps another first was procuring the immediate assistance of an endocrinologist when a patient starts peritoneal dialysis. The dialysate contains sugar and often results in big changes in glucose levels that the nephrologists were responsible for….recognizing that she was perhaps not the best physician to be doing this, Deb was able, with the help of the home dialysis team, Drs Erin Keely and Dora Liu, to establish a program of endocrinology support for the patients.

Deb calls herself ‘Jack-of-all-Trades’ when describing her current role as a clinician investigator. Running somewhere in the middle of investigator scientist and clinician she acknowledges that being a ‘Master of None’ can be somewhat frustrating. However being involved in research 50% of the time allows her to ask questions that will ultimately be important for patient care and, truthfully, it keeps her interested. “Providing excellent patient care is difficult and I would really hate to become tired.
When I see patients I want to be ready to give 100% but if I had to do it all the time I’m not sure I’d have the same level of enthusiasm. But it is challenging running this middle sort of job description”. Most of Deb’s research has been in the area of dialysis, especially examining some of the cardiovascular questions as they relate to kidney disease. An overwhelming number of patients who are on dialysis die from cardiovascular disease. She started her career with the idea that her research would help people live longer but she’s not so sure anymore. A lot of her focus is starting to change to quality of life with the goal of helping people live better. That is a big part of Alive to Strive. Mike and Deb’s residence, 10 minutes south of Richmond, sits on a sweeping expanse of lush green acreage. The property is as welcoming and understated as the woman who owns it. For Deb, Mike and their two daughters, this place has served as their rural hideaway for the last 10 years. Look past the large barn and indoor riding arena and the vast majority of remaining space has been left in its natural state, reminding Deb of the beautiful outdoors she once knew growing up on the west coast. The view from their 14-foot wide kitchen window is remarkable and displays the natural beauty and simplicity of the land so often missed by city dwellers. “Living back in a time that was simpler is very appealing, where everyone just helped their neighbours, worked the earth, that kind of thing—where life didn’t have to be crazy.” But, on the other hand, she says, “woman didn’t have a lot of rights back then and your only way out was to get married—clearly unacceptable”. A patient of Dr. Zimmerman’s has end stage kidney disease that has been treated with nocturnal hemodialysis for about 10 years. She is an elite athlete and believes that part of the reason she’s done so well on dialysis is related to her overall fitness. For this reason, she was interested in establishing a fund to assist other patients with chronic kidney disease to become more active themselves. Since Dr. Zimmerman believes in the benefits of fitness, she volunteered to help and became a member of the board of directors for the then unnamed organization. As a board member from the very beginning, Deb has helped to shape the vision for the Alive to Strive Kidney Fitness Project. “Each year I’ve run the race as an individual but this year I ran in the 5km team challenge wearing a weighted vest. This was to simulate the fluid gain experienced by hemodialysis patients between treatments”. Not only has the group raised over $50,000 for their fitness grant program but they’ve also increased awareness about the many risk factors linked to the development of chronic kidney disease, some of which are preventable or at the very least modifiable through healthy living. The outdoor riding arena with its defined perimeter and sandy base resembles a very large playground but Deb does not consider the business of riding a leisurely activity. It is intense work. From the moment her horse is tacked and led out of the barn, all lightness is gone, her expression transforms into one of sheer intensity and her air of authority is palpable. Her husband compares it to a crack addiction; it’s gone way beyond a passion. “I love to ride, it’s what I do. It started a long time ago but at that time it wasn’t about doing it right, it was just kick to go and pull to stop. It was never about how you’re supposed to communicate with a horse”. Today Deb’s goal is to ride a Grand Prix dressage test, which tests the horse and rider to the highest standards. While the indoor riding arena might seem like an extravagance, getting to the level she wants to be at requires a year-round commitment. Mike keeps a watchful eye on her when she’s perched high on a horse. Deb has
come off her temperamental thoroughbred Juice at least 30 times—twice resulting in broken bones! She never lays fault with the horse but instead focuses on improving her skills as a rider.

Deb’s love for horses started as a kid when her parents had rented property on an enormous cattle ranch in the interior of British Columbia. It was there that she bought her first horse with money she cobbled together from babysitting and the sale of her bicycle. Tilly, an Appaloosa, cost her $150. That summer she worked for the rancher and got paid in hay bales. “He must have felt sorry for me, I was so little back then I must have been useless”. Living so far out of town in isolation, Deb spent almost all of her waking hours with that horse. It was a sad moment in time when she was forced to sell her due to her family’s financial circumstances. However, she learned a little bit about ranching and today, much of the strenuous upkeep of their 91 acres is done, by choice, by her and her husband. Deb can’t sit still anyway, she’s either moving or she’s asleep. As for Mike, he quotes a customary aphorism from the Red Green Show, “If the women don’t find you handsome, they should at least find you handy”. Don’t be fooled, Mike is both. Deb met him at the age of 15 and they married a few years later. She wanted to wear jeans instead of a wedding dress, but her mother wouldn’t hear of it. In their second year of marriage, Mike and Deb wallpapered a bathroom in their mobile home. “If we can survive that, we can survive anything,” Mike says. In August of this year they celebrated 30 years together.

Deb and her family are supporters of the local food bank. But they attach a condition to their donation; the food bank must spend the money on produce from one of her patient’s farms. “Why not support your food bank AND support
Clearly, she already has, and she is nowhere near the end of her career.

Deb does not do any of the things she does to be recognized for them. “If you need to be recognized, I think that’s unfortunate.” In fact, receiving praise is difficult and makes her feel uncomfortable. She works in a big division with a lot of health care professionals who all bring something to the table. “Credit should happen across the board”, she says. Deb’s been involved in a lot of things, many from the very beginning. She explains that in order to get things done it is often not the physician advocate; it’s other people who take it to the next level. In acknowledgment of her concern for people with kidney disease, the Kidney Foundation of Eastern Ontario recognized her with the Jean O’Callaghan Humanitarian Award. “Receiving this award meant that people thought I was making a difference.”

Deb has never truly questioned her career direction. She questioned things like family obligations and the fact that she is in Ottawa, several-thousand kilometres away from ailing parents. It would be a whole lot easier for her to take care of them if she was closer. She has guilt about that, as she has been offered positions in Calgary but truly loves her life here in Ottawa. Early on in Deb’s career she remembers receiving these words of wisdom, ‘if at the end of your career you can have more true saves than iatrogenic disease then you’ve been a good doc’, “And at the end of my career I’d like to be a good doc, I’d like to have made a difference”.

your local farm community if you can”. Deb recalls a time when her mother relied on the welfare system while she received job retaining; support from the food bank might have eased some of the stress. “Through no fault of their own, many people find themselves in a really tough place and so this is just one of the ways to give back to the community”.

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What is your favorite food?  
Cheese but not blue cheese, it’s gross.

What is your favourite historical figure?  
Lady Godiva—more than a political statement, she was out there making vitamin D.

What is your biggest pet peeve?  
People who can’t drive. I spend a lot of time in traffic, an hour each morning and night because I live so far away. I say a lot of stuff with my window up.

On what occasion do you lie?  
When asked by the police officer if I know how fast I was driving.

What is your greatest fear?  
Brain or spinal cord injury.

Which living person do you most admire?  
My husband. I have no idea how he lives with me and maintains his sense of humour.

What do you dislike most about your appearance?  
My uni-brow.

Which living person do you most despise?  
Anyone who fails to recognize how wonderful my daughters are.

Which words or phrases do you most overuse?  
Swear words.

What are your favourite names?  
Shiraz, Chardonnay, Malbec.
The University of Ottawa campus and Corktown Footbridge
The Department of Medicine’s mission in education is “To provide innovative, evidence-based education and assessment to all levels of trainees and physicians to achieve outstanding patient-centred care in a collegial, professional environment”. Our commitment to excellence in teaching and scholarship in education will be solidified in our 5-year strategic plan which we began this year. The Department of Medicine continues to support medical education through financing teaching activities across the education spectrum, salary support for education leaders and researchers, research/innovation grants and administration positions.

Leadership and Excellence in Education

Undergraduate Education

Members in the Department of Medicine are deeply committed to quality undergraduate education. Our faculty provides approximately 30% of all undergraduate teaching hours and ePortfolio coaches within the Faculty of Medicine. Many of our members have been instrumental in leading innovations in the undergraduate curriculum. These include:

Dr. Heather MacLean who introduced a mindfulness curriculum in Sept 2013 for first year medical students;

Dr. Barbara Power who formally introduced bedside ultrasound into the second year clinical skills course;

Dr. Anna Byszewski who added professionalism rating scales into undergraduate OSCE’s.

In 2014, 21 (14%) members of the graduating class secured a residency place in Internal Medicine (IM). Ottawa University graduates achieved circa 5% of total IM residency places won by Canadian university graduates.

This past year, the Department of Medicine continued to support the uOttawa, Faculty of Medicine Distinguished Teacher Program (DTP). The program recognizes excellent teachers, and provides them with extensive development and teaching opportunities. We are pleased to acknowledge 5 physicians who have graduated this past year; completing 250 hours of dedicated teaching during their participation in the program over the last 2 years. Congratulations to Drs. Robert Bell, Ann Bugeja, Karima Khamisa, Beth Pringle, Nav Saloojee and Chris Skinner.

Post Graduate Education

Core Internal Medicine Program

Our core Internal Medicine training program, led by Dr. Cathy Code and her Associate Program Directors (Drs. Christopher Johnston and Jim Nishikawa), is responsible for 74 trainees at the PGY1 through PGY3 levels.

Dr. Christopher Johnson, together with Drs. Cathy Code, Nadine Gauthier and Adam Cwinn (Dept of Emergency Medicine), has been working hard to improve interprofessional interactions between internal medicine residents and emergency department staff. As a result, an ER/IM relations committee consisting of IM training program and ER leaders was established. Each IM resident was
This year our Program Directors had a half day retreat designed to share successes and common challenges. The plenary speaker, Dr. Jolanta Karpinski, presented on “Preparing for Competency Based Education”. Two program directors presented on their recent innovations: Dr. Janine Malcolm—Teaching and Evaluating Quality Improvement and Dr. Nha Voduc—Developing an iPad App for Respirology 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. Our Director of Fellowships, Dr. Jolanta Karpinski completed an environmental scan of the fellowship activities. She identified thirteen divisions with active fellowship programs with the number of trainees ranging from 1 to 12 per division and an overall number of up to 50 post-residency trainees. The department will use the lessons learned from this environmental scan as the foundation of a plan to develop new, and enhance existing, fellowship programs in the coming years.

Leadership Roles in Education

Our members hold key leadership roles within the Faculty of Medicine. Dr. Sue Humphrey-Murto has played a significant role in AIME (Academy for Innovation in Medical Education) for the past 5 years; Sue initially took on the position of Interim Assistant Dean in 2009 and became Associate Director in 2010. As the University of Ottawa transitions to create the Department of Innovation in Medical Education, Sue will no longer be in this position. She has
been a tremendous advocate for medical education clinician researchers both within the Department of Medicine and Faculty of Medicine and the Department has excelled in medical education research as a result.

Other Important leadership roles:

- 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
- Director, MD/PhD Program: Dr. Michael Schlossmacher
- Director, Clinician Investigator Program: Dr. Jonathan Angel
- Director, iMED: Dr. Robert Bell
- Director, Office of Global Health: Dr. Anne McCarthy
- Director, Distinguished Teacher Program: Dr. Robert Bell

Continuing Professional Development of Our Faculty

This year Department of Medicine Grand Rounds hosted a slate of highly rated presentations delivered by our colleagues, residents and visiting professors.

Our annual Ian Hart Medical Education Lectureship, entitled, “Kids these days—Reshaping our conversations about Generation ME” was given by Dr. Glenn Regehr (UBC). Glenn received the Ian Hart Award for Distinguished Contribution to Medical Education from the Canadian Association of Medical Education in April of this year. Additionally, we were honoured to have Dr. Monica Branigan from the University of Toronto, deliver our annual John Seely Professionalism Lecture entitled, “Collegial Conversation: Creating Cultures of Professionalism”.

As well this year we revived and rejuvenated an old tradition and re-instated the Greenblatt Lecture in honour of Dr. Joseph Greenblatt (1915–1982). This will become an annual event in recognition of an outstanding Grand Rounds presentation. Dr. Greenblatt received his MD degree from Queen’s University; was recognized for his military service during WWII and went on to work as an internist at the Civic Hospital. An endowment was created in his name to commemorate the contribution made by one of the founding members of the Division of General Medicine to the Faculty and the Ottawa community. This year’s winner is Dr. Lauralyn McIntyre from the Division of Critical Care for her presentation entitled, “Stem Cells for the Treatment of Septic Shock: The Evidence and Biological Rationale for a Phase 1 Trial”. Dr. McIntyre will be invited to give her presentation at the Queen’s University Grand Rounds with support from the Joseph Greenblatt Fund.

Dr. Claire Touchie led a new National course put on by Canadian Association for Medical Education (CAME) for medical educators interested in further developing their skills in the area of assessment of clinical competence. The 3-day course was attended by 43 participants representing almost all medical schools across Canada.
Research and Development in Medical Education

The Department of Medicine supports research in medical education through salary support of our leading clinician educators, infrastructure support through AIME, and research grants.

2013 AIME Research Grants in Medical Education:

- **Dr. Isabelle Desjardins**: for *Using Entrustable Professional Activities to highlight discrepancies in training from undergraduate to postgraduate education* with Susan Humphrey-Murto, Claire Touchie, Debra Pugh, and Tim Wood

- **Dr. Kelsey Crawford** (SRI: Nancy Dudek): for *Assessing clinical supervisors' assessments: What makes them better?* with Dr. Tim Wood and Dr. Karl Lalonde

2013–2014 Department of Medicine Grants in Medical Education Research and Innovation:

In 2013/14 the Department awarded grants totaling just over $110,000 to support projects in medical education research or innovation; 8 projects received funding:

- **Evaluating the Resident Experience: The Learning Environment for Professionalism Survey (LEP) project extension** (Dr. Anna Byzewski (PI), Dr. Heather Lochnan, Dr. Timothy Wood, Dr. Donna Johnston, Dr. Christine Seabrook.)

- **The Use of Consensus Group Methods in Medical Education Research** (Dr. Susan Humphrey-Murto (PI), Dr. Lee-Anne Ufholz, Dr. Carol Gonslaves, Dr. Lara Varpio, Thomas Foth, Dr. Matthew Falconer, Dr. Timothy J. Wood).

- **Examining the Success of Medical Education Research and Innovation Units: A North American Study** (Dr. Susan Humphrey-Murto (PI), Dr. Steve Durning, Dr. Larry Gruppen, Dr. Stan Hamstra, Dr. David Irby, Dr. Bridget O'Brien, Dr. Lara Varpio.)

- **Does The Healthcare Environment Influence Professionalism During Interactions Between Internal Medicine Residents and Emergency Room Staff: Analysis of Two Consecutive Years of Resident On-Call Surveys in a Canadian Teaching Hospital** (Dr. Chris Johnson (PI), Dr. Catherine Code, Dr. Nadine Gauthier, Dr. Adam Cwinn, Dr. Anna Byzewski, Dr. Heather Lochnan.)

- **Using eConsultations to inform planning of Continuous Medical Education for Primary Care Providers** (Dr. Erin Keely (PI), Dr. Douglas Archibald, Dr. Heather Lochnan, Dr. Chris Johnson.)

- **The Effects of a Mindfulness Curriculum in Undergraduate Medical Education on Wellness-Related Outcomes** (Dr. Heather MacLean, Dr. Carol Gonsalves (PIs), Dr. Douglas Archibald, Dr. Millaray Sanchez-Campos, Dr. Diana Koszycki.)

- **Developing an Evidenced-Based Innovative Debriefing Program for Trainees Undertaking Global Health Experiential Learning** (Dr. Anne McCarthy (PI), Dr. Pippa Hall, Dr. Laurie McLean, Dr. Anne Byzewski, Dr. Francois Auclair, Poonan Gill *, Andrew Petrosoniak*, Anika Mara *, Roopan Gill *, Ali Shahbaz* Areej Shahbaz*.) * denotes trainees
• Interprofessional Education in Undergraduate Medical Education (Dr. Barb Power (PI), Dr. Sue Humphrey-Murto, Dr. Leonard Bloom, Ms. Lynn Bloom, Dr. Ian Mc Dowell, Dr. Katherine Moreau.)

The Department continues to recognize and assist the work of career medical educators with the provision of salary support. Career Educator Award winners for the year of 2014 are: Drs. Sue Humphrey-Murto, Anna Byszewski, Debra Pugh, Pierre Cardinal, Anne McCarthy, Carol Gonsalves, Isabelle Desjardins, Nadine Gauthier and Heather Lochnan.

Our educators disseminated their scholarly work at the local, national and international level; key publications include:


 Despite being an extraordinarily busy malignant hematologist, he always finds time to teach. As one of the letters of support for his application highlighted, Dr. Huebsch believed “it is easy to teach the outstanding students, a good teacher is one who can teach those that have difficulty learning”. He is famous for his coffee shop teaching, often using the back of a napkin to explain complex concepts in a clear and organized manner. The napkins are often quickly tucked into a pocket by a member of the captivated learners, to be used for future learning and preparation for exams. However, it is perhaps at the bedside that Dr. Huebsch truly sets the bar. As one resident wrote, “Dr. Huebsch is always quick to remind trainees that while case discussions and blackboard learning are important, this can’t replace what can be learned at the bedside. It is a true honour to witness Dr. Huebsch’s ability to lead, navigate and respond to challenging conversations with patients and their families.”

Dr. Peloquin and Dr. Huebsch both embody the very essence of being a clinician teacher. As one colleague said, “it honors both men”.

**Additional award recipients:**

**Dr. Lyall Higginson** is the first recipient of the *Donald S. Beanlands Chair in Cardiovascular Education*. The chair was established to enhance the nationally recognized culture of excellence in training that was first cultivated at the Heart Institute under the leadership of Dr. Donald Beanlands. Dr. Higginson is recognized across Canada as both an outstanding clinician and a passionate and dedicated cardiovascular educator and mentor to trainees.

The Canadian Association of Physical Medicine and Rehabilitation has named **Dr. Sue Dojeiji** as recipient of the 2013 *Meredith Marks Award for Excellence in Education*. 
Drs. William Dalziel and Michael Froeschl were both given the Office of Continuing Medical Education (CME) Award in Education based on teaching excellence as demonstrated by evaluation scores and learner comments.

Dr. George Chandy received the CME Award for Person Competency (Anglophone Stream) in recognition of his work promoting the health and well-being of physicians and physicians in training.

Dr. Lisa Mielniczuk was given the CME Educator Award for Health Advocate Competency (Anglophone Stream), and Dr. Chris Skinner the CME Educator Award for Health Advocate Competency (Francophone Stream). Drs. Mielniczuk and Skinner both received their awards for displaying an exceptional degree of compassion towards patients.

Dr. Heather Clark received the 2014 CAME/ACÉM Certificate of Merit Award. The aim of this award is to promote medical education in Canadian medical schools and to recognize and reward faculty’s commitment to medical education.

Dr. Loree Boyle received the 2013 Professional Association of Internes and Residents of Ontario (PAIRO) Excellence in Clinical Teaching Award.

Dr. Rachel Goodwin received the Department of Medicine Resident Choice Teaching Award.

Dr. Mylène Côté was given the Department of Medicine Resident Award for Excellence in Medical Education Scholarship.

Drs. Andrew Aw and Joe Abunassar received the 2013 Department of Medicine Peter MacLeod Ambassador Award in recognition of their consistently demonstrating all CanMEDS roles and their ability to lead by example.

Dr. Debra Pugh received the W. Dale Dauphinee Fellowship Award from Medical Council of Canada. This award is awarded each year to a Canadian medical faculty member who is undertaking further studies in one of the following areas: assessment for medical education, certification, continuing professional competency or psychometrics, or enrolled in a formal graduate program in education.

What’s next?

As the Department of Medicine embarks on a 5-year strategic plan, our commitment to excellence in clinical teaching and innovation & scholarship in medical education will be reinforced and fostered. The Department of Medicine will focus on strengthening our bedside teaching, further developing innovative assessment methods and promoting education research and scholarship through ongoing salary support and operating grants.

Erin Keely MD FRCPC
Professor of Medicine (Endocrinology & Metabolism)
Vice-Chair, Medical Education
An interview with

DR. NANCY DUDEK
Physiatrist
Nancy Dudek, Physiatrist and Associate Professor in the Faculty of Medicine, stands at the crest of Telescope Peak—her petite frame almost obscured against the vastness of her surroundings. She is 11,000 feet over sea level, the highest point in Death Valley—a national park unlike other national parks and if you’re not familiar with the locale, its name tells the story. It’s placed nicely in the Mojave Desert, the driest area in North America, the hottest in the world. This is where ancient seas came to die. Nancy sees Bathwater Basin, a few hundred feet below sea level. There’s still water there, and she loves the rainbow refracted from its salty mix.

Nancy and Jon, her partner, have come here to hike. Jon is an avid runner but hiking is more Nancy’s speed. With busy careers their time together is a cherished commodity and hiking is a physical challenge they can share. Climbing this hill takes a full day, a fourteen mile round trip at least, but she knows its virtues.

Understanding this place helps to understand Nancy. From low ground, she finds the high ground. She finds perspective. This is also what she helps medical students, residents and patients do. She helps them work past plateaus, rise to a point for a better view on things, and focus on goals. “Physical medicine allows you to see the best parts of humanity, it’s incredibly practical and very much [about making] the best of a bad situation; and that’s very much who I am as a person.”

What’s impressive about Nancy is the natural quality that inhabits her work. She shows a humility that grows organically, from someone who works hard, but doesn’t try hard. Her success with her patients is collaborative; she creates the opportunity, “but ultimately the patient has to do the work.”

Nancy’s success in medical education is also impressive. Her Master’s paper, “Failure to Fail: The Perspectives of Clinical Supervisors,” has been cited many times since its publication in 2005. Informed by her enduring values of teaching and standards, it was the first systematic approach to how some students and residents succeed on their clinical rotations, despite having been evaluated to fail by their clinical supervisors. It has also served as the basis for the program of research that she has developed over the last decade. “Our job is to put people out there who are good doctors. The whole concept of, ‘I wouldn’t send my mother there’: that, to me, is scary.”

Nancy’s affinity for quality education is not surprising; she comes from a long line of educators. It seems to be something of a calling in that family. Her sister is a teacher, and so were her parents, both of them. Not just teachers, mind you, but really good ones—the kind who everybody knows, and are remembered by students long after they are no longer their students. Her parents led by example and loved their careers. Profession has its proper place in life, and Nancy credits them with giving her a good sense of that. Part of that work ethic may come from being of Polish, Scottish, Irish and English decent. “Unfortunately, I have no genetic ability to tolerate any spicy food.”

Training as a gymnast, at seven years old, Nancy suffered a closed fracture in her arm. To set it, the doctor wanted to sedate her but despite being a shy child Nancy argued to stay awake. Her bone was tenting the skin, and she found that fascinating. “I wanted to see how they’d do this!” As a highly competitive gymnast, Nancy had several interactions with the healthcare system and by the time she was twelve had declared her intention of one day becoming
an orthopaedic surgeon. “I was good at school... I liked people a lot, and I liked working with people a lot. In a very unsophisticated way, that said, ‘doctor’ to me and as I went forward, nothing really changed my mind.”

Orthopaedic surgery was an obvious choice because of the gymnast’s close relationship with the body: the mechanics, the physics, and the thresholds of performance. She was interested in athletic injuries and areas that improved quality of life.

However, she discovered along the way that she didn't love the OR, certainly not to the degree that others loved it. In fact, she preferred clinic, which allowed her to make personal connections with patients. “I was quite distressed,” she says, “because ortho was what I came to medical school to do. If I'm not a surgeon how do I do musculoskeletal medicine?” Physical Medicine and Rehabilitation was among several alternatives but carried a stigma of being too depressing: amputations, spinal cord injuries etc., etc. At the start of her clerkship, a block of rehab medicine turned Nancy’s opinion around.

“It literally was a light bulb going off, because I was like, Oh, this is not depressing in any way and, in fact, it all just fell into place and really fit my personality. I’m a person who likes stories about people who overcome life’s challenges, where their families rally around them, where they’ve accepted and embraced their new normal. I love that aspect of humanity, and now I get to see it all the time in rehab medicine”. 
An orthopaedic surgeon and close friend of Nancy’s once joked with her about the choice that wasn’t a choice. “He told me I would only be happy as an orthopaedic surgeon if I could have operated on every patient while they were awake, so I could talk to them.”

Nancy is a fast talker— not a carny fast talker but enthusiastic fast talker. Not necessarily in the category of auctioneer but fast enough to elicit intelligence and credibility.

When Nancy broke the news to her supervisor that she would be switching from orthopaedic surgery to physiatry, eager though they were for new recruits of her gender and temperament, he showed unexpected grace. While many departments tend to chill toward those who won’t stay in the fold, he congratulated her, wished her well and helped her along with a reference. “To this day I give that man all the credit in the world, and it’s how I try to be with medical students as well.”

Nancy served five years as the Physical Medicine and Rehabilitation Residency Program Director, and is known for her “no strings attached” approach central to her teaching method. The late Dr. Meridith Marks, her former mentor and “big sister”, reinforced this approach. When Nancy came to Ottawa, Meridith was Program Director and one of the main reasons Nancy chose the nation’s capital to do her subspecialty training. Meridith was a true educator and throughout her career, made substantial contributions to the development and advancement of medical education. “Meridith had untold influence on me for sure”. Halfway through Nancy’s first year, she encouraged her to pursue a graduate degree in Academic Medicine. “You don’t need to wait,” she said. “You could start now.”
On paper Nancy is Meridith’s ‘Mini-Me’ and was referred to repeatedly as ‘Little Meridith’. However, Dr. Marks took greatest pleasure in Nancy having her own way of doing things. Says Nancy, “my approach was often different from hers, and she applauded me for it.” This learner-teacher relationship swelled over the years, maturing into a wonderful friendship and when Meridith lost her struggle with brain cancer in 2012, Nancy’s loss was immeasurable.

In 2011 Nancy was awarded the Dr. Meridith Marks Educator Award for Innovation and Scholarship in Medical Education, a fund established by The Department of Medicine and other generous donors. The award honours and recognizes outstanding contributions to medical education and encourages physicians in their continued quest for excellence for generations to come. Accepting the award was an emotional and profound experience.

As her career evolved, Nancy made more time for medical education research—but maintained her devotion to the clinical aspects of her job. “When I think about being a physician I think about taking care of people. That supersedes anything else for me. It drives everything that I do. Why would I teach? I would teach to try to make people good doctors, so they can take care of people. Why would I research a better way to teach and assess those residents? So they can do a better job taking care of people. Why would I do research into what might be a better way to rehabilitate somebody following an amputation? To take better care of people. There is no doubt about it, that is the most important thing to me about being a physician: taking care of people.”

Most recently, her medical education research has focused on improving real-time evaluations of trainees during true clinical assessment. She is developing interventions using a more standardized approach to help faculty better document the trainee performance they see. Thereby elevating this assessment to a higher standard, capable of defending a passing or failing grade.

While her professional life is focused and serious, Nancy brings with her a light-heartedness, unexpected from someone who helps others deal with physical hardships everyday. To escape, Nancy reads a lot of fiction. “I have many books that my mother feels are much too trashy for someone as educated as myself to read. There’s a fair amount of literature on my shelf that is pretty low-brow.”

It also helps that Nancy doesn’t take herself too seriously. “When email first came out, a friend told me his email address was first-and-last-name@hotmail.com. Let me say that I am the last to know about any technological thing. So as he’s telling me this I burst out laughing picturing “hot” “male” dot com. He says, “How stupid are you Nancy?” “I’m more laughed at than laughed with—easy to embarrass but hard to offend”.

This doctor’s life rings with inevitability. Excellence is rarely accused of being a natural activity; few people really ever get there. But Nancy gives the impression of someone for whom her accomplishments could not have been more natural. “My greatest achievement is that I get to do exactly what I want to do as a career.”
Nancy’s office, both literally and figuratively is a long way from Death Valley. It’s small and pragmatic, but well lit and inviting. A long, low cabinet, heavy with files, supports a lovely Peace Lily in full bloom. It is not neglected. Her desk is busy, but by no means chaotic and hung proudly over it is her most cherished award, its namesake her most cherished friend.

This is her “happy wall”. Further along it is a tapestry of memories; it’s covered with photos, people and places—her brother, her boyfriend, her nieces and loving parents—some of them close and some of them far. And if Nancy could live anywhere in the world? It wouldn’t be atop the crest of a mountain but “in a mythical place,” she says, “a place that doesn’t exist: where all my friends and family are together, and where I get to work with all the people that I would most like to work with in the hospital.”
What is your idea of perfect happiness?
Waking up because I’m done sleeping and not because my alarm clock went off.

What is your greatest fear?
Being forced to be on Facebook or anything else like that.

What is the trait you most deplore in others?
Laziness.

What is your greatest extravagance?
Expensive shoes.

What is your favourite journey?
Anywhere that I get to end up on top of a mountain.

On what occasion do you lie?
When asked what I think of the bridesmaids’ dress that the bride has chosen.

What is your current state of mind?
Focused… trying to figure out how to answer this survey without embarrassing myself too much.

What is your most treasured possession?
My photo albums.

What do you most value in your friends?
Great listeners.

How would you like to die?
Really old and in my sleep.

What is your motto?
Work hard, play hard.
The Shaw Conference Centre, downtown Ottawa
“The greater the ignorance, the greater the dogmatism.” — Sir William Osler

One of the great achievements in medicine in recent years has been the emergence of “evidence-based practice”, whereby decisions about the treatment of patients are based on the results of high-quality clinical research studies. Many of us can recall the days when most medical decisions were based on dogma that was derived from theory, animal studies that had not been confirmed in humans, or case studies that lacked appropriate controls. The Department of Medicine (DOM) has been a leader and champion for replacement of such dogmatism by robust evidence from research studies, whether it is derived from discoveries made in the laboratory, or in randomized controlled clinical trials. In this section of the Annual Report, you will learn about some of the many discoveries and breakthroughs in medical research led by Department members in 2013–14 that have reduced our reliance on dogmatic practice.

**The DOM is a Leader in Clinical Research**

The DOM continues to lead the majority of health research (>70%) conducted within The Ottawa Hospital (TOH) through the OHRI, University of Ottawa. Our members therefore make important contributions to the high stature attained by the OHRI and University of Ottawa in recent years as leading institutions for health research at the national and international levels.

**DOM Support for Research**

The DOM strives to support excellence in medical research and in 2013–14 more than $6 million was allocated to members for research salary awards, operating grants for pilot and translational projects, and fellowship grants.

**Mentorship for Research**

The Research Mentorship Program continued to develop in 2013–14. More than 30 mentees have now been assigned to research mentors, who meet with them twice yearly and review research progress, opportunities, as well as potential barriers. The Department is grateful for the contributions made by the mentors, and initial informal feedback from mentees has been very positive, with several examples of interventions that have arisen from this process that have aided the mentee’s research program.

**Research Facilitation**

In addition to the excellent administrative support provided by Tara Routh, the Department of Medicine Research Office includes a research facilitator, Dr. Rosendo Rodriguez, who in 2013–14 met regularly with several young

Members of the Research Advisory Committee (RAC) (with representation from most Divisions in the Department), met regularly throughout the year to adjudicate these awards via peer-review processes. I am very grateful for the commitment and dedication of these members to advance the Department’s research mission.

In addition, the Department created a new category of research salary awards in 2013–14: The Clinician Scientist Chair Awards. These prestigious awards are meant to provide significant salary support for clinician scientists (with at least 75% protected time for research) at the senior (Tier 1) or junior (Tier 2) levels. Through a peer-review process, the first awards were granted in 2013–14 to Dr. Jonathan Angel (Infectious Diseases, Tier 1) and Dr. Dar Dowlatshahi (Neurology, Tier 2).
investigators across the Department to assist them with formulation of research ideas, development of pilot projects, and grant writing. The Methods Centre at the OHRI has also provided outstanding support to Department members involved in launching clinical research studies.

Highlights for 2013–14

Details about significant discoveries, grants and major awards can be found below. I would like to especially highlight some major research-related accomplishments from our members. Dr. Shawn Aaron (Respirology) received a major grant as Principal Investigator from CIHR ($7.5M over 5 years) to establish the Canadian Respiratory Research Network on the origin and progression of airway disease. Dr. Duncan Stewart (Cardiology, and CEO/Scientific Director of the OHRI) also received a major grant to lead the Canadian Vascular Network, funded by CIHR and other academic, non-profit and industry partners. These 2 major grants will position our Department (and indeed the institution) on the national/international scene with regards to respiratory and vascular-related research.

The Department of Medicine is proud to note that 2 of its members were honoured in 2013–14 with the Order of Canada, for their research achievements—Dr. Peter Tugwell (Rheumatology) was recognized for his contributions as an epidemiologist reducing global disparities in health-care access, and Dr. Michael Rudnicki (Neurology) was recognized for contributing to scientific breakthroughs in the area of muscle development and for his leadership in stem cell research.

Dr. Manish Sood (Nephrology) was recruited in 2013 as the Jindal Research Chair for the Prevention of Kidney Disease. Dr. Sood arrived from the University of Manitoba, where he successfully established a cross-Canada research network using administrative databases to answer questions impacting the care of people affected by kidney disease.

On November 10th, 2013, at the Annual Ottawa Hospital Gala for Research, 3 members of the Department were honored—Dr. Hang Ying received the Ronald G. Worton Researcher in Training Award for his exciting stem cell research, under the mentorship of Dr. Rudnicki. Dr. Mark Clemons (Medical Oncology) received the Dr. Michel Chretien Researcher of the Year Award for leading a seminal study that changed how metastatic breast cancer is treated. Finally, Dr. Michael Rudnicki received the Dr. J. David Grimes Research Career Achievement Award for his leadership and research in Regenerative Medicine.

DOM Resident Research Day (RRD)

Research training is a major priority for the DOM. In 2013, Dr. Alan Forster (General Internal Medicine) stepped down as Chair of the annual RRD—I would like to thank Dr. Forster for his many years of dedication to trainees. I would also like to acknowledge the leadership and commitment of the newly appointed RRD Chair Dr. Curtis Cooper (Infectious Diseases). Dr. Cooper organized a very successful RRD in May 2014 that involved a record number of abstract submissions (54). The 2014 RRD was a great success and resulted in several awards for exceptional trainee research, which are highlighted in the report below.
Looking to the Future

What does the future hold for research in our Department? Since early 2014, the DOM has been constructing a strategic plan and, naturally, one of the central elements is focused on research. Department members and external stakeholders have contributed to formulating priority areas for research for the next 5 years.

At the time of this writing, these priorities consist of:

1. To Enhance Collaboration with Research Partners
   a. To develop multidisciplinary research teams and mentoring teams
   b. To coordinate research with Divisions and partners (e.g. with the new School of Pharmacy)
   c. To integrate PhD Scientists into Department of Medicine Translational Research and Personalized Medicine Research

2. To Lead High Impact Clinical Research Studies
   a. To improve regulatory processes (e.g. REB, contracts)
   b. To increase use of data repositories (e.g. TOH Data Warehouse, ICES)
   c. To promote use of research infrastructure (e.g. Clinical Investigation Unit, Methods Centre)

3. To Support Clinician Scientists
   a. To train and support medical students and residents in health research
   b. To develop and promote a robust research fellowship program
   c. To mentor researchers at all career stages
   d. To support research salaries and operating grant programs

In the coming months, a work plan will be finalized to address each of these areas in succession, with formation of task force teams for each objective/goal. This exciting initiative will undoubtedly further engage researchers in the DOM, encourage multi-disciplinary collaboration, and ultimately strengthen the research mission for the years ahead.

Dr. Kevin D. Burns  MD CM FRCPC
Professor of Medicine (Nephrology)
Vice-Chair Research, Department of Medicine
Internal Research Funding (2013–14)

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

Developmental Grants

Dr. Mitchell Sabloff (Hematology) received a Developmental Research Grant entitled: “Extended dose—Total Body Irradiation Followed by an Allogeneic Stem Cell Transplantation for the Treatment of Refractory Acute Leukemia and Advanced Myelodysplastic Syndrome”

Dr. Rakesh Patel (Critical Care) received a Developmental Research Grant entitled: “Antimicrobial Pharmacokinetics in Critically Ill Adults during Sustained Low Efficiency Dialysis (SLED)”

Dr. Kevin Burns (Nephrology) received a Developmental Research Grant entitled: “Arterial stiffness in healthy subjects and patients with End Stage Renal Disease: A Feasibility Study”

Dr. Bill Cameron (Infectious Diseases), Dr. Greg Knoll (Nephrology) and Dr. Jason Tay (Hematology) received a Developmental Research Grant entitled: “Immunoglobulin therapy for secondary hypogammaglobulinemia: hematopoietic stem cell and renal transplantation”

Dr. Tiago Mestre (Neurology) received a Developmental Research Grant entitled: “Use of high resolution isotropic/three dimensional magnetic resonance imaging as a biomarker for the early distinction of Parkinson’s Disease from Atypical Parkinsonian Disorders”

Dr. Shane English (Critical Care) received a Developmental Research Grant entitled: “Aneurysmal subarachnoid hemorrhage- red blood cell transfusion associated mortality (SAHaRA): A Canadian Multicentre retrospective cohort study”

Dr. Hussein Abujrad and Dr. Teik Chye Ooi (Endocrinology) received a Developmental Research Grant entitled “PCSK9 and Pro-inflammatory Cytokines in Patients with Chronic Kidney Disease on Hemodialysis”

Research Fellowships

Dr. Daniel Kobewka (General Internal Medicine) received a research fellowship for two years for his research project called “Association of documented wishes regarding end-of-life interventions and quality of care”
Research Chairs Currently Held by Department Members

Dr. Shawn Aaron (Respirology)
uOttawa Tier 1 Clinical Research Chair: Obstructive Lung Disease

Dr. Rob Beanlands (Cardiology)
Saul and Edna Goldfarb Chair in Cardiac Imaging Research

Dr. Robert Beanlands (Cardiology)
Vered Chair of Cardiology

Dr. Rob Beanlands (Cardiology)
uOttawa Tier 1 Clinical Research Chair: Cardiovascular Imaging Research

Dr. Marjorie Brand (Hematology)
Canada Research Chair, Regulation of Gene Expression

Dr. Marc Carrier (Hematology)
uOttawa Tier 2 Clinical Research Chair: Cancer and Venous Thromboembolism

Dr. Curtis Cooper (Infectious Diseases)
Ontario HIV Treatment Network’s Applied HIV Research Chair

Dr. Jeffrey Dilworth (Neurology)
Canada Research Chair, Epigenetic Regulation of Transcription

Dr. Dean Fergusson (Clinical Epidemiology)
OHRI/uOttawa Clinical Epidemiology Program Endowed Chair

Dr. Jeremy Grimshaw (Clinical Epidemiology)
Canada Research Chair, Health Knowledge Transfer and Uptake

Dr. Greg Knoll (Nephrology)
uOttawa Tier 1 Clinical Research Chair: Clinical Transplantation Research

Dr. Rashmi Kothary (Neurology)
University Health Research Chair

Dr. Frans Leenen (Cardiology)
Pfizer Research Chair in Hypertension

Dr. Ian Lorimer (Medical Oncology)
J. Adrien and Eileen Leger Chair in Cancer Research

Dr. Ruth McPherson (Cardiology)
Merck Frosst Canada Chair in Atherosclerosis

Dr. Leo Renaud (Neurology)
J. David Grimes Research Chair

Dr. Marc Rodger (Hematology)
uOttawa Tier 1 Clinical Research Chair: Venous Thrombosis and Thrombophilia
Discoveries and Breakthroughs

Dr. Kumanan Wilson (GIM) published a paper in the Pediatrics journal that suggests that flu shots do not aggravate inflammatory bowel disease (IBD) in children and teens, and actually may provide some protection. Dr. Wilson was also mentioned in an Ottawa Citizen article at the end of July calling for a national vaccine registry to help manage outbreaks and identify trends. The article noted Dr. Wilson’s strong support for this registry and also mentioned his own app which helps parents keep track of their children’s vaccination records.


Ottawa scientist’s digital vaccination app goes national—Elizabeth Payne, Ottawa Citizen—Published on: March 21, 2014

Dr. Mark Clemons and his group (Medical Oncology) analyzed 53 breast cancer clinical trials since 1990 (>85,000 patients) and published a paper in Breast Cancer Research and Treatment, which discusses progress that has led to decreased rates of cancer recurrence. The paper also discusses how future surgery and radiotherapy clinical trials will require more patients, more sites, and more time to complete, making trials more difficult and expensive to undertake.

Dr. Hsiao-Huei Chen (Neurology) and her team discovered a new molecular pathway that controls appetite, metabolism and weight gain. The pathway involves leptin, which has also been called the “hungry gene” since mice that lack this gene eat voraciously and become morbidly obese. Dr. Chen discovered that depending on the amount of fat recently eaten, the body may attach fat molecules to a protein called LMO4, and this modified protein promotes the response to leptin and decreases appetite. This research could lead to new treatments for obesity and diabetes. See *Journal of Neuroscience* for details.


Dr. Jeffrey Dilworth and team (Neurology) published a finding which has implications for muscular dystrophy and other muscle-wasting conditions. The Mef2D protein involved in changing muscle stem cells to muscle fibre has two versions, each leading to a different outcome. Finding a way to switch between the two versions of the same protein makes it a candidate for developing therapeutics that could improve muscle regeneration in disease and aging. Details in *Genes & Development*.


Dr. Rashmi Kothary’s lab (Neurology) published an article describing the importance to our nerves of a protein called ILK, or integrin-linked kinase. The article was published as cover article in *Journal of Neuroscience*.


Drs. Harry Atkins, Jean-Simon Diallo, Fabrice Le Boeuf, John Bell and David Conrad (Hematology, Medical Oncology) were involved in research suggesting that a powerful anti-leukemia vaccine can be made by infecting leukemia cells with a cancer-fighting virus in the lab. The paper entitled “Leukemia cell-rhabdovirus vaccine: personalized immunotherapy for acute lymphocytic leukemia” was published in *Clinical Cancer Research*.


Dr. Shawn Marshall (Physical Medicine and Rehabilitation) published a new set of concussion guidelines that will help primary health-care providers treat and manage post-concussion symptoms that hang on months after an injury. Published by the Ontario Neurotrauma Foundation (ONF), Guidelines for Concussion/Mild Traumatic Brain Injury and Persistent Symptoms (2nd Edition) uses significantly updated evidence
to support health-care providers who are helping their adult patients return to normal daily life.


**Dr. John Bell and colleagues** (Medical Oncology) published a paper in *Nature Communications* that shows how math can be used in the fight against cancer. They describe a method of mathematical modeling that predicts how different treatments and genetic modifications might allow cancer-killing, oncolytic viruses to target cancer cells. The paper was named on the Canadian Cancer Society’s list of their top 15 funded research projects of 2013.


**Dr. Garth Nicholas** (Medical Oncology) published in the *New England Journal of Medicine*. Dr. Nicholas’ team developed clinical risk calculator software that accurately classifies, 9 out of 10 times, which spots or lesions are benign and malignant on an initial lung CT scan among those at high risk for lung cancer. The findings will have immediate clinical impact worldwide.


**Drs. Marc Carrier, Phil Wells, Gregoire Le Gal, Marc Rodger, Esteban Gandara** and **Lana Castellucci** (Hematology) published a paper that shows the advantages of alternatives to warfarin (a vitamin K antagonist, or VKA). They have completed the first and only systematic review to date that compares VKAs with newer therapies in the long-term prevention of deadly blood clots. The study confirms previous data indicating that anticoagulants effectively reduce the rate of recurrent blood clots in the veins of patients. However, it also provides reliable estimates on the risks of major bleeding, which individual studies often could not estimate. See article in *BMJ* entitled: Efficacy and safety outcomes of oral anticoagulants and antiplatelet drugs in the secondary prevention of venous thromboembolism: systematic review and network meta-analysis.


**Dr. Carl van Walraven** (GIM) published in *CMAJ*: Trends in 1-year survival of people admitted to hospital in Ontario, 1994–2009. The research showed that Ontarians are now more likely to survive one year after hospitalization, compared to years ago. The population-based study examined the hospital records of more than 2.5 million adults for the years 1994, 1999, 2004 and 2009. After correcting for patient age, admission urgency, risk of death in the general population and other factors, the one-year adjusted odds of death were 22% lower in 2009 than in 1994, a significant decrease.


New research from **Dr. Lynn Megeney**’s (Cardiology) group could lead to the development of new treatments for certain forms of heart disease. As detailed in *PNAS*, Dr. Megeney and his team discovered that proteins involved in cell death also play a key role in abnormal heart muscle thickening (cardiac hypertrophy), which occurs in several kinds of heart disease. By blocking cell death proteins in the heart, the researchers were able to prevent abnormal heart muscle thickening in rats. They are now investigating possible approaches to achieve this in humans, and have identified some promising leads.

New research by **Dr. Michael Rudnicki** (Neurology) sheds light on muscle regeneration and possible approaches for treating muscle diseases. One paper, published in *PNAS*, shows that the Pax7 gene is essential for normal muscle regeneration in animal models. Another paper co-authored by Dr. Rudnicki and published in the *Journal of Clinical Investigation*, shows that Pax7 plays a crucial role in muscle-wasting in cancer patients, and suggests possible approaches for reversing this effect.

**von Maltzahn J, Jones AE, Parks RJ, Rudnicki MA**. Pax7 is critical for the normal function of satellite cells in adult skeletal muscle. *Proc Natl Acad Sci USA* 2013; 110(41):16474–9

Dr. Chris Bredeson and colleagues (Hematology) published research in *Blood* that could change how people with leukemia are treated. Their study showed that for patients with AML, CML and myelodysplasia, chemotherapy is better than radiation when used as a ‘conditioning regimen’ for bone marrow transplantation. Chemotherapy conditioning was associated with a small but significant increase in survival. Dr. Bredeson’s study involved a prospective cohort of nearly 1500 patients from more than 100 centres in North and South America.


Dr. Chris Kennedy and team (Nephrology) identified a potential target for slowing the onset of kidney disease induced by diabetes. Dr. Kennedy’s group created a diabetic mouse model that lacks a signal receptor (called EP1) and found that these mice were protected from kidney damage, both in structure and function. Details can be found in the *American Journal of Pathology*. Article entitled: PTGER1 Deletion Attenuates Renal Injury in Diabetic Mouse Models.


Dr. Dar Dowlatshahi (Neurology) published a paper that could help determine which stroke patients are likely to benefit from blood clotting drugs. Approximately 13% of all strokes are caused by bleeding (hemorrhage) in the brain, but only those patients with active bleeding could potentially benefit from these drugs. Dr. Dowlatshahi’s study shows for the first time that an experimental approach to detect bleeding in the brain (called the “spot sign”) does indeed detect active bleeding, as measured through a novel CT scanning video procedure. This research solves a major controversy in the field and paves the way for further studies of blood clotting drugs in patients with hemorrhagic stroke.


Dr. Roanne Segal (Medical Oncology) played a major role in a multi-centre clinical trial that found that regular cardiovascular exercise helps breast cancer patients manage symptoms of chemotherapy. The trial involved over 300 patients in Ottawa, Edmonton and Vancouver, and was published in the *Journal of the National Cancer Institute*. Media coverage included CBC TV Ottawa which interviewed Dr. Segal, Dr. Mark Clemons and a patient.
This study is the first to make this connection with regard to vaccinations.


Dr. Derek Jonker (Medical Oncology) led new research which could help improve a genetic test to predict which colorectal cancer patients are likely to benefit from a targeted therapy called cetuximab. Dr. Jonker’s research was published in the British Journal of Cancer and shows that adding another gene called Epiregulin may further improve the test. This is an important step in personalized medicine for cancer.


Dr. Kumanan Wilson (GIM) shows that first-born children have a higher incidence of post-vaccination emergency room visits and admissions than later-born children for vaccinations up to 12 months of age. As to why? The authors point to parental anxiety as well as a potential immunological effect. In fact, they undertook the study because of previous research showing that children with older siblings are less likely to develop asthma and allergies.
Girls have an increased likelihood of reacting to the one-year MMR vaccine than boys, according to a large, Ontario population-based study by led Dr. Kumanan Wilson (GIM) and published in Vaccine. The MMR vaccine is an immunization against measles, mumps and rubella that is typically given at 12 months of age. The findings suggest that there may be important physiological differences between boys and girls that cause different responses to the measles virus and measles-containing vaccines.

Dr. Peter Liu (Cardiology), Scientific Director of the University of Ottawa Heart Institute and his colleagues found a new heart failure-protective protein. In findings published in Nature Communications, the researchers detail the protective role of a new protein called HACE1. They had found it to be present at increased levels in the blood of patients with heart failure, prompting them to look further at its function in the heart.

Dr. Michael McBurney’s (Medical Oncology) research is providing important insight into metabolic syndrome which predisposes people to heart disease and diabetes. When the researchers fed a high-fat diet to mice with a mutated SIRT1 gene, they found that these mice developed insulin resistance and a fat-laden liver much more readily than normal mice. These mice also experienced changes in gut bacteria that have been associated with metabolic syndrome. See FASEB Journal for details.

Dr. Duncan Stewart (Cardiology) and his team discovered a potentially important link between pulmonary arterial hypertension (PAH) and a molecule called miR-26a. The research could lead to new approaches to diagnose, monitor and possibly treat PAH. Details in the American Journal of Respiratory and Critical Care Medicine.


Dr. Phil Wells (Hematology) published a definitive review of VTE treatment in JAMA. 


Dr. Gregoire Le Gal (Hematology) was senior author on a publication in JAMA validating the use of age adjusted D-Dimer to rule out PE in patients with suspected PE.


Dr. Richard van der Jagt (Hematology) published a manuscript in Blood entitled “Open-label, randomized, noninferiority study of bendamustine-rituximab or R-CHOP/R-CVP in first-line treatment of advanced indolent NHL or MCL: the BRIGHT study”.


Drs Mark Clemons and Christina Addison (Medical Oncology) published a study examining the effectiveness of using drugs called bisphosphonates, which reduce pain and skeletal complications in patients whose breast cancer has spread to the bone. This Canadian Breast Cancer Foundation-funded clinical trial involved 71 eligible patients from Ottawa and showed that patients could be safely treated every 3 months instead of every month, as is the current standard. The benefits for these women suffering from breast cancer included fewer treatments, fewer trips to the cancer centre and less toxicity. This approach also resulted in direct and indirect cost savings for the health-care system. See Breast Cancer Research and Treatment.


Dr. Manish Sood (Nephrology) concluded a large-scale study into the different types of dialysis used to treat end stage kidney disease in different regions of Canada. The study involved 31,778 patients in 56 health care facilities across 14 geographic regions, and found significant variations between in hospital hemodialysis and peritoneal dialysis that is typically administered at home. Peritoneal dialysis, which has similar mortality rates to hemodialysis, allows for better quality of life and offers significant cost savings. Hemodialysis costs approximately $80,000 per patient per year whereas peritoneal dialysis costs about half that amount. Dr. Sood’s study found that Toronto had the highest rates of
peritoneal dialysis at 36 per cent, followed by Vancouver at 33 per cent. The Atlantic provinces, excluding Nova Scotia, and eastern Ontario at 20 per cent each had lower rates of peritoneal dialysis utilization. See details in CMAJ Open.


Dr. Dar Dowlatshahi (Neurology) and Santanu Chakraborty led a study that describes a way to use time-resolved CT angiography for assessing patients who suffer from bleeding in the brain, or hemorrhagic stroke. The PloS One study showed that this 3-dimensional CT angiography improves the detection of blood leakage in the brain, providing a better understanding of where and how blood pools within the brain.


Drs Chris Kennedy, Kevin Burns and Dylan Burger (Nephrology) published a paper in the Journal of the American Society of Nephrology that identifies a novel urinary biomarker for diabetic kidney disease. The study showed that podocytes release tiny bits of themselves (called micro-particles) into the urine when stressed under diabetic conditions in mice. These podocyte micro-particles can be detected prior to the appearance of some of the earliest signs of diabetic kidney disease and could identify patients who are at risk for progression toward more advanced stages of the illness. This paper was also the subject of an editorial in the journal.


Dr. Kevin Burns (Nephrology) and his group published a study in PLoS One, which demonstrates the mechanism whereby a kidney protein called ACE2 is shed into the urine in diabetes. ACE2 is protective against the progression of kidney disease, and the results could be important to identify patients at risk of diabetic kidney disease, and to guide research to maintain ACE2 levels in the kidney.


Dr. Marc Carrier (Hematology) published a study in the Journal of Thrombosis and Haemostasis that identifies an increased risk of developing dangerous venous blood clotting (venous thromboembolism, or VTE) in people who have had surgery for kidney cancer (renal cell carcinoma) but whose tumours could not be fully removed because of spread to the veins (tumour thrombus). In the first study of its kind, Dr. Carrier and his team found that such patients are eight times more likely to develop VTE than cancer patients whose tumor did not move to the veins. These findings suggest that these cancer patients with residual tumor thrombus may benefit from drugs that reduce blood clotting as a way to prevent VTE.
In a study published in the prestigious New England Journal of Medicine, was a randomized clinical trial to test the effects of statins in the prevention of Chronic Obstructive Pulmonary Disease (COPD) exacerbations. The study highlights the benefits of international, multi-site clinical research collaborations.

Dr. Michael Rudnicki’s (Neurology) group published a paper in the Journal of Cell Biology that describes a novel approach to dramatically enhance the efficiency of stem cell therapy for skeletal muscle diseases, such as Duchenne muscular dystrophy.

Dr. Marc Carrier (Hematology) published a study in the journal Thrombosis Research providing evidence that it is safe and effective to escalate the doses of blood thinners known as low molecular weight heparin (LMWH) in patients with cancer-associated blood clots, or thrombosis. This approach has long been suggested as a potential treatment option for patients who experience recurrent cancer-associated thrombosis, but had not been substantiated by a clinical trial.

Dr. Shawn Aaron (Respirology) led a Canadian group of researchers who were part of a study funded by the U.S. National Institutes of Health Research entitled STATCOPE. The study, published in the prestigious New England Journal of Medicine, was a randomized clinical trial to test the effects of statins in the prevention of Chronic Obstructive Pulmonary Disease (COPD) exacerbations. The study highlights the benefits of international, multi-site clinical research collaborations.

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A clinical trial led by Drs Deb Zimmerman and Kevin Burns (Nephrology) shows that fewer medications are needed to control blood pressure just as effectively when patients undergo daily two-hour hemodialysis sessions. The conventional treatment is three times a week for four-hours. More than 80% of patients on dialysis have high blood pressure and more than half of patients with end-stage kidney disease die from cardiovascular disease, for which high blood pressure is a leading risk factor. Published in PLoS One.

In a study published in the prestigious journal Cell Stem Cell, the teams of Drs Marjorie Brand and
David Allan (Hematology) show that it is possible to dramatically enhance the therapeutic potential of blood vessel stem cells by pre-treating them with a drug that removes chromosomal markers that silence specific genes (i.e. epigenetic control). Specifically, they studied how stem cells form blood vessels at the molecular level and used this information to design a therapeutic strategy to improve the repair of blood vessels in limbs where the blood supply to tissue is restricted (known as ischemia). This is a considerable advance for the field of regenerative medicine because it provides proof-of-principle that stem cell function can be improved to provide a more rapid restoration of blood flow to injured tissues. The approach holds great promise to improve stem cell therapies for vascular diseases, including heart attack and stroke patients.


Dr. Carl van Walraven (GIM) published a study in the journal Med Care that found patients who undergo elective surgery on the weekend have a higher risk of dying than people who undergo the same procedure during the week. The study, which excluded cardiac surgery, followed 333,334 patients after they had an elective operation on a Saturday or Sunday. Specifically, the study found that undergoing elective surgery on the weekend was associated with a 1.96 times higher odds of dying within 30 days than when surgery was carried out Monday to Friday. These findings support previous research that found patients in Ontario who undergo elective surgery on the weekend experience an increased risk of 30-day postoperative mortality.


An Ottawa-based team of researchers led by Dr. David Picketts (Neurology) published a paper in Nature Communications describing the role of a specific gene, called Snf2h, in the development of the cerebellum. Snf2h is required for the proper development of a healthy cerebellum, which is like a master control centre in the brain for balance, fine motor control and complex physical movements. Athletes and artists perform their extraordinary feats by relying on the cerebellum. It is also critical for everyday tasks and activities that we perform, such as walking, eating and driving a car. By removing Snf2h, researchers found that the cerebellum was smaller than normal and that balance and refined movements were compromised.


Dr. Antoine Hakim (Neurology) published a perspective piece in the prestigious journal Nature concerning “covert” or “silent” strokes that occur in people without producing the usual signs and symptoms of an overt stroke. As part of a special edition of Nature that focuses on the science of strokes, Dr. Hakim’s article argues that covert strokes are more widespread
than commonly thought and are a major cause of dementia. Dr. Hakim states that anywhere from 8 per cent to 28 per cent of the population have had a covert stroke, and that their incidence rises with age and vascular risk factors. Because the brain is more sensitive than the heart to high blood pressure, obesity and sedentary behaviour, Dr. Hakim makes the case that people should adopt healthier eating habits and a more active lifestyle.


Noteworthy Grants

Dr. Angela Crawley (Infectious Diseases) received a $300,000 CIHR New Investigator Award to advance her research on the immune response to HIV and hepatitis C virus (HCV). Dr. Crawley plans to investigate the role of a protein called IL-7 in regulating how certain immune cells recognize and destroy HIV- and HCV-infected cells. She will also use mouse models to develop and test new immune-based therapies for these viruses.

Dr. Rashmi Kothary (Neurology) received a 2013 CIHR Operating grant for $750,000 - The molecular pathogenesis of spinal muscular atrophy.

Dr. Phil Wells (Hematology) received a 2013 CIHR Operating grant for $501,083 - Development and Validation of Clinical Prediction Rules for Bleeding for Patients on Anticoagulation Therapy for Venous Thromboembolism.

Dr. Lynn Megeney (Cardiology) was awarded $545,000 from CIHR and $300,000 from the Muscular Dystrophy Association to advance his research on caspases. Dr. Megeney discovered that these proteins play a key role in tissue growth and regeneration.

Two multi-national teams, one including Dr. Michael Rudnicki (Neurology) and a second with Dr. Jeffrey Dilworth (Neurology), were awarded two of 12 highly competitive international E-Rare grants for the study of rare diseases. Dr. Rudnicki is leading a team awarded $862,000 for preclinical studies to investigate the effectiveness of delivering a protein called Wnt7a systemically for the treatment of Duchenne muscular dystrophy. Dr. Rudnicki’s lab has previously shown that directly injecting this protein into muscle tissue can bolster muscle strength and regeneration. Dr. Dilworth’s team will tackle Facioscapulohumeral muscular dystrophy (FSHD), the most prevalent hereditary muscular dystrophy affecting adults and children. They received $878,000 to explore how a genetic factor called DBE-T activates genes associated with the disease and could possibly be used as a target for developing new therapies. Muscular Dystrophy Canada and the CIHR are each contributing more than $380,000 toward the two Canadian teams.

Dr. Shawn Aaron (Respirology) and team received a major CIHR emerging network grant in respiratory research. The grant is funded at $7.55 million over 5 years ($4.35 from CIHR and remainder from Canadian Lung Association and other partners). Application entitled: The Canadian Respiratory Research Network: Origin and Progression of Airway Disease.
**Dr. Fraser Scott** (Endocrinology & Metabolism) and colleagues were awarded nearly $900,000 from CIHR to study the possible role of natural anti-microbial proteins in preventing type 1 diabetes.

**Dr. Shawn Marshall** (Physical Medicine and Rehabilitation) and his colleagues were awarded $1.4M from the CIHR to support their international Candrive program. Initiated in 2002 by Drs. Marshall and Malcolm Man-Son-Hing, the Candrive team has progressed to a prospective study involving nearly 1000 older drivers, documenting their driving habits, car accidents and clinical changes over five years.

**Dr. Marjorie Brand** (Hematology) and Theodore Perkins were awarded more than $1.1 million from the NIH to undertake a study of red blood cell development. They plan to use novel technology to measure changes in hundreds of genetic factors as stem cells develop into red blood cells. The research will hopefully develop new therapies for rare blood diseases such as beta-thalassemia.

**Dr. Jonathan Angel** (Infectious Diseases) is part of a research team involving TOH, CHEO, and University of Ottawa, which will play a major role in a project that aims to find a cure for HIV and contribute to the global effort to put an end to AIDS. The project was awarded $8.7 million through the Canadian Initiative for HIV Cure Research. The goal of the project is to understand how HIV hides inside certain cells during treatment and to find a way to kill those infected cells. Dr. Angel is PI on the project and co-Chair of the Steering Committee.

**Dr. Jim Dimitroulakos** (Medical Oncology) received a $350,000 grant from CIHR to investigate a novel cancer treatment strategy that involves combining drugs that affect cholesterol metabolism with drugs that block cancer growth factors. Laboratory studies and clinical trials by Dr. Dimitroulakos and his colleagues have shown that statins, which are widely used to treat high cholesterol, also have anti-cancer effects, particularly in combination with other targeted therapies.

**Dr. Rashmi Kothary** (Neurology) was awarded $253,800 over three years from the Muscular Dystrophy Association to further his research into spinal muscular atrophy, a disease affecting neurons and skeletal muscle that impacts very young children, leading to paralysis for which there is currently no effective treatment. Spinal muscular atrophy is the most common genetic disease resulting in infant death and is caused by mutations in a single gene, SMN1. Dr. Kothary and his team are developing a targeted gene therapy to fix the biological pathways disrupted by the disease.

**Dr. Duncan Stewart** (Cardiology) was awarded a major grant to lead The Canadian Vascular Network, which aims to improve care for diseases caused by damage to both large and small blood vessels, including heart attack, stroke, dementia, kidney failure and macular degeneration. The network is funded by the CIHR, as well as academic, non-profit and industry partners.

**Dr. Darryl Davis** (Cardiology) received stem cell network funding: Stem Cell Network Clinical Translation Impact Grant Competition, “Optimization of cardiac stem cell manufacturing for cellular cardiomyoplasty”.

**Dr. Marjorie Brand** and Theodore Perkins were awarded more than $1.1 million from the NIH to undertake a study of red blood cell development. They plan to use novel technology to measure changes in hundreds of genetic factors as stem cells develop into red blood cells. The research will hopefully develop new therapies for rare blood diseases such as beta-thalassemia.
Drs Jonathan Angel (Infectious Diseases) and Nongnuj Tanphaichitr were awarded a $620,000 grant from the CIHR that will have them continue their research to develop a unique vaginal contraceptive that has the potential to also prevent sexually transmitted infection in women, including HIV.

Dr. John Bell (Medical Oncology) was awarded The Cancer Society Impact Grant, which will be used for research to tailor cancer-fighting viruses for pancreatic cancer. The funding amount is $1,244,770.

Dr. Rashmi Kothary (Neurology) was awarded $253,800 over three years from the Muscular Dystrophy Association to further his research into spinal muscular atrophy, a disease affecting neurons and skeletal muscle that impacts very young children, leading to paralysis for which there is currently no effective treatment.

Dr. Alexander Sorisky (Endocrinology and Metabolism) was awarded a $276,215 grant by the HSFC for three years to further his research into MApping adipose tissue malfunction in obesity: macrophages, adipose cells and PDGF.

Dr. Shawn Aaron (Respirology) was awarded $1.1 million over three years by the Ontario Ministry of Health and Long-Term Care to fund research into Chronic Obstructive Pulmonary Disease (COPD). Dr. Aaron is the co-lead on the research project known as The Ontario Chronic Obstructive Pulmonary Disease Population Health Network.

Dr. Mark Tyndall (Infectious Diseases) was awarded $100,000 by the CIHR to examine the risk of acquiring HIV among drug users in Ottawa. The study will involve 1200 people who have smoked or injected drugs (other than marijuana) in the past year. The findings will provide a better understanding of the HIV risk environment among drug users and could lead to the development of community-based models that enhance HIV testing and treatment.

Dr. David Picketts (Neurology) was granted more than $835,000 from the CIHR to further his research into developmental disorders and intellectual disabilities. Dr. Picketts and his team are studying how the ATRX gene organizes chromosomes and keeps cells functioning properly. The research could lead to treatments for complex intellectual disabilities.

Dr. Gregoire Le Gal (Hematology) received a Heart and Stroke Foundation Grant for development of a clinical decision rule for recurrent venous thromboembolism ($235K).

A team of researchers that includes Drs. Michael Rudnicki, Jeff Dilworth, Lynn Megeney and Theodore Perkins were awarded $1.2 million by the CIHR for a five-year study into the triggers that cause Alveolar Rhabdomyosarcoma (aRMS), an aggressive cancer that develops in children and teenagers.

Drs. Michael Schlossmacher and David Park (Neurology) were awarded a five-year team grant in the amount of $2.5 million from the CIHR to study the role of a specific gene (LRRK2) in three debilitating chronic diseases: Parkinson’s, Crohn’s and leprosy. The team will develop a detailed understanding of the role that the LRRK2 gene plays in regulating our immune system and how it can lead to the development these diseases.
Drs. Dar Dowlatshahi and David Grimes (Neurology) are part of a $28.5 million initiative funded by the Ontario Brain Institute to investigate neurodegenerative disorders such as Alzheimer’s disease, Vascular Dementia, Parkinson’s and ALS. The five year study brings together 54 investigators, 12 clinical sites, 17 universities and hospitals, six industrial partners and 600 patients in an effort to better understand a number of different neurodegenerative brain disorders that afflict people. Dr. Grimes is the Ottawa-based Principal Investigator for Parkinson’s disease while Dr. Dowlatshahi is the Ottawa Principal Investigator for Vascular Cognitive Impairment.

Dr. Alan Tinmouth (Hematology) and the University of Ottawa Centre for Transfusion Research (UOCTR) were awarded $718,286 by Canadian Blood Services. Dr. Tinmouth heads up the centre, which is a multidisciplinary group of researchers in Hematology, Nephrology, Surgery and Intensive Care who work together on common research topics such as transfusion, resuscitation and transplantation.

Successful CIHR Operating Grants from Sept 2013 and March 2014 Competitions

- Dr. Robert De Kemp (Cardiology): Translational Imaging of Coronary Endothelial Function with Positron Tomography
- Dr. Jim Dimitroulakos (Medical Oncology): Targeting the mevalonate pathway in novel combination based therapeutic approaches
- Dr. Shawn Marshall (PM&R): Candrive Prospective Older Driver Study
- Dr. David Picketts (Neurology): Exploring the role of ATRX at tandem DNA repeats: Implications for developmental disorders
- Drs. Michael Rudnicki, Lynn Megeney, Ted. Perkins and Jeffrey Dilworth (Neurology): Genomic Analysis of Rhabdomyosarcoma Tumor Initiating Cells
- Drs. Nongnuj Tanphaichitr and Jonathan Angel (Infectious Diseases): Antimicrobial host defence peptides: their potential use as vaginal contraceptives with anti-HIV properties
- Drs. Vivian A Welsh & Peter Tugwell (Rheumatology): Improving randomized controlled trials for equity-oriented decisions
- Dr. Martin Chasen (Palliative Care): Multimodal Exercise, Nutrition and Anti-inflammatory Treatment for Palliation of Cancer Cachexia: the MENAC study
- Dr. Peter Liu (Cardiology): Novel Regulators of Cardiac Innate Immunity and post MI Remodeling
- Dr. Mark Tyndall (Infectious Diseases): Prioritizing Community Engagement and Involvement in Understanding HIV Risk among People Who Use Drugs in Ottawa: The PROUD Study
- Dr. John Bell (Medical Oncology): Proof of Principle Program—Phase I Biological Viral Sensitizers for GMP Manufacturing
• Dr. Gonzalo Alvarez (Respirology): Preventing tuberculosis in Inuit communities: Predicting what may work

• Dr. Curtis Cooper (Infectious Diseases): Canadian HIV Observational Cohort (CANOC) Collaborative Research Centre

• Dr. Jeffrey Dilworth (Neurology): Epigenetic regulation of muscle gene expression during muscle regeneration

• Dr. Ian Lorimer (Medical Oncology): Evaluation of protein kinase C iota as a target for glioblastoma therapy

• Drs. Robin Parks and Rashmi Kothary (Neurology): Development of novel therapeutics for the treatment of the genetic disorder Spinal Muscular

Honours and Awards

• Dr. Michael Schlossmacher (Neurology) was named as an inventor on a recently issued patent. The patent is for work he has done on the effects of a gene called GBA (whose mutations are the most common genetic risk factor for Parkinson’s) and an accumulation of a protein called alpha-synuclein within the brains of people with Parkinson’s. Dr. Schlossmacher received the prestigious Annals of Neurology Prize for a paper he wrote on these findings in 2012.

• Dr. Michael McBurney’s (Medical Oncology) Cancer Therapeutics Program won CIHR’s 2013 Synapse Award for Mentorship in the research group category. The $10,000 award recognizes the efforts of a group that has made exceptional efforts to promote health research among Canada’s high-school students.

• 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 Mielniczuk (Cardiology) also received personnel awards from HSF in this same competition.

• 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. He received the award at the Vascular 2013 meeting in Montreal.

• Drs. Marc Rodger (Hematology) and Rob Beanlands (Cardiology) were both awarded HSFO 2013 Career Investigator awards. Both were profiled on HSF website. Dr. Beanland’s profile: Creating a clearer picture of cardiovascular disease. Dr. Rodger’s profile: Solving a maternity mystery.

• Dr. Dar Dowlatshahi (Neurology) received a New Investigator Award from Heart & Stroke Foundation.

• Dr. John Bell (Medical Oncology) received the 2013 Investigator Award from the Alliance for Cancer Gene Therapy, a highly competitive $500,000 grant awarded to a single scientist / team from the USA or Canada.

• Dr. Curtis Cooper (Infectious Diseases) was awarded the Ontario HIV Treatment Network’s Applied HIV Research Chair worth over $750,000 over 5 years.
• Dr. TC Ooi (Endocrinology and Metabolism) received the 2013 Physician Scientist Award at the annual Canadian Lipoprotein Conference in Mont Tremblant. Dr. Ooi’s research explores the role of an enzyme called PCSK9 in regulating cholesterol metabolism and how it might be targeted to reduce cholesterol levels and improve cardiovascular health.

• Dr. Fraser Scott (Endocrinology & Metabolism) was awarded the Earle W. Crampton Award for Distinguished Service in Nutrition. The award is McGill University’s sole professional award for scholarship in the field of nutrition and food and it honours the memory and pioneering work of the late Dr. Earle W. Crampton, an international scholar and foundation of nutrition research and teaching at McGill. Dr. Scott received the award on February 20th, 2014 in Montreal.

• Dr. Jeremy Grimshaw (Clinical Epidemiology) was presented with the Knowledge Translation Award from the CIHR and the Governor General of Canada for his leadership of Cochrane Canada. The award comes with a $100,000 grant to further Cochrane Canada’s knowledge translation activities. Dr. Grimshaw was quoted as saying: “Our vision is that all health-care decisions in Canada are informed by the best available evidence.”

• Drs Michael Rudnicki and Peter Tugwell (Rheumatology) were appointed as Officers of the Order of Canada on December 30th, 2013. Dr. Rudnicki was recognized “for contributing to scientific breakthroughs in the area of muscle development and for his leadership in stem cell research.” Dr. Tugwell was recognized “for his contributions as an epidemiologist reducing global disparities in health care access.”

• Dr. Curtis Cooper (Infectious Diseases) was the recipient of the CFID Dr. John M. Embil Mentorship Award in Infectious Diseases award. This award celebrates the commitment of a member of the Association of Medical Microbiology and Infectious Disease Canada to inspiring interest and excitement in the field of infectious diseases.

• Dr. Manish Sood (Nephrology) was named as the Deputy Editor-in-Chief for the Canadian Society of Nephrology’s new journal called The Canadian Journal of Kidney Health and Disease, the first and only journal of kidney disease in Canada.

• Dr. Jack Karsh (Rheumatology) was awarded with the Jeffrey Shiroky Prize at the Laurentian Conference on de Novo Acquired Immune Deficiency in recognition of his contribution in the field of research in inflammatory disease.

• Dr. Duncan Stewart (Cardiology, and CEO and Chief Scientific Officer of the OHRI) became a Fellow of the Royal Society of Canada, elected by his peers in the Society’s Life Sciences Division for “advancing knowledge and scholarship in Canada.” The Royal Society of Canada: The Academies of Arts, Humanities and Sciences of Canada was established in 1882 as the senior Canadian collegium of distinguished scholars, artists and scientists. Among the first fellows elected in 1882 were Sir Sandford Fleming, the originator of the world system of Standard Time, and Sir William Osler, one of the greatest physicians of his day. The primary objective of the Society is to promote learning and research in the arts, humanities and the natural and social sciences.
Resident Research Day 2014

Research is a critical part of the journey to the highest quality patient care. Supporting our postgraduate training program and the researchers of tomorrow has never been more important. In our current climate, research dollars are harder to obtain and yet the number of questions and opportunities to provide better care for our patients are steadily increasing.

The journey for many of our residents starts with Resident Research Day (RRD).

This year, under the leadership of our new RRD Chair, Dr. Curtis Cooper (Infectious Diseases), the Department of Medicine sought to advance the event by hosting it at the Ottawa Congress Centre, a new state-of-the-art function space in the heart of the capital. Dr. Cooper also introduced concurrent research track oral sessions and added an informative and entertaining debate.

A record number of submissions were received this year—54 in total. Thanks are due to the research supervisors who put time and effort into overseeing these projects and to Cindy Taylor for organizing this event. As in the past, this day was only made possible as a result of our committed faculty members who acted as abstract reviewers and session judges.

Many thanks to Dr. Sharon Straus, M.D., M.S. for being our keynote speaker. Dr. Straus is Director, Knowledge Translation Program, Li Ka Shing Knowledge Institute of St. Michaels Director, Division of Geriatric Medicine University of Toronto. She shared her views on EBM: Evidence-Based Mentorship.

Judged to be the Best in 2014:

Orals presentations
- Dr. Mike Abunassar (PGY2 Internal Medicine)—Retrospective cohort study of patients with anal cancer treated over a 12-year period at a large Canadian cancer centre
- Dr. Babak Rashidi (PGY3 Internal Medicine)—High Users of the Healthcare System
- Dr. Shelley Sud (Fellow Oncology)—SIMONE-Simulation in Medical Oncology Education. Part I: Pilot Feasibility Study
- Dr. Jeff Sulpher (Fellow Oncology)—An International Survey of Health Care Providers Involved in the Management of Cancer Patients Exposed to Cardiotoxic Therapies

Poster Winners
- Dr. Irena Druce (PGY1 Internal Medicine)—Assessment of care of patients with pituitary adenoma at The Ottawa Hospital
- Dr. Juthaporn Cowan (PGY5 Infectious Disease)—Immunoglobulin Therapy: Merely Immunoglobulin Replacement or Immunomodulator in Patients with Hypogammaglobulinemia?

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. DEREK JONKER
Medical Oncologist
It is often said ‘there is more to a man than meets the eye’, this is unquestionably the case with Dr. Derek Jonker. Intensely private, this Medical Oncologist reveals very little of himself to those outside his inner circle. Outwardly he is focused and serious, spending most days delivering hard truths, trying to balance honesty with compassion, juggling the demands of a large clinical practice and prolific research career. All within the confines of an environment greatly inhibited by time. The very idea of being interviewed makes his skin crawl and answering questions about his personal life, why he does what he does and how he feels about it, is clearly out of his comfort zone. But, despite his obvious discomfort he is gracefully obliging and gradually opens up about himself, sharing one fragment at a time.

You may not know: As a child, Derek wanted to play the bagpipes—probably sparked from a memory of being at Edinburgh castle. His parents compromised and he played the violin. He’s quite an accomplished musician; in addition to the violin he plays the guitar, mandolin and oddly the banjo. He shares this love of music with all four of his children. “It’s been shown that kids who are involved with taking music lessons at an early age learn all sorts of things,” he says. “It helps to develop certain kinds of analytical thinking.” Derek and his wife Kathy encouraged their kids to take music lessons, but it was about more than just taking the lessons and improving; it was about the ability to make music together. “Jamming with my kids in my living room—that’s pretty special to me.”

Resting in every corner of said living room are the family’s instruments. Some hanging, some balanced against unpretentious furniture whose warm, rich tones mirror the overall sentiment of the space. It’s comfortable here. Cards from a recent graduation cover the top ledge of the built in bookcase, happily competing for space with the chronology of family photos. “My father was a bit musical, he played the recorder, he looked like a snake charmer when he was playing. He was a bit of a renaissance man - interested in mathematics, music, art and how the mind manages these things”. Derek’s father completed his PhD in mathematics at the University of California-Berkeley in the days of Ted Kaczynski, infamous math student known to the rest of the world as the ‘Unabomber’. For the record, they were not friends.

Rarely witnessed: His impression of Kermit the Frog singing the Rainbow Connection, accompanied by the banjo. You know the one… ‘why are there so many songs about rainbows and what’s on the other side...’ Derek jokes, “the definition of perfect pitch is when you take a banjo and throw it across the parking lot and it lands in the dumpster on top of the accordion” [huh?!].
No exaggeration: When Derek picks up a guitar he undergoes a complete transformation. On any given day he barely makes eye contact but hand him a guitar and all evidence of shyness or reserve vanishes. Instantly. The intense way he plays makes it at once clear how important and integral music is to his world. His voice, resonant and self-assured belts out the words to Celtic classics and favourite songs he performs in church.

Few know: That on most Thursdays, for three years running, after an arduous and hectic day in clinic, Dr. Jonker drives like a bat out of hell to get to his next commitment—volunteering at his church youth group for 8 and 9 year olds. Together with his daughter Kyra, Derek leads fun activities for upwards of 40 kids. “It’s really hard to carve out the time and occasionally I run a little bit late but the kids really like it.”

Unequivocally true: When he commits, he commits 100%—like a dog with a bone. And fittingly has been described as a ‘bulldog’ in his approach to getting things done. He’s fine with that, as he likes doing things well. In fact, his biggest pet peeve is people who crave leadership but don’t follow through. “When someone is clearly putting him or herself forward as the one in charge but just aren’t there when it comes to the grunt work—that’s a big problem for me. You need to lead by example not by decree”. As a leader it’s also important for Derek to find opportunities to recognize and to build up the careers of the people he works with.

Surely you know: Bach’s legacy was his music, Picasso’s legacy his art, Hemmingway’s, his stories. Jonker’s legacy is ongoing. Derek’s greatest personal contribution to the field of oncology thus far is through his leadership of the NCIC CTG CO.17 trial. It was expertly designed and executed to allow the clearest demonstration of the effect of inhibition of the epidermal growth factor receptor pathway in colorectal cancer. “I was glad that we were able to answer that

True fact: When the kids were younger Derek brought them to jam on the street at the annual Great Glebe Garage Sale. “It was about finding venues for the kids to feel that their music meant something,” he says. “So we put out the violin case and played high energy Celtic type stuff. We gave all the money we collected to the Food Bank—the experience was worth far more.” Charity seems to be part of the Jonker’s family moral compass; they personally support an orphanage in Africa.
question and ultimately our study was the reason that the drug was removed from conditional approval to full approval in the US and Europe. We did a service to the oncology community globally.” Since then, numerous correlative studies have been done or are ongoing that will aid in the understanding in oncogenesis and management of cancer. Most notably this project led to two publications in the NEJM. Following the success of CO.17, Derek travelled a lot (despite his better judgment) presenting at major meetings, poster discussion sessions etc., but these commitments were distracting and effecting his ongoing research. “At some point success becomes your enemy and failure your friend,” he says. “You have to fly under the radar to get anything done. I prefer to be effective under the radar”.

In his role as Medical Director of the Clinical Trials Department at The Ottawa Hospital Cancer Centre, he turned the books from red to black. He took over the office in 2007, unaware that it was in serious financial trouble at the time. $700K in debt meant that livelihoods were at stake. Under Derek’s guidance, they downsized, restructured, improved processes, and within two short years had a relative surplus of close to a million dollars. “It was tough. Really tough and a huge amount of work every week, but we definitely turned that place around. As soon as we got there I said ‘I quit—I fixed this, now I’m out.’” Ottawa was held as a model of success from that point, and Derek was asked to speak to other trial groups across the country to assist with similar issues.

**Baffling fact:** Derek is repeatedly referred to as “Dr. Blue Eyes,” but noticeably his eyes are green. And they’re intense. Coupled with his dark features, a casual observer might misconstrue his glance for a glare. At work he’s focused and wears his game face as though it were an extension of his white coat. His colleagues say he’s never once raised his voice and he’s the consummate professional. But when he’s angry his dark features are exaggerated as if veiled by a black cloud. His wife thinks he looks like George Clooney circa ER season 5, but likely more for his smile than the heavy lidded eyes. Derek has the kind of smile that’s impossible to achieve without meaning it. Of course there’s also his general good looks, which he resolutely refuses to acknowledge. His speech is fluent and articulate, making it easy for a non-physician to follow his explanation of oncolytic studies like K-RAS, BRAF, and IGF-1R, which for someone outside of the research arena can sometimes sound as nonsensical as a Dr. Seuss book.

**Significant moment:** When Derek was in medical school his mother developed breast cancer; in fact she was diagnosed with it twice during his undergrad and ended up having double mastectomies. She was relatively young at the time, only in her late 40s. This, he says is likely what drew him towards the needs and treatment of cancer. Medicine was not his primary goal in life though, he wanted to follow in his parent’s footsteps and teach. He admired his father’s wisdom and was encouraged to study physics. This, he says, led him to medicine.

During his internal medicine residency, Derek had an opportunity to work with Dr. Jean Maroun, a medical oncologist specializing in colorectal cancers. Dr. Maroun’s mentorship influenced Derek to consider Medical Oncology as a career. It also pushed him towards the management of GI malignancies and more specifically, into clinical research focused on new drug development and treatment combinations. “Our treatments are so relatively ineffective compared to what we would like them to be,” he says. “The bar has so far to go before we run out of things
Delivering hard truths: “Most people want to have an idea of prognosis,” Derek says, so he has the difficult discussion right out of the gate, at the first visit and then never mentions it again. He supports the discussion with generalized stats about how a population does, with or without chemo. “I don’t want them to have false ideas of what chemo can do”. While prognostic information is difficult enough to hear, he feels it’s important to also write it down on a piece of paper for people to digest at a later date. “Many don’t want it written down,” he says. “But some like it”. From that moment on he focuses on being very positive, although, he says, “I can always think of occasions where I wasn’t tactful enough.”

Dr. Jonker has always had an impulse to tinker and challenge. “In grade seven I had a newspaper route—The Kingston Whig Standard. I delivered papers for many years and I saved up money. Together with my Dad we bought a computer, an Ohio Scientific. Nobody had a computer in his or her home back then. I remember saving data on a little cassette recorder. I started programming on this thing at an early age, it fascinated me. It was by no means a pinball machine”.

Maintaining objectivity: The number of times cancer has been cured in mice is phenomenal. “Unfortunately people will read news about how oncolytic viruses are curing mice, and think we just need to get this into the treatment clinics,” he says. “But there is a very real danger when scientists present their early data to the public, there’s no filter there, and the media is definitely not a filter. The media loves it; put the words ‘killed cancer’ with a guy standing beside a beaker and that’s gold. It’s going to sell a lot of papers, but guaranteed my patients are going to ask me about it the next day. Sadly, this creates a false sense of hope in people who will abandon all to get a treatment that is not even being studied in a clinical trial yet. My colleague John Bell has presented his findings in a balanced way, but the media still doesn’t get it—the cure to cancer will come in very small steps.”

to try and fix.” He goes on to say that even the existing effective treatments are pretty crude tools, “they’re quite toxic and very quickly we run out of options—that’s a hard pill to swallow”. As academic medical oncologists, he feels there’s a real burden of duty to try and find new options using promising pre-clinical models. “It’s the right thing to do and I enjoy the exploring and the discovery of it.”
Partially known fact: Derek Jonker is a Forty-Sixer. People don’t join the Forty-Sixers, they become one by climbing all 46 High Peaks of the Adirondacks. In the New York State Library of Medicine (an unlikely place), they keep a record of everyone who is a 46er dating back to 1925. It has something of a cult following and according to the website, climbing the 46 is about more than just getting your name in a record book, it is a personal challenge that will reward you with memories and friendships that will last a lifetime. "My interest in hiking started in University, with friends looking for something fun to do on the weekend. Later I brought my family for similar reasons. We continued to do this once or twice a year, we saw folks wearing 46er hats and we’d chuckle. But at some point we thought that climbing all 46 would be feasible". To get to some of the remote high peaks is no easy feat so Derek and his family maximized the effort to get into the interior by climbing 5 peaks in one weekend. On September 15th, 2012, Derek climbed the last of the 4000-foot mountains with his wife and their three youngest children, which gained them entry into the elite club.

Derek has always had a fondness for the ‘great outdoors’. Born in Oakland California, he and his family moved to Kingston, Ontario when he was very young. Kingston was a great mid-size town, with lots of outdoor activities. Now he has a cottage in Perth. It has no Internet. And for a workaholic in denial this is a good thing, because in this setting he is locked out of work. For many people, including Derek, it’s hard to put it all down and get it out of your head. In this setting he can actually recharge. Derek’s obliging nature has, at times, taken its toll and he acknowledges the misfortune of always being rushed and pays the price of being pulled in all directions. "My wife has certainly made it possible for me to do the things that I do and to the extent that I do them. I certainly recognize that and I’m very fortunate to have a partner that makes it possible".

Final note: Derek never questioned his direction towards Oncology. “There are aspects that are very draining and challenging,” he says, “but on the other hand it’s a huge privilege to be looking after cancer patients. I take satisfaction in being able to buy people extra time and to care for them”. Derek is not a person who looks at life as entitlement, he’s grateful for the opportunities he’s had. “Life is a gift that you can make the most of”. He admits that perhaps it’s easier for him to say that because he’s been given opportunities, but at the same time he’s not afraid to take the hits too. “Maybe growing up with multiple siblings helped me learn that it wasn’t so much about fairness but more about contributions".
What is your idea of perfect happiness?
Being on top of my workload...which I hope happens one day.

What is the trait you most deplore in yourself?
My impatience.

What is the trait you most deplore in others?
Their slowness.

What do you dislike most about your appearance?
My mouth turns down at the sides, making me look like I'm frowning. I'm not.

If you could change one thing about your family, what would it be?
Skip some teenage years.

Which living person do you most despise?
Try not to. Bible says “love your enemies”.

What is it that you most dislike?
Cottage plumbing (when it doesn’t go well)

How would you like to die?
Before my wife and kids. I'm selfish.

If you could have any superpower, what would it be? Would you use it for good, or evil?
I'd like to duplicate myself. If I could make an alternate copy I could get twice as much done. That would be handy.
Farmer’s field in Sarsfield, eastern Ottawa
PATIENT QUALITY & SAFETY
Patient quality and safety is one of the top priorities at The Ottawa Hospital. In 2010, the Department of Medicine created a patient quality and safety 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.

Accomplishments

1. **Morbidity and Mortality (M&M) rounds:** The Patient Quality & Safety Committee (PQ & SC) has overseen the establishment of regular M&M rounds within each division. With the guidance of Dr. Edmund Kwok (Emergency Medicine), each division has been able to build upon a structured M & M round model. These rounds should help improve awareness of cognitive and system errors in patient care and lead to actionable items that will improve patient safety.

2. **Establishment of Divisional PQ & SC:** The PQ & SC membership has spearheaded the establishment of divisional patient quality and safety committees. The purpose of these committees is to identify patient quality and safety issues at the divisional level and to develop appropriate action plans. System wide issues are discussed at the PQ & SC and brought forward to the Department of Medicine executive when deemed appropriate.

3. **Hand-Over Tool:** A standardized tool designed to provide patient information at the time of handover (nights/weekends) between residents/staff was identified as a high priority by this committee in 2011. The Ottawa Hospital also recognized the importance of this initiative and a committee was established (IT, IS, clinicians, residents) to develop an electronic hand over tool (ipad compatible) that would permit the safe handover of patient information between health care providers at times of transition of patient care (e.g. weekends, evenings). A number of existing handover tools have been evaluated and subsequently adapted to meet the needs of our patients and health care providers at The Ottawa Hospital. A pilot of the new hand over tool is scheduled to be tested in the near future.

Grant Competition

In the spring of 2014, the 3rd Patient Quality and Safety grant competition was held. Building on the success of the previous year, each division was asked to submit one project, with the proviso that each respective division would provide matching funds (up to a maximum of $20,000 per project) to those made available by the Department of Medicine. This year there were 18 successful grant applications awarded, totalling $139,000 in Departmental funding. Successful projects covered a broad range of patient quality and safety issues including: implementation of evidence-based guidelines for management of pain in the ICU, a pilot study of the use of a mobile application to gather feedback from patients undergoing endoscopy; evaluation of in-hospital code blue resuscitation and verbal handover training to improve patient safety on the cardiology service. Funding of all PQ and SC projects is conditional upon sharing outcomes of each respective project with the Department of Medicine members and our peers. This year we present the results of Department of Medicine funded projects from 2013 at the 10th Annual Ottawa Hospital Patient Safety Conference.
Strategic Planning for the DOM

The members of the PQ and SC took part in the Department of Medicine Strategic Planning Exercise this past spring. A number of key areas impacting patient quality and safety were identified by the Department of Medicine membership including:

- Advance models of care (safe, patient-centered, effective, efficient, equitable, academic-enabling)
- Collaborate and coordinate on quality improvement plans with divisions, partners, primary care and patients
- Incorporate patient safety and quality into: career paths, education (e.g. academic half day), divisional activities (M&M rounds) and translational research projects.

We are currently in the process of identifying members within the Department of Medicine interested in participating in working groups that would be tasked with developing action plans to achieve these goals.

Education

This year members of the PQ and SC took part in educational opportunities to further enhance their skills:

- Dr. Lloyd Duchesne
  ASPIRE—Advancing Safety for Patients in Residency Education, Royal College of Physicians and Surgeons of Canada, Ottawa.

- Dr. Nahid Azad
  Introduction to Quality, Risk, and Safety, Queen’s University, Kingston.

- Dr. Jocelyn Zwicker
  The 10th Annual Ottawa Hospital Patient Safety Conference and Improving Quality and Patient Safety: The physician leadership program, Ottawa.

- Dr. Delvina Hasimja
  Canadian Patient Safety Officer Course, Ottawa.

- Dr. Angeline Law
  Canadian Patient Safety Officer Course, Ottawa.

The Department of Medicine is dedicated to ensuring the best quality of care for our patients. The PQ and SC committee will continue to work with our colleagues and regional partners over the coming year to ensure our patients receive the best and safest care!
A passage from Charles Handy’s *The Hungry Spirit*:

“Cathedrals are incredible testaments to human endeavour. It is not only their grandeur or splendour, but the thought that they often took more than fifty years to build.

Those who designed them, those who first worked on them, knew for certain that they would never see them finished.

They knew only that they were creating something glorious which would stand for centuries, long after their own names had been forgotten.
An interview with

DR. JANINE MALCOLM
Endocrinologist
Dr. Janine Malcolm’s idea of perfect happiness is driving to the airport with her family en route to the next grand adventure. In another world she would have made a terrific travel agent. Travel is by far her greatest extravagance and the anticipation of it gets her through her days. It helps her balance the rigors of an intense medical career as an Endocrinologist with her equally important job as mother and wife. “Someone once gave me the analogy ‘you’ve got to be like Tarzan, your vacations are the trees and you simply swing from tree to tree’. Her bookshelves at home are filled with so many travel guides; you would think you were in the travel section at Chapters. “Before I’ve even taken a holiday I’m booking the next one,” she says. Janine blocks and books her time well in advance; generally corresponding to when her husband and kids are off. With a very demanding schedule, she must manage her calendar with the same type of precision and detail as a military op. She uses a simple paper version, fixed to the wall beside her computer with a single piece of tape. At best, it is an illustration of controlled chaos; dates are circled in red or x’d out, weeks are coded in yellow, blue, green or orange. A handwritten legend - for all it’s worth - has been added, because presumably even Janine will need help to decipher the madness. “My kids’ dance school thinks I’m crazy when I ask for dates of recitals in the following year so that I can block my calendar.”

Janine is an Endocrinologist with clinical and research interests in health services delivery, diabetes in pregnancy, and exercise in diabetes. She is also the current director of the residency training program in Endocrinology and Metabolism at the University of Ottawa, co-specialist lead for Diabetes and Vascular Health for the Champlain LHIN and served as divisional rep for the Department of Medicine Patient Quality & Safety Committee. She wears many hats and while she may not always juggle her commitments with the fluid grace of a circus performer she always follows through with things she has promised. “My Myers Briggs type is ISTJ, [the Duty Fulfiller] and I am so ISTJ, it’s crazy.” She is also a classic type A personality, propelled by a goal-oriented mindset and an intense drive to succeed. This is her motivation she says and it’s what gets her up in the morning, not only to see patients but also to train for a run (something her younger sister recently coaxed her into). She admits that the ‘process’ of getting there is difficult for someone with her personality type but she has learned that the process needs to happen and sometimes you just need to relax a little bit and go along for the ride. Janine is also a people pleaser, which she attributes in part to birth order. “My sister is more of a free spirit. I live vicariously through her; she’s a traveler, teacher, yoga instructor, and a very fit individual. She has a very different personality than me. Confrontation doesn’t bother her; she is less worried about what other people think than I am. When we were kids she used to say that she was Ernie and I was Bert—that used to annoy me … but she is and will always be in my court, she has always been there for me”.

Dr. Malcolm is a local girl; she grew up in Beaverbrook, the first and oldest residential neighbourhood in Kanata where you weren’t allowed to paint your garage door red or green. Despite the rigid rules of exterior paint choice she insists it was a great community to grow up in and today lives just a few blocks from her childhood home. Her parents are both Jamaican and were one of the first non-Caucasian immigrants to move into that area. Situated only 20 kilometres west of downtown Ottawa, Kanata in the 1960s wasn’t much more than farmland, but housing prices were good.

“One’s destination is never a place, but a new way of seeing things”. — Henry Miller
and it was an easy commute to work for her father. “My father had an extraordinary work ethic, I don’t remember him ever being home sick from work and you could count on him for anything. He worked through university, got his engineering degree, and succeeded due to pure drive and determination—that’s a huge motivator for me.” From her mother she was instilled with the philosophy that if you’re going to do anything you’ve got to do it to the best of your ability—a viewpoint that is at present, Janine’s motto. “My mother was always the person in the background shoring you up,” Janine explains. Her mother stayed at home, raising two girls until Janine was 15 when she returned to work. “It worked out well for me because she was always the mother on the school trip or the mother who helped out at the book fair, all the kids knew her.”

Half-heartedly Janine is at the other end of the parenting spectrum, working long hours outside of the home as her career demands. “I do have mother guilt,” she says, “I’m not the mother my mother was, but I do try to hit the high points”. Being a physician dictates that her job comes first most of the time but there are a couple of weeks a year where she makes sure to be Mom first “I do make the time to be there for the important things. I want to be there with them to do things like decorating gingerbread houses—or to be there for them, like watching a dance exam or recital. Sometimes I just can’t do it because the school only gives me a few days notice, so that’s when I call my parents”. Her parents are her enablers, “I can’t just leave clinic if the kids are sick and my husband, who’s a teacher, would have difficulty leaving his class. So I’m really lucky that they want to participate in my children’s lives”.

Janine has also managed to make it all work by ‘paying for support’ she says. A housekeeper frees up her time when she’s home, great caregivers ensured her girls needs were met, and, there was a time when she hired someone to cook for them all. “But as my girls are entering the tween years I really want to make sure that I’m present. I want to be the house that all the kids come to because if friends are part of my daughters’ lives, I want them to engage with our family. We’ve created that environment, I think, but we have craziness happening at our house all the time!”

Janine is high-achieving. She dislikes both laziness and ambivalence and is constantly pushing herself with deadlines, a difficult task given her demanding environment. “I certainly don’t like all the time pressures, feeling like I’m running all over the place, and accomplishing very little. I also get frustrated with spinning wheels. I prefer to be engaged in projects where something gets done.” Yet despite these obvious challenges her roster of accomplishments is impressive.
In 2012 Dr. Malcolm received a Department of Medicine PQ&S Research and Innovation grant for the implementation of standardized best practices for reducing diabetes foot ulcer risk. Prompted by an ICES report that showed people with diabetes living in the Champlain LHIN had a disproportionately high risk of foot ulceration, the Division of Endocrinology and Metabolism embarked on a quality improvement project to improve diabetic foot ulcer screening and risk assessment. The team, under the leadership of Dr. Malcolm, was successful in implementing a process where over 90% of new patients with diabetes seen within the Endocrinology and Diabetes clinic at The Ottawa Hospital are receiving a standardized foot assessment and risk stratification. It is now a quality indicator for the Division of Endocrinology and Metabolism with audits conducted every six months. A similar program is currently being implemented throughout the Champlain LHIN.

Her projects in the area of Patient Quality and Safety (PQ&S) have improved lives both locally and nationally.

Dr. Malcolm has also worked with Dr. Bob Reid at the University of Ottawa Heart Institute to implement a screening program to detect previously undiagnosed dysglycemia in hospitalized patients called “the Ottawa Model of Undiagnosed Diabetes”. This program systematically identifies, manages and links patients with previously undiagnosed diabetes to care in the community. This program was piloted on the Cardiology wards of the University of Ottawa Heart Institute and the Orthopedic ward of The Ottawa Hospital and the results were recently published in the *Canadian Journal of Diabetes*. This program has been successfully implemented in three Ontario Hospitals (The University of Ottawa Heart Institute, Toronto East General, and Toronto Southlake Hospital).

The work that she is most proud of, however, is her work on inpatient diabetes management. This work grew out of the observation that control of diabetes in hospital is often poor. She explains that although approximately 25% of people admitted to hospital have diabetes, it’s not a disease that is owned by a specific admitting service. It is often the 5th or 6th or even the 10th item on that patient’s problem list, and unfortunately because of this, is not a priority if the patient has other more pressing issues. In response to this, Dr. Malcolm and colleagues developed a toolbox designed to help control blood sugars in hospital. Initially it started as a small pilot project, a simple pre-printed order set that incorporated both basal and mealtime insulin and a set of standardized correction scales that could be tailored to patient’s needs. The project resulted in a decreased number of severe low
blood sugars experienced by inpatients and was subsequently launched across the entire Ottawa Hospital. It has now become part of the culture; utilization of the preprinted orders was sustained at 89% corporately 3 years post implementation. In 2011, this initiative won first prize at The Ottawa Hospital Quality Awards. Since that time, the work has been presented at National meetings and a few more items have been added to the toolbox. In 2014 this work was published in the Canadian Journal of Diabetes. “We now have an inpatient diabetes network for the Champlain LHIN that was a direct result of this work. Representatives from area hospitals meet to share tools and work towards improving the care for hospitalized patients with diabetes across the region,” she says. “I’m really proud of that because this project now has a life outside the walls of The Ottawa Hospital. Sometimes PQ&S is simply making one small change to make the overall system better”.

As a front line person, Dr. Malcolm often knows what needs to be changed but issues may exist impeding physicians from making them. Dr. Malcolm admits that her initiatives succeeded largely because they focused on making changes as user friendly for the physician as possible. In the case of the toolbox, the order sheet was designed with tick boxes (less writing), and it was kept in a visible location on the ward (they didn’t have to go and find it). Dr. Malcolm speaks frankly about the things required to get buy-in from physicians when implementing change: 1) it needs to make their life easier by taking time off of an existing task 2) they need to see value in it (it must make patients better or safer) and, 3) it needs evidence that it actually makes a difference. Dr. Malcolm admits, though, that statistics can only go so far. Recounting a story about a patient helps to put a face on the issue and personalize it. “I really think patient quality and safety is about trying to be the best you possibly can for that patient in front of you. You want to go to work and have your best day every day. If you don’t, the stakes are too high - in the outpatient world maybe not quite so much, but for the surgeon, the cardiologist, the error has enormous impact”. It’s been said that for an incident to happen, all the holes need to line up for the arrow to go through, and if you can make sure those holes don’t ever line up, well then you’re okay.

Dr. Malcolm remembers listening to a course given by Dr. Alan Forster, Chief Quality and Performance Officer at The Ottawa Hospital. He asked the question ‘If your mother had a heart attack and came to hospital, would you get involved or would you just let the system run?’ Dr. Malcolm would like to have a system that we all trust would run safely and effectively. “The medical system has so many pieces and variations that any number of things could potentially go wrong. Having checks and balances in the system so something bad doesn’t happen is an outcome that we all want”.

There’s no doubt about it, PQ&S is firmly in Dr. Malcolm’s wheelhouse. “With PQ&S it’s often about managing people, working with different personalities, creating teams. It is about trying to get people to change things that they don’t want to change for the greater good”. She explains that PQ&S projects take a lot of time to get people on board and really depend on solid infrastructure to get it off the ground; hiring quality advisors to help chart a course to ensure meetings happen on time, to provide guidance on how to measure things. “Even if you have the best intentions in the world, all those pieces are difficult to get done if you don’t have the doers”.

Department of Medicine 2013–14 Annual Report
Outside of PQ&S, Janine’s approach to basic doctoring is also worth mentioning. In 2010 she won the Department of Medicine’s Going the Extra Mile Award. “I definitely do not view myself as the star, ever. It was very gratifying to know that my colleagues thought well of me, and that what I did was valued; most importantly it was huge motivator for me. I am not ever going to be the star researcher, or educator. We spend a lot of time applauding these measured stars. Many of my colleagues are on the front lines as clinicians doing exceptional work, but that is not always recognized. The ‘Going the Extra Mile’ is a great opportunity to reward the people who are doing amazing work every day.”

Hard work and determination clearly encapsulates the code of this physician, an ethos that was forged early on. “I had a very strict dance teacher who taught me to strive for perfection, that second best wasn’t good enough. My instructor also instilled in me the ability to take criticism.” It paid off. As a teenager, she was picked to perform in the Nutcracker at the National Arts Centre with Les Grands Ballets Canadiens (once at 13, and again at 17). “Performing with a professional ballet company was one of the best experiences of my life,” she recalls. “I love dance and I love ballet, if only I had the right body type (laughs)! Janine completed the Royal Academy of Dance to an intermediate level and also taught ballet in her late teens.

Dr. Malcolm has one quality in particular that will continue to push her forward: an internal sense of duty that expresses itself not only through her desire to excel at her work but also in her role and responsibility as a parent. Worldly, well travelled, well cultured, these are attributes that Janine wants to pass on to her children as her mother did for her. “For my mother it’s ‘have money will travel’. Every six months she’s going off somewhere different. I really think it’s her goal to see every corner of the world before she dies… and she’s getting there.” When Janine and her sister were young, her parents managed to always take them on vacation, mostly on road trips. Now with a family of her own she’s carrying on the legacy by taking her two daughters together with her husband to all corners of the globe. “When the girls get older we will visit China, to learn more about my husband’s heritage”. Janine admits that visiting other countries is very much about enjoying their historical aspects and about learning something new. “It’s good to get out of your bubble, your comfort zone and experience different environments, different cultures,” she says. “And to actually get an opportunity to see the things you’ve read about is absolutely amazing.”
What historical figure do you most admire? 
Nelson Mandela or Walt Disney.

What is your greatest fear? 
Losing a child.

What is the trait you most deplore in yourself? 
My dislike of confrontation.

What do you consider the most overrated virtue? 
Extraversion.

What do you dislike most about your appearance? 
My waist. I don’t have one.

Which words or phrase do you most overuse? 
“It’s ok” and “I’m fine” and “Yes”.

Which talent would you most like to have? 
The ability to sing.

If you could change one thing about yourself, what would it be? 
My need for lots of sleep!

If you were to die and come back as a person or thing, what do you think it would be? 
A dancer (laughs).

What is it that you most dislike? 
Being cold.

Where would you like to live? 
In the Mediterranean.

What is your favorite occupation? 
Entertaining my friends.
The Fairmont Château Laurier and University of Ottawa, seen from the Rideau Canal
DIVISIONAL REPORTS
Cardiology
70 Faculty Members • 13 Residents • 22 Fellows

Clinical Activities

The Clinical Task Force continued its work, chaired by Dr. Chris Glover (members include Drs. Rob Beanlands, David Birnie, Lloyd Duchesne, Mike Froeschl, Lyall Higginson and Lisa Mielniczuk). In the past year, the task force has enhanced patient care on University of Ottawa Heart Institute’s (UOHI) inpatient ward services. Drs. Michele Turek, Chris Johnson, Nadine Gauthier, Rob Beanlands, Marino Labinaz, Rick Davies, Lloyd Duchesne, Thais Coutinho, Girish Dwivedi, Aun-Yeong Chong and Ellie Stadnick took part in a pilot project of cross-coverage between UOHI and TOH-GC sites to enhance patient care. Dr. Calum Redpath performed Ottawa’s first LV endocardial Lead for CRT. Drs. Girish Nair and David Birnie are developing a regional Atrial Fibrillation program. Drs. Pablo Nery and David Birnie expanded the Cardiac Sarcoid Clinic with support from Cardiac Imaging and Nuclear Medicine (Eugene Leung). Heart Failure Service started admitting patients in Sept 2013, led by Dr. Lisa Mielniczuk and the HF team (Drs. Haissam Haddad, Ross Davies, Ellie Stadnick, Sharon Chih and Girish Dwivedi). Dr. Mielniczuk and the HF team initiated an acute HF rapid response clinic. 36 cardiac transplants were performed and managed in 2013—the largest volume in Canada. Under the direction of Dr. Marino Labinaz, the Interventional Cardiologists of the TAVI program performed 90 procedures this year. The TAVI team also won the first annual President’s Team Spirit Award for its team work and excellence in care. Drs. Marino Labinaz and Jean-Francois Marquis initiated the Percutaneous Closure of Left Atrial Appendage Program. Drs. Derek So, Sandy Dick and Aun-Yeong Chong expanded the MRI and CT—construction is underway (expect to be completed in October 2014), directed by Drs. Ben Chow, Sandy Dick and Carole Dennie (Radiology). Dr. Girish Dwivedi will join the Cardiac MRI team. Drs. Terry Ruddy, Renee Hessian, Ben Chow and Glenn Wells developed an Imaging Radiation Reduction Program. Drs. Thais Coutinho and Michele Turek are working with Drs. Alan Karovitch (Internal Medicine) and Sudhir Nagpal (Vascular Surgery) to establish a Vascular Medicine program.

Programs Impacting the Community

A Regional Heart Failure Program has been initiated under the guidance of Dr. Lisa Mielniczuk and Heather Sherrard, with its first regional clinic in Carp. Drs. Andrew Pipe and Sophia Papadakis lead 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. Drs. Kwan Chan, John Fulop and Antonio Sanfilippo performed the first accreditation for the Ontario Echocardiography Accreditation Initiative. Other initiatives helping our region include the Regional Smoking Cessation Program, Healthy Schools 2020 and the Healthy Foods in Champlain Hospitals Program—led by Drs. Andrew Pipe, Robert Reid and Sophia Papadiaklis in Prevention and Rehabilitation. Dr. Andrew Wielgosz was the site PI for the Prospective Urban Rural Epidemiological Study (PI: S. Yusuf, McMaster), which enrolled 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 (published in NEJM 2014). 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. Dr. Haissam Haddad joined Drs. Chris Johnson, Michele Turek and Ellie Stadnick in collaboration with Dr. Susan Dent in the Cardio-Oncology Team to develop a regional clinical program and a research program.

Programs Impacting Global Health

Drs. Jean-François Marquis, Rick Davies, Mike Froeschl and Kwan Chan participated in the Baffin Island Cardiology Clinic to provide cardiac services to this underserviced region. Drs. Chris Glover, Marino Labinaz, Thierry Mesana (Cardiac Surgery) and Heather Sherrard (UOHI) extended collaboration with Qingdao Municipal Hospital in Qingdao, China to establish a new heart institute and improve quality of cardiac care including training physicians from Qingdao. Under the direction of Drs. Andrew Pipe and Robert Reid, 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.

Patient Advocacy

Drs. Lloyd Duschene and Angeline Law established Patient Safety and Quality Programs evaluating patient morbidity mortality and patient safety concerns as part of The Ottawa Hospital initiatives. Patient Safety and Quality Projects included Dr. Michel Le May evaluating the role of Coumadin post MI, Dr. Ben Chow assessing the appropriate use criteria for Cardiac Imaging, and Dr. David Birnie optimizing cardioversion procedures. The Ottawa Cardiac Oncology Program won the Cancer Quality Council of Ontario Innovation Award.

Educational Activities

Dr. Nadine Gauthier was awarded a Medical Educator Career Support Award from the Department of Medicine in 2014.

Dr. Luc Beauchesne successfully established the first Areas of Focus Competence (AFC) program to be approved in Canada in Echocardiography. Dr. Martin Green established the first AFC in Electrophysiology in Canada.
Dr. Michele Turek participated in, and helped organize, the 4th Annual Canadian Cardiac Oncology Network Conference held in Ottawa in collaboration with Ottawa Cardiac Research Symposium chaired by Dr. Peter Liu. Drs. Mike Froeschl and David Birnie organized the Eastern Ontario Cardiovascular Summit—a regional cardiac symposium, June 2014. Peter Liu chaired the Toronto-Ottawa Heart Summit in collaboration with the Molecular Function and Imaging Symposium (chaired by Dr. Rob Beanlands and student Kasia Drozd), and the Right Heart Function Symposium (chaired by Dr. Ross Davies), all in June 2014.

**Research Activities**

Members of the Division secured $4,057,522 in peer-reviewed grant funding (43 peer-reviewed grants, 11 of which are new). Division members also brought in $645,728 in industry funded grants, $178,500 in investigator-initiated industry grants and $127,114 in Fellowship awards. Career support grants were held by Drs. Rob Beanlands, David Birnie, Darryl Davis, Michael Gollob and Lisa Mielniczuk.

Led by Drs. Andrew Pipe, Robert Reid, Sophia Papadakis and Heather Tulloch, Prevention and Rehabilitation holds eight grants totaling more than $3 million from HSF, MOHLTC, Public Health Association of Canada and Pfizer. (Note: $1.67 million is to support Ottawa Model for Smoking Cessation implementation in nine respiratory clinics and nine diabetes education programs in Ontario, New Brunswick and British Columbia.)

David Birnie, Co-PI. Emerging Network Program (CIHR) “The Canadian Atrial Fibrillation Stroke Prevention Intervention Network (CAF-SPIN)”

Girish Dwivedi, Co-PI. Ontario HIV Treatment Network (OHTN) “The effect of statin therapy on CFR & markers of inflammation in HIV positive individuals”

Girish Dwivedi, PI. CIHR (Bridge Funding) “The Effects of Psoriatic Arthritis on Coronary Flow Reserve and Markers of Inflammation and Evaluation of the Response to Biological Therapy”

Peter Liu, PI. CIHR “Novel Regulators of Cardiac Innate Immunity and post MI Remodeling”. Dr. Liu’s application was ranked first in the Cardiovascular Systems B Committee.

Ruth McPherson, PI. CIHR “Molecular Basis of Weight Loss Variability in Response to Energy Restriction”. Dr McPherson’s application was ranked first in the DOL Diabetes, Obesity, Lipid & Lipoprotein Disorders Committee.

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

David Birnie, PI. HSFO “BRUISE CONTROL-2: A randomized controlled trial to compare continued versus interrupted dabigatran at the time of device surgery, in patients at high risk of stroke”
Derek So, PI. CIHR “Reassessment of Anti-Platelet therapy using InDividualized Strategies—Modifying Acute CoroNary Syndrome Algorithms based on Genetic and Demographic Evaluation: The RAPID-MANAGE Pilot Study”

Rob Beanlands, PI. HSFO “Characterizing Atherosclerotic Plaque with Sodium Fluoride Positron Emission Tomography. A sub-Study of the Canadian Atherosclerosis Imaging Network”

The ORACLE Innovation Cluster Pilot PROJECTs was initiated with 5 Clusters lead by Division Leaders:

- **Atrial Fibrillation Research Group**
  Lead: David Birnie – Pablo Nery, Rob deKemp, Elena Pena lead the funded project

- **Cardiovascular Percutaneous Intervention Trial (CAPITAL) Group**
  Lead: Derek So, B Hibbert

- **Heart Failure**
  Lead: Lisa Mielniczuk, Co-Lead: Balwant Tuana

- **Non-invasive Cardiovascular Imaging Research Consortium (CIRC)**
  Lead: Benajmin Chow, Co-Leads: Girish Dwivedi and Rob deKemp

- **Vascular Inflammation and Metabolism: From Bedside to Bench and Back**
  Lead: Katey Rayner, Co-Lead: Ruth McPherson

- **Behavioural and Environmental Interventions for Cardiovascular Health**
  Lead: Robert Reid, Co-Lead: Jennifer Reed

UOHI Academic Medical Organization Alternate Funding Plan Grant Funding: Robert Lemery, Darryl Davis (x2), Pablo Nery, Girish Nair, Thais Coutinho, Lisa Mielniczuk, Ben Chow, Kwan Chan

**Noteworthy Publications**

Members of the Division published over 150 peer-reviewed articles this past year. Key publications include:


Honours and Awards

**Awards**

- **Kwan Chan**—University of Ottawa Faculty of Medicine Award of Distinction and Service
- **Joe Abunassar** (Chief Resident, 2013–2014)—Department of Medicine Peter MacLeod Ambassador Award
- **Chris Johnson**—Department of Medicine Going the Extra Mile Award
- **Lisa Mielniczuk**—Faculty of Medicine Undergraduate Medical Education Health Advocate Competency Award
- **Nadine Gauthier** awarded the Department of Medicine Career Medical Education Research Award
- **Michel Le May**’s STEMI Program received the LUMEN Global Award, accepted recently in Thailand
- **Andrew Pipe** has been awarded the Academy of Medicine’s Ottawa Physician of the Year Award for 2014
• Ben Hibbert (new recruit) has received the University of Ottawa Canadian Fellowships for New Faculty Award
• Mo Sadek (new recruit) received the Detweiller Fellowship Award
• Peter Liu was awarded the inaugural Robert Roberts Research Excellence Award
• UOHI Investigator of the Year Awards: David Birnie (Clinical Science), Alex Stewart (Basic Science)
• TAVI Team was awarded the President’s Team Spirit Award
• Michael Froeschl—University of Ottawa Office of Continuing Medical Education Award in Education, 2013
• James Thackeray awarded best basic/technical paper for J Nucl Cardiol (Supervisors: Rob Beanlands and Jean DaSilva, Co-supervisor)
• Kasia Drozd received the Servier Award for Best Basic Science Oral Presentation at UOHI Research Day (Supervisors: Lisa Mielniczuk and Jean DaSilva)
• UOHIAMO Awards were distributed to Lisa Mielniczuk (undergraduate education) Pablo Nery (Post Graduate Teaching) David Birnie (Clinical Science) and Dr. Peter Liu (Basic Research)
• Ottawa Cardiac Oncology Program wins 2013 Cancer Quality Council of Ontario Innovation Award

Leadership
• Ben Chow named as Director of Cardiac Imaging, August 2013.
• Lisa Mielniczuk named as the Director of Heart Failure, September 2013
• Michael Froeschl named as the Director of the Residency Training Program, July 2013
• Ross Davies was appointed Director of CME for the Division of Cardiology September, 2013
• Nadine Gauthier named as the Content Expert for the Cardiovascular Block and the Director of Undergraduate Education in Cardiology
• Ruth McPherson has taken on the leadership of the Ruddy Canadian Cardiovascular Genetics Centre

Other
• 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
• Haissam Haddad will help establish and lead the research initiative for the cardio-oncology program for TOH
• Luc Beauchesne re-appointed to CCS Guidelines Committee
• Michele Turek is an examiner and member of the Executive Committee for Adult Cardiology for the Royal College of Physicians and Surgeons of Canada
• **Angeline Law** has completed the Canadian Patient Safety Officer Course offered by the CHA and CPSI (Canadian Patient Safety Institute)

• **Ian Burwash**—President, Canadian Society of Echocardiography

• **Ian Burwash**—Vice Chair, AFC (Areas of Focused Competence) Subcommittee in Adult Echocardiography, Royal College of Physicians and Surgeons of Canada

• **Ross Davies**—President, Canadian Nuclear Cardiology Society, an affiliate society of Canadian Cardiovascular Society.

• **Ross Davies**—Founder and first President, Canadian Society of Cardiovascular Nuclear and CT Imaging, Federal Not for Profit Incorporation 2014, accepted as new affiliate society of Canadian Cardiovascular Society, inaugural general meeting scheduled at Canadian Cardiovascular Congress, October 2014, Vancouver

• **Ben Chow**—Certification Board Cardiovascular Computed Tomography (CBCCT) Exam Development Committee: Co-Chair. 2014–16

• **Rob Beanlands**—Associate Editor, Canadian Journal of Cardiology

• **Rob Beanlands**—Associate Editor, Journal of Nuclear Cardiology

• **Rob Beanlands**—ICNC Program Co-Chair

• **Rob Beanlands**—Advisory Panel MoHLTC Ontario for Appropriate Use of Imaging and Diagnostics

• **Rob Beanlands**—Heart and Stroke Foundation Scientific Review Committee (Deputy Chair 2012–2014, Chair 2014–2016)

• **Terry Ruddy**, nominated to the ASNC Board of Directors

• **Darryl Davis** co-Chief Editor for a new open source journal (Frontiers in Regenerative Cardiology)

**Current Chairs:**

• **Lyall Higginson**, Dr. Donald S. Beanlands Chair in Cardiovascular Education

• **Marino Labinaz**, Minto Chair in Interventional Cardiology

• **David Birnie**, Chair in Electrophysiology Leadership

• **Frans Leenen**, Pfizer Chair in Hypertension Research

• **Ruth McPherson**, Merck Frosst Canada Chair in Atherosclerosis Research

• **Rob Beanlands**—uOttawa Tier 1 Clinical Research Chair: Cardiovascular Research and Vered Chair in Cardiology

• **Benjamin Chow**—Saul and Edna Goldfarb Chair in Cardiac Imaging Research
Clinical Epidemiology

2 Faculty Members • 7 Doctoral Students • 6 Masters Students

Overview

The Division of Clinical Epidemiology is integral to enhancing and enabling research excellence in the Department of Medicine. Aside from their own research activities, Drs. Dean Fergusson and Jeremy Grimshaw contribute significantly 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 to ensure high quality practice-changing 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 which has created a dynamic, multi-talented and productive research environment within the Department of Medicine.

New partnership: Division of Clinical Epidemiology’s Ottawa Methods Centre (OMC) and the Ontario Strategy for Patient-Oriented Research (SPOR) initiative

The Federal and Provincial Governments are due to formally announce Ontario’s Strategy for Patient-Oriented Research (SPOR). This is part of a larger Canadian SPOR initiative funded by CIHR and eligible provincial partners. The Ottawa Methods Centre (OMC) has been designated one of twelve SPOR research partners across Ontario, which is coordinated by the Ontario SPOR SUPPORT Unit (OSSU). Drs. Fergusson and Grimshaw lead the OMC SPOR unit. This provincial strategy aims to transform how health research is conducted in Ontario and Canada by ensuring patient engagement throughout the process. Locally, the OMC SPOR are tasked with providing methodological guidance to Ontario-based investigators conducting Patient-Oriented Research (POR). This guidance involves providing methods consultations on research protocols to Ontario researchers, who will be applying to OSSU-specific calls for funding (to be announced in late October, 2014). OMC SPOR will be providing methods training related to POR both in-house and externally with the aim of developing a suite of training materials across the vast area that POR encompasses. Moreover, OMC SPOR will be identifying gaps in evidence through the consultation and training process and a POR methods research agenda will be developed and prioritized with two POR-related methods projects completed annually. For more information email: SPOR-OMC@ohri.ca

Educational Activities

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 3 Masters and 3 PhD students and Dr. Fergusson currently supervises 3 Masters and 4 PhD students. In terms of postgraduate training,
Dr. Fergusson 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 (CEP). He provides institutional oversight and stewardship for over 52 Scientists, 400 Clinical Investigators, and staff, providing a robust, supportive, and dynamic environment for them to conduct their research. One example of this robust research environment is the weekly Rounds (Systematic Review Roundtable, CEP Rounds, and CEP Debates) organized by CEP to provide Scientists and Investigators a platform to share their research with the research community both internally and externally.

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 2013–2014, Dr. Fergusson collaborated on the design and conduct of clinical trials in the Divisions of Critical Care, Infectious Diseases, Nephrology, Medical Oncology, and Respirology.
Key Peer-Reviewed Grants in 2013–2014

In 2013–2014 Dr. Fergusson holds $3.8 million as principal and co-principal investigator and $8.4 million as co-investigator in funding (predominantly CIHR funding). Dr. Grimshaw was principal investigator on 4 grants and co-investigator on 21 grants awarded in 2013–14.

Key Publications

59 manuscripts were published by the Division of Clinical Epidemiology in 2013–2014. Key high-impact publications include the following:


Critical Care believes the ongoing REACHout initiative (below) will have portability and applicability to all institutions wishing to institute system-level change to clinical care for critically ill patients. Critical Care also believes that the creation of a point-of-care ultrasound (POCUS) training curriculum, oncology simulation training curriculum, the National ACES program and the novel Tasks Integrated with Prototypical Situations (TIPS) program will ultimately improve the care of all patients in acute care settings across Canada.

Patient Advocacy

Currently in Ontario, there are over 1500 people on the waiting list for an organ transplant. While more than 85% of Ontarians are in favor of organ donation, organ donation remains a rare gift requiring many levels of coordination and support. The intensive care units at The Ottawa Hospital continue work closely with Trillium Gift of Life Network (TGLN) to support organ donation, organ donors and their families, in Ottawa and the region.

Dr. Michael Hartwick is an Assistant Professor in the Divisions of Critical Care Medicine and Palliative Care at the University of Ottawa. Dr. Hartwick works as an Intensivist in the Intensive Care Unit at The Ottawa Hospital. Dr. Hartwick also practices as a Palliative Care physician with The Ottawa Hospital’s Palliative and Supportive Care Consultation Service. After working with TGLN as a member of the Donation Steering Committee, Dr. Hartwick has taken on a new role as one of five provincial, Regional Medical Leads (RML).
Regional Medical Leads are geographically assigned physicians with expertise in critical care and donation who provide education to local physicians and health care team members and offer support in the form of clinical resource and advocacy to improve all aspects of donation. Through regional identification, the RML helps to improve system level barriers or challenges and make recommendations to advance local and provincial donation outcomes. Dr. Hartwick is looking forward to working with all of our regional partners to help improve donation practice and outcomes across eastern Ontario.

Educational Activities

The following represents some of the Critical Care-led innovations in medical education for 2013–14:

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 was started in 2012–13, and is currently ongoing and will be completed by the end of September 2014. This development includes complex interventions to improve patient care, safety, and collaboration. This includes education, tool development, and system changes, based on the findings of the needs assessment that target health practitioners, teams, organizations, and inter-site collaboration. It involves an exploratory trial based on the Medical Research Council (now CIHR) 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.

Acute Critical Events Simulation (ACES) Program

ACES is a formative assessment program developed to improve the competency of individuals and teams of health care professionals involved in the early management of patients who deteriorate and are at a high risk of death. The ACES course was initially created in 2001. The ACES Program is delivered to health care providers (individuals and teams) from various clinical backgrounds; nurses, respiratory therapists, and physicians who are the first to respond to a patient in crisis. Since its creation, it has undergone assessment, peer-review, customization and continued modification. It is becoming more widely known across Canada and in other countries. Courses have been customized for Anesthesiology, Family Medicine, and now Internal Medicine, and are routinely offered in New-Brunswick, Quebec, Ontario, Manitoba, and Alberta. In addition, courses are now being offered in the Middle East.

Course evaluations have consistently shown that the ACES courses are very well received. A recent assessment identified the need to incorporate more simulation during the face-to-face sessions;
to improve the e-learning component; and to complement the courses with bedside tools to provide just-in-time learning. In addition, we identified a need to improve the peer-review process and the extent of dissemination of our courses to enhance their scholarly value.

This project has resulted in the establishment of national networks of educators from diverse specialties who have chosen formative assessment and the scholarly development of educational material as an academic career. The program also contributes to the transformation/innovation of the health care system by getting physicians and teams to think differently, more safely, and more critically.

**Collaboration with Cardiology and Emergency Medicine in the development of a curriculum for the instruction of Critical Care Point-of-Care Ultrasound (POCUS).**

The training program for point-of-care ultrasound (POCUS) for critical care provides residents and staff physicians with the skills to perform POCUS. The program has just completed its first full year: during the 2013/14 academic year, 8 ICU trainees participated in the curriculum, consisting of the following elements:

- Online multimedia self-directed curriculum
- Frequent hands-on scanning sessions during academic half-day (n=6) involving standardized patients, simulation, and real ICU patients
- Self-directed ultrasound portfolio building with frequent review with an expert
- Pre- and post-curriculum competency assessment

In addition, during this time period a similar curriculum was offered to the following groups:

1. Intensive Care Staff Physicians
   An abbreviated curriculum consisting of 3–4 hands-on sessions, the online curriculum, and portfolio building was delivered.

2. Internal Medicine (PGY-4) Residents
   An abbreviated curriculum consisting of 2 hands-on sessions and the online curriculum was delivered.

For the 2014/15 academic year, the curriculum will be delivered to following groups:

1. Critical Care Fellows (n=7)
2. Internal Medicine (PGY-4) Residents (n=3)
3. Cardiac Anaesthetists (n=10)

**Task-Integrated with Prototypical Situations (TIPS)**

Medical guidelines are created for the purpose of informing the decision-making process in terms of diagnosis and treatment, thereby aiming to improve the quality and consistency of patient care, and are a useful reference for evidence-based patient...
management in the clinical setting. However, multiple barriers have been cited to explain the difficulties associated with the use of guidelines in practice. We hypothesize that one of the reasons for this difficulty is the way in which guidelines are presented.

As a solution, we have created the TIPS (Tasks Integrated with Prototypical Situations) ordering tools. The TIPS ordering tool is a computerized clinical decision support tool that presents guideline recommendations contextualized to the clinical reality in a manner that capitalizes on human cognitive strengths (pattern recognition) and compensates for cognitive weaknesses (e.g., memory lapse leading to omission errors and cognitive biases that may lead even experienced clinicians astray). The TIPS Tool is intended to optimally translate knowledge from research to bedside clinical practice by reminding clinicians of guideline recommendations while educating them on the best-practice evidence most applicable to specific situations. It is intended to improve clinical efficiency by reducing the time spent completing medical orders and also by improving their completeness and quality. We believe that the use of “just-in-time” tools to present the information contained in guidelines in a manner that is more user-friendly would facilitate both knowledge translation and learning. This clinical decision support tool is not intended to replace decision making, but rather to assist clinicians in making management decisions quickly and accurately.

TIPS was conceptualized in 2012, with work in progress to this date creating a database of documents and developing software to store and access this information. The first version of the iPad App was completed in August 2014 and will serve as a working prototype to be delivered for testing in the clinical setting by physicians.

This project was made possible thanks to innovation awards from Critical Care and additional funding by the Royal College and the private sector (Mobileyes).

Collaboration with Medical Oncology on the development of a pilot national simulation training curriculum

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. Drs. Kim and Cardinal have played integral roles in establishing a national network of Critical Care simulation instructors, through collaboration with multiple Critical Care academic centers across Canada, and the Royal College of Physicians and Surgeons of Canada (RCSPC). At present, there exists no such network in Medical Oncology.

In 2013–14, Dr. Kim collaborated with Dr. Neil Reaume and Dr. Shelly Sud from the Division of Medical Oncology in the development of a pilot Medical Oncology simulation-based training (SBT) curriculum that aligns with the RSCPC’s transition to competency-based education. The pilot study demonstrated that the group who received simulation-based training (SBT) demonstrated higher performance in resuscitation skills with crisis resource management (CRM) in both overall performance and in each CRM subcategory during simulated oncologic emergencies, as compared to the group receiving conventional didactic lecture training. This difference in performance was also observed 6 weeks post-intervention. This pilot curriculum is being evaluated for dissemination to other Oncology training programs in Canada, with future plans for the development of a national simulation-based Oncology SBT curriculum.
Research Activities

Critical Care continues to maintain a successful translational research program. 150 patients were enrolled in randomized clinical trials, and over 600 patients were enrolled in clinical research projects. From a faculty perspective, 12 Principal Investigator research grants and 20 co-Investigator grants were awarded in 2013, totally over 2.5 million dollars. Critical Care has also extended its support for innovation in clinical research, including (but not limited to) support of the following innovative areas of clinical research:

- Dr. Lauralyn McIntyre’s ongoing work in transfusion research in critical illness, and her innovative work with mesenchymal stromal cells (MSC) in patients with severe septic shock and acute lung injury.
- Dr. Shane English’s work in neurocritical care, both in traumatic and nontraumatic brain injury
- Dr. Andrew Seely’s work in variability and complex systems analysis in critical illness.
- Dr. Erin Rosenberg’s work in translational research, in the validation of a Pain Assessment Tool (CPOT) in Critically Ill Patients with Delirium, and in the multidisciplinary approach to implementation of an early mobilization bundle of care for critically ill patients. Dr. Rosenberg’s work also involves the collaboration with the Division of Physical Medicine and Rehabilitation.
- Dr. Aimee Sarti’s work in qualitative research with the REACHout initiative.

Critical Care has also collaborated closely with the Division of Nephrology to initiate two studies—STARRT-AKI, a study investigating whether earlier initiated renal therapy (RRT or HD) is preferable to standard timing and Euphrates, an industry study evaluating a filter that binds endotoxin through hemoperfusion.

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 (PI). CIHR. Efficacy and Safety of Mesenchymal Stromal Cells for Pre-Clinical Acute Lung Injury: A Systematic Review and Meta-Analysis

McIntyre L (PI). CIHR. Cellular Immunotherapy for Septic Shock (CISS): A Phase I Trial

Rosenberg E (PI). Canadian Society of Hospital Pharmacists Foundation. Validation of a Pain Assessment Tool (CPOT) in Critically Ill Patients with Delirium
Honours and Awards

- **Dr. Lauralyn McIntyre** was promoted to Associate Professor.

- **Drs. Gwynne Jones, Giuseppe Pagliarello, Rakesh Patel** and **Gianni D’Egidio** were awarded TOH Guardian Angel awards, in recognition of their exemplary roles as advocates for patient care at The Ottawa Hospital.

- **Dr. Vance Beck** (Critical Care Fellow) was the 2013 winner of the Critical Care Rick Hodder Scholarship Award for top presentation at Critical Care Academic Research Day.

- **Dr. Redouane Bouali** was recognized for his humanitarian work with the prestigious Department of Medicine Jeff Turnbull Contributions to International Medicine Award.

- **Dr. Pierre Cardinal** was recognized as Mentor of the Year in Critical Care Medicine and was also nominated for the Department of Medicine Mentorship Award.

Noteworthy Publications

A total of 49 peer-reviewed publications (17 principal authors) were authored by Critical Care faculty in 2013. Highlighted publications include:


Dermatology

17 Faculty Members • 16 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 replacing Dr. James Walker who has stepped down after completing two terms as Division Chief over the past ten years. Dr. Walker has remained on board as FTA and continues to spearhead the fundraising for the new Dermatology Centre of Excellence (see below). Please see the many highlights of Dr. Walker separately in the Clinical Care section.

Clinical Activities

The general dermatology clinic at the Civic Campus run by Dr. Jennifer Lipson and Dr. Lauren LaBerge on Wednesdays, with a great variety of patient, provides a broad educational experience for our own staff as well as off-service Residents and Medical Students.

Dr. Michele Ramien has completed her Fellowship in Pediatric Dermatology with a focus in vascular lesions, and will be returning to a staff position at CHEO, in addition to adding a complement of teaching in our Postgraduate program.

Dr. Kerri Purdy, Assistant Professor in Dermatology from Dalhousie University, will join our Division staff for two years, and will assume a General Dermatology Clinic in addition to maintaining an interest in Cutaneous Oncology.

Dr. Ken Kobayashi will be starting two new clinics to add to the Division roster—a Dermatology Melanoma Clinic to support the Oncology teams at the Irving Greenberg Family Cancer Centre and a Solid Organ Transplant Recipient Clinic to assist in the care of patients who are at very high risk of cutaneous malignancies and more severe and uncommon forms of cutaneous infections and diseases.

Our Mohs Surgery Unit, staffed by Dr. Jillian Macdonald, is planned to increase to a full five days per week of operating time with the addition of a second Mohs Surgeon in the near future. This will enable our Division to better manage the increased demand for Cutaneous Oncology care that is developing as our populations grows and ages.

Programs Impacting Community

We are focusing on malignant dermatologic disorders since the prevalence of skin cancers continues to increase 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 are also 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, after some delays in progress, we will start building a new Dermatology Centre within The Ottawa Hospital in early 2015. The Centre will be located on the fourth floor in the Parkdale Clinic building at the Civic campus, where our phototherapy units and Mohs surgery suites are currently located. The focus of 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 and new elements and services will be added. These will include a larger capacity for Mohs micrographic cancer surgery, phototherapy, contact dermatitis, melanoma-pigmented lesions, cutaneous ulcers, general dermatology, solid organ transplant recipients, melanoma rapid diagnosis and management, systemic therapies and teledermatology services.

We are recruiting new staff for translational clinical research and a clinical trials unit has been added into our plans. The progressive introduction of a basic sciences research program in dermatology will also support clinical research. Growing the research agenda for the Division is a new priority and will help establish global collaborations and networks. These will help us achieve a superior level of care for our own patient community and the global population. 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 not only enable a reduction in hospitalization for severe skin diseases and malignancies but will facilitate new discoveries in patient care for our community.

The Division members and staff 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.

**Patient Advocacy**

*Drs. Jim Walker* and *Cathi Ruddy* have been our physician leads on the community fundraising committee since May 2013. Over the past year, the committee has raised more than $2.6 million towards the estimated $3.2 million construction and equipment cost of the new Charlie Logue Dermatology Centre of Excellence. The fundraising committee has dedicated innumerable hours and energy in this effort with tremendous success. Most recently the group participated in the Brookfield Golf Tournament on June 6th and raised $104,000. All of these efforts will enhance Dermatology patient care in the Champlain LHIN and surrounding area by significantly increasing the number of patients with cutaneous malignancies and inflammatory skin diseases that we will be able to treat.

On the Patient Quality and Safety side, the Division successfully started M & M Rounds this year, and has had 3 Rounds to date. So far the discussion has been rich and has generated some thoughtful action items. Staff and residents team up to present, with the focus on system processes with the overall goal to improve patient safety.
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 new Program Director as of July 2014 is Dr. Steven Glassman, and we sincerely thank Dr. Simone Fahim for her tremendous efforts in this role for the previous two years. We provide a full spectrum of clinical and academic opportunities for our trainees. Our clinics include general adult and paediatric dermatology, as well as specialty clinics for cancer, contact dermatitis, psoriasis, Mohs surgery, melanoma-pigmented lesions, leg ulcers, systemic therapy of skin diseases and now Solid Organ Transplant Recipients. In addition our residents attend elective 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.

Dr. Shanna Spring has completed her Residency and is pursuing a Fellowship year at UCSF and University of Toronto in Pediatric Dermatology with plans to return to supplement our Division in both Pediatric and adult Dermatology.

Dr. Jennifer MacIsaac will complete her Residency in September and undertake a Fellowship year in Cutaneous Laser Surgery/Photobiology at Laserderm in Ottawa.

In addition, the Division has a significant contribution to the Undergraduate medical program. Approximately 60% of all medical students at the University of Ottawa rotate through our Division at some point in their training.

Research Activities

Dr. Jennifer Beecker: (1) Patient Quality and Safety - studying the process of dermatopathology reporting at TOH compared to Canada and the US; and (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; Drs. Louis Weatherhead, Caroline Heughan, Jennifer MacIsaac and Chloe Ward: Research project (funding: Dept Medicine Quality and Safety Committee) on “False Negative rate of sentinel lymph node detection of metastatic melanoma; the Ottawa experience”.

Dr. Steven Glassman: (1) Subclinical cardiovascular dysfunction in psoriatic arthritis (Principal Investigator: B Chow. Heart Institute Funding); and (2) 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 many projects including: atopic dermatitis—relationship with Allergic Contact Dermatitis; Pilot Comparison of Demographic and patch-test results in patients referred for patch-testing in North America and Europe: Prosthesis Allergy; Formaldehyde—Relevance and source; Stasis dermatitis/leg ulcers and Allergic Contact Dermatitis; Intensity of patch-test reactions as they relate to relevance (2) Ongoing Project with Drs. John Elliott, Genevieve Gavigan and Lauren Laberge and others: “What Causes Hair Dye Allergy”; “Does the Immune System Play a Role”? Molecular Characterization of Immune Mechanisms”—Canadian Dermatology Foundation grant.
Noteworthy Publications

Members of the Division published 10 peer-reviewed articles this past year, including the following:


Honours and Awards

Guardian Angel honour roll for 2013–14 included Dr. Jillian Macdonald who was named a Guardian Angel for the third time.


specific patient education resources to meet their needs. Over the past year, this multi-pronged quality improvement project has included 1) an environmental scan performed internally through a chart audit and externally through email and telephone surveys; 2) focus groups with patients to identify gaps in current care; 3) meetings with stakeholders to reach consensus on triage processes and care maps; and 4) the establishment of a Pituitary Patient Education Advisory Committee. We have developed a patient education handbook and we will have our first patient information session fall 2014.

2. Identification and management of glucocorticoid-induced hyperglycemia on an inpatient hematology ward: A Canadian experience

Dr. Heidi Dutton, one of our Endocrinology and Metabolism residents, is leading a quality improvement program to better identify and manage glucocorticoid-induced hyperglycemia, in collaboration with the Division of Hematology. A chart audit has been completed that showed 62% of patients treated with glucocorticoids had evidence of hyperglycemia based on average fasting glucose values, but only 19% had testing at other times of the day. A multi-faceted improvement strategy to increase point of care glucose testing throughout the day as well as to develop management guidelines and consultation criteria is underway.

3. Community of Practice for thyroid nodular disease and thyroid cancer

Under the direction of Cancer Care Ontario and TOH, members of the Division of Endocrinology and Metabolism are collaborating with
Drs. Michael Odell and Michael Fung Kee Fung in the development of a local Community of Practice dedicated to improving the care of patients with thyroid nodular disease and thyroid cancer. This endeavor brings together thyroid surgeons, endocrinologists, nuclear medicine and diagnostic imaging specialists, radiation oncologists, pathologists, and primary care providers to improve the patient experience, reduce wait times, and create education material to address our local context, while enhancing the learning of those who participate in the care of patients with thyroid nodular disease and thyroid cancer.

4. TOH Inpatient Diabetes Care

The number of patients who report being very satisfied with blood sugar control while admitted at TOH continues to increase since the implementation of standardized pre-printed orders, from 62% to 84%. The percentage of patients who reported hypoglycemia while in hospital was 18.5%, down from 29%, without an increase in those who reported hyperglycemia (36%, down slightly from 38%)

5. Regional initiatives to improve inpatient management of diabetes

Drs. Janine Malcolm and Phyllis Hierlihy were recently appointed as the co-Specialist Leads for Diabetes and Vascular Health for the Champlain LHIN. The Champlain Regional Hospital Diabetes Network is co-chaired by Filomena DeSousa (Advanced Practice Nurse with the Division of Endocrinology and Metabolism). Members of the network include Dr. Janine Malcolm as well as representatives from Hawkesbury Hospital, Queensway Carleton Hospital, Cornwall Hospital, Pembroke Hospital, and the Champlain LHIN. A work plan has been developed by this committee with three key themes.

a) Common Data Collection instrument to be used among all hospitals: A common data collection and case identification system for admitted patients with diabetes based on TOH model is being developed to track indicators such as length of stay, readmission rates, and emergency room visits so as to better compare benchmark data between hospitals and to guide decisions about common inpatient diabetes resource allocation and strategies to improve the quality of care for admitted patients with diabetes.

b) Sharing of inpatient tools and resources: A survey is being conducted to identify tools and strategies in use at area hospitals. A repository for tools is being created to improve collaboration and access within the region. An example of this is the pre-printed insulin order set developed at TOH that is now being adopted by other area hospitals.

c) Increasing education opportunities for physicians and healthcare professionals on best-practices for inpatient diabetes management: Rounds presentations and tools to support dissemination of best-practices for inpatient diabetes management are being developed. Dr. J. Malcolm will be presenting a workshop in Winchester in October 2014.
6. eConsultation continues to grow

Dr. Erin Keely, together with Dr. Clare Liddy (Dept of Family Medicine) were recognized by the Ontario Medical Association for their commitment to patient care, system improvement, and health-care innovation for their leadership in the Champlain eConsultation service. (http://www.ontariosdoctors.com/the-innovators/faster-connections-for-better-care/). As of July 31, 2014, over 475 primary care providers and 48 different specialty services have completed over 3600 eConsults, and the numbers continue to grow. Their innovative work will serve as a model to expand eConsultations across the province.

Patient and Community Advocacy

Our division chooses a charity each year for the staff to contribute to at Christmas. This year the Division chose Cornerstone Housing for Women which provide emergency shelter and supportive housing for women in need.

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. Our numbers expanded in July 2014 with 3 new residents joining us—there are currently 7 residents and 1 fellow.

To accommodate our growing training program, renovations funded by the Division together with tremendous support from our Clinical Manager, Sheryl Izzi, were completed at the Foustanellas Diabetes and Endocrine Centre to provide our residents with improved study space and computer access.

Dr. TC Ooi has launched a division-wide program to form cohorts of rare endocrine and metabolic disorders co-managed by a resident and a staff endocrinologist. The goal is to develop an enhanced collective experience that will improve patient care, promote learning, and facilitate the ability to study these rare conditions. The program will develop investigational and management protocols with the aim of establishing standards of practice within the division and of publishing our findings. Four cohorts have been established so far: 1) ipilimumab-induced hypophysitis, 2) elevated DHEA-S, 3) endocrinopathies related to hemochromatosis, and 4) medullary thyroid cancer.

This fall will mark the 10th year of the Annual Endocrine and Diabetes CME event which is co-organized by Drs. Amel Arnaout and Dora Liu. This year, the focus will be on screening and management of diabetes complications, with invited speakers from the Divisions of Nephrology and Neurology in addition to our Division.

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 the content expert for our annual undergraduate medical teaching which continues to receive excellent reviews by the students.
Dr. Heather Lochnan applied a tool she has used in her medical education research, Concept Mapping, to the Department of Medicine strategic planning exercise. Using this novel methodology, the Department was able to ensure all members had a meaningful way to participate, with over 300 comments submitted.

Key Education research grants:

Keely E, Liddy C, Archibald D, Lochnan H, Johnson C. Using eConsultations to inform planning of continuous medical education for primary care providers. Department of Medicine Education Grant 2014


Byszewski A, Lochnan H. Evaluating the Resident Experience: The Learning Environment for Professionalism Survey (LEP) project. Department of Medicine Medical Education Research Grant 2014

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.

We have been active with regards to two ongoing trials in our role as a specialty site within the JDRF Canadian Clinical Trial Network for type 1 diabetes research. This past year, we have initiated one new trial studying the potential benefits of continuous glucose monitoring in pregnant women with type 1 diabetes. Preparations are also ongoing for a planned start of an additional trial examining the effect of dietary gluten on glycemic control in type 1 diabetes.

Our research retreat, held May 2014, for our faculty and residents was a great success. Dr. Dylan Burger, a new scientist joining the Chronic Disease Program and Kidney Research Centre at the OHRI and University of Ottawa, was our invited speaker. He presented his recent research findings on vascular dysfunction in hypertension and diabetes. We continue to have a fruitful collaboration with Nephrology, focusing on metabolic disorders in chronic kidney disease.

Our Annual Visiting Professor Day was held 15 April 2014. Dr. William Young, from the Mayo Clinic, in Rochester, Minnesota, was our guest. He is an expert in adrenal disorders. His presentation at the Department of Medicine Grand Rounds was entitled “Evaluation of the incidentally discovered adrenal mass”. He then discussed challenging case presentations with Division members and trainees, and finally presented a research seminar entitled “Subtype evaluation of primary aldosteronism.”
Our endocrine residents actively pursued several research projects over the year, and they presented their exciting findings at the Department of Medicine Resident Research Day, as follows:

**Bin Hareez N, O’Leary T.** The use of a subcutaneous infusion of recombinant human PTH 1-34 (Teriparatide) in a patient with Vitamin D nonresponsive hypoparathyroidism

**Chaudhry S,** Doyle M-A, Nerenberg K, Malcolm J, Keely E. Is CANRISK a clinically useful risk assessment tool in predicting postpartum dysglycemia in women less than 40 years of age with a remote history of gestational diabetes?

**Dutton H,** Aw A, Tay J, Malcolm J, Keely E. Identification and management of glucocorticoid-induced hyperglycemia on an inpatient hematology ward: A quality improvement initiative

**Mahzari M,** Lochnan H. Immune check point inhibitor therapy and the new presentation of hypophysitis: Time to update the textbooks.

**Key Peer Reviewed Grants**

The Division of Endocrinology and Metabolism held $3,692,173 in research grants for 2013–2014. Key grants include:

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

**Scott F.** Canadian Institutes of Health Research. Antimicrobial peptides and M2 macrophages as new targets for intervention in type 1 diabetes

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

**McPherson R, Dent R, Rayner K, Harper ME.** Canadian Institutes of Health Research. Molecular basis of weight loss variation in response to energy restriction

**Zha, X.** Canadian Institutes of Health Research. ABCA1 regulates inflammatory response and cholesterol efflux through disrupting lipid rafts in macrophages

**Liddy C (PI), Keely E.** Health System Research Fund/ MOHLTC Primary Health Care Program: Creating new PHC linkages with specialists

**Noteworthy Publications**

Members of the Division of Endocrinology and Metabolism published 42 articles this year. Key publications include:

Gagnon A, Langille ML, Chaker S, Antunes TT, Durand J, **Sorisky A.** TSH signaling pathways that regulate MCP-1 in human differentiated adipocytes. *Metabolism* 2014; 63(6):812–21


Honours and Awards
Dr Fraser Scott: Recipient of the McGill University Earle W Crampton Award for 2013-2014

Under the leadership of Dr. Linda Scully, these challenges were met with a grand plan to reestablish the division through aggressive recruitment in key areas including divisional leadership and strengthened collaboration.

Gastroenterology

14 Faculty • 6 Residents • 1 Fellow

Background
The division of gastroenterology at the University of Ottawa has historically been a strong clinical division providing excellent clinical gastroenterology, hepatology and therapeutic endoscopy services. The division maintained a strong, fully accredited gastroenterology residency training program, supported undergraduate medical education, and conducted industry funded research predominantly in the area of inflammatory bowel disease. The division has seen significant challenges and changes over the last several years. Staff reductions down to 8 active members challenged the continued delivery of excellent clinical care, as well as the academic and administrative productivity of the division. The net effect of these changes was the reduction of the division to a small highly clinical service, with important clinical care gaps, and challenged the division’s academic growth and its ability to support departmental and university research and education goals.

Key accomplishments

Recruitment
The year 2013-2014 saw the recruitment of 5 new Gastroenterologists with key clinical, academic and administrative expertise. These are outlined below:

- **Alaa Rostom**: Division Head—Administration—Endoscopy planning and efficiency—Clinical research—National Co-lead of endoscopy training
- **Catherine Dubé**: Quality and safety—Colorectal cancer screening administration—Clinical research
Divisional Retreat and Identification of a 5-Year Plan

The Division held a retreat in January 2014 to identify divisional strengths; clinical care gaps; academic gaps and to develop a 5-year plan for divisional growth and improvement. The retreat was supported by a detailed pre-retreat survey, assessment of the current state, as well as suggestions for areas of concentration and growth.

Key Strengths:

- General GI Care delivery
- General and Therapeutic endoscopy care
- Inflammatory bowel Disease Care delivery/IBD industry funded research
- Hepatology Expertise and collaborations
- GI Residency training Program
- IBD and Therapeutics Clinical Fellowships
- Undergraduate, Ward and Bedside teaching

Key clinical care gaps and risks:

- Therapeutic endoscopy—manpower, additional EUS expertise, and key equipment
- Gastrointestinal motility diagnosis and long term care
- Hepatology—2 individuals with impending retirements providing hepatology service to a > 1 million catchment area
- Medical Nutritional/obesity expertise

Strategies were developed to address these areas including a continued focus of recruitment of middle career hepatologists, gastrointestinal motility experts, medical nutrition and colorectal cancer—research expert. Strategies for funding and for endoscopy resources were outlined.

Academic Productivity

Improving academic productivity was a major focus of the retreat. Each subdivision presented a 1-year and 5-year plan for academic growth that included strategies for greater engagement in undergraduate and graduate medical education, investigator initiated research, and cross divisional and departmental collaborations in research and education.

Divisional Practice Plan

The division identified the lack of a divisional practice plan as a key risk and impediment to academic growth and productivity and moved to implement a fair plan to start in January 2015.
Clinical Activities

The division of gastroenterology is a strong clinical division providing expert tertiary care GI services to the Champlain catchment area and beyond. The division provides world class service to patients needing expert GI and hepatology consultation and management of complex and chronic gastrointestinal disorders. Dr. Linda Scully is an internationally renowned Hepatologist and together with Dr. Shaw-Stiffel who also collaborates closely with the Division of Infectious diseases, provide expert care of liver patients. The group also manages over 200 pre- and post-liver transplant patients. The Liver Program will be expanding next spring with the return of Dr. Erin Kelly, as well as the addition of a full time nurse specialist.

The Division has a strong therapeutic endoscopy group in Dr. Sylvie Grégoire, Dr. Harry Dhaliwal and Dr. Avi Chatterjee. Added to the group is Dr. Paul James who brings additional endoscopic ultrasound expertise to the program started by Dr. Chatterjee. Dr. Alaa Rostom also plays a supporting role to the therapeutics group with expertise in large poly removal, endoscopic mucosal resection, balloon enteroscopy, and stricture dilation and stenting. Dr. Lee provides support for polypectomy and general endoscopy. The group is continually updating on techniques and introducing new surgery saving techniques to the hospital such as endoscopic management of Zenkers diverticulum (Dr. Dhaliwal). Dr. Paul James was recruited to expand Therapeutic endoscopy research in collaboration with Drs. Chatterjee and Rostom.

Dr. Jeff McCurdy who were also recruited for the expansion of investigator initiated research. Dr. Alaa Rostom and Catherine Dubé have a long standing expertise in IBD and support the IBD program and the research initiatives.

The IBD group in collaboration with the hospital and Department of Medicine has opened a multidisciplinary IBD Centre of Excellence at The Ottawa Hospital. The Centre includes research staff, a nurse practitioner, a dietician and psychology services to round out a program for excellence in clinical care research and education.

Quality and Safety

Dr. Catherine Dubé has been appointed the Divisional and Endoscopy Quality lead. The divisional Quality monitoring and improvement committee is led by Dr. Dubé with the assistance of Dr. Ralph Lee, Dr. Alaa Rostom, Dr. Avi Chaterjee, Erica Reichl and Karen Stockton. The group has already implemented the first phases of the Global Rating scale at both hospital endoscopy units. This quality scale is used internationally and will shortly be mandated for Ontario by Cancer Care Ontario. Dr. Dubé has also collaborated with Dr. Alan Forster, and Karen Stockton to develop a quality assurance nurse for endoscopy for the coming year. The division has also rolled out the first of biyearly endoscopist report cards for the Divisions of Gastroenterology and General/Colorectal surgery.

Corporate Endoscopy Director

Dr. Sylvie Grégoire has been appointed the medical director of corporate endoscopy. This is a dyad role with Karen Stockton and aims to standardize and
National and Regional Leadership Roles

Dr. Catherine Dubé was selected by Cancer Care Ontario (CCO) to be the Clinical / Medical Lead for the Ontario colorectal cancer screening program (coloncancercheck).

Dr. Alaa Rostom was appointed by CCO and the regional VP for cancer care to take on the role of Colorectal cancer screening and endoscopy lead for the Champlain region. More details are provided under patient advocacy.

Dr. Alaa Rostom is the Canadian Association of Gastroenterology national endoscopy training Co-lead. The CAG skills enhancement in endoscopy program (SEE) was modeled after a similar program supporting endoscopy quality in the UK. The program aims to improve endoscopy through multiple interventions: improving endoscopy educational at each of the residency training programs though train the trainers methodology; improving the endoscopy skills of practicing endoscopists and surgeons; supporting provincial screening program endoscopy education and delivery; and providing mechanisms for remediation of endoscopists identified through quality monitoring and improvement program. A key Goal for Dr. Rostom is the establishment of a SEE training centre at The Ottawa Hospital modeled on the one he had developed in Calgary.

Patient Advocacy

Colorectal Cancer is the 3rd most common cancer and the 2nd leading cause of cancer death in both men and women. This cancer can be prevented entirely if caught at the polyp stage and has a greater than 95% cure rate if caught at the early cancer stage. Dr. Dubé is the Provincial medical lead for Colorectal Cancer screening. Her work is to bring effective, safe and high quality colorectal cancer screening to all Ontarians. Her work involves working with government, the college and providers to provide appropriate screening for colorectal cancer. She has also been interviewed by the CBC and other media on multiple occasions related to how the population should and can be screened for colorectal cancer. She is actively working on introducing a new fecal occult blood testing method (called FIT) to Ontario. Dr. Alaa Rostom has taken on the Regional lead for colorectal cancer screening and is working on several strategies to improve screening in the region including introducing a new nurse flexible sigmoidoscopy program to TOH to complement stool based testing for average risk individuals. Other division members are involved within advocacy in areas of IBD (Sy, Oliveira, Saloojee) to provide patients without drug coverage expensive biologic therapies.

Dr. Rostom is also engaged in improving endoscopy quality outside The Ottawa Hospital.

Education

The division continues to have a strong educational program. Dr. Nav Saloojee leads education for the division and runs the GI residency training Program. Dr. Saloojee is an award-winning educator who has been recognized by the faculty, department and his trainees.
Dr. Jeff McCurdy is the program’s deputy head and is preparing to lead the program after the next program review. Dr. Ralph Lee has just completed a master's in education (Thesis submitted in Aug 2014). He currently leads the English GI block for undergraduate medical education while Dr. Sylvie Grégoire leads the French block side. Dr. Liliana Oliveira is the IBD program director while Dr. Avi Chatterjee is the therapeutic endoscopy Program Director.

Drs. Catherine Dubé and Richmond Sy are Royal College examiners for Gastroenterology.

Research Activities

Research Projects and Funding

This year the division has seen a significant expansion in the number of staff with masters or greater level training in research (Rostom, Dubé, James, McCurdy). The division has built monthly divisional research rounds and linkages with divisions and departments. The division has also for the first time funded a 70% researcher (Dr. Murthy) and is looking to recruit a mid-career research focused Hepatologist.

Noteworthy Publications

Members of the division published 18 peer-reviewed articles this past year. Key publications include:

Dubé C. Putting an end to the misuse of the fecal occult blood test in diagnostic medicine. Can J Gastroenterol 2013; 27(12):695


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 (TOH).

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 seven 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 8500 referrals). There is also a 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.


Key Peer-reviewed Grants

Dr. A. Chatterjee. CCS—Canadian Cancer Society—1.2 million (over 5 years)—200K is allocated for GI (Sub investigator—Dr. Chatterjee & associates—Treatment for pancreatic cancer trial)—01 April 2014.

Robin Christensen; Christopher Cameron; Jasvinder Singh; Li Chen; Shannon Kelly; Alaa Rostom; Yoon Loke; Peter Tugwell “Pharmacological Treatments for Rheumatoid Arthritis and Inflammatory Bowel Disease: A Network Meta-Analysis”. CIHR—RN 334364.
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 started last year. This allows 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 and Intensive Care Unit.

**Out-Patients**—General Medicine out-patient clinics are conducted at two sites, General and Riverside. We see more than 6000 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 illnesses. These clinics are operated under the guidance of **Dr. James Chan**. This unit sees approximately 600 consultations per year. 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 GIM 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 Medicine clinics, our medical staff participates in special interest clinics namely Medical Complications of Pregnancy, HIV, Diabetes, Pulmonary Hypertension, Thrombosis and Weight Management. This coming year GIM will launch a Vascular Risk Reduction clinic at the Civic Campus in conjunction with Cardiology and Vascular Surgery.

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. James Chan**—International Medical Graduate (IMG) Director at the University of Ottawa.
- **Dr. Alison Dugan & Dr. Krista Wooller**—Service Chiefs for General Internal Medicine at the General and Civic Campuses.
- **Dr. Alan Forster** has taken on a new role as Chief Quality and Performance Officer at The Ottawa Hospital.
- **Dr. Glen Geiger**—Chief Medical Information Officer, The Ottawa Hospital.
- **Dr. Alan Karovitch**—Vice Chair of Finance, Department of Medicine.
- **Dr. Jim Nishikawa**—Associate Editor ACP Journal Club.
- **Dr. Jeff Turnbull**—Chief of Staff at The Ottawa Hospital.
- **Dr. Carl van Walraven**—Site Director ICES@uOttawa.
Patient Advocacy

Dr. Jeff Turnbull remains active in the Ottawa Inner City Health Program. Dr. Turnbull has been working for many years with Ottawa Inner City Health, which provides health services to the homeless. Among its multiple programs is a new model of care called TED—Targeted Engagement and Diversion—that was developed in response to the high numbers of homeless people presenting to hospital ERs with symptoms of substance abuse and mental illness. Ottawa Inner City Health not only saves the health-care system millions of dollars annually, but it also reduces wait times, reduces the number of people in the emergency rooms and frees up ambulances.

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 Dr. Samantha Halman (Associate Program Director General Internal Medicine). Our first residents started their training in this new program in July 2014. We also developed a formal curriculum for bedside teaching and cardiac simulation teaching at the University of Ottawa uOSSC led by Drs. Melissa Rousseau, Vlad Contreras-Dominguez and Catherine Gray.

The Division of General Internal Medicine has been involved in piloting a new resident call system. Our Core senior medical residents now have a night float system when on service. This involves dedicated staff rounding at the end of their nighttime shift. It has been one year since the pilot began, and with some changes, the project has been very positively received by the housestaff. This has limited the number of consecutive work hours that our senior residents are required to be in hospital when they are doing this type of on-call work.

Education Roles:

- **Dr. Craig Campbell**—Director of the Office of Professional Affairs at the Royal College of Physician and Surgeons of Canada.
- **Dr. Justine Chan & Dr. Isabelle Desjardins**—Associate Directors Medicine Clerkship University of Ottawa.
- **Dr. Heather Clark**—GIM Program Director, University of Ottawa.
- **Dr. Cathy Code**—Core Internal Medicine Program Director, Department of Medicine, University of Ottawa.
- **Dr. Vladimir Contreras-Dominguez**—Internal Medicine Clerkship Director at the University of Ottawa.
- **Dr. Samantha Halman**—Associate Program Director GIM University of Ottawa.
- **Dr. Steve Kravcik**—Chair of Faculty Appeals Committee University of Ottawa.
Key Peer Reviewed Grants

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

D’Egidio G. University of Ottawa, Department of Medicine. Application of System Safety Process to Eliminate Patient Identification Errors due to Physical and Virtual Proximity

Forster A. Ontario Research Fund (ORF). The use of eTriggers to systematically detect and manage adverse events

Forster A. Canadian Institutes of Health Research (CIHR). Improving patient safety and chronic disease management with a new generation of health information technologies.

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 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.

• Dr. Jim Nishikawa—Associate Program Director (Core) Internal Medicine Program University of Ottawa. He is the VP Education for the Canadian Society of Internal Medicine (CSIM). At the Royal College, he is a member of the Internal Medicine Written Test Committee.

• Dr. Debra Pugh—Director of the Ottawa Exam Centre; Vice Chair of Central Examination Committee, Medical Council of Canada. She is also Lead Simulation Educator, Internal Medicine at University of Ottawa Skills and Simulation Centre (uOSSC), University of Ottawa.

• 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. CAME-Principles of Assessment for the Continuum of Clinical Competence Committee.

• Dr. Krista Wooller—Director of Link Block at the University of Ottawa.


**Quality and Collaboration**

General Internal Medicine has been actively involved in many Ottawa Hospital quality projects. Our Patient Safety and Quality committee is led by Dr. Delvina Hasimja. Our Division has initiated a project looking at decreasing foley catheter use and lowering the rate of catheter associated urinary tract infections. A Code Blue Simulation project is upcoming under the guidance of Dr. Loree Boyle.
Geriatric Medicine

9 Full-time, 1 Part-time Faculty Member, 1 Resident

Clinical Activities

In 2013–14, the Division of Geriatric Medicine focused on three priority areas:

1. An enterprise-wide delirium management program. We are expanding from a success in Orthopedic surgery to start exploring the identification, assessment and management of delirium in patients older than 75 years in the post-operative period following vascular surgery.

2. We continue to develop the Behavior Management and support consultation service for elderly patients in partnership with Geriatric Psychiatry.

3. We began to implement our Divisional Strategic Plan which includes: the focus on the Enhanced Geriatrics Consult service as our flagship service, a re-tooling of the Geriatric Medicine Unit on A1 at the Civic campus as a vital support service and, the refreshing of the Geriatric Medicine Ambulatory Services and Day Hospital.

Honours and Awards

• Dr. Loree Boyle was awarded The Ottawa Hospital Clinician Recognition Award.

• Dr. Heather Clark won the 2014 CAME Certificate of Merit Award of Excellence in Medical Education.

• Dr. Gianni D’Egidio received the 2013 Resident Choice Teaching Award, Department of Medicine, University of Ottawa.

• Dr. Isabelle Desjardins was awarded a Department of Medicine Career Medical Educator Award.

• Dr. Daniel Kobewka was awarded a Department of Medicine Research Fellowship Award.

• Dr. Steve Kravcik was nominated for the PARO (Professional Association of Residents of Ontario) Resident Teaching Award.

• Dr. Debra Pugh was awarded the Teaching Skills Attainment award with Merit, University of Ottawa. She also won the Meredith Marks Educator Award at the University of Ottawa and the Dale Dauphinee Fellowship in Medical Education at the Medical Council of Canada.

• Dr. Claire Touchie was awarded her Master’s degree in Health Professions education from the University of Illinois at Chicago.

• Dr. Kumanan Wilson was promoted to Full Professor at the University of Ottawa.
The next steps for the coming year will be to continue the implementation of our strategic plan and to solidify the partnerships with our regional service network including Bruyère Continuing Care and the Montfort Hospital.

Patient advocacy

Dr. Frank Molnar is our local champion in advocating for the health care needs of older adults. He is the Canadian Geriatrics Society representative on the National Wait Times Alliance (www.waittimealliance.ca) and the designated member to the Canadian Medical Association for Geriatric Medicine issues, especially in the implementation of a National Seniors’ strategy.

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 emergency visits and hospital admissions through timely interventions involving community services coordination and outpatient Geriatric assessment. This past year GEM assessments were completed on over 4000 older adults across the Champlain LHIN and GAOT provided more than 2500 home assessments. A new Nurse-Led Outreach service is also gaining traction. The RGPEO was also the driving force behind a Champlain LHIN dementia management plan and a region-wide falls prevention initiative. A Value Stream process mapping of the Outreach service was completed and modifications have started to be implemented to increase efficiencies. Training of the teams and the launch of the first 5 community primary care memory clinics took place. These clinics, modeled after Drs. Linda Lee & George Hechtman (Kitchener, ON) represents a new model of dementia care which more efficiently uses specialist services. Another 10 clinics are planned for launch in the next 2 years.

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 undergraduate Professionalism Curriculum at the University of Ottawa. 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. In addition Dr. Power is the postgraduate program director for Geriatric Medicine. The University of Ottawa Geriatric Medicine postgraduate training program ranks among one of the best in Canada.
Dr. Ruth Ellen served as the content expert for the core teaching of Geriatric Medicine during the undergraduate Integration Block.

The RGPEO hosted its annual Geriatric Education Day “Risky Business” in March 2014 and featured Dr. Jeff Turnbull as the Keynote Speaker. He presented on: “Social determinants of health” a subject dear to his heart. The Education Day was evaluated highly and attended by over 350 Healthcare Professionals from across the Champlain LHIN.

The RGPEO holds monthly Regional Geriatric Rounds and routinely broadcasts the live presentations to 40+ satellite sites connected by the Ontario Telehealth Network.

The members of the Division actively participate in the training of CCAC assessors serving the local LHIN as well as 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. Department of Medicine Medical Education Research—Interprofessional Education in Undergraduate Medical Education—2014


Johnson C, Code C, Cwinn A, Byszewski A, Lochnan H, Humphrey S. Department of Medicine Medical Education Research Grant “Does the Health care Environment Influence Professionalism During interactions Between Internal Medicine Residents and emergency Room Staff: Analysis of two Consecutive Years of Resident On call surveys in a Canadian Teaching Hospital” 2014

Department of Medicine Medical Education Research grant Lochnan H, Byszewski A. “Learning Environment Survey (Faculty project) 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 2013.
Noteworthy Publications

Members of the division published 32 peer-reviewed publications in 2013–2014 with notable publications including:


Honours and Awards

- Dr. Byszewski was awarded a Tier 1 Department of Medicine Career Education Award
- Dr. Dalziel was awarded the 2013 Education Award by the University of Ottawa Office of Continuing Medical Education for his exceptional participation in CME activities.
- Dr. Molnar is now the Editor-in-Chief of the Canadian Geriatrics Society on-line CME journal
Hematology

25 Faculty Members • 6 Residents • 10 Fellows

Clinical Activities

Caring for Thousands of Patients

Every year, our physicians and staff care for thousands of patients with blood diseases. In 2013/14, our physicians attended over 30,000 outpatient clinic visits to care for patients within the programs of Benign Hematology, Malignant Hematology and Thrombosis. Over 1200 of these visits were conducted via Telehealth, enabling patients across the Champlain LHIN to access our specialists closer to home. Thousands of additional visits were conducted at our Regional Thrombosis Program satellite clinics across the LHIN.

Commitment to Patient Safety and Success

Following the successful application for a Quality & Safety grant in 2012/13, The Division of Hematology designed and developed a new database to track all consults, enabling ongoing evaluation of our wait times. In 2013/14, we refined our database, hired staff to populate the database and developed reports to track and analyze wait times. With 18 months’ of data now in our system, we have been able to pinpoint patient groups that are exceeding our wait time targets and are now planning improvement strategies for implementation over the coming months.

On the inpatient side, the BMT/Acute Leukemia ward (5W) continues to impress with their dedication to improving patient safety and care. In 2013/14, 5W:

- Was the first unit within The Ottawa Hospital (TOH) to achieve 100% compliance with hand hygiene protocols;
- Implemented the ‘Viral Season Algorithm’ to combat transmission of viral respiratory illness;
- Had their first flu season of ZERO nosocomial transmissions of viral respiratory pathogens; and
- Continued to rank FIRST in patient satisfaction across all TOH wards.

Kudos to the 5West Team!

Growing Clinical Practice

In 2013/14, the Division of Hematology successfully recruited two new physicians: Dr. Arleigh McCurdy joined the Division in December 2013, treating patients with multiple myeloma and related disorders, and Dr. Lana Castellucci joined in June 2014, focusing on Thrombosis. With a continually growing rate of patient referrals across all 3 programs, the Division is thrilled to have again expanded its physician human resource.

Patient Advocacy

In spring of 2014, the Division of Hematology, in partnership with the TOH Cancer Program, was successful in their application for one-time funding from the Champlain Local Health Integration Network (LHIN) to purchase a Cellex Photopheresis machine. This machine will enable TOH to offer effective treatment to BMT patients suffering from Graft Versus Host Disease (GVHD), a severe and disabling multi-system
medical complication that occurs in some patients who receive a blood or marrow transplant from a donor. While Photopheresis has been available for some time in Toronto, Champlain LHIN patients have been largely unable to access this treatment as their physical and/or psychosocial conditions have prevented them from traveling. After years of advocacy from within our Division, TOH will soon be able to offer state of the art treatment to these ill patients closer to home.

Educational Activities

New RCPSC Area of Focused Competence (AFC) for Thrombosis

In May 2014, in response to an application under the leadership of Dr. Carol Gonsalves, The Royal College of Physicians & Surgeons of Canada formally recognized Adult Thrombosis Medicine as an AFC discipline. For the first time in Canada, successful trainees of the AFC program will receive a diploma from the RCPSC. As the official birth of a new medical specialty, this is a huge achievement that will attract new specialists and ensure that they are being trained to the highest possible standard.

Patient Education

The Ottawa Blood Disease Centre Hematology Symposium was held in May 2014, offering a half-day patient education session delivered by our physicians and specialists. The session was extremely well attended and evaluated, with patients expressing their appreciation for the opportunity to learn more about blood disorders and treatment. We look forward to hosting additional patient education events in the future.

Under the leadership of Dr. Chris Bredeson and Dr. Jason Tay, a new decision aid tool for multiple myeloma patients has been designed and piloted, with rollout planned for the upcoming year. The team believes that this will be a useful tool to help patients consider and evaluate their treatment options. Initial feedback on the tool’s utility has been very promising.

Rounds

In 2013/14, our Division continued to coordinate four regular weekly rounds: Division-wide Hematology rounds as well as specialized rounds in the areas of Thrombosis, Malignant Hematology and BMT. Numerous additional events were coordinated to host speakers, attend educational webinars, etc. Rounds have proven to be a successful means of fostering 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/Stem Cell Transplantation and Transfusion that include clinical, research and education streams.
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/Stem Cell Transplantation and Benign Hematology/Transfusion Medicine with dozens of studies underway at any time.

Looking to the Future: Establishing a new Research Chair

In 2013/14, our Division was successful in our proposal to TOH, OHRI and the TOH Foundation for establishing a new Research Chair in Advanced Stem Cell Therapy. Formally approved as a TOH priority for future fundraising efforts, this Research Chair will play a key role in leading the first human clinical trials for innovative transplant-based therapies for some of the world’s most devastating diseases, including cancer, multiple sclerosis, and auto-immune diseases. The Chair will also be instrumental in overseeing larger multi-centre national and international trials. The first dollars to support this exciting new position were raised by our own Division members who participated in the 2014 Run for a Reason. Thank you to our athletes and contributors!

Noteworthy Publications

Members of the Division of Hematology published 109 articles this year. Key publications include:


Dr. Esteban Gandara received a TOHAMO grant of $73,933 for the “Development and implementation of The Ottawa Hospital Acute Limb Thrombosis and Embolism Outpatient Anticoagulation Program”.

Dr. Gregoire Le Gal received an Ontario government Early Researcher Award for $150,000 over 5 years to build his research team. Dr. Le Gal also received a $235,000 Heart & Stroke grant for the development of a clinical decision rule for recurrent venous thromboembolism.

Dr. Jason Tay received a CIHR operating grant for his study “Transfusion of Red Cells in Hematopoietic Stem Cell Transplantation: The TRIST Study”.

Dr. Alan Tinmouth and the University of Ottawa Centre for Transfusion Research (UOCTR) have been awarded funding by Canadian Blood Services (CBS). Dr. Tinmouth heads up the centre, which is a multidisciplinary group of researchers in hematology, nephrology, surgery and intensive care who work together on common research topics such as transfusion, resuscitation and transplantation. The CBS award will help to support non-grant funded research and clinical research fellowships, and will enable UOCTR researchers to link with The Ottawa Hospital’s Data Warehouse.

Dr. Phil Wells received a CIHR operating grant entitled “Development and validation of clinical prediction rules for bleeding for patients on anticoagulation therapy for venous thromboembolism”.


Key Peer-reviewed Grants

We are thrilled to report that we received $13,442,391 in funding for 32 peer reviewed grants in the academic 2013/14 year. Our Division members were Principal Investigators on 17 of these grants, and Co-Investigators on 15. Highlights of our key peer-reviewed grants include:
Infectious Diseases

14 Faculty Members • 3 Residents • 1 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 was the Chair of the Division during the 2013–14 academic year. Through his leadership and commitment the division continued its pursuit 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

Honours and Awards

• 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. He was also elected as Vice-President and incoming President of the American Society for Blood and Marrow Transplantation (ASBMT).

• Dr. Lothar Huebsch was the recipient of the 2013 André Peloquin Memorial Award, uOttawa for his excellence in clinical teaching. “LBH” runs our morning report which has received rave reviews from our trainees.

• Dr. Marc Rodger was 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. Elianna Saidenberg received The Ottawa Hospital Medical Staff Association Professionalism Award.

• Dr. Jason Tay received a $140,000 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 are intended to encourage future leaders in trials research.
A PANORAMIC VIEW

- 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.

Dr. Bill Cameron received 3-year external support for the primary and secondary immunodeficiencies program/clinic, over 100 outpatients receiving self-administered subcutaneous immunoglobulin therapy at home, as opposed to regular visits for IVIg. Establishment of internally funded linked clinical and laboratory based research on hypogammaglobulinemia and immunological effects of immunoglobulin treatment in immunodeficiencies.

Dr. Yoko Schreiber and Dr. Raphael Saginur created a partnership with Meno Ya Win Health Centre in Sioux Lookout region, including development of a twice weekly Infectious Diseases Telemedicine clinic providing clinical care to patients from the Sioux Lookout region. The partnership also focuses on education and research, including but not limited to impact assessment of telemedicine services.

Dr. Paul MacPherson established and launched a program to decentralize HIV care in Ottawa. This work is supported by the AIDS Bureau (MOHLTC) and through a collaborative project entitled “Medically Complex Patient eConsult Demonstration Project” lead by Dr. Clare Liddy.

Dr. Paul MacPherson formed the Anal Cancer Screening Clinic—due to begin in August. After more than 3 years in the planning, he is now poised to begin high resolution anoscopy for the detection and ablation of anal intraepithelial neoplasia, precursors of anal carcinoma. This program brings The Ottawa Hospital (TOH) in line with the Toronto General Hospital, Hôpital Notre-Dame du Centre Hospitalier de l’Université de Montréal, and St Paul’s Hospital in Vancouver.

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.

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 will be 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.

Patient Advocacy

Dr. Curtis Cooper was featured in a CTV National story about an unfunded drug. Dr. Cooper noted that discussions needed to happen between government, pharma companies and clinical experts and not just government alone. The interview was entitled ‘Hepatitis C drugs show promise, but price is too high for most patients’. Drugs Sovaldi and Galexos offer a revolution for patients with the hepatitis C virus (HCV).

Dr. Virginia Roth became Director of Patient Advocacy for The Ottawa Hospital as of January 2014. The main focus of her role as Director of Medical Affairs and Patient Advocacy is to enable our physicians to provide the world-class care, exceptional service and compassion that we would want for our loved ones. This will be achieved through the following strategies: (1) providing physicians with feedback on their performance, (2) promoting physician health and well-being, (3) improving physician’s work environment, and (4) investing in physician leadership development.

Dr. Kathy Suh was interviewed on 1310 Radio about how you can reduce your chances of getting sick after being on a flight. (December 20th) She was also interviewed on January 16th about a spike in C. difficile cases at The Ottawa Hospital.

Dr. Yoko Schreiber collaborated with Health Canada FNIHB to evaluate antimicrobial use in First Nation communities across Canada, and to develop strategies to enhance antimicrobial stewardship in First Nation communities.

Dr. Mark Tyndall’s injection site continued to be covered by the media. ‘Injection site causes debate in Ottawa community’, ‘Making the case for a supervised drug injection site in Ottawa’, Lowertown mock injection site latest step in public consultation’, ‘Ottawa gets a glimpse inside mock supervised injection site’, ‘Safer Ottawa advocates shoot down plans for safe injection site in Ottawa—articles in Ottawa Sun, Ottawa Citizen, CBC, CTV.

Dr. Mark Tyndall co-authored the Canadian consensus statement on HIV and its transmission in the context of criminal law. This document states: A poor appreciation of the science related to HIV contributes to an overly broad use of the criminal law against individuals living with HIV in cases of HIV nondisclosure.
Educational Activities

**Dr. Virginia Roth** provided development opportunities for physician leaders at The Ottawa Hospital through our Leadership Development Institute (held 3 times yearly), a Quality and Patient Safety Course (provided through Telfer School of Management), the Senior Champlain LHIN Leadership Program and individual talent management programs. She also developed a structured process to provide annual performance feedback for TOH physicians (in collaboration with UO), developed a workshop for training physician leaders, and provided individual coaching/support as needed.

The University of Ottawa Adult Infectious Diseases Training Program continues to offer 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

**Dr. Jonathan Angel** was part of a research team involving TOH, CHEO, and University of Ottawa, which will play a major role in a project that aims to find a cure for HIV and contribute to the global effort to put an end to AIDS. The project was awarded $8.7 million through the Canadian Initiative for HIV Cure Research.

**Dr. Bill Cameron** recruited over 250 mother-infant pairs in Nigeria and in South Africa into a prospective longitudinal cohort study of HIV, infant feeding mode, gut microbiota and immunological vaccine responses to routine infant vaccination. Funded by GHRI, one CIHR Large Team Grant and one CIHR Operating Grant (Bridge funding) and conducted with support of the uOttawa Department of BMI, and the Ottawa Methods Centre of the OHRI CEP.

**Dr. Bill Cameron** carried out two industry-sponsored formal pharmacokinetic drug-drug interaction studies, within HIV treatments in the OHRI Clinical Investigation Unit. Publication of a rigorous investigator-driven RCT of resveratrol on human exercise capacity, executed in the CIU with the Division of Respiratory Medicine. The CIU is a self-supporting embedded GCP clinical research facility of TOH/OHRI, supports an on-site analytical lab for real-time drug level measures, and is in a position to recruit a pharmacologist for methodological and technical support in the execution of investigator driven pharmacokinetic and pharmacodynamics studies.

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

**Dr. Virginia Roth** evaluated the economic impact of healthcare-acquired infections, novel approaches to preventing the spread of health-care acquired infections, and physician engagement and leadership development.
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**, in collaboration with Dr. Dwivedi at the University of Ottawa Heart Institute, successfully obtained a research grant from the Ontario HIV Treatment Network to examine early detection of cardiovascular disease in HIV+ individuals and the effects of statins in reducing development of atherosclerosis.

**Dr. Kathryn Suh** and **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**—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 the research to provide quality improvement in the treatment

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**Dr. Yoko Schreiber** developed empiric antimicrobial treatment guidelines for common infections for Sioux Lookout region taking into account the local epidemiology of infections, using a pre and post guideline intervention design to also assess impact.

**Dr. Vicente Corrales-Medina** established a collaborative research program between the Divisions of Cardiology at The University of Ottawa Heart Institute and Infectious Diseases at TOH to study vascular inflammation during acute pneumonia in humans. This program was internally and externally funded.

**Dr. Vicente Corrales-Medina** completed an international collaboration (US and Canada) to analyze the short and long-term effects of pneumonia on cardiovascular risk using data from two large comprehensive prospective North American cohorts, the Cardiovascular Health Study (CHS, n=5888) and the Atherosclerosis Risk in Communities study (ARIC, n= 15792).

**Dr. Paul MacPherson** received Health Canada and REB approval and has begun enrolling the first patients in the CANQuit Canadian HIV Quit Smoking Trial. This study will compare nicotine replacement versus varenicline plus or minus supportive counseling to help HIV+ individuals quit smoking.

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%).
of common infections through development of region specific guidelines in Northern Ontario.

**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.

**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 called PROUD (Participatory Research in Ottawa: Understanding Drugs). The main research initiative includes a prospective cohort of 900 people who use drugs.

**Key Peer Reviewed Grants**

- **Angel J.** Canadian Institutes of Health Research (CIHR). Antimicrobial host defense peptides: their potential use as vaginal contraceptives with anti-HIV properties.

- **Angel J.** Canadian Institutes of Health Research (CIHR). The Canadian HIV Cure Enterprise (CanCURE).

- **MacPherson P.** Canadian Institutes of Health Research (CIHR). The HIV Tat Protein Removes the Interleukin-7 Receptor from the Surface of CD8 T-Cells.

- **MacPherson P.** Canadian Institutes of Health Research (CIHR). The Canadian HIV Quit Smoking Trial: Tackling the co morbidities of depression and cardiovascular disease in HIV+ smokers. Co-Principal Investigators: L. Balfour, The Ottawa Hospital and M. Smieja, McMaster University.

- **Roth V.** Public Health Agency of Canada (PHAC). Canadian Nosocomial Infection Surveillance Program.

- **Tyndall M.** Canadian Institutes of Health Research (CIHR). Canadian Research Initiative in Substance Misuse (CRISM)—Ontario-Based Team for Intervention Research in Substance Misuse.

**Noteworthy Publications**

Members of the Division published 81 peer-reviewed articles this past year. Key publications include:


Faller E, McVey M, MacPherson P. IL-7 Receptor recovery on CD8 T-cells isolated from HIV+ patients is inhibited by the HIV Tat Protein. *PLoS One* 2014; 9(7):e102677


Crawley AM, Vranjkovic A, Faller E, McGuinty M, Busca A, Burke SC, Cousineau S, Kumar A, MacPherson PA, Angel JB. Jak/STAT and PI3K signalling pathways have both common and distinct roles in IL-7-mediated activities in human CD8+ T cells. *J Leukoc Biol* 2014; 95(1): 117–27


Honours and Awards

- **Dr. Jonathan Angel**, Chair of the CIHR Banting Postdoctoral Fellowships Selection Committee for a one-year term.
- **Dr. Jonathan Angel** has been awarded the first Clinician Scientist Chair Award from the Research Advisory Committee (RAC) of the Department of Medicine.
- **Dr. Curtis Cooper** was awarded the Ontario HIV Treatment Network’s Applied HIV Research Chair.
- **Dr. Curtis Cooper** is the recipient of the CFID Dr. John M. Embil Mentorship Award in Infectious Diseases award.
- **Dr. Virginia Roth** completed the Certificate in Health Law, York University.
- **Dr. Mark Tyndall**, Ontario HIV Treatment Network (OHTN), Applied Chair in HIV Research.

Medical Oncology

22 Faculty Members • 5 Residents • 4 Fellows

Clinical Activities

The Ottawa Hospital Cancer Centre (located at the General Campus of The Ottawa Hospital (TOH) 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. The Ottawa Hospital employs 16 full-time and part-time General Practitioners in Oncology to work alongside our 22 Medical Oncology faculty members. The Cancer Centre also employs 33 outpatient chemotherapy nurses, 35 clinic nurses, and 1 Nurse Practitioner who leads our innovative Wellness Beyond Cancer Program.

Unique to The Ottawa Hospital Cancer Centre is our Stretcher Bay/Triage Unit which assesses medical oncology patients with urgent medical issues. It is one of only a few
In the autumn of 2014, TOH will open a molecular diagnostic laboratory to permit rapid assessment of tumors for mutations and other biomarkers that will help guide therapy choices. Tumors that lack the relevant biomarker may not respond to targeted therapies, while a high proportion of tumors with the biomarker may shrink rapidly and dramatically, often with marked symptomatic improvement. Having a local laboratory will permit much faster turnaround time, thereby facilitating rapid therapeutic decision-making. Overall, this laboratory will decrease the probability of patients receiving therapies that will not help them.

Aboriginal Strategy

In addition, the Division of Medical Oncology is committed to serving all cancer patients across the continuum of care, including our Aboriginal population. The Division is continuing to serve Inuit residing up North through the use of telemedicine.

Aboriginals, made up of First Nations, Inuit and Métis (FNIM) people, are considered a vulnerable population in part because they have an increased incidence of cancer, later stage cancer diagnosis, and a lower survival rate than the general population. In fact, Inuit have the highest rate of lung cancer in the world.

Through the Aboriginal Cancer Strategy, Medical Oncologists are working to meet the medical and cultural needs of FNIM. Recently, a CT scanner was installed in Iqaluit and physicians are now able to read images and diagnose remotely.
Patients now have access to an Aboriginal Patient Coordinator who provides support in navigating the cancer system and addresses cultural and spiritual needs. Patients can also look forward to a new designated space in the Cancer Centre that is warm, welcoming, and culturally-appropriate. The room is set to open in Fall 2014.

**Wellness Beyond Cancer Program**

The cancer program’s Wellness Beyond Cancer Program has been providing care to patients who have completed their treatments for colorectal cancer since March 2012 and breast cancer since February 2013. To date over 2300 patients have been referred to the program. 56% to their primary care provider (PCP), 43% to TOHCP Nurse Practitioner for shared care with their PCP, and 1% have remained with their oncologist (clinical trials). The program consists of a wellness class, and either ongoing visits with the NP or one care plan visit with the WBCP RN. A copy of the care plan is given to both the patients and their PCPs. The individualized care plan contains a treatment summary, surveillance guidelines and a summary of ongoing identified needs. In a step to keep care closer to home; the education class has recently been provided to patients in Pembroke via telemedicine, thereby avoiding a trip to the Cancer Centre. Plans for a similar program in the Cornwall area are underway. Overall feedback has been extremely positive.

**The Psychosocial Oncology Program**

The Psychosocial Oncology Program (PSOP) provides counselling and rehabilitation to patients who have been treated by the Division of Medical Oncology. The patients seen are those with the highest and intermediate psychosocial needs, as these can create barriers for patient compliance with treatment; 60% of the patients seen are within their first year of treatment, with the majority receiving chemotherapy treatment. Patients and families receive counselling on adjustment to illness, help with managing the challenges they face, such as caring for children, coping with financial loss and the practical issues of getting to treatment and maintaining their daily activities. They also receive symptom management support on side effects from treatment, such as maintaining a healthy weight and managing nausea, as well as managing fatigue and loss of strength associated with disease and illness.

Psychosocial Oncology provides an essential service to patients and families in managing their distress, and it supports patients’ compliance with treatment and ability to maintain independence in their homes without hospitalization. In 2013–14 PSOP saw 2343 patients who were new to the program, and saw 3563 patients overall, with a total of 16,636 visits.

**Patient Advocacy**

Dr. David J. Stewart has published 10 articles over the past 5 years on the urgent need to change the way in which cancer clinical research is regulated and evaluated. Articles from the past year on this issue have included:


He was also invited to speak at the Swedish Hospital (Seattle, WA) Annual Oncology Symposium on the topic "Cancer in the New Health-care World: How Regulation and Approval Processes Impact Therapy Access, Cost-Effectiveness and Cost".

Dr. Scott Laurie was interviewed by The Ottawa Citizen—“Lung Cancer's stigma blamed for low profile.” Dr. Laurie explained that the stigma surrounding lung cancer makes it hard for patients. One patient told Dr. Laurie that she wished she had breast cancer so that society would care. Dr. Laurie is also the national Investigational New Drug Committee Chair for NCIC Clinical Trials Group. Dr. Laurie found that an experimental drug, Saracatinib, caused tumour shrinkage in several lung cancer patients with metastatic disease that had failed first-line chemotherapy.

Dr. Paul Wheatley-Price has assumed the position of Chair of the Medical Advisory Board for the advocacy group Lung Cancer Canada, and as noted above, led the division’s effort in the Lung Cancer Transformation process.

Dr. Glen Goss is a member of the Thoracic Malignancy Steering Committee of the National Cancer Institute (US) and is the national Thoracic Oncology Site Committee Chair for the NCIC Clinical Trials Group.

Dr. Derek Jonker is the national Gastrointestinal Malignancy Committee Chair for NCIC Clinical Trials Group. He also led new research which could help improve a genetic test to predict which colorectal cancer patients are likely to benefit from the anticancer agent cetuximab, and demonstrated the importance of expression of the gene Epiregulin in predicting drug benefit. This is an important step in personalized medicine for cancer. Dr. Jonker and
Dr. Roanne Segal played a major role in a multi-centre clinical trial that found that regular cardiovascular exercise helps breast cancer patients manage symptoms of chemotherapy. The study was published in the Journal of the National Cancer Institute.

Media coverage included CBC TV Ottawa, which interviewed Dr. Segal, Dr. Mark Clemons and a patient.

Educational Activities

The Medical Oncology Training Program (MOTP) continued to thrive this past year under Director Dr. Neil Reaume. We had three resident graduates (Drs. K. Albaimani, S. Sud and X. Zhu). The Program was pleased to recruit three PGY4 trainees for a complement of five trainees for the 2014–2015 academic year. In addition, Fellowship Director Dr. Tim Asmis has attracted a complement of seven highly skilled tumour-specific research fellows including trainees from Europe and South America.

The resident-organized annual MOTP retreat was another success with a variety of guest speakers/workshops, including a keynote address by Dr. Cambrosio from McGill on a historical view on the changing practice of cancer research. As well, the trainees selected Dr. Paul Wheatley-Price as this year’s winner of the Golden Throat Award for Best Teacher.

With fellowship training in phase I research at the Royal Marsden in the UK, Dr. Michael Ong has recently assumed the role of resident research supervisor. The divisional trainees were productive in research activities, including an innovative foray into education research by Dr. S. Sud using simulation for challenging cancer scenarios.
Research Activities


The research of the Division encompasses clinical, translational and basic cancer research with an appointment of 50 clinical investigators and basic scientists. The dominant activity of the division is in the area of clinical research where the Division supports a large clinical trials office accounting for 40% of all pharmaceutical clinical research within the Ottawa Hospital Research Institute (OHRI). There are close to 200 open trials with approximately 60 actively accruing at any given time, and this activity is supported by 40 clinical research staff, including the Administrative Director Meri-Jo Thompson. In 2013 we opened 42 new trials with 24 different oncologists taking on the role of Principal Investigator. The mix of trials was 50% pharma, 45% Cooperative Group and 5% Investigator led. Overall, we accrued 571 patients to these trials.

The Investigational New Drug (Phase 1) Group, continues to do well with an international reputation for high quality and effective new anti-cancer drug development. This activity in the area of clinical research during the 2013–2014 academic year has led to numerous publications in high impact journals (see below) 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 the OHRI, Department of Medicine, Department of Pathology, the Methods Centre, McGill University, Ontario Institute of Cancer Research and

We are proud to report Drs. J. Sulpher and S. Sud won their respective sections at the Department of Medicine Resident Research Day. Also, Ottawa once again was a leading program at the Canadian Association of Medical Oncology Annual Meeting, including an oral presentation by Dr. Jiang on rectal cancer (supervisor Dr. R. Goodwin).

The program looks forward to the upcoming academic year as medical oncology works towards being one of the first specialties to move to competency-based education.

Thanks for our success should also go out to our exceptional program coordinator Arlette Mendicino and the recent appointment of Jill Greenwood as administrator of the fellowship program.

Awards to trainees:

- Dr. Shelly Sud: Department of Medicine, University of Ottawa Resident Research Day Oral Presentation Award—2014
- Dr. Peter Andrew: CANMEDS award for Collaborator (2014), Internal Medicine Program, University of Ottawa

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In the area of translational research, cancer clinical researchers have worked collaboratively with the OHRI, Department of Medicine, Department of Pathology, the Methods Centre, McGill University, Ontario Institute of Cancer Research and
NCIC CTG researchers to enhance cancer research in the Division. These include collaborations with 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**

10 selected from total of 17:


**Dr. Tim Asmis** (co-investigator). CIHR 2014. “Multimodal exercise, nutrition and anti-inflammatory treatment for palliation of cancer cachexia: the MENAC study”.


**Drs. Mark Clemons** and **Susan Dent** (co-applicants). Canadian Breast Cancer Foundation. “Phase II Randomized, Double-Blind, Placebo-Controlled, Window of Opportunity Trial Evaluating Autophagy as a Novel Therapeutic Strategy in Breast Cancer (The CUBiC Study)”

**Dr. Mark Clemons** (co-investigator). Canadian Cancer Society Research Institute (CCSRI). “Use of innovative knowledge translation strategies to reduce overuse of medical imaging in early stage breast cancer.”

**Drs. Glenwood Goss** and **Derek Jonker** (co-investigators). CCSRI—Support of the NCIC Clinical Trials Group (Grant # 021039).

**Dr. Glenwood Goss** (principle investigator). Ontario Institute for Cancer Research—High Impact Clinical Trials Translational Research Team Award.

**Dr. Derek Jonker** (co-investigator). CIHR. “GA.1—Randomized Phase III Trial of Preoperative Chemoradiotherapy vs Preoperative Chemotherapy for Resectable Gastric Cancer.”

**Dr. Garth Nicholas** (co-investigator). Alliance for Cancer Gene Therapy. “Chimeric oncolytic virus for brain cancer treatment.”


Honours and Awards

- **Dr. Mark Clemons** received the **Dr. Michael Chrétien Researcher of the Year Award** for leading a seminal study that has changed how metastatic breast cancer is treated around the world.

- **Dr. Susan Dent** is the driving force behind the Integrated Cancer-Cardiac Care Program, and is the recipient of the **2013 Innovation Award from the Cancer Quality Council of Ontario**. The only program of its kind in Canada, Dr. Dent and her team are working with specialists across the country in an effort to see similar programs offered.

New Members

- **Dr. Michael Ong** came to the Division from the Royal Marsden Hospital in August 2013. His major areas of interest are new drug development/molecular oncology and therapy of genitourinary malignancies, malignant melanoma and breast cancer.

Nephrology

20 FTA Faculty Members • 1 PTA Faculty Member
1 Clinical scholar • 1 Clinical associate • 1 Resident
5 Fellows

Clinical Activities

Division members and The Ottawa Hospital’s Renal Program continue to deliver multi-disciplinary world-class care across the spectrum of Kidney Disease. Our emphasis is to deliver this care closer to home and in the least disruptive fashion for our patients. We continue to treat thousands of patients, many of them with a lifelong chronic illness and we enable them to lead a productive life. This year is on track to become a record-breaking year for the Renal Transplant Program. By the time this report is published, more than one hundred patients will have received a new kidney this year alone, joining close to 1000 patients transplanted in Ottawa in the last decade.

Division members were active in national guideline development and dissemination again this year. **Dr. Marcel Ruzicka** led a Canadian Society of Nephrology team of experts on hypertension in patients with chronic kidney disease and critically evaluated the international KDIGO Guidelines on Treatment of Hypertension in Patients with CKD providing a Canadian perspective on treatment of hypertension in this population.
Division members play important roles in the Ontario Renal Network, the provincial renal care agency. Dr. Peter Magner is the medical lead on the funding reform now being rolled out across all Ontario renal programs.

Under the leadership of Dr. Ann Bugeja, The Ottawa Hospital’s Dialysis program started offering in-center nocturnal hemodialysis treatments a few years ago. This year, the program, offered at the General Campus expanded and now 15 patients can receive dialysis at night, allowing them to continue to work and spend time with their families rather than having to spend a large part of their waking hours receiving dialysis.

**Programs that have had an impact on the community**

This year, we continued to grow our Home Dialysis Unit (HDU) with now close to 200 dialysis patients performing their own treatments at home, keeping more patients out of hospital and leading a life a little closer to “normal”. Moreover, we created an intravenous iron infusion clinic directly in HDU. Patients can therefore receive intravenous iron when they come to clinic for a regular visit, minimizing the need for supplemental visits to medical day care for HDU patients and preserving these important resources for non-dialysis patients.

In collaboration with the Renfrew Victoria Hospital and Drs. Mary-Ann Murray (Home Dialysis Program APN) & Janice Bissonnette (Transplant APN), the SHERPA decision support tool was launched. This decision support tool has been of tremendous help for patients facing the difficult decisions of which renal replacement modality to choose.

In collaboration with the Queensway Carleton Hospital, our dialysis program expanded the newly opened satellite hemodialysis unit. It now provides care to 60 end-stage-renal-disease patients who receive their regular renal treatments much closer to home.

With the challenging fiscal limitations facing us all, we have worked hard to maintain the same level of care for our patients. We were able to shorten the intravenous iron infusion times at medical day care, allowing us to treat more patients with the same resources.

Finally, our telehealth clinics continue to gain popularity. We provide consultations and follow-up to patients in Cornwall, Carleton Place, Hawkesbury and multiple communities in Nunavut which allows them to receive the same CKD care we’ve always provided without having to travel for hundreds or even thousands of kilometers.

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

**Patient Advocacy**

For the fourth year in a row, Dr. Deborah Zimmerman participated in the Alive to Strive Race as both a committee member and active participant. Despite a recently healed ankle fracture, Deb ran the 5K race wearing a 3 kg vest to simulate fluid gained by dialysis patients between treatments. This year the race raised over $35,000 in support of Alive to Strive Kidney Fitness Program’s active living living grants.
Deb has experienced the benefits of an active lifestyle and hopes to help her patients achieve an enhanced quality of life by encouraging them to participate in activities that maintain muscle and cardiovascular health. These grants provide financial assistance to patients across the LHIN in their efforts to become more active. 50 grants have been given to date. As a founding member of the Board of Directors, Dr. Zimmerman has helped to shape the vision for the Alive to Strive Kidney Fitness Program. Through continued efforts, the group hopes that they will decrease the development of kidney disease for at risk individuals and improve the quality of life for patients who have already developed kidney disease.

New initiatives:

**Drs. Kevin Burns and Chris Kennedy** developed a Graduate level course 2 years ago, wherein MSc and PhD graduate students get lectures about kidney disease, and also perform clinical observerships providing basic science students exposure to real-world medicine.

Drs. **Swapnil Hiremath** and **Marcel Ruzicka** co-chaired the committee and then actively participated with many other division members in the first University of Ottawa—Office for CPD—Hypertension and Chronic Kidney Disease CME Day. This was attended by over 120 family physicians, nurse practitioners and internists and was very well received.

**Research Activities**

The year 2013–14 was a remarkably productive one for the Division of Nephrology in research, with more than 100 manuscripts published by members appointed to the Division and the
In March 2014, the KRC Clinical Research Manager Ms. Judy Cheesman retired after more than 30 years of exceptional service at The Ottawa Hospital (TOH) and the OHRI. We are pleased to welcome her successor, Ms. Gigi van den Hoef, who arrives with more than 15 years of experience in clinical trials and industry-sponsored research. Gigi leads a group of talented and experienced clinical coordinators and administrative staff who, along with investigators, run approximately 20 clinical trials in nephrology at any one time.

**Key Grants**

**Dr. C. Kennedy**, Kidney Foundation of Canada. Actinin-4 associated FSGS: a role for ubiquitin C-terminal hydrolase-1 (UCH-L1).

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

**Drs. M. Ruzicka** and **S. Hiremath**, TOHAMO. Assessment of Effectiveness of Counselling by a Registered Dietician on Low-Salt Diet in Patients with Hypertension: A Pragmatic Clinical Trial.

**Noteworthy Publications**

Members of the Division of Nephrology published 112 peer-reviewed articles this past year. Key publications include:


Kidney Research Centre (KRC). The scope of research was broad, ranging from basic science studies focused on the biology of the glomerular podocyte, to translational studies involving urinary biomarker discovery, to health-outcomes research examining dialysis practice in Canada, and strategies to enhance organ donation. On the basic research side, key publications appeared in the Journal of the American Society of Nephrology from **Drs. Chris Kennedy** and **Richard Hébert** and colleagues at the KRC. One of these studies was led by the recently appointed PhD Scientist to the OHRI, **Dr. Dylan Burger**, who described how urinary podocyte-microparticles may be the earliest evidence of diabetic nephropathy in animal models, appearing before the development of microalbuminuria. If confirmed in humans, this exciting finding could lead to improved detection methods for early diabetic nephropathy. A sample of other high-quality publications from the Division is presented below.

One of the highlights of the year was the recruitment of **Dr. Manish Sood** who received the Jindal Research Chair for the Prevention of Kidney Disease. Dr. Sood arrived from the University of Manitoba, where he developed expertise in the use of administrative databases to answer important questions influencing Nephrology clinical practice across Canada and internationally. Dr. Sood has been appointed as an Associate Scientist at the Ottawa Hospital Research Institute (OHRI), and is pursuing graduate training in Epidemiology at the University of Ottawa. He is also the Founder and Deputy Editor-in-Chief of the recently launched *Canadian Journal of Kidney Health and Disease*, the first Nephrology-based journal in Canada. The arrival of Dr. Sood represents an important landmark for the Division and the KRC and the future appears very bright.


Boards & Editor appointments

- Dr. Chris Kennedy—Appointed to CIHR Institute of Nutrition Metabolism and Diabetes Advisory Board.

Guideline Development and Dissemination:

- Dr. Swapnil Hiremath (member) CSN guidelines on BP in CKD
- Drs. Swapnil Hiremath and Manish Sood (members) CSN guidelines for timing the initiation of chronic dialysis
- Dr. Deb Zimmerman: (chair) CSN guidelines on intensive dialysis
- Dr. Ayub Akbari (co-chair) CSN commentary on the 2012 KDIGO guideline for Evaluation and Management of CKD
- Drs. Marcel Ruzicka (chair), Brendan McCormick and Swapnil Hiremath (member) CSN commentary on the 2012 KDIGO guideline for the management of blood pressure in CKD
Neurology

28 Faculty Members • 20 Residents • 6 Fellows

Clinical Activities

The Division of Neurology has undergone significant changes over the last year. At the divisional retreat a new vision statement was developed—“To provide our patients with compassionate, high quality care based on a foundation of academic excellence”. Many members of our division will be working closely with the Department of Medicine as it builds its new strategic plan to ensure that our division’s clinical, education and research goals are well aligned. We have recruited five new members this past year that will enhance our ability to improve the quality care for our patients: General neurology (Dr. T Nguyen), in our subspecialty areas of strength in neuromuscular diseases (Dr. V Parker), Parkinson’s disease (Dr. T Mestre) and stroke (Dr. M Shamy) plus new expertise in neurogenetics (Dr. J Warman).

Important initiatives in clinical care

- The division has created a new fax-referral consult process and phone triage system to improve patient care access.
- A new policy for handover of the neurology consult service at the General Campus was developed.
Educational Activities

Many members of the division are heavily involved in teaching both at the undergraduate and post-graduate levels. For example, Dr. Heather Maclean is the Director of PreClerkship UGME (Anglophone Stream), the Leader of Mindfulness Curriculum Working Group, Unit 3 Leader for Psychiatry, Ophthalmology and Neurology UGME curriculum and the Content Expert for Neurology.

Dr. Christine De Meulemeester continues to lead our neurology residency program and has guided our residents in many successful research projects.

Dr. Michael Schlossmacher is the program director for the MD PhD program that now receives CIHR MD/PhD Program – Voucher support for uOttawa.

Dr. Sam Lepalme-Remis was a Resident Scholarship Recipient from the American Academy of Neurology and also received a Patient Quality and Safety Grant on the project “Patient Experience of Lumbar Puncture Study”. He also is in the first of a three-year term as a member of the Editorial Team of the Resident and Fellow Section (RFS) of the Neurology Journal.

Dr. Stephen Van Gaal also received a Patient Quality and Safety Award Grant for “Lean Methodology to reduce door-to-needle times in stroke”.

Dr. Joe Yu was nominated for a Team Player award through TOH Physician Engagement Steering Committee.
Dr. Hogan and Dr. Dowlatshahi have a provisional patent to automatically detect active bleeding in the brain with CARL: Computerized automated recognition of leakage software.

Our clinicians play an active role in the fundraising activities of both the University and the Hospital which include participation in: Ride the Rideau, National Capital Race weekend and Lap the Gats for Parkinson’s. The Parkinson Research Consortium (Dr. Grimes, Dr. Schlossmacher, Dr. Mestre) efforts now help support six graduate and post-doctoral student fellowships in Ottawa.

To ensure our residents have adequate space, a new office with 4 computer workstations close to the program director was built this year. The stroke program graduated its first two fellows, Dr. D. Blacquiere and Dr. M Alhazzaa.

Research Activities

Dr. David Park is the University of Ottawa Brain and Mind Research Institute’s (uOBMRI) new director. He has formulated a new strategic plan in which the division has been extensively involved. Both the stroke (Dr. Dowlatshahi, Dr. Shamy) and Parkinson’s disease (Drs. Grimes, Schlossmacher) programs will be part of the 1st tier of funding with the neuromuscular group (Dr. Jodi Warman) also being important parts of the initial funding. As part of the uOBMRI platform an Integrated Parkinson’s Care Network (Dr. Mestre) is being built that will provide a comprehensive network where patients can be treated for all aspects of their condition (movement, dementia, depression etc.) and linked to community resources/programs in an integrated “one stop” fashion. Research will be embedded within this network, which will facilitate advanced studies in the areas of biochemistry, genetics, epidemiology, and best clinical practices of PD.

Dr. Dowlatshahi’s project, funded from the uOBMI, will use tablet technology (iPad) to detect post-stroke depression (PSD) earlier and will deliver cognitive based therapy (CBT) as an adjunct to standard pharmacological management of PSD.

Key Peer Reviewed Grants

Kothary R, Warman J. CIHR and Muscular Dystrophy Canada. To improve clinical care and advance research in neuromuscular disease with expertise from around the country.

Park D and Schlossmacher MG. CIHR—Team Grant. The Role of LRRK2 in Parkinson’s, Crohn’s disease and leprosy


Dowlatshahi D. Heart & Stroke Foundation of Canada. Predicting intracerebral hemorrhage expansion using the dynamic CT-angiography spot sign.

Schlossmacher MG, Weston Brain Institute, Canada. Validation of a GBA1-directed chaperone in a bi-genic model of Lewy body disease.
Noteworthy Publications

Members of the division published 77 peer-reviewed articles this past year. Key publications include:


**Mestre TA**. Reluctance to start medication for Parkinson’s disease: A mutual misunderstanding by patients and physicians. *Parkinsonism Relat Disorder* 2014; **20**(6):608–612


Honors and Awards

- **Dr. Pierre Bourque** received this year’s Clinician Recognition award from The Ottawa Hospital.
- **Dr. Michael Schlossmacher** was recognized as ‘Medical Researcher 2013’ in the Department of Medicine 2013 Annual Report.
- **Dr. Dar Dowlatshahi** received a New Investigator Award from the Heart and Stroke Foundation and a New Investigator Award as a Clinician-Scientist Research Chair from the Department of Medicine.
- **Dr. Michel Shamy** completed his MA, History and Philosophy of Science and will provide unique expertise including in the analysis of ethics in acute stroke trials.
Nuclear Medicine

7 faculty members • 1 lecturer (locum)
6 cross appointments in Nuclear Medicine and Cardiology • 5 residents

Clinical Activities

This past year a new PET/CT Scanner was installed at the Cancer Centre and the Nuclear Medicine Reading Room at the General Campus was expanded to accommodate increased teaching and clinical activities. We reorganized the Division of Nuclear Medicine Quality and Patient Safety Committee, chaired by Dr. Eugene Leung. This past year we also embarked on an ambitious effort to reduce PET-CT waiting times, as part of the Hospital’s initiative to decrease lung cancer patient turn-around time. The Division submitted documents to obtain accreditation of the nuclear medicine imaging program from the Intersocietal Accreditation Commission.

Educational Activities

The Division takes great pride in its Residency Training Program which continues to provide high quality academic learning and clinical experience to its residents. The program is directed by Dr. Xuan Pham, who took over from Dr. Laurent Dinh in January 2014, when the later left for his sabbatical leave. We have five residents on board in different postgraduate training years. The faculty has remained very active and strongly committed to the postgraduate teaching activities and day-to-day education of our residents. In addition to weekly academic half days covering clinical and basic sciences curriculum, a number of rounds and other educational activities are organized throughout the academic year.

Programs Impacting the Community

Dr. Lionel Zuckier assumed responsibility of Chair, Radiation Safety Committee in 2013; he took over from Dr. Laurent Dinh (Division of Nuclear Medicine) who served as the Chair for over 10 years. This crucial committee is entrusted with overseeing the safe use of radioactive substances at The Ottawa Hospital and Faculty of Medicine.

International Multidisciplinary Lung Cancer Day, a combined meeting of the Institut d’Oncologie Thoracique (Institut Gustave Roussy and Centre Chirurgical Marie-Lannelongue), The Ottawa Hospital and the CSSS of Gatineau was organized on October 19, 2013 at the Fairmont Chateau Laurier, in Ottawa. Dr. Francois Raymond led the organizing committee. Drs. Laurent Dinh, Xuan Pham and Terrence Ruddy were among The Ottawa Hospital representatives on the organizing committee.
Research Activities

The Division is working in close conjunction with Radiation Oncology; Ottawa is amongst the first sites in Canada to be activated for several ongoing international trials with Ra-223 chloride for therapy of bone metastases.

In line with the Department of Medicine’s emphasis on Brain and Mind Research and the Division’s plans to expand in Brain PET and Research, Dr. Laurent Dinh joined the Centre for Addiction and Mental Health (CAMH), Toronto, as a Research Fellow for his sabbatical in January 2014.

Key Grants and Contracts

Zuckier LS (PI). TOHAMO. Dual-Time Point FDG-PET to differentiate between recurrent brain tumour and radionecrosis.

Martineau P (PI), Pelletier-Galarneau M (co-I), Zuckier LS (co-I). Department of Medicine, PQ&S. SPECT vs SPECT-CT in the evaluation of bone metastases.

Martineau P (PI), Zuckier LS (co-I). Department of Medicine, PQ&S. Factors Affecting the Reproducibility of Sentinel Node Lymphoscintigraphy in Malignant Melanoma. A Patient Quality and Improvement Project.


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 (on-going since June 2012).

Noteworthy Publications

Members of the division of Nuclear Medicine published the following peer-reviewed publications in 2013–2014:


The Division hosted Dr. Harvey Ziessman, Professor of Radiology and Director of Nuclear Medicine Imaging & Nuclear Medicine Residency Program at the Johns Hopkins Hospital, this past academic year. During his two-day visit he met with the residents to discuss research opportunities in nuclear medicine and showed parathyroid and HIDA cases to the staff and the residents. He also presented at the Medical Grand Rounds on ‘Nuclear medicine techniques in the evaluation of GI disorders’ and at the City Wide Nuclear Medicine Grand Rounds on ‘Parathyroid imaging in Nuclear Medicine’.
Honours and Awards

- **Drs. Lionel Zuckier** and **Xuan Pham** were appointed members for the 2014 Examination Committee in Nuclear Medicine by the Royal College of Physicians and Surgeons of Canada.

- **Dr. Lionel Zuckier** was appointed Reviewer of the Scientific Program of the 2014 Annual Meeting of the Society of Nuclear Medicine and Molecular Imaging for General Clinical Specialties—Musculoskeletal and Oncology—Educational Exhibits. He also served as an invited speaker at the meeting entitled *Altered Biodistribution and Incidental Findings in Radionuclide Imaging: Pathophysiologic alterations affecting clinical imaging interpretation*.

- **Dr. Eugene Leung** was invited speaker at the PET CT for Cardiac Sarcoidosis, organized by Department of Diagnostic Imaging, FMC.

- **Dr. Lionel Zuckier** was invited speaker at the Annual Meeting of the Israeli Society of Nuclear Medicine, held in Maalot, Israel in February 2014. His presentation was entitled *Image Perception in Nuclear Medicine*. During this trip he had occasion to speak at Rambam Medical Centre, Haifa on *Excursions in thyroid and parathyroid scintigraphy*.

- **Dr. Lionel Zuckier** was appointed to the Society of Nuclear Medicine and Molecular Imaging, Procedures Guidelines Committee, GI Bleeding

- **Amin Mohammad Amlani**, Nuclear Medicine technologist, received Guardian Angel Program Pin for going above-and-beyond the call of duty for a patient at the hospital.
Palliative Care

16 Faculty Members • 15 Positions • 3 Residents

Clinical Activities

The Division continues to provide significant access to specialist-level palliative care across several sites in the city notwithstanding resource limitations and growing needs. The Ontario Ministry of Health and Long Term Care provides the Division with 15 full time equivalent (FTE) positions through two alternative funding plans (AFPs). With these, the Division provides clinical coverage across several sites, undertakes its academic mandate (including research and education) and provides health services leadership and quality improvement in the region.

Our TOH (The Ottawa Hospital) affiliated physicians (8 FTE positions) provide clinical coverage at TOH General Campus, TOH Civic Campus, TOH General Cancer Centre, Irving Greenberg Family Cancer Centre (IGFCC), the Montfort Hospital and the Queensway Carleton Hospital. Our Bruyère affiliated physicians (7 FTE positions) provide clinical coverage on the Acute Palliative Care Unit (PCU) at the Elisabeth Bruyère Hospital and the community-based Regional Palliative Care Consultation team (RPCT).

With the exception of the PCU, our teams use a consultation and shared care model at the various sites. This allows our relatively small number of physicians at TOH and in the community consult team (RPCT) to reach out to as many patients as possible across several sites. On the PCU, our physicians take on the MRP role.

Over the past four years, the Division has worked with regional partners to develop a system of services that increases access to hospice palliative care services in the city and the region. The number of hospice beds in the city has increased from 9 to 19 (providing end of life care in the last days to patients with low complexity). The Bruyère PCU (providing care for patients with complex needs across the illness trajectory) has significantly increased admissions from 2008 levels. The number of direct admissions to the PCU from the TOH ED and cancer outpatient clinics has increased. A single referral and triage process and system (online as of early this year) for referrals to hospices and the PCU has been implemented. This system is referred to as the System to Manage Access, Referrals and Triages (SMART). The number of outpatient clinics at the Cancer Centre increased from 3 a week in 2008 to 8 a week in 2013. In the community, the Division has been working with nursing colleagues to educate and support family physicians to increase the number of family physicians providing palliative care to their own patients.

The Ottawa Hospital (Civic and General Campuses)¹

In this past year, our teams at the General and Civic Campuses (called the “Supportive and Palliative Care Teams”) received a total of 2199 referrals; 1479 at the General Campus and 720 at the Civic campus. This total is a 5% increase over the previous year. The teams provided a total of 18,671 visits; with an average of 6 visits per patient. Relative to other similar services in the country, this team is one of the busiest in the country, with case-loads that often exceed 50 patients a day.

¹ Data related to clinical coverage is for the fiscal year 2013–2014.
This past year, the division successfully established a tele-health service in the Cancer center which allows ill patients to travel to a local clinic in their area and have access to specialized consultation with a pall care physician and nurse via Tele-health.

A major accomplishment this past year was receiving accreditation for the Ottawa Cancer Centre by the European Society of Medical Oncologists (ESMO) as an “Integrated Oncology Palliative Care Program”. Only 2 other cancer centres in Canada have this designation.

The Montfort Hospital and the Queensway Carleton Hospital (QCH)

The Montfort Hospital team (0.5 FTE physician and 1 FTE nurse) received 341 new referrals and the Queensway Carleton Hospital team (0.5 FTE physician and 1 FTE nurse) 386. These represent a 5% increase from the previous year. At the Montfort hospital, the majority of referrals had a primary non-cancer diagnosis (64%) while at the QCH just over half (58%) had a cancer diagnosis. The total number of visits (including the initial visit) at the QCH hospital was 1178.

Elisabeth Bruyère Palliative Care Unit (PCU)

The PCU is the region’s specialized unit for patients with progressive incurable illnesses who require in-patient care to manage complex needs (e.g. pain and symptom management). It cares for patients across the illness trajectory, not only at the end of life. Since 2009/2010 significant changes have been made to increase the number of patients admitted to the unit and their level of acuity and complexity. Admissions occur 7 days a week.
The number of patients admitted increased from about 320 in 2008 to 534 this past year (an increase of about 60%). The majority of admissions (75%) were from TOH, and the majority of patients (84%) had a primary cancer diagnosis. However, the proportion of patients with non-cancer diagnoses is gradually increasing (from 6% a few years ago to 16% this past year). Wait times from referral to admission have been reduced significantly; a mean of 8.3 days just 3 years ago to 2.8 days this past year. The percentage of patients discharged from the unit back home or to other non-acute facilities has increased from 4% in 2008 to 20% this past year. The LOS has decreased significantly; from a median of 25 days a few years ago to 13 days this past year.

Palliative Rehabilitation Clinic
This unique service helps patients with progressive incurable illnesses who are still functioning relatively well to remain independent and functional for longer through physical and nutritional rehabilitation and psychological support (8 week, outpatient program). Seventy four patients were referred to the clinic this past year, a 20% reduction from the previous year. Several reasons account for this, including reduced referrals from the Cancer Centre, administrative challenges, clinic cancellations and some cutbacks in allied health coverage.

Programs that have had an impact on the community

The Community Regional Palliative Care Consultation Team (RPCT)
One of the Division’s big success stories this past year has been the RPCT. The RPCT was formed this past year through a close collaboration between Bruyère Palliative Pain and Symptom Consultation team made up of 2 advance practice nurses, the Community Access Centre’s (CCAC) five new nurse practitioners in palliative care, and the Division of Palliative Care (which provides physician coverage). The Division physicians (Drs. Rice and Tucker) and the Bruyère advance practice nurses (Maryse Bouvette, Bride Holland and Erin McCabe) spent considerable time helping training the new nurse practitioners. The mandate of the RPCT is to support family physicians and nurses in community settings, including patient homes, long-term care (LTC) facilities and retirement homes across the whole region. The team provides this through a consultation/shared care model. MRP services are provided in the community by family physicians (supported by the RPCT) or community palliative care physicians. (The latter are independent groups that are not affiliated with the Division.)

This past year saw a record number of referrals to the program; 744 compared to 604 the past year. There were 5,796 consultation and case management telephone calls. Forty-five percent of referrals were for patients in their homes and 20% for patients in LTC facilities and retirement homes. The team has also provided a record amount of education in the region; a total of 259 hours just this past year. These have included, amongst others, Pallium LEAP 2 day courses for physicians and nurses, evening workshops, workshops in LTC facilities and retirement homes and courses for hospices and nursing agencies.

Medical Advocacy

Dr. Jill Rice has been a strong advocate for primary care engagement and support in providing palliative care. Dr. Pereira has continued to advocate for a systems approach to providing hospice palliative care services in the region. This has included working with Hospice Care Ottawa and the Champlain
Regional Hospice Palliative Care Program. He has also championed the need to increase access to palliative care services and education across the country. As a result of his and the Pallium Project’s team advocacy work, the Federal Ministry of Health recently granted funds for this work nationally.

Clinical Quality Improvement Activities

Dr. John Scott and our nursing team at the Civic Campus have been working with colleagues at the Heart Institute to improve palliative and end-of-life care for patients with advanced heart diseases. Dr. Fitzgibbon and team completed a chart review of several hundred patients who visited the TOH EDs in the last 2 weeks of life and patients who died at TOH. Drs. John Scott and Christopher Klinger (PhD) and Christine Welch (APN) completed a pro-spective audit of advance care planning practices at TOH. These revealed significant deficits in this area. Dr. Rice has initiated, in collaboration with the Perly LTC facility in Ottawa, a quality improvement program to improve end-of-life care in LTC facilities. She is also working with Dr. Tom Foreman (Ethics TOH office) to address levels of care designations in the region. Drs. Bush and Lawlor have been working at Bruyère on strategies to improve the management of delirium. At Montfort Hospital, Dr. Gratton and Anne Roberts (RN) worked on an updated policy for the use of CADD pumps.

Programs impacting global health

Drs. José Pereira and Peter Lawlor have been supporting the development of palliative care in Portugal; Dr. Pereira as visiting professor at the Catholic University of Portugal and Dr. Lawlor at the University of Lisbon. This followed requests by a Portuguese parliamentarian and the past Portuguese Ambassador to Canada as well as the past Canadian Ambassador in Portugal for assistance from our Division. Unfortunately requests for observership exchanges of physicians and residents have not materialized due to Faculty of Medicine policies.

Division members have, over the past year, been invited to present 8 keynote presentations at international conferences and meetings this past year. This excludes abstract-based presentations at over 6 international conferences.

Education Activities

Division members have been developing education innovations in Palliative Care. These have included the development and testing of a new approach to using standardized patients, specifically the “Coached Standardized Patient Encounter” (C-SPE), and the development of “Not Quite Right” trigger videos to support end-of-life communication training. The “Difficult Discussions, Better Decisions” 4-hour long workshop was successfully tested for the first time for TOH physicians and residents this past year. This project is a priority for this coming year, with several more workshops being planned in the coming year. Divisions in the Department of Medicine are encouraged to participate.

Visit YouTube (“Pallium Better Early than Late” and “Pallium parachuting without a parachute”) and www.pallium.ca to see other Divisional innovations (Pallium Doodles).

Division members provided over 68 hours of CME/CPD to community-based primary
care professionals as part of its community capacity building commitment. Over 100 community-based family doctors, nurses and pharmacists participated in four 2-day LEAP courses (a total of 56 hours of case based learning facilitation). These included courses in Ottawa and rural communities. Over 242 professionals enrolled in six 2-hour evening workshops, with videoconferencing across the whole region.

In our Postgraduate program, Dr. Christopher Barnes deserves special mention for his stellar job as the Division’s Residency Program Director. Fifty eight residents from different programs completed rotations in palliative care and 172 hours of postgraduate formal education (case based learning, academic half days, journal club, etc) were delivered this past year.

Drs. Valerie Gratton (French Program) and Shirley Bush (English Program) continue to lead our undergraduate program. Our Division provided 42 CBL sessions (82 hours) and 27 lectures (37.5 hours) and palliative care members were coaches of 4 e-portfolio groups this past year.

Congratulations to Dr. Jill Rice who successfully completed a Master’s Degree in Medical Ethics through the University of Toronto and Dr. Michael Hartwick, who completed a Masters in Medical Education. The Division collaborated with the Division of Endocrinology and the Office of Faculty Development to hold an evening workshop on improving clinical teaching. This workshop was attended by over 20 members from several divisions. Dr. Ed Fitzgibbon completed the TOH “Improving Quality & Patient safety” Physician Leadership Program. Several Division physicians (Drs. Chasen, Pereira, Lawlor and Barnes) have attended physician leadership courses and

patient quality and safety improvement programs, including the Canadian Medical Association’s PMI courses.

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. Division members published 23 peer-reviewed articles this past academic year and 12 published abstracts.

Key Peer Reviewed Grants


Pereira J, Buchman S, Urowitz S, McKinnon Marnie. Canadian Partnership Against Cancer. The INTEGRATE Project: Integrating palliative care earlier in the illness trajectory in cancer centres and primary care clinics in Ontario and Quebec. (Hosted by Cancer Care Ontario).

Noteworthy Publications

Chasen M, Bhargava R, MacDonald N. Rehabilitation for patients with advanced cancer. CMAJ 2014 [Epub ahead of print]
Honours and Awards

A number of the team’s physicians and nursing staff, including Drs. Fitzgibbon and Scott, received TOH Guardian Angel Awards this past year. The team at Montfort received an Award of Excellence in setting up the new palliative care program there.

Physical Medicine & Rehabilitation

24 Faculty Members • 12 Residents

The Division of Physical Medicine and Rehabilitation (PM&R) is 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 over 100 inpatient 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 admit and discharge over 1000 patients each year, we have a busy outpatient program that registers over 50,000 patient visits per year.

Programs Impacting the Community

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

**Dr. Sue Dojeiji** is a Paralympic Advisor for the Canadian Centre for Ethics in Sport.

**Dr. Nancy Dudek** is an active member of the Advisory Council for the Canadian Paralympic Committee—Changing Minds, Changing Lives and is an active peer reviewer for over a dozen academic journals and publications, and numerous councils and granting agencies.

**Dr. Hillel Finestone** is a member of the Stroke Rehabilitation Committee and the Champlain Regional Stroke Steering Committee for the Champlain Local Health Integration Network, Ontario Stroke System/Ontario Ministry of Health and Long-Term Care.

**Dr. Ed Lemaire** is a past president of the Canadian National Society for the International Society for Prosthetics and Orthotics (ISPO) and is also a member of the International Scientific Committee for ISPO. He is an Associate Editor for the journal Prosthetics and Orthotics International.

**Dr. Shawn Marshall** co-chairs and is a member of various committees for the Ontario Neurotrauma Foundation addressing issues of quality of life and treatment for individuals with ABI and mTBI.

**Dr. Lynne MacGregor** works with the Canadian Paraplegic Association (CPA) and TOHRC staff to develop resources for patients with SCI and is a member of the Champlain Spinal Cord Injury Solutions Alliance. She advocates and collaborates with multidisciplinary partners to set up women's Health Clinic for women with disabilities to have accessible environment for gynaecological assessment, a learning program and educational tools as well as protocol for PEG tube procedures for patients with neuromuscular conditions, and pressure ulcer wound clinic for SCI (spinal cord injury) clients.

**Dr. Doug McKim** is the Chair of the Scientific Committee for The Canadian Thoracic Society and a consultant for the Critical Care Secretariat, Ministry of Health and Long Term Care in the development of a clinical tool to standardize and facilitate weaning of mechanically ventilated patients in Critical Care units.
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.

Research Activities

We are very active in broad areas of research in collaboration with national and international organizations in Canada, The United States, Europe and Australia. Areas of research include interdisciplinary health related research program dedicated to improving the safety of older drivers, genetic and cellular based research on osteoarthritis, uses of virtual reality programs in rehabilitation, respiration, stroke, chronic pain, musculoskeletal and neuromuscular issues, ALS, cerebral palsy, amputation and prosthetics, spinal cord and brain injuries, immobility, and medical education.

Dr. Hillel Finestone has concentrated research in the areas of nutrition and stroke, driving and stroke, and virtual reality exercise therapy in the stroke survivor; which complements his clinical involvement as a physiatrist with a special interest in stroke.

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 welcomed Dr. Alison Anton and Dr. Kate Montgomery to our program this year.

Dr. Keith Wilson is a member of the Board of Directors for the Canadian Association of Psychosocial Oncology as well as a member of the Peer Review Committee for Canadian Virtual Hospice.

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.
rehabilitation. He has further developed his research in musculoskeletal pain and disability in the areas of sexual abuse and chronic pain, musculoskeletal injury and psychological and social factors, and carpal tunnel syndrome and lateral epicondylitis after repair and is currently running a clinical trial using stem cells to augment the success rate of rotator cuff repairs. Finally, Dr. Trudel’s team and collaborators are conducting experiments on the effect of bed rest on the vertebral bone marrow and hemopoietic consequences.

**Grant Funding**

38 grants—total funding $18,454,524; 2013-2014 annual funding $4,584,561

**Key Peer-reviewed Grants**

- Boivin, Antoine; Blackmer, Jeffrey; Marcoux, Isabelle. CIHR. Effects of public policies on medical end-of-life practices: a systematic review.
- Hillel Finestone, H. Sveistrup, M. Bilodeau, D. Levac, D. Fergusson. Heart & Stroke Foundation of Canada. Does virtual reality exercise improve sitting balance ability and function after stroke?

**Dr. Ed Lemaire** focuses his scientific investigations on technology and its impact on human mobility and the delivery of physical rehabilitation services. His work with the Rehabilitation Intelligent Mobility Systems (RIMS) has advanced the development of intelligent assistive devices and related technologies to improve the lives of people with disabilities.

**Drs. Shawn Marshall and Hillel Finestone** received additional funding to continue their international collaboration researching vehicular safety in the elderly. Dr. Marshall has developed the first widely adopted guidelines on mild Traumatic Brain Injury and continues his work and research in this area.

**Dr. Doug McKim** is actively engaged in numerous projects related to airway management in neuromuscular disease, non-invasive mechanical ventilation, programmatic approaches to long term ventilation (LTV), COPD rehabilitation, oxygen therapy, and end-of-life decisions in respiratory disease.

**Dr. Guy Trudel** provides research supervision and mentorship to students, fellows and junior PM&R staff. Dr. Guy Trudel is conducting research on the musculoskeletal complications of immobility. His team has produced research results that help understand the pathophysiology of joint contractures that will lead to better management and resource utilization. Dr. Trudel’s research team produced results on the reformation of the supraspinatous tendon.


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**

Members of the Division of Physical Medicine and Rehabilitation published 49 peer reviewed papers this past year. Key publications include:


Dudek NL, Dojeiji S. Twelve tips for completing quality in-training evaluation reports. *Med Teach* 2014 [Epub ahead of print]


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 long-term 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, and there are several weekly 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 long-term

Honours and Awards

• **Dr. Usha Buenger**—2014 Award of Excellence for Interprofessional Collaboration—Speech-Language and Audiology Canada in collaboration with the TOHRC ALS team.

• **Dr. Hillel Finestone**—2013 Best Poster Presentation—Champlain Stroke Network—Interprofessional Stoke Education Day

• **Dr. Ed Lemaire**—2014 3rd Prize—Engineering and Computer Science Graduate Poster Competition—University of Ottawa’s Faculty of Engineering. (Tundo M.—Student Award)

• **Dr. Ed Lemaire**—2014 The Commission on graduate studies in sciences prize, University of Ottawa. (Nominated—Sinitski E—Student Award)

• **Dr. Doug McKim**—2014 Dr. George Karpati Award—Researcher of the Year—Muscular Dystrophy Canada

• **Dr. Doug McKim**—2014 Clinical Collaborator Award—The Canadian Society of Audiology

• **Dr. Scott Wiebe**—2013–2014 University of Ottawa PM&R Residency Teaching Award

• **Dr. Keith Wilson**—Jack Aaron Memorial Award, The Ottawa Hospital Cancer Program
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 120 patients with CF from Eastern Ontario and West Quebec. The CANVent unit initiates entirely outpatient noninvasive ventilation and follows over 200 patients in the community using home ventilation.

**Programs Impacting Global Health**

Dr. Gonzalo Alvarez has been very active in promoting smoking cessation and TB prevention in Nunavut, Canada and he has published groundbreaking studies detailing his program for TB prevention and treatment in Nunavut (Alvarez et al, *PLoS One* 2014).

**Dr. Doug McKim** has been invited to meet with health professionals, institutions and representatives of the Ministry of Health in Singapore to advise with regard to organization of long-term mechanical ventilation in Singapore.

**New Initiatives**

1. 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.

2. 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.

3. 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 non-invasive ventilatory support with two ventilators in their home, to the new technology, all as out-patients.

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

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

Dr. Doug McKim from the Division of Respirology was awarded the 2014 Dr. George Karpati Award. This award is given by Muscular Dystrophy Canada to an exemplary neuromuscular clinician or researcher who has made a significant contribution to neuromuscular research, and who has contributed to the advancement of care of people with neuromuscular disorders in the past year in the areas of public awareness, services and/or fundraising.

In addition, Dr. McKim and the ALS Clinic Team at The Rehabilitation Centre were awarded the 2014 Clinical Collaborator Award from The Canadian Society of Audiology for excellence in clinical care and collaboration in helping to care for ALS patients.

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 in Respirology, we offer separate fellowships in Sleep medicine and Interventional Pulmonology, under the supervision of Drs. Judy Leech/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


Alvarez GG (PI). CIHR. Preventing tuberculosis in Inuit communities: Predicting what may work.

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


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

Noteworthy Publications

Members of the Division of Respirology published 45 peer reviewed papers this past year. Key publications include:

Rheumatology

6 Full-time and 5 Part-time Faculty Members • 2 Residents

Clinical Activities

Under the guidance of Division Head Dr. Doug Smith, 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, with an ever-increasing demand. 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. He is also the co-founder of the combined Dermatology and Rheumatology clinic to enhance patient care and facilitate training in the two disciplines.

The community Rheumatology team consisting of Drs. Brian Boate, Algis Jovaisas, Suneil Kapur, Patricia Morassut, and John Thomson continues to provide excellent ambulatory consultation services to the community, where there is an ever increasing demand for Rheumatology.

Dr. Ines Midzic was recruited as a clinical scholar commencing July 1, 2014 and is completing a Master of Healthcare Quality, Risk and Safety Science at Queens University. She is a welcome addition to the rheumatology team.


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. Jacob Karsh and Doug Smith have joined the Ontario Biologics Research Initiative, a provincial initiative to monitor use and safety of these agents in patients with Rheumatoid Arthritis.

Patient Advocacy

Dr. Doug Smith provides much needed Rheumatology services to Iqaluit, Nunavut Territory, where he has established a busy clinical practice for the past several years. Rheumatology trainees have been able to see first-hand his advocacy work by joining him in his efforts.

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 had an astounding 70 publications in 2013–14. He is a co-investigator on grants totaling over $1 million in funding from CIHR.

Dr. Susan Humphrey-Murto continues her work in medical education research with 5 grants and 9 peer-reviewed publications in 2013–14 on the topics of emotional intelligence in admissions, OSCEs and inter-professional education.

Educational Activities

A highlight this year was the full approval of the Rheumatology Training Program from the Royal College of Physicians and Surgeons of Canada under the enthusiastic leadership of Dr. John Thomson and unfailing support of Susan Duffield, program co-ordinator. Dr. Noura Al-Osaimi begins her second year and Dr. Hafsah Al-Azem begins her first year of training in Rheumatology.

All faculty members are involved in educational activities at all levels of undergraduate and post-graduate medical education. Dr. Doug Smith provides regular educational sessions for patients with Systemic Autoimmune Rheumatic Diseases and their families. Dr. Susan Humphrey-Murto was a founding faculty member of the Canadian Association for Medical Education National Assessment Course (CAME-PACCC) held for the first time in 2014. She continues to act as the Director for the Academy for Innovation in Medical Education/University of Ottawa Skills and Simulation Center Fellowship.

Dr. Nataliya Milman has done several invited talks in vasculitis, including a recent presentation in Toronto on “Selected topics in Giant Cell Arteritis”.

Dr. Doug Smith continues to be active nationally with the 1000 Canadian Faces of SLE, The Arthritis Society/Institute of Musculoskeletal Health and the Canadian Scleroderma Research Group Study.
Key Peer Reviewed Grants


P. Tugwell, CIHR. Co-Applicant with Jeremy Grimshaw and Sharon Straus. Knowledge Translation Canada: A CIHR Strategic Training Initiative in Health Research.

P. Tugwell, CIHR. Co-Principal Applicant. Knowledge Synthesis and Translation by Cochrane Canada (Cochrane Health Equity Field & Musculoskeletal Review Group).

P. Tugwell, CIHR. Co-Applicant with Vivian Welch. Assessing ethics and equity issues of randomized controlled trials in public health.


Notable Publications

Members of the Division of Rheumatology published 80 peer-reviewed papers this past year. Key publications include:


Honours and Awards

Dr. Peter Tugwell was appointed to the rank of Officer of the Order of Canada, the second-highest ranking conferred in Canada. This award recognizes a lifetime of achievement and merit, especially in service to Canada or to humanity at large. Dr. Tugwell has focused his work on solving inequities in health care as it relates to factors of wealth, location, race, occupation, gender, religion, and education.

Dr. Jacob Karsh was the Recipient of Jeff Shirokey Award, Laurentian Conference May 2014. This award is given in recognition for his contribution in the field of inflammatory arthritis research. He is also on the Board of Directors for the Canadian Rheumatology Research Consortium and an external reviewer for the Canadian Agency for Drugs and Technologies in Health (CADTH).

Dr. John Thomson is highly active at the National level with the Canadian Rheumatology Association as a Board Member of the CRA Executive and Chair of the Human Resources Committee. He also co-chairs the Eastern Ontario Rheumatology Association Annual Meeting with Dr. Brian Boate.

Dr. Nataliya Milman received the UCB-CRA-TAS post-graduate rheumatology fellowship award for 2 years in addition to the University of Ottawa Department of Medicine research.

Dr. Susan Humphrey-Murto was appointed as Co-Chair Education Research and Development Committee, Royal College of Physicians and Surgeons of Canada.
Dr. McKendry has provided outreach services to patients in Arnprior and Renfrew for more than 20 years. He has provided excellent training to medical students on their rotation in rheumatology, with many students asking to work with him when they return. His excellent care and gentle manner will be missed by all his patients and students.

His retirement will allow him to pursue his hobbies of gardening, jogging and good company. That said, he is looking forward to 2015 when he can count roses rather than joints, run 5 km rather than OSCE’s, and spend more time with a female (his lovely wife Catherine) rather than e-mail.

Dr. McKendry’s well-deserved retirement will leave a void in the department of Rheumatology; he will be missed by colleagues, students and patients!