



Department of Medicine Annual Report 2016-2017



**BRIGHTER
WORLD**



Our Goals

To facilitate the provision of the highest possible quality of care of the medical diseases of adults, giving appropriate consideration to costs and utilities.

To take responsibility for the quality of the education programs offered by McMaster University for physicians in training and practice in the disciplines of general internal medicine and the medical subspecialties and to provide many of the planners and teachers for this broad undertaking. To be involved as appropriate in the education programs offered by McMaster University for non-physician scientists working in health-related fields and non-physician health professionals.

To develop and critically evaluate new knowledge across a wide range of disciplines from basic science to the clinical disciplines of general internal medicine and its subspecialties, to the health care system itself. The Department of Medicine will set priorities for its research endeavours, based upon excellence, societal relevance, the availability of collaborative links, the opportunity for national and international significance, and additional criteria as judged appropriate.

Our Mission

We are a Department of Medicine, characterized by a collegial, interprofessional, and interinstitutional cooperation, working to achieve our goals of excellence in health education, research and clinical care which embraces the continuum from the basic science laboratory to the individual patient to the health care system.

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A MESSAGE FROM THE President and Vice-Chancellor

“Research by members of the Department of Medicine made waves in the international, national and local media in 2016-2017.”

— Patrick Deane

As President of McMaster University, I want to commend the Department of Medicine on its numerous milestones achieved in research, education and clinical care in 2016-2017.

At McMaster, we are devoted to the cultivation of human potential. We are committed to taking a collaborative approach to improving people’s lives, contributing to global knowledge and advancing the health and well-being of the world around us.

The Department of Medicine is leading truly innovative work that advances these goals. As the largest department in the Faculty of Health Sciences, its faculty and staff boast talent and expertise in a vast array of specialties from hematology to gastroenterology. The impact of the Department in fostering healthier populations here at home in Hamilton and around the world cannot be overstated.

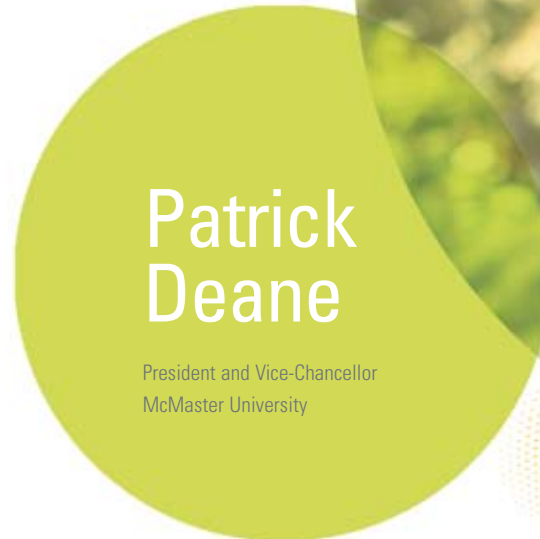
It is unsurprising that the 2016 list of the world’s most highly cited researchers includes 14 scientists from the Michael G. DeGroot School of Medicine at McMaster University. The Clarivate Analytics *Highly Cited Researcher List*, formerly known as Thomson Reuter’s *The World’s Most Influential Scientific Minds*, included five from the Department of Medicine.

Research by members of the Department of Medicine made waves in the international, national and local media in 2016-2017. The Department’s influence could be found in publications, broadcast and online. This bolstered the reputation of both the University and the Department, whose high-calibre work draws millions of dollars in investment from the federal and provincial government, industry and charitable organizations, and private donors.

The faculty and staff of the Department are also shaping the minds of tomorrow’s medical professionals and researchers. Through exemplary leadership, instruction and mentorship, I am confident the tradition of excellence in the Department will continue.

Patrick
Deane

President and Vice-Chancellor
McMaster University



I want to thank the faculty and staff of the Department of Medicine for its unwavering commitment to providing superlative education and helping the University maintain our position as a world-leading centre for research and innovation.

Once again, congratulations to all members of the Department on your exceptional accomplishments over the past academic year. I wish you much success as we work together to create a Brighter World. ■

Patrick Deane, BA (Hons), MA, PhD
President and Vice-Chancellor
McMaster University



BRIGHTER WORLD

A MESSAGE FROM THE Dean and Vice-President

“Collectively,
the Department
pushes onward in
putting McMaster
on the map and
helping it become
a familiar name in
the realms of health
sciences, research
and among the
general public.”

— Dr. Paul
O’Byrne

I would like to offer a heartfelt congratulations to all faculty members and staff of McMaster’s Department of Medicine on your many important accomplishments in the 2016-2017 academic year.

I am pleased to report that the Department continues to grow in size, with almost 700 faculty members who are working alongside more than 400 support and research staff across 17 divisions.

The Department also continues to grow in reputation. Many of your faculty were featured in the local, national and international media highlighting research breakthroughs and recognition. Collectively, the Department pushes onward in putting McMaster on the map and helping it become a familiar name in the realms of health sciences, research and among the general public.

Just a few of your members who brought well-deserved recognition to the Department through their research were:

- Dr. Jeffrey Weitz was the principal investigator of a study that found that the blood thinner rivaroxaban is as safe as aspirin, and more effective at preventing recurrence of life-threatening blood clots in the legs and lungs.
- Nancy Heddle and Dr. John Eikelboom led a large international study that proved that old blood is as good as new when blood transfusions are needed.
- Premysl Bercik headed research that found that bacteria in the gut impacts both intestinal and behavioural symptoms in patients suffering from irritable bowel syndrome.

Many members of your Department were also honoured throughout the academic year. These included Dr. Teresa Chan won the 2017 Young Educators Award from the Association of Faculties of Medicine of Canada and Dr. Gregory Steinberg, who was the first Canadian scientist to be awarded the new Gold Leaf Prize for

Paul
O’Byrne

Dean and Vice-President
McMaster University



Outstanding Achievements by an Early Career Investigator by the Canadian Institutes of Health Research.

Through your continued commitment and outstanding leadership in clinical practice, research and instruction, the Department of Medicine is ensuring the positive impact of the Michael G. DeGroot School of Medicine and the Faculty of Health Sciences in the advancement of human health.

As former chair of the Department of Medicine, and now as dean and vice-president of McMaster’s Faculty of Health Sciences, I look forward to continuing to work alongside you. ■

Dr. Paul O’Byrne
Dean and Vice-President
Faculty of Health Sciences

A MESSAGE FROM THE Chair of the Department of Medicine

“The Department has three cornerstones; excellent clinical care, unparalleled educational opportunities and world leading research.”

— Dr. Mark Crowther

The 2016–17 academic year has been one characterized by change and celebration. After more than a decade under the leadership of Dr. Paul O’Byrne, the Department was ably led by Dr. Akbar Panju in an acting role for the 2016–17 academic year, as Dr. O’Byrne was settling into his role as dean of the Faculty of Health Sciences. 2016-17 also saw the 50-year anniversary of the Department of Medicine. This was celebrated at our Annual Department of Medicine Awards Dinner in the spring and we were honoured to celebrate with past chairs; Drs. Paul O’Byrne, Jack Hirsh, John Kelton, John Cairns, and Ernie Fallen at the event.

Dr Lori Whitehead assumed the role of program director for the core Internal Medicine Residency Training Program during 2016-17, and stepped immediately into the “hurly-burly” associated with the implementation of Competence by Design training. The year was also one of significant challenges in many domains, the most important of which is implementing the Royal College’s Mandate for Competence by Design training across the breadth of all of the Department’s training programs. As this radical change in our educational programs is rolled out, the Department’s hospital partners are labouring under tremendous financial and bed pressures, while simultaneously coping with reduced Internal Medicine resident numbers and changing educational expectations.

Despite this, the Department remains the educational, research and financial powerhouse of the Faculty of Health Sciences and, by extension, McMaster University. Despite a challenging financial situation, the Department appointed 18 new geographic full-time faculty members, which now has a total of 685 members, of which 258 are full-time faculty, 349 are part-time faculty, 38 are professor emeriti, 12 are clinical scholars, and 28 are joint and associate members.

Mark Crowther

Chair, Department of Medicine
McMaster University



The Department has three cornerstones; excellent clinical care, unparalleled educational opportunities and world leading research.

Excellence in care and passing along that passion through lifelong learning and scholarly achievement is the single biggest driver of all our people. Despite facing the perfect storm of challenges in coming years, the Department, working with the framework of two hospital systems, Hamilton Health Sciences (HHS) and St. Joseph’s Healthcare Hamilton (SJHH), is anticipating difficulties and proactively developing innovative solutions. The efforts of the chiefs of medicine in these two hospital systems, Dr. Barry Lumb at HHS and Dr. Alistair Ingram at SJHH, have resulted in advanced infrastructure, quality of care improvements, and three of Canada’s best clinical teaching units at Hamilton General Hospital, Juravinski Hospital and St. Joseph’s Hospital.

McMaster’s Internal Medicine faculty and students are internationally recognized for excellence in clinical care; for example, a keen focus on the implementation of “best practices” drives many initiatives in the hospital such as using evidence-based guidelines in the day-to-day management of patients.

World leading faculty who are involved in the generation of the evidence that informs guidelines, who generate the process that establishes “best practices” in guideline development, and who develop and promulgate both Canadian and International guidelines allows McMaster faculty and students to shorten the time between evidence generation and evidence implementation to the benefit of our patients. As one specific example Dr. Nader Khalidi, rheumatologist, performs world-leading research in vasculitis; his access to new treatments through his research program has “vaulted” McMaster into a leadership position in Canadian hospitals in the provision of care for patients with this disorder.

The Department’s educational program is one of the largest in the Faculty of Health Sciences with over 100 residents enrolled at the PGY1 to PGY6 level and a burgeoning fellowship program currently enrolling more than 50 trainees undertaking specialized clinical education beyond their core training years. Our outstanding faculty, unparalleled research opportunities and the keen focus of Dr. Lori Whitehead on excellence in residency education explains why we continue to attract so many high-quality, young clinician educators

International Influence

DEPARTMENT OF MEDICINE: INVITED PRESENTATIONS 2016-2017

Locations where Department of Medicine faculty presented during 2016-17, showing the Department's international influence.



to the Faculty Health Sciences. McMaster educators also recognize the importance of quality regional education, and the Department is proud to support strong learning environments on the distributive campuses in Kitchener, Waterloo and Niagara.

The Royal College of Physicians and Surgeons of Canada (RCPSC) confirms with excellence our training programs in the Internal Medicine Residency Training Program and its subspecialties through the accreditation process. The program has attracted almost 450 applicants in the past year for 21 positions, which included some of the best applicants in the country. Furthermore, the Department is already proactively addressing the RCPSC's evaluation requirements for Competence by Design and working on ways to proactively accelerate residents individualized learning pace.

Another successful initiative is the Global Health Program. For example, our department's talented educator, Dr. Christian Kraeker, has been called on to help develop the University of Namibia's first ever postgraduate internal medicine curriculum. Also, the Department's Dr. Zahira Kahlid and Dr. Azim Gangji have both contributed to the development of an internal medicine program in Guyana, South America. The Department's long-standing collaboration with Uganda continues featuring the opportunity for McMaster residents to spend a month immersed in the Ugandan healthcare system, and trainees from Uganda to spend as long as one year in Canada. These "focused fellowships" are of immense use in developing nations and we look forward to "rolling them out" to other countries such as Guyana and Namibia. Such an advanced outreach program highlights the Department's belief that knowledge exchange hinges on bridge building, no matter how far or complex.

Publication highlights

July 2016

Hopkins RB, Burke N, Fell C, Dion G, Kolb M. Epidemiology and survival of idiopathic pulmonary fibrosis from national data in Canada. *Eur Respir J*. 2016 Jul;48(1):187-95. Epub 2016 May 26.

August 2016

Linkins LA, Warkentin TE, Pai M, Shivakumar S, Manji RA, Wells PS, Wu C, Nazi I, Crowther MA. Rivaroxaban for treatment of suspected or confirmed heparin-induced thrombocytopenia study. *J Thromb Haemost*. 2016 Jun;14(6):1206-10. Epub 2016 May 10.

September 2016

Healey JS, Oldgren J, Ezekowitz M, Zhu J, Pais P, Wang J, Commerford P, Jansky P, Avezum A, Sigamani A, Damasceno A, Reilly P, Grinvalds A, Nakamya J, Aje A, Almahmeed W, Moriarty A, Wallentin L, Yusuf S, Connolly SJ; RE-LY Atrial Fibrillation Registry and Cohort Study Investigators. Occurrence of death and stroke in patients in 47 countries 1 year after presenting with atrial fibrillation: a cohort study. *Lancet*. 2016 Sep 17;388(10050):1161-9. Epub 2016 Aug 8.

October 2016

Connolly SJ, Milling TJ Jr, Eikelboom JW, Gibson CM, Curnutte JT, Gold A, Bronson MD, Lu G, Conley PB, Verhamme P, Schmidt J, Middeldorp S, Cohen AT, Beyer-Westendorf J, Albaladejo P, Lopez-Sendon J, Goodman S, Leeds J, Wiens BL, Siegal DM, Zotova E, Meeks B, Nakamya J, Lim WT, Crowther M; ANNEXA-4 Investigators. Andexanet Alfa for Acute Major Bleeding Associated with Factor Xa Inhibitors. *N Engl J Med*. 2016 Sep 22;375(12):1131-41. Epub 2016 Aug 30.

November 2016

Mithoowani S, Gregory-Miller K, Goy J, Miller MC, Wang G, Noroozi N, Kelton JG, Arnold DM. High-dose dexamethasone compared with prednisone for previously untreated primary immune thrombocytopenia: a systematic review and meta-analysis. *Lancet Haematol*. 2016 Oct;3(10):e489-e496. Epub 2016 Sep 16.

Godeau B. High-dose dexamethasone or oral prednisone for immune thrombocytopenia? *Lancet Haematol*. 2016 Oct;3(10):e453-e454. Epub 2016 Sep 16.

December 2016

Heddle NM, Cook RJ, Arnold DM, Liu Y, Barty R, Crowther MA, Devereaux PJ, Hirsh J, Warkentin TE, Webert KE, Roxby D, Sobieraj-Teague M, Kurz A, Sessler DI, Figueroa P, Ellis M, Eikelboom JW. Effect of Short-Term vs. Long-Term Blood Storage on Mortality after Transfusion. *N Engl J Med*. 2016 Nov 17;375(20):1937-1945. Epub 2016 Oct 24.

January 2017

Reddel HK, Busse WW, Pedersen S, Tan WC, Chen YZ, Jorup C, Lythgoe D, O'Byrne PM. Should recommendations about starting inhaled corticosteroid treatment for mild asthma be based on symptom frequency: a post-hoc efficacy analysis of the START study. *Lancet*. 2017 Jan 14;389(10065):157-166. Epub 2016 Nov 30.

February 2017

Jolly SS, Natarajan MK. Atrial Fibrillation and PCI - Do We Still Need Aspirin? *N Engl J Med*. 2016 Dec 22;375(25):2490-2492.

March 2017

Djulbegovic B, Guyatt GH. Progress in evidence-based medicine: a quarter century on. *Lancet*. 2017 Jul 22;390(10092):415-423. Epub 2017 Feb 17.

April 2017

Weitz JI, Lensing AWA, Prins MH, Bauersachs R, Beyer-Westendorf J, Bounameaux H, Brighton TA, Cohen AT, Davidson BL, Decousus H, Freitas MCS, Holberg G, Kakkar AK, Haskell L, van Bellen B, Pap AF, Berkowitz SD, Verhamme P, Wells PS, Prandoni P; EINSTEIN CHOICE Investigators. Rivaroxaban or Aspirin for Extended Treatment of Venous Thromboembolism. *N Engl J Med*. 2017 Mar 30;376(13):1211-1222. Epub 2017 Mar 18.

May 2017

Ringer T, Hazzan AA, Agarwal A, Mutsaers A, Papaioannou A. Relationship between family caregiver burden and physical frailty in older adults without dementia: a systematic review. *Syst Rev*. 2017 Mar 14;6(1):55.

June 2017

Nair P, Wenzel S, Rabe KF, Bourdin A, Lugogo NL, Kuna P, Barker P, Sproule S, Ponnarambil S, Goldman M; ZONDA Trial Investigators. Oral Glucocorticoid-Sparing Effect of Benralizumab in Severe Asthma. *N Engl J Med*. 2017 Jun 22;376(25):2448-2458. Epub 2017 May 22. ■

At the same time, an ongoing dedication to scholarly-focused teaching, the Department has published the highest research output among residents in Canada, ensures cutting edge clinical medicine at home. Drs. Lumb and Ingram together with Dr. Lori Whitehead ensure that excellence in care is intertwined with planting seeds of evidence-based medicine in the doctors of the future. The Department also offers dedicated grants to support resident research, which only serves to underline our commitment to passionate research-mentoring relationships.

Perhaps our most notable forward-moving progress is on the research front. A five-year report reveals that department faculty have been published in an outstanding number of high-impact journals, guided by Dr. Jeff Weitz, the associate chair, Research for the Department. Faculty in the Department currently hold 37 endowed chairs or professorships, and eight Canada Research Chairs. High-profile peer-reviewed papers are published in more than 600 separate publications annually. In just one remarkable example in 2016, Dr. Salim Yusuf, had three studies in one issue of the prestigious *New England Journal of Medicine*, featuring breakthrough findings for the use of heart disease medications to help prevent heart disease on a worldwide scale. In 2017 both Dr. Yusuf and Dr. Gordon Guyatt appeared in a European Union-endorsed list of the 25 most cited scientists of all time. We foster a culture of open-mindedness and confidence to ask hard questions, and that has resulted in a relentless pursuit of discovering truths in science and health-care.

Given the Department's collective hard work, it's a pleasure to acknowledge the large number of faculty who have received awards over the past year, which have been identified in the Faculty Awards and Highlights. Special mentions must go to Dr. Sonia Anand who was named University Scholar, Dr. Richard Hunt was welcomed

into the McMaster University Community of Distinction, Dr. John Kelton and Dr. Salim Yusuf were named Distinguished University Professors, and Dr. Greg Steinberg who received the Canadian Institutes of Health Research Gold Leaf Prize for Outstanding Achievements by an Early Career Investigator.

The Department's quest for medical solutions is recognized and supported by integral research funding. Many grants were awarded to faculty and the total amount of funding represents more than 20 per cent of the funding obtained by the Faculty of Health Sciences, in addition to our many industry-sponsored studies, whose budgets are held in our partner hospitals. The total research support received by the Department in 2016-17 was over 29M. It is important to note that this support does not include research revenue in our partner hospitals.

It is my honour to work so closely with so many highly talented minds in science and medicine. Our direction is clear and our consistent forward momentum is a testament to the both the talent and vibrant energy of a group of people with a single cause: the betterment of patient care and improvement of the health of patients around the world.

I look forward to contributing to and celebrating our future successes. ■



Mark Crowther MD MSc FRCPC
Chair, Department of Medicine
Leo Pharma Chair in Thromboembolism Research



The 50-year anniversary of the Department of Medicine was celebrated at our Annual Department of Medicine Awards Dinner in the spring. Past Chairs and Acting Chairs were present including Dr. Paul O'Byrne, Dr. Akbar Panju, Dr. Jack Hirsh, Dr. John Kelton, Dr. John Cairns, and Dr. Ernie Fallen.

Faculty awards and highlights

BRIGHTER WORLD



Dr. Craig Ainsworth Off-Service Faculty Teaching Award, Division of Emergency Medicine Residency Training Program, McMaster University

Dr. Siwar Albashir Quality and Patient Safety Internal Career Award, Department of Medicine and Hamilton Health Sciences

Dr. Sonia Anand McMaster Golden Z's Hall of Fame, McMaster University
Dr. Harold N. Segall Award of Merit, Canadian Cardiovascular Society
University Scholar, McMaster University
2016 Canadian Women's Heart Health Advocacy Award – Individual Category

Dr. Teresa Chan 2016 Academic Medicine Excellence in Reviewing Award, Journal of Academic Medicine
2017 AFMC Young Educator Award, Association of Faculties of Medicine of Canada
2017 Outstanding Contributions to the FRCPC Residency Program

Dr. Deborah Cook Distinguished Critical Care Lectureship Award, Canadian Institutes for Health Research
Killam Fellowship, Canada Council Killam Program

Dr. P.J. Devereaux 2016 Canadian Society of Clinical Chemist Award for Innovation in Laboratory Medicine
Listed in the Clarivate Analytics 2016 Highly Cited Researchers list (formerly Thomson Reuter's annual publication of The World's Most Influential Scientific Minds)
2016-17 Jack Hirsh Award for Outstanding Academic Achievement, Department of Medicine, Faculty of Health Sciences, McMaster University
Canada Research Chair in Perioperative Medicine

Dr. Kerstin de Wit PSI Graham Farquharson Knowledge Translation Fellowship
Hamilton Health Sciences Career Award

Dr. James Douketis Dr. David Sackett Senior Investigator Award, Canadian Society of Internal Medicine (CSIM)
Named one of the best authors in Hematology, UpToDate

Dr. John Eikelboom Jack Hirsh/PHRI Chair in Thrombosis and Atherosclerosis Research

Dr. Alison Fox-Robichaud 2016-17 HAHSO Innovation Grant

Dr. Azim Gangji Lois H. Ross Resident Advocate Award
Canadian Association of Medical Education (CAME) Certificate of Merit Award

Dr. Hertzel Gerstein 2017 Hamilton Negev Dinner Honoree

Dr. Sharon Grad Nominated for the 2017 PARO Clinical Teaching Award
Jane Gillett Award of Excellence in Teaching in recognition of excellence in postgraduate teaching, Division of Physical Medicine and Rehabilitation, Department of Medicine, McMaster University
Postgraduate Medical Education Faculty Mentor Award 2017, McMaster University

Dr. Gordon Guyatt ACP Laureate Award, American College of Physicians

Dr. Shariq Haider Canadian Association of Medical Education (CAME) MERIT Award 2017

Dr. Jeff Healey PHRI Chair in Cardiology Research

Dr. Jeremy Hirota Tier 2 Canada Research Chair in Respiratory Mucosal Immunology

Dr. Jack Hirsh Robert P. Grant Medal, ISTH 2017 Congress

Dr. Richard Hunt Community of Distinction, McMaster University

Dr. John Kelton GERAS Lifelong Achievement Award from Michael G. DeGroot School of Medicine, Division of Geriatric Medicine and Regional Geriatric Program Central
Honorary Speaker at McMaster Internal Medicine and Medicine Subspecialty Selective Clerkship
Distinguished University Professor, Department of Medicine, McMaster University
Doctorate of Laws, University of Windsor

Dr. Aliya Khan International Award for Publishing Excellence in Osteoporosis International, International Osteoporosis Foundation

D. Paul Kim NSERC Discovery Grant
HHS New Investigator Fund

Dr. Martin Kolb European Respiratory Journal (ERJ) Chief Editor

Dr. Colin Kretz Department of Medicine Internal Career Research Award

Dr. Rebecca Kruisselbrink 2017 Internal Medicine Clerkship Program Faculty Award, Michael G. DeGroot School of Medicine
2016 Waterloo Clerkship Teaching Award, Michael G. DeGroot School of Medicine

Dr. Maggie Larché Teaching Excellence in Medicine Subspecialty Selective Award
Medicine Selective Clerkship Teaching Award

Dr. Justin Lee 2017 Canadian Institutes of Health Research (CIHR) Fellowship Award, Drug Safety and Effectiveness
2017 Canadian Geriatrics Society (CGS) Edmund V. Cowdry Award
2017 International Association of Gerontology and Geriatrics – Council of Student Organizations (IAGG-CSO) Travel Scholarship Award
2017 Canadian Institutes of Health Research - Institute of Aging (CIHR-IA) - Canadian Geriatrics Society (CGS) Travel Award
2017 Canadian Agency for Drugs and Technology in Health (CADTH) Symposium Travel Award
2017 Canadian Association for Health Services and Policy Research (CAHSPP) Student Travel Bursary
2016 Canadian Association of Population Therapeutics (CAPT) Best Poster Presentation Award

	2016 Canadian Association of Population Therapeutics (CAPT) Travel Studentship Bursary Award 2016 The Research Institute of St. Joseph's Hamilton Studentship Award 2016 Ontario Drug Policy Research Network (ODPRN) Student Training Program Award 2016 Research Institute of Aging (RIA) Four City Geriatric Research Day Best Poster Presentation Award 2016-17 HAHSO Innovation Grant
Dr. Kim Legault	Certificate of Merit Award in Teaching Excellence, Internal Medicine Residency Program, Department of Medicine, McMaster University
Dr. Lori-Ann Linkins	Certificate of Merit Award for Teaching Excellence, Department of Internal Medicine
Dr. Meera Luthra	2016 Department of Medicine Teaching Award for Dedication and Excellence in Postgraduate Medical Education
Dr. Natalia McInnes	2016 Certificate of Merit Award for Teaching Excellence, Department of Medicine, McMaster University
Dr. Paul Miller	Palliative and End-of-Life Care Innovation Award
Dr. Cathy Morris	John C. Sibley Award for Excellence in Education
Dr. Param Nair	Asthma Society of Canada Bastable Potts Award for Asthma Research Asthma Society of Canada Leadership Award in Health Research
Dr. John Neary	PARO Teaching Award
Dr. Simon Oczkowski	2016-17 HAHSO Innovation Grant
Dr. Mohamed Panju	Internal Medicine Teaching Award, Class of 2017, Michael G. DeGroot School of Medicine
Dr. Alexandra Papaioannou	Ronald Cape Distinguished Service Award by the Canadian Geriatrics Society at the CGS Annual Scientific Meeting
Dr. Alim Pardhan	Award for Excellence in Clinical Education, Division of General Surgery, McMaster University
Dr. Ameen Patel	ACP Laureate Award, American College of Physicians
Dr. Ally Prebtani	Inaugural McMaster Alumni Association Global Community Impact Award
Dr. Ian Preyra	2017 Sister Joan O'Sullivan Award, St. Joseph's Hospital
Dr. Bram Rochweg	E. J. Moran Campbell Internal Career Research Award, Department of Medicine 2016-17 HAHSO Innovation Grant
Dr. Amadeo Rodriguez	Clinical Teacher of the Year 2016, Ophthalmology Residency Program, McMaster University Pediatric Neurology Teaching Award 2016, Pediatric Neurology Residency Program, McMaster University
Dr. Stephen Sagar	Lotte & John Hecht Ground-breaker Award and Prize in recognition of original innovation in patient care and healthcare practice

Dr. JD Schwalm	2016-17 HAHSO Innovation Grant
Dr. Malcolm Sears	J Allyn Taylor International Prize in Medicine, Robarts Research Institute of Western University
Dr. Yaron Shargall	European Society of Thoracic Surgeons (ESTS), 2016 ESTS-AATS Graham Foundation Award, ESTS meeting.
Dr. Deborah Siegal	HHS Early Career Award Emerging Research Leaders Initiative (ERLI) Grant, Heart and Stroke Foundation of Canada HHS New Investigator Fund Grant
Dr. Jennifer Stearns	Farncombe Family Chair in Microbial Ecology and Bioinformatics
Dr. Greg Steinberg	American Diabetes Association Outstanding Scientific Achievement Award Canadian Institutes of Health Research Gold Leaf Prize for Outstanding Achievements by an Early Career Investigator
Dr. Madeleine Verhovsek	W. Watson Buchanan AFP Clinician Educator Award, Department of Medicine, McMaster University Certificate of Merit Award for Teaching Excellence, Internal Medicine Residency Program, Department of Medicine, McMaster University Abstract Award, Canadian Sickle Cell Disease Conference, Canadian Haemoglobinopathy Association
Dr. Elena Verdú	2017 Visiting Research Professor CAG award Renewed Canada Research Chair in Inflammation, Microbiota and Nutrition
Dr. Irwin Walker	2016 CHS Paper of the Year Award, Canadian Hematology Society
Dr. Jeff Weitz	Elected to the Royal Society of Canada (RSC)
Dr. Michelle Welsford	2016-17 HAHSO Innovation Grant
Dr. Mohammed Yaghoobi	2017 Research Mentorship Award, Division of Gastroenterology, Department of Medicine, McMaster University
Dr. Chidam Yegappan	Best Teacher Award, Neurology Residents, Department of Medicine
Dr. Salim Yusuf	Distinguished University Professor, McMaster University
Dr. Michelle Zeller	2016 Nancy Heddle Teaching Award for non-clinical teaching; Division of Hematology and Thromboembolism, McMaster University
Dr. Katherine Zukotynski	Appointed Chair of the Nuclear Medicine Section Instructional Courses for the American Roentgen Ray Society Elected President of the PET Center of Excellence for the Society of Nuclear Medicine & Molecular Imaging (SNMMI) Elected Treasurer & Secretary of the Society of Nuclear Medicine and Molecular Imaging (SNMMI) ■

A PASSION FOR RESEARCH

Groundbreaking research

Dedicated Department of Medicine researchers are constantly making scientific firsts with life-saving potential

The cumulative work conducted by McMaster Department of Medicine faculty over the years has resulted in major scientific and practice breakthroughs in a wide range of fields. “Years of hard work, dedication and sheer faith in the pursuit of innovative thinking by our faculty have resulted in major advances in care outcomes for so many patients,” says Dr. Mark Crowther, chair of the Department of Medicine. “Progress is also down to state-of-the-art research infrastructure and a spirit of collaboration among disciplines.” Here are a just few of the game-changers.

BLOOD THINNING ADVANCEMENTS

McMaster is known for paving new practice standards for the treatment of blood clots, and it continues to focus on solving ongoing care challenges. For example, anticoagulants (blood-thinners) like Dabigatran are vital for preventing stroke and blood clots in patients with heart problems or who are at risk of blood clots. However, if the need for emergency surgery in these patients arises, there’s a long dangerous wait for the drug to leave their system—lest they bleed out during the procedure.

Dr. Jeff Weitz, director of the Thrombosis & Atherosclerosis Research Institute, co-authored new research in *The New England Journal of Medicine* that showed idarucizumab is a novel therapy that acts as an antidote to the blood thinners. “Before this study, we had no way of reversing the effects, forcing patients to wait for surgeries,” he says. Dr. Weitz and his team have also identified a potential new target for future, safer anticoagulants in coagulation factor Xa. “The holy grail of anticoagulation is to attenuate blood clotting without affecting bleeding. We are researching it as a potential possibility.”

PINPOINTING THE ROLE OF MICROBIOTA IN PSYCHIATRIC DISEASE

Over at the Farncombe Family Digestive Health Research Institute, Director Dr. Stephen Collins and his team uncovered, and are now firmly establishing, the role of microbiome in the expression of psychiatric disease. Most recently, they published a study that showed taking the microbiota from patients who have high levels of anxiety and putting it into mice makes the mice anxious.

“The cause of psychiatric disease was restricted to brain circuitry and inflammation until our breakthroughs,” explains Dr. Collins. “But now the field is open to experiment with microbes in developing new diagnostic tools and treatments.” He added that the Institute is constantly pushing the envelope to improve their research, to wit, finding a way to culture 98 per cent of microbiome (before they would often die in laboratory). Their work is being recognized, as this past year they hosted the prestigious Gairdner Foundation Symposium, featuring the top speakers in microbiome research from around the world.

IMPROVING CONDITIONS FOR CRITICALLY ILL PATIENTS

Canada was the first country to establish a national research consortium for the critically ill 25 years ago, and McMaster played a major role in that, says Dr. Deborah Cook, professor, Department of Medicine. “We’ve aimed to try to prevent and decrease morbidity for the critically ill, and we’ve published a large number of studies in high-impact journals that have changed practice,” she adds. They’re currently in the middle of a large randomized controlled trial examining whether giving critically ill patients probiotics in their feeding tubes reduces serious infections (a common complication) and ensures regular bowel movement. Centres from around the world also come to the team for training in a McMaster and St. Joseph’s Healthcare Hamilton developed intervention called the Three Wishes Project, which successfully humanizes the dying process for ICU patients. “This intervention grew very naturally from McMaster’s celebration of innovation and St. Joseph’s holistic-, patient- and family-centred care culture,” says Dr. Cook.



PREVENTING HEART DISEASE

A major new advancement in preventing heart disease was recently accomplished by a McMaster-led massive COMPASS trial of 27,395 patients in 33 countries. After testing a blood thinner known as rivaroxaban’s impact on bleeding events, the trial was cut short after clear evidence showed that rivaroxaban in combination with aspirin is more effective than aspirin alone in reducing cardiovascular death, stroke or myocardial infarction in patients with vascular disease, says professor Dr. John Eikelboom. “It reduced the risk of cardiovascular events by 24 per cent and mortality by 18 per cent. These benefits are probably in the same league with other big ticket secondary prevention strategies, such as statins,” he adds. The same researchers at McMaster are also focused on contributing discoveries to the

new hypothesis in atherosclerosis that inflammation is the culprit, with several drug trials underway. “This is a new way of thinking about heart disease and the possibility of suppressing inflammation to improve outcomes is exciting,” says Dr. Eikelboom.

Findings like these are just the “tip of the iceberg”, points out Dr. Crowther, who adds that McMaster faculty are making such important strides in shifting laboratory discoveries to bedside care because of its deeply ingrained culture of evidence-based decision making. “It truly emboldens faculty. Not only do we all want to contribute to the best research available, but we want to encourage a passion for forging new discoveries that will become best practice standards in our future doctors, too.” ■

A PASSION FOR CARE

Excellence in care

Progressive care processes, driven by McMaster faculty, are ultimately serving patients best

McMaster's invention and pioneering contributions to "evidence-based medicine" has greatly impacted care decisions for the better. But driving and making clinical decisions based on discovery paints only half the picture of excellence in care.

Processes are a fundamental link in the chain of bench to bedside care and this year is rich with major ongoing process improvements by faculty.

"For starters, Hamilton Health Sciences is conducting a massive review of their ambulatory teaching services, asking the important questions about whether they are doing the jobs they should," says Dr. Akbar Panju, associate chair, clinical, and medical director of The Boris Clinic, the first-of-its-kind ambulatory treatment environment, at McMaster University Centre.

Now open more than two years, the Boris Clinic services 48,000 patients in a one-stop out-patient clinic featuring 14 specialist and between 20 to 30 residents. The next step in the evolution of the Boris clinic is to evaluate its outcomes. To this end, "we are looking at patient satisfaction and outcomes and seeing where we can make improvements in efficiency and cost-effectiveness," says Dr. Panju.

The goal, of course, is to modify processes to improve patient care. This is especially important because medicine is coping with sicker and more challenging cases than

ever, while the number of beds available in hospitals cannot meet the demand, says Dr. Barry Lumb, physician-in-chief at HHS.

"The role of care and the journey for patients is going to be far less hospital-focused in the future," he adds. "Not only do we need to keep training doctors to be comfortable and experienced in ambulatory care environments, we need to be using best practices to ensure a strong connection between ambulatory services and primary care physicians."

Another major process innovation McMaster clinician-educators are tackling is the transformative Royal College of Physicians and Surgeons of Canada's evaluation requirements for Competence by Design (CBD). "This education change will also profoundly change in the way doctors go about their clinical lives," says Dr. Lumb. "The nurturing of day-to-day interactions with residents will be much more demanding."

The good news, he adds, is that patients will benefit from the increased level of supervision and more time spent in consultation with doctors. "Right now, I

might go to the bedside of Mrs. Smith and watch a resident examine her and convince me he or she knows how to feel the spleen. Now, the expectation is that I will be there and interact directly with the patient, too."

One solution aiming to help with the growing pressure of chronic patients and limited beds is a tele-medicine e-consultation service at the Community-based Internal Medicine Rapid Access Clinic (C-IMRAC) at the West 5th Campus, says Dr. Alistair Ingram, chief of medicine at St. Joseph's Healthcare Hamilton (SJHH). Being led by Dr. Zahara Khalid, associate professor of medicine, the approach will enable physicians to provide simpler consultations in a remote fashion to suitable patients.

"The main benefit is that patients who are really sick can be seen faster," says Dr. Ingram. "We're setting it up right within the Ontario Telemedicine Network (OTN), so primary care physicians can refer patients to the e-consultation service. Ultimately, it's an expansion of community care."

That's not all; a major process improvement at SJHH is the transition to an online, paperless system, which will reduce the



"Drs. Lumb and Ingram together with Dr. Lori Whitehead ensure that excellence in care is intertwined with planting seeds of evidence-based medicine in the doctors of the future."

— Dr. Mark Crowther

risk of error and better enable doctors to applying best practices. "We've also collaborated with Health Force Ontario and McMaster's Department of Medicine to find funding for two Physician Assistants, ensuring that Alternate Level of Care (ALC) patients get the support they need while they wait in hospital for long-term care options," says Dr. Ingram.

That kind of collaborative spirit among McMaster clinician-educators is a major driver behind all of this year's process improvements geared to anticipating and proactively addressing patient care challenges with the goal of ensure only the best care possible. ■

A PASSION FOR KNOWLEDGE

Leadership in learning

Focusing on its tenet of resident respect, the Department is successfully adopting a major nation-wide educational change

Medical schools across Canada are facing a massive educational transformation this year with the change of the Royal College of Physicians and Surgeons of Canada's evaluation requirements for Competence by Design (CBD). The reason why McMaster is in the top third of the pack in terms of preparedness, ensuring it makes the leap successfully while preserving the qualities that make it one of the best residency programs in medicine, is its dedication to resident-centred and -driven education.

"The secret to educating future doctors is in respecting and engaging the student and using their feedback to mould our program," says Dr. Lori Whitehead, director of the Internal Medicine Residency Program. "There are many champions who provide valuable contributions, without them I don't think we could live up to McMaster's vision as an agent of change, and its well-founded reputation of being innovative in education."

CBD is a mandated change that greatly impacts McMaster's approach to student evaluation, says Dr. Ameen Patel, associate chair, Education. "Recognition of learning and skill progression is no longer evaluated by academic year, but by competence, depending where each learner is at in the curriculum," he explains. "The implementation will support more direct observation of learning so when students are doing something they will get immediate feedback allowing talented learners to have the opportunity to experience the program more rapidly. Similarly, direct observation allows us to identify learners who have difficulty at earlier stages to implement enhanced education plans that ensure they progress."

The implementation, which will be rolled out over the next five years, and will be required for the core internal medicine program in July 2019, is a massive undertaking that greatly impacts the structure of McMaster's teaching and service models, adds Dr. Whitehead. "It takes time and education for the 109 students currently enrolled, and for our faculty, to understand this type of learning. And while it fosters much greater learning and mentorship bonds between faculty and students, we have to ensure it doesn't impact the quality of care that patients received," she adds.

Whitehead has overseen the creation of a number of subcommittees, all tasked with various implementation capacities. Most importantly, to stay true to the principles of McMaster education, they are all co-chaired by faculty and residents. "Our goal, as always, is to train residents, give them a solid education, ensure they are in good health, have some fun, fond memories and are well on their path of the area of choice. And resident engagement is critical to our success on every level," she says. That's why the Department has already developed

a CBD primer tool and is conducting role-playing workshops with residents.

One university-wide education initiative that will help graduate students eventually make the transition to CBD postgraduate, is the development of a new student assessment and evaluation app, Mac DOT, which gives students access to real-time learning and feedback on their smart phones, says Dr. Helen Neighbour, the incoming undergraduate director. "The tool gives graduate students specific ideas for improvement, and the ability to access curriculum. As faculty, I'm able to go in and see which students are running into trouble rather than waiting until the end of rotations."

While the CBD transformation has demanded significant resources, faculty have not let other important educational advancements stall. For example, Dr. Neighbour will be overseeing the implementation of a new resident award for professionalism, established by outgoing chair, Dr. Akbar Panju. "Students who are necessarily academically outstanding but excellent professionals can be awarded

now. This highlights the need for professionalism in learning," says Neighbour. "Medicine is more than just a science, it is definitely an art. And that direct interaction with the patient is so important. It definitely takes skills that not everybody possesses and that are so important to be taught, evaluated and recognized."

Ensuring the doctors of tomorrow are extremely well-rounded includes the ongoing focus on evidence-based medicine in the curriculum as well, adds Patel. "Our internal medicine students produce more research than any others in Canada because we believe in education that provide the skills to engage in and ultimately apply evidence-based medicine in a clinical setting. Our patients also depend on it." ■

"At the same time, an ongoing dedication to scholarly-focused teaching, the Department has published the highest research output among residents in Canada, ensures cutting edge clinical medicine at home."

— Dr. Mark Crowther



A PASSION FOR OTHERS

Global Connections

McMaster clinician educators are key contributors in innovative efforts to help train international medical graduates in subspecialties

Just as it takes a village to raise a child, it takes a whole team to provide training in key subspecialties to international medical graduates at McMaster and give them the tools they need to provide advanced care in their home country. “Everyone who contributes to our subspecialty clinical Fellowship Exchange Program (FEP), from the educators in McMaster’s Department of Medicine to the staff at St. Joseph System International Outreach Program (IOP), makes a huge difference in countless patient lives abroad,” says Dr. Mark Crowther, chair of the Department of Medicine.

Fellowship Exchange Program (FEP) is the latest expansion, in a synergistic partnership with International Outreach Program (IOP), of the Department’s 14-year-old Global Health Program in Internal Medicine, which began in Uganda with one-month exchanges between the McMaster Department of Medicine and Uganda’s Makerere University residents. “The Department finances the program and provides the faculty; the Post-graduate office is also a key player allowing overseas trainees to work as clinical care providers for real patients in Canada” explains Dr. Crowther. “Our entire international program, including FEP, is now a solid best-practice example of international outreach that continues to grow both in terms of capacity offered and actual reach.”

For example, last year McMaster’s seven-year partnership with the University of Namibia was formalized, and this year Namibia residents are well on their way to having a first ever post-graduate internal medicine curriculum, developed with the help of assistant professor, Dr. Christian Kraeker. “Once in place, residents won’t have to leave their country in order to help treat patients with cutting-edge care,” he

explains. “They’ll be well-equipped to apply their knowledge at home.”

In Guyana, South America, Dr. Zahara Kalid, who has been working on establishing a first-year internal medicine program, just stepped into the new volunteer role of program director of the International Medicine Program (which was established in 2013 by the Center for Disease Control). “We’ve just graduated our second round of internists, for a total of six general internists. It’s so important for Guyanese with chronic health problems to have these skilled doctors,” she says, adding that now the country needs subspecialists.

McMaster is expanding its successful FEP to include both Ugandan and Guyanese doctors this year, said Dr. Crowther. Currently, the program offers a sponsored, one-year tailored subspecialty elective to hand-picked Ugandan candidates who need training in areas such as cardiology, respiratory, psychiatry and other disciplines. “I don’t know of any other program of this kind, which not only provides financial support to visiting doctors, but tailors what is typically a one to three-year subspecialty program into just one year,” says Dr. Rebecca

Kruisselbrink, assistant professor, who has taken on the role of coordinating the exchanges.

“I experience firsthand the professional drive and the sheer gratitude of these doctors who value learning the “nitty gritty” of looking after renal or hematology patients, for example, but also the teamwork, management and leadership skills that trickle down through the experience,” she says. Everyone involved, including teachers, are integral to FEP, which is a massive logistical undertaking, she adds. “I’m not even doing the heavy lifting like the teachers, but essentially we start by searching for candidates who are already leaders in their area, but who also can afford both financially but also professionally and personally to leave their homes for a year. Then there are references to be collected, paperwork to be completed, passports to arrange and connections with our faculty to ensure the right kind of training is acquired.” Currently, Dr. Kruisselbrink is also researching a way to formally evaluate the impact of FEP, “because it’s important to find a way to measure the success of this program and share it with others.”



“Such an advanced outreach program highlights the Department’s belief that knowledge exchange hinges on bridge building, no matter how far or complex.”

— Dr. Mark Crowther

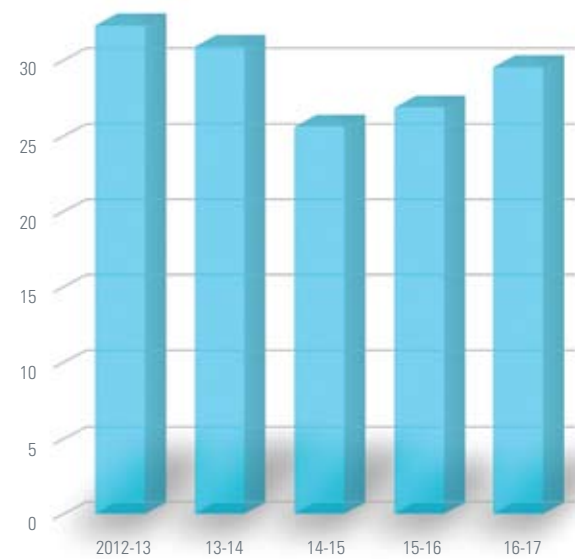
A similar benchmarking focus is underway with the one-month Uganda exchanges, says program director, Ally Prebtani. “We’re developing standardized evaluation of trainees,” he says. “One of the big benefits of all our international outreach initiatives is that we aim to give learners direct hands-on experience rather than simply being observers, and provide instant feedback they can use to improve their skill. We are constantly seeking ways to improve on the learning we provide.”

It’s the collaborative effort among many diverse people at McMaster University and St. Joseph’s Healthcare Hamilton who drive the success of all of the school’s international outreach efforts, adds Dr. Crowther. “When we all come together with the same goal and passion, challenges are overcome and borders dissolve, and medical knowledge is shared as it should be, collectively.” ■

COORDINATOR REPORT

Associate Chair, Research

RESEARCH FUNDING IN MILLIONS



“Several major studies showcase positive breakthroughs in future treatments for blood clotting, obesity and irritable bowel syndrome, and there are dozens of other important studies underway.”

— Dr. Jeffrey Weitz

The mandate of the associate chair, Research is to promote and facilitate research within the Department. To meet this mandate, the associate chair has focused on the following activities: (1) ensuring the success of junior faculty involved in research activities through advice and mentoring, (2) updating the scoring system that was implemented to quantify research output of faculty for purposes of remuneration and promotion and tenure, (3) ensuring that adequate departmental resources are earmarked for research, and (4) coordinating internal peer review of tri-council grant submissions.

The associate chair, Research meets with all new recruits and provides feedback to the department chair regarding their research potential. Those selected for faculty appointments in the research stream meet with the associate chair on a regular basis for mentorship and advice regarding grant applications, funding and career planning. The associate chair also provides advice to department members regarding new funding opportunities and research strategies.

The associate chair, Research serves as a member of the Departmental Executive, Research Executive, Promotion and Tenure, Executive Finance, and Alternate Funding Plan committees. The role of the associate chair on these committees is to advise and advocate for research.

Dr. Jeffrey Weitz



MD, FRCP(C), FACP, FCCP
Associate Chair, Research
Professor of Medicine and Biochemistry
& Medical Sciences, McMaster University
Director, Thrombosis and Atherosclerosis
Research Institute
HSFO/J. Fraser Mustard Chair in
Cardiovascular Research
Canada Research Chair in Thrombosis (Tier 1)

The Department of Medicine offers Internal Career Awards for new faculty members. These awards have tenure for up to three years and are granted on a competitive basis. Awards are available for both research and education and are aimed at fostering the next generation of researchers and educators. Funding from this source can be used to offset clinical expenses, thereby increasing protected time for research. The associate chair, research is a member of the committee that reviews and prioritizes the application for Internal Career Awards.

The Department of Medicine continues to be a major contributor to the research productivity of McMaster University. The amount of research funding for 2016-17 was \$29 million. The majority of this funding came from peer-reviewed sources with 54% from tri-council and 23% from National Centres of Excellence (see Figure 1). Research funding has increased by \$2.4 million from last year (see Figure 2). This is a particularly noteworthy accomplishment given the increasing emphasis on clinical productivity and the competitive nature of the current grant review process. ■

RESEARCH FUNDING BY SOURCE
\$29,241,814

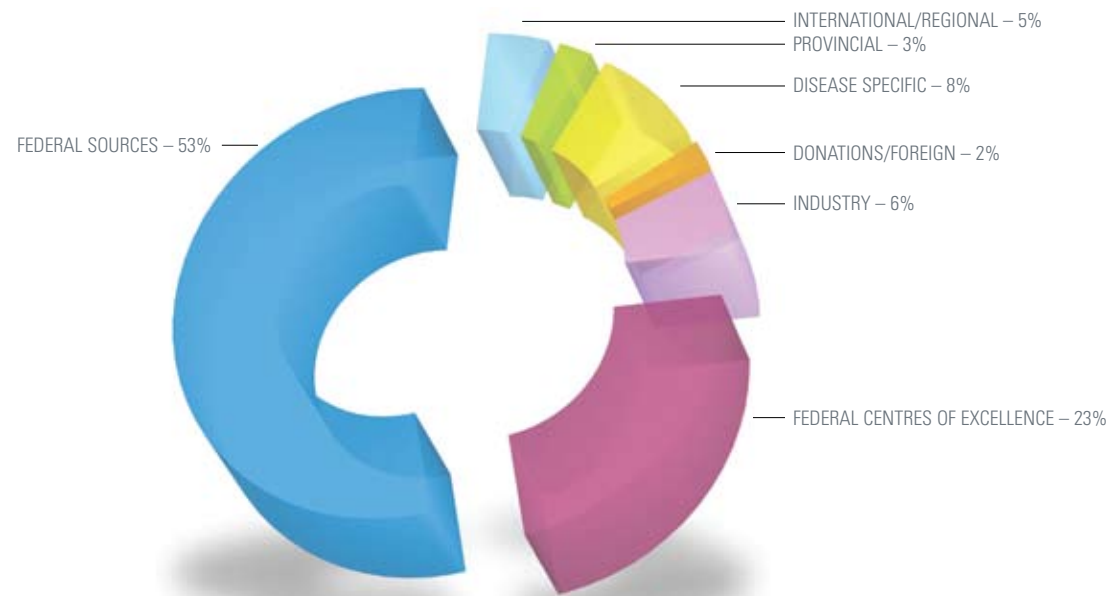


Figure 1

RESEARCH FUNDING BY TYPE
\$29,241,814

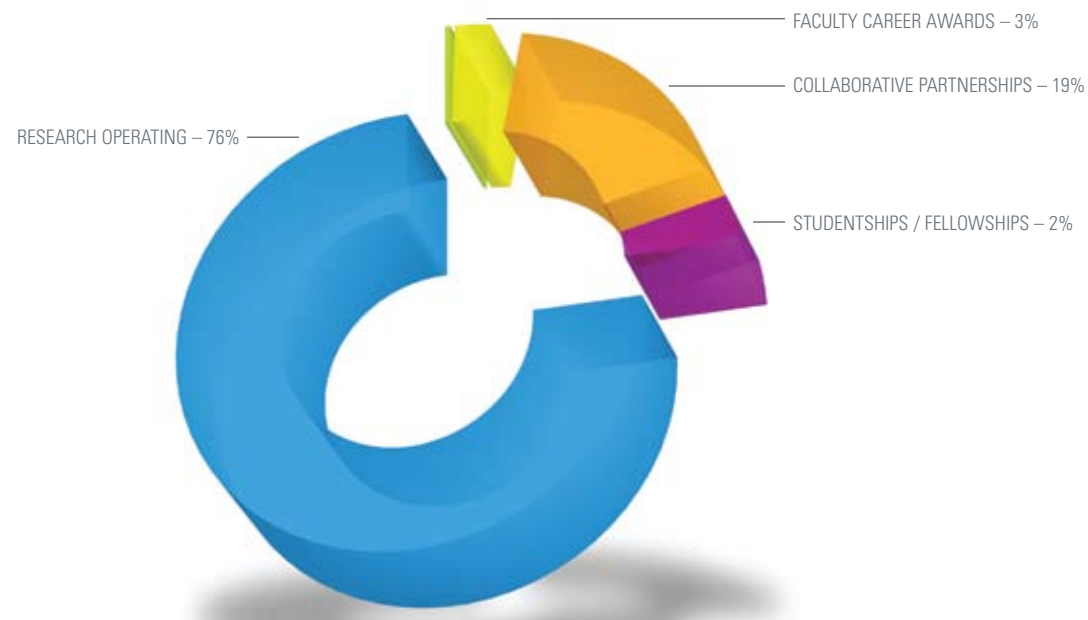
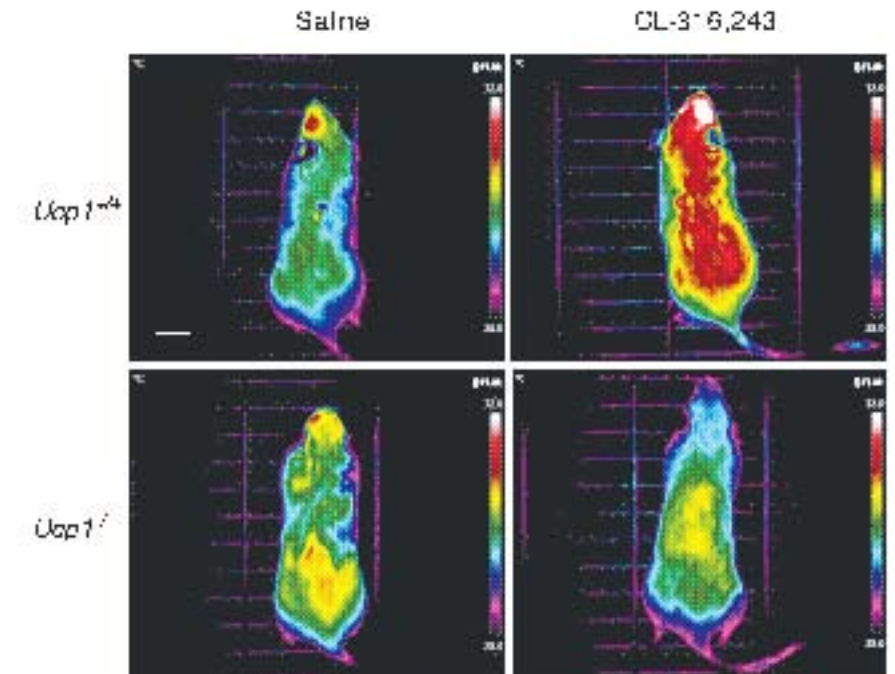


Figure 2

2.4

Millions of dollars
Research funding
has increased from
last year



Enhanced activation of brown adipose tissue in mice lacking peripheral serotonin
(Crane et al.
Nat Med 21(2):166-72, 2015).

Steinberg lab

“Perhaps our most notable forward-moving progress is on the research front. A five-year report reveals that department faculty have been published in an outstanding number of high-impact journals, guided by Dr. Jeff Weitz, the associate chair, Research for the Department.”

— Dr. Mark Crowther

COORDINATOR REPORT

Associate Chair, Education

COMPETENCY BY DESIGN (CBD)

Competency Based Medical Education (CBME) and Competence by Design (CBD) spearheaded much of the education discussion and preparation in anticipation of the Royal College of Physicians and Surgeons of Canada mandate for postgraduate training programs to fully adopt CBD. It is expected that Internal Medicine and all Medicine subspecialty programs will fully transform to CBD over the next five years. The current training model is time-based and assumes learners will absorb and excel with more time spent on an activity. CBD focuses on learning rather than time and is designed to fill gaps and challenges within the current model. The Royal College has implemented this transformational change believing that CBD is more flexible to changing patient and societal needs, increases accountability, promotes transparency in training and better prepares trainees for independent practice. Internal Medicine, Critical Care, Emergency Medicine, Nephrology and General Internal Medicine are programs within our department which will enter into a CBD-based program in 2018. At present, all program directors and education committees are actively working with the Royal College and within their own divisions to prepare for CBD.

Dr. Parveen Wasi, assistant dean of Postgraduate Medical Education and a longstanding faculty member in the Department of Medicine, has been proactive in developing an administrative infrastructure to oversee CBD faculty development and program implementation. Dr. Wasi has recruited several individuals from the Department of Medicine (Drs. Whitehead, Luthra, Brandt-Vegas and others) to sit as members of the CBD administrative infrastructure. Similarly, Dr. Whitehead, Internal Medicine program director, has been extremely forward-thinking in setting up an Internal Medicine CBD administrative infrastructure, which over the 2017-18 academic year will prepare the Internal Medicine Program for rollout of CBD. The infrastructure will include an Executive Competency Committee and several subcommittees including Faculty Development, Resident

Development, Teaching and Assessment and Scholarship. She has also maintained open communication and collaboration with Dr. Azim Gangji, chair of the Subspecialty Residency Training Program Directors Committee, to ensure that all of the department postgraduate training programs benefit for each other's CBD experience.

The implementation of CBME and CBD is a huge undertaking and I am enormously impressed with the proactive approach of the department education leaders. I am extremely confident our postgraduate training programs have positioned themselves to not only successfully implement CBD, but to serve as a model and faculty resource for other academic institutions.

TEACHING

The Department of Medicine is the engine that drives the Undergraduate Medical Education (UGME) Program. Members of our department are responsible for an extraordinarily high quantity and quality of teaching and hold numerous education leadership positions. In addition, our postgraduate and fellowship programs have continued to deliver an exceptional learning experience.

In 2016-17, the Department of Medicine continued its tradition of delivering a high quantity and quality of education with over 24,000 total weighted hours of education in the Undergraduate Medical Program and over 11,000 total weighted hours in the Undergraduate Medical Clerkship program. Department members contributed over 1,000 hours of education in the Physician Assistant program.

In Internal Medicine and its subspecialties, department members contributed over 36,000 total weighted hours. Members also made significant contributions towards Continuing Education (over 4,000 hours), Bachelor of Health Sciences Honours (over 2,000 hours), Undergraduate and Graduate Biochemistry (over 2,000 hours), Health Research Methodology (over 1,500 hours), Masters of Health Science in Health Science Education (over 1,200 hours) and the Clinician Investigator program (1,000 hours).

Department members continue to hold numerous education leadership positions in multiple programs. Dr. Lori Whitehead succeeded Dr. Shariq Haider as the program director of the Internal Medicine Training Program effective July 1, 2016. Leadership positions held by members of the Department of Medicine in the Undergraduate MD Program include: Dr. Sharon



Dr. Ameen Patel

MB, FRCP(C), FACP, FRCP(Edin)
Professor, Department of Medicine
Associate Chair, Education

Marr (chair, Program Evaluation), Dr. Jill Rudkowski (chair, Clerkship and Concept Integration and Review), Dr. Helen Neighbour (faculty undergraduate director, Internal Medicine), Dr. Azim Gangji (clerkship director, Medical Subspecialties Selectives), Dr. Marco Puglia (director, Medical Foundations 2), Dr. Nishma Singhal (director, Medical Foundations 4), Dr. Javier Ganame (cardiology planner, Medical Foundations 1), Dr. Helen Neighbour (respirology planner, Medical Foundations 1), Dr. Luciana Parlea (endocrinology planner, Medical Foundations 2), Dr. Mitchell Levine (pharmacology coordinator, Medical Foundations 3), Dr. Raj Carmona (MSK planner, Medical Foundations 5), Dr. Cathy Morris (regional program administrator, Waterloo Regional Campus), Dr. Raja Bobba (clinical skills coordinator), Dr. Dereck Hunt and Dr. Tricia Woo (coordinator, Evaluation Tool), Dr. Tim O'Shea (host defense planner, Medical Foundations 4) and Dr. Brian Van Adel (clinical skills coordinator).

11,000

Total number of weighted teaching hours that Department of Medicine faculty contributed to the Faculty of Health Sciences in 2016-17 in undergraduate Medical Clerkship programs

PROMOTION AND AWARD WINNERS:

The 2016-17 academic year was a successful one for promotion of department members. Effective July 01, 2016, Dr. Shannon Bates was promoted to full professor, Drs. Manoela Braga, Zahira Khalid, Khurram Khan, Rebecca Mallin, Heather McLeod, Dominick Mertz, Menaka Pai, Marco Puglia, Vikas Tandon and Ted Xenodemetropoulos were promoted to associate professor and Dr. Andrew Healey was promoted to associate clinical professor.

The recipients of the 2016 Department of Medicine Teaching Awards were: Drs. Meera Luthra and Peter Varey (Postgraduate Medical Education), Dr. Marco Puglia (Undergraduate Medical Education) and Dr. Kelly Dore (Graduate Education).

The winners of the Department of Medicine Internal Career Awards were: Dr. Simon Oczkowski and Dr. Colin Kretz (Medicine Internal Career Research Award), Dr. Amber Molnar (AFP Internal Career Research Award), Dr. Daniel Brandt Vegas (AFP Clinician Educator Award), Dr. Bram Rochweg (E. J. Moran Campbell AFP Internal Career Research Award), Dr. Zain Chagla (W. Watson Buchanan AFP Clinician Educator Award).

Dr. P.J. Devereaux was the recipient of the Jack Hirsh Award for Outstanding Academic Achievement. ■

“The implementation of CBME and CBD is a huge undertaking and I am enormously impressed with the proactive approach of the department education leaders.”

— Dr. Ameen Patel

1

MEMBER PROMOTED TO FULL PROFESSOR

10

MEMBER PROMOTED TO ASSOCIATE PROFESSOR

1

MEMBER PROMOTED TO ASSOCIATE CLINICAL PROFESSOR

24,000

Total number of weighted teaching hours that Department of Medicine faculty contributed to the Faculty of Health Sciences in 2016-17 in Undergraduate Medical Program

LEADERSHIP POSITIONS IN THE UNDERGRADUATE MD PROGRAM

Dr. Sharon Marr
Chair, Program Evaluation

Dr. Jill Rudkowski
Chair, Clerkship and Concept Integration and Review

Dr. Helen Neighbour
Faculty Undergraduate Director, Internal Medicine

Dr. Azim Gangji
Clerkship Director, Medical Subspecialties Selectives

Dr. Marco Puglia
Director, Medical Foundations 2

Dr. Nishma Singhal
Director, Medical Foundations 4

Dr. Javier Ganame
Cardiology Planner, Medical Foundations 1

Dr. Helen Neighbour
Respirology Planner, Medical Foundations 1

Dr. Luciana Parlea
Endocrinology Planner, Medical Foundations 2

Dr. Mitchell Levine
Pharmacology Coordinator, Medical Foundations 3

Dr. Raj Carmona
MSK Planner, Medical Foundations 5

Dr. Cathy Morris
Regional Program Administrator, Waterloo Regional Campus

Dr. Raja Bobba
Clinical Skills Coordinator

Dr. Dereck Hunt and Dr. Tricia Woo
Coordinator, Evaluation Tool

Dr. Tim O'Shea
Host Defense Planner, Medical Foundations 4

Dr. Brian Van Adel
Clinical Skills Coordinator

COORDINATOR REPORT

Internal Medicine Residency Training Program

On July 1, 2016, I assumed the role of director, Internal Medicine Residency Program. I found myself in the midst of a dynamic faculty of educators and group of enthusiastic residents. This spirit has served us well as we prepare for a shift to Competency Based Medical Education (CBME).

Although the “Go Live” date is July 2018, much work has been underway to build the infrastructure to move away from a time-based to a competency-based educational model. Competency Based Medical Education (CBME) will take us back to the bedside where we can fortify the connection between teachers and learners through the process of direct observation, coaching and timely formative assessment. Strategic and operational transitional planning has been directed by the Internal Medicine CBME Executive Committee. Subcommittees for faculty development, resident development, teaching/assessment and scholarship have been functioning as working groups. Lessons learned from Clinical Teaching Unit (CTU) field testing have provided valuable information to guide the program to convert to a successful CBME structure. Resources from the Royal College of Physicians and Surgeons of Canada and strong linkage with McMaster’s Postgraduate Medical Education department ensure that our program will continue to provide the highest standards for educating our learners.

There are 109 Internal Medicine residents enrolled across the three years of core training. Residents who rotate through our CTUs represent several other programs including: Anatomical Pathology, Anesthesiology, Dermatology, Diagnostic Radiology, Emergency Medicine, Family Medicine, General Surgery, Neurology, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Physical Medicine & Rehabilitation, Psychiatry and Radiation Oncology. The McMaster Internal Medicine program remains a popular choice for training with nearly 500 Canadian Medical Graduates (CMG) and almost 700 International Medical Graduates (IMG) who applied to the Canadian Resident Matching

Service (CaRMS) match for a July 2017 start date. A new method for IMG file review has been put into place to ensure a comprehensive and transparent process for ranking the large number of foreign applicants seeking an interview. Foreign-trained funded residents are assessed for admission in a separate stream.

Over this past academic year, I consulted with the CTU directors and resident representatives to remodel the existing CTU team structure to create a better environment for education and improved delivery of patient care. As of July 1, 2017, four inpatient teaching teams will be operational at each of the three CTUs. The addition of one extra team per site reduces patient and resident numbers per team, allowing for improvements in Senior Medical Resident (SMR)-to-patient and attending-to-learner interface. The former Medical Liaison rotation has been converted to Team D, which is a hybrid training experience where residents provide daytime consultation in the Emergency Department with retention of a finite number of admitted patients.

During the 2016-17 academic year, the Internal Medicine residency program in collaboration with the interim chair, Department of Medicine (Dr. Akbar Panju) and the chiefs of medicine (Dr. Barry Lumb, Dr. Alistair Ingram), looked for solutions for the resident after-hour workforce shortage. Dr. Shariq Haider, during his term as program director, identified the need for additional on-call coverage and was foundational in laying the groundwork for this issue. A joint effort yielded several strategies that were successful in addressing a problem which had been in play for several years. With resident duty hour restructuring, only five eight-hour weekend day shifts required supplemental manpower support this past year.

“The program has attracted almost 450 applicants in the past year for 21 positions, which included some of the best applicants in the country.”

— Dr. Mark Crowther

There have been several changes in faculty leadership roles during the 2016-17 academic year. Dr. Akbar Panju provided excellent support to the residency program during his one-year term as interim chair of Medicine. Dr. Crowther has already engaged with the residency program as the new chair of Medicine. In June, Dr. John Neary, former co-director CTU at St. Joseph’s Healthcare Hamilton (SJHH), and Dr. Mohamed Panju, former site director at Hamilton General Hospital (HGH), were appointed to the new roles of deputy program director. Dr. Ameen Patel, founding CTU director for the Juravinski since being restored to an active teaching centre, has passed the baton to Dr. Samir Raza. Dr. Patel will continue in one of his many roles as director of the residents who complete their training with a fourth year of study in Internal Medicine. Dr. Jason Cheung has moved into the position of CTU director, SJHH (formerly Co-Director) and Dr. Marianne Talman will continue as CTU director, HGH. Dr. Daniel Brandt-Vegas has a new position as CBME field officer as he continues to lead with beta testing of new methods of teaching and assessment in clinical environment. Christine Ribic will remain as chair of Research and recently appointed Dr. Kim Legault as her deputy. Dr. Meera Luthra will continue as the program’s chair of assessment and Dr. Joye St. Onge remains in the role of ombudsman.

Dr. Lori Whitehead

MD, FRCPC

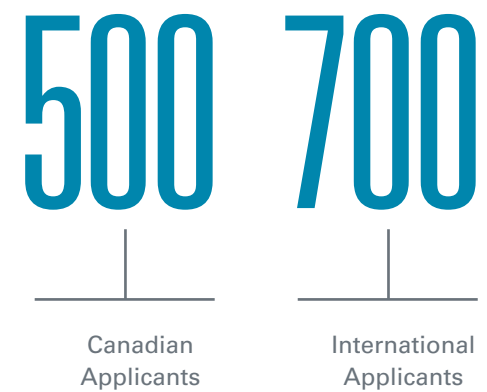
Lori Whitehead,

Director, Internal Medicine Residency Program



The Internal Medicine residency program has always empowered residents to be active participants in the educational experience at McMaster. Resident leadership in curriculum development, educational scholarship and research is an important part of their training and career development. Our residents have distinguished themselves in many ways. Dr. Roochi Arora, PGY3, was recognized as Top Paper in the “What Works” category at the International Conference on Residency Education in September for her research on resident evaluation of faculty performance. Our Doctor’s Dilemma team placed third at the spring American College of Physicians meeting in San Diego. A significantly higher number of abstracts were submitted for the annual Resident Research Day. Residents continue to be the driving force behind a number of our curriculum highlights, including the new Point-of-Care Ultrasound (POCUS) curriculum, Teaching the Procedure workshop that helps to develop teaching skills specifically related to bedside procedures, as well as the Goals of Care workshop and Presentation Summit. Residents continue to share key leadership roles with faculty on committees such as the Academic Half Day committee and Simulation committee.

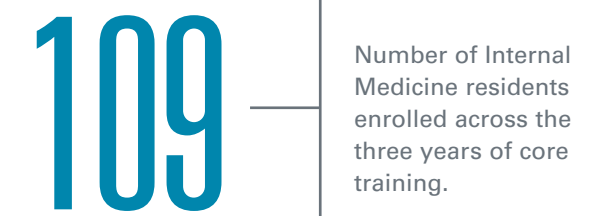
Internal Medicine Residency Training Program CaRMS match applications



Partnerships between undergraduate medicine, the specialty of Internal Medicine and the medicine subspecialties are fundamental to the Department of Medicine and its mission to provide excellence in education. Dr. Helen Neighbour was appointed to the role of Undergraduate Program director for the Department of Medicine. Dr. Jill Rudkowski, who previously held the position, continues to represent our department in her new role as chair, **clerkship and concept integration and review** for the DeGroot School of Medicine. The chair, Subspecialty Medicine remains as Dr. Azim Gangji. Each of us work together in a collaborative fashion to provide the learners with a premium educational experience and a smooth progression through their transitions.

The Waterloo Regional Campus is a robust distributive centre that is the primary training site for three Internal Medicine residents per year. It offers a hybrid experience with elements of both a community and academic model of education. Dr. Rebecca Krusselbrink was recently appointed as regional educational lead. For most of the last academic year, the role was shared with a co-chair, Dr. Abbas Merali. Dr. Krusselbrink is also a prominent force behind the International Outreach program. Clinical clerks from the Waterloo Regional campus and Niagara campus have internal medicine core training at their home base, but often seek medicine elective experiences at the Hamilton teaching sites.

I must also recognize the hard work and endless support from the administrative staff at the residency office. Jan Taylor, Susan Serro, Sharlene Honaizer and Christine Knight keep the program running at top efficiency. I would also like to thank Dr. Shariq Haider for his excellent mentorship during the first six months of my term. For the near future, my priority will be to provide leadership opportunities to mid-career faculty to build a robust team of educators within our department. As CBME Lead, I am committed to take on the challenge of educational reform. A successful transition will provide a great opportunity for McMaster to gain national recognition as a leading centre for training in Internal Medicine. ■



“Each of us work together in a collaborative fashion to provide the learners with a premium educational experience and a smooth progression through their transitions.”

— Dr. Lori Whitehead

COORDINATOR REPORT

Subspecialties and Non-internal Medicine Specialties Residency Programs

It is an honour to provide for the first time a report pertaining to the Subspecialties and non-Internal Medicine (IM) Specialties residency programs. The Department of Medicine Subspecialties and non-IM Specialties residency programs at McMaster have developed a unique collaboration in the delivery of education to senior trainees (PGY4, PGY5 and PGY6 residents). The 14 Department of Medicine programs collaborate with three other departments including Oncology (Medical Oncology), Anesthesia (Critical Care Medicine), and Pathology (Biochemistry) to form this collaboration which is the first in the country and recently highlighted as being “unique and innovative” during the 2015 accreditation by the Royal College of Physicians and Surgeons of Canada. Other departments across the country are now adopting this collaborative format. The Medicine Program Directors’ committee oversees approximately 115 to 120 senior residents. In addition, direction is also provided to an additional 50 to 60 fellows in various specialty and subspecialty fellowships.

The Medicine Program Directors govern the programs through the Subspecialty and non-IM Specialty Program Directors Committee. Over the last three years, the committee has provided strong leadership and has made significant contributions in enhancing education in various domains as well as ensuring financial stability of all programs, including providing support for fellowship programs and development of RCPSC’s Area of Focus Diploma fellowship programs. The objectives set out by the committee have broadened and include:

1. **Curriculum development** with a focus on intrinsic (non-medical expert) CanMEDS roles at a higher, more contextual level.
2. **Establishment of a PGY4/5/6 Academic Half-Day committee.** The committee has resident representation from all of the specialty and subspecialty programs and is resident-driven with two program directors, Drs. Tricia Woo and Azim Gangji, participating in the committee as well. It oversees the curriculum for the separate PGY4 and PGY5/6 academic half days. This forum has facilitated sharing of ideas and enhancing the educational experiences for all specialty and subspecialty programs.

3. **Overseeing the CaRMS medicine subspecialty match process.** The committee formulated a fair and transparent process that considers educational requirements for each subspecialty program as well as resident and societal needs. The recruitment process has been highly successful attracting a significant number of Canadian medical graduates, with the programs receiving a total of 312 applications in 2016. The McMaster Medicine subspecialty programs have been highly successful in matching candidates rated in the top five for each subspecialty. Our CaRMS process has also been identified as a unique and fair process by other universities, some of whom have now adopted our template for implementation in their own institution.
4. Establishment of a **central financial support system** to ensure financial support for all programs. The committee’s programs have established a central pool of funds to ensure ongoing support of all Department of Medicine residency educational programs and residents thereby safeguarding excel-

lence in residency medical education. Graeme Matheson’s contributions have been significant in allowing us to develop a structure in aiming to achieve our vision.

5. Creation of **resident support and establishment of a collaborative environment** for medical subspecialty, non-IM specialty residents and faculty through interaction at the annual “Welcome Event” thereby building a strong and unified group of residents within the Department of Medicine.
6. Formation of cohesive group of **Subspecialty and non-IM Specialty Program Administrators** committee dedicated to carry out the educational mission. The aim is to develop expertise in the delivery of postgraduate and undergraduate medical education. This initiative has been possible due to the contributions made by Leslie Steinberg and Joyce Munga. This unique subcommittee has also been recognized by other Canadian Universities and is serving as a model for providing an efficient and stable structure to postgraduate residency programs especially with the introduction of Competency by Design.
7. **Other Subcommittees:** The Subspecialty and non-IM Specialty program directors committee has also developed, and provides oversight of, several other subcommittees including:

- a. the CBD committee led by Dr. Daniel Brandt Vegas and Dr. Zara Khalid;
- b. the Patient Safety and Quality Improvement committee led by Dr. Joye St. Onge;
- c. the Global Health committee led by Dr. Rebecca Krusselbrink (Uganda) and Dr. Zara Khalid (Guyana), and
- d. the Combined Website committee led by Dr. Steven Wong and Dr. Jaclyn Quirt who are in the process of designing a website containing resources for residents in their PGY4-PGY6 years and for program directors.



Dr. Azim Gangji

MD MSC FRCPC FACP
Associate Professor of Medicine,
Chair, Medical Specialties Program Directors

GLOBAL HEALTH SUBCOMMITTEE

I would like to make special mention of the Global Health subcommittee. In collaboration with the DOM Global Health committee, the Medicine Program Directors Global Health subcommittee has made significant contributions in the provision of education in Guyana and Uganda.

Through Drs. Zara Khalid and Azim Gangji, the committee has developed a strong affiliation with the University of Guyana and the major teaching hospital in Guyana, Georgetown Public Hospital Corporation (GPHC). Additional educational and clinical exposure is also provided at the Doobay Medical Centre. Dr. Khalid is also the Volunteer Program Director of the IM program at GPHC. McMaster subspecialty and non-IM specialty residents and fellows travel to Guyana to provide subspecialty care and education. This provides McMaster senior residents an exceptional experience in the realm of Global Health and the provision of care under constrained resources.

The Nephrology and GIM residency programs also provide learning opportunities for PGY3 Guyana residents who enrol in a two-block elective at McMaster. We are grateful for the funding provided by the Division of Nephrology for providing Guyanese residents this opportunity. In addition, similar to Ugandan trainees, the specialty/subspecialty programs have initiated a one-year fellowship opportunity to two fellows from Guyana annually. The first two fellows will be commencing their fellowship on July and September 2017 in Nephrology and GIM respectively.

Drs. Rebecca Kruisselbrink and Ally Prebtani have orchestrated a one-year fellowship in subspecialties in the Department of Medicine for Ugandan trainees. Numerous fellowships have been successfully completed with trainees developing subspecialty specific skills in the provision of enhanced care in Uganda. In addition, Dr. Kruisselbrink has developed a needs assessment and an evaluation tool to ensure programs are delivering the education most pertinent to foreign trainees.

A very important reason for our success in the global health sphere has been due to the work and organizational structure developed by the SJHH International Outreach Program (IOP). This program, which is led by Dr. Mark Crowther and MaryAnn Breitigam, has collaborated with the central medicine program directors' office and has provided an immense amount of support in bringing trainees to Hamilton

and ensuring residence and daily living requirements are provided for foreign trainees. I also have to acknowledge and thank Gail Campbell and Sharon Ciraolo who work closely with our central office in ensuring all of the ground is attended to. Without the contributions of the SJHH IOP none of the medicine program directors' mandates could be met and we are deeply appreciative of their outstanding and unparalleled support.

COMPETENCY BY DESIGN (CBD) IMPLEMENTATION: A NEW CHALLENGE

The Royal College of Physicians and Surgeons of Canada established a new model for training and accreditation. The CBD model is currently being rolled out and as of July 2018, Gastroenterology, GIM and Nephrology will be fully adopting this model of training. It is anticipated that all of the other specialty and subspecialty programs will have transitioned to CBD by 2022. The transition to CBD for each subspecialty and specialty provides for a unique opportunity as Program Directors across the country in each subspecialty/specialty meet to develop standards of training for each discipline. It also poses a significant amount of work and requirement of resources. The Subspecialty and non-IM Specialty Program Directors committee has developed a platform for the Program Directors to share information on implementation strategies and has developed various subcommittees to ensure at McMaster, the programs are supported in various aspects including faculty development in a cost effective manner.

RCPSC ACCREDITATION IN 2015

McMaster University had its external review of the postgraduate programs evaluated by the Royal College of Physicians and Surgeons of Canada in 2015, following a six-year cycle. The non-IM Specialty and Subspecialty programs did remarkably well and were granted full approval. All programs were identified as meeting the RCPSC standards and received the 'Accredited' status.

Special mention was made of two residency training programs, Nephrology and Rheumatology in the Department of Medicine which had no weaknesses identified.

AWARDS

It is with great pleasure that I recognize the following individuals who were recipients of prominent awards.

- 1) Dr. Peter Varey, program director for Physical Medicine & Rehabilitation was the recipient of the Postgraduate Teaching Award from the Department of Medicine for 2016.
- 2) Dr. Ally Prebtani received the inaugural Dr. Clive Davis Medical Consultant Award administered by the HHS Medical Staff Association. He was also the recipient of the McMaster University Global Impact Award.
- 3) Dr. Azim Gangji was awarded the PARO Lois H. Ross Resident Advocate Award and the Canadian Association of Medical Education Certificate of Merit Award.

SUBSPECIALTY AND NON-IM SPECIALTY PROGRAM DIRECTORS

The following programs constitute the Subspecialty and Non-IM Specialty programs and their respective program directors:

PROGRAM/DEPARTMENT	PROGRAM DIRECTOR	DEPARTMENT
Nephrology	Dr. Azim Gangji (Chair)	Medicine
Cardiology	Dr. Matt Sibbald	Medicine
Clinical Immunology and Allergy	Dr. Jaclyn Quirt	Medicine
Dermatology	Dr. Hermenio Lima	Medicine
Endocrinology	Dr. Ally Prebtani	Medicine
Gastroenterology	Dr. Eric Greenwald	Medicine
General Internal Medicine	Dr. Raj Hanmiah	Medicine
Geriatric Medicine	Dr. Tricia Woo	Medicine
Hematology & Thromboembolism	Dr. Wendy Lim	Medicine
Infectious Diseases	Dr. Kevin Woodward	Medicine
Neurology	Dr. Jim Sahlas	Medicine
Physiatry	Dr. Peter Varey, Dr. Agnes Chmiel (Associate PD)	Medicine
Respirology	Dr. Rebecca Amer	Medicine
Rheumatology	Dr. Nader Khalidi	Medicine
Critical Care Medicine	Dr. Tim Karachi	Anesthesia
Medical Oncology	Dr. Som Mukherjee	Oncology
Medical Biochemistry & Pathology	Dr. Guillaume Paré	Pathology and Molecular Medicine

RCPSC AREAS OF FOCUSED COMPETENCE (AFC) FELLOWSHIP PROGRAMS

FELLOWSHIPS

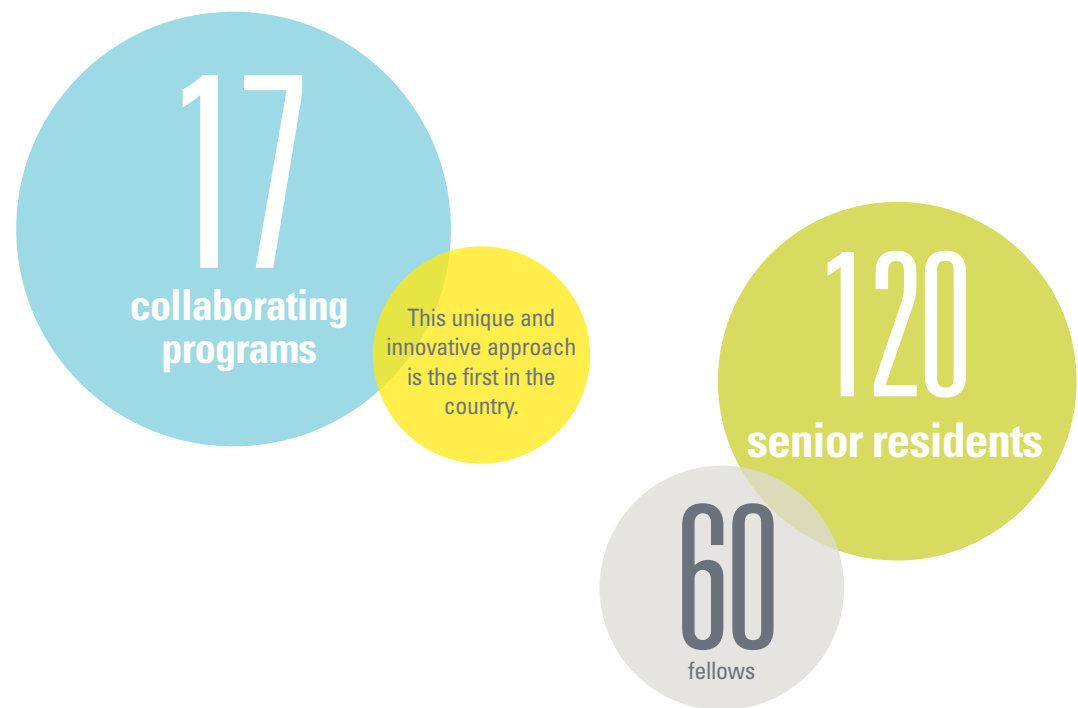
The Medicine Program Directors' committee also oversees and provides support for Royal College approved AFC fellowship programs as well as non-AFC fellowship programs. To date, in the DOM, Solid Organ Transplantation (AFC director: Dr. A. Gangji) is the only AFC fellowship program approved by the Royal College (2015). However, it is expected that within the next year, three other AFC programs will be approved including, Thromboembolism (AFC director: Dr. Vinai Bhagirath), Echocardiography (AFC director: Dr. Omid Salehian) and Interventional Cardiology (AFC director: Dr. Shamir Mehta).

Subspecialty and Specialty fellowship programs alongside residency programs contribute significantly to the academic productivity and highlight the Department of Medicine's mission. Following is a list of fellowship programs offered in the Department of Medicine:

ACKNOWLEDGEMENTS

As a united group, the program directors have grown and supported each other in numerous ways. We have developed innovative ways to deliver education, ensured financial and administrative program stability, supported the development of AFC programs, developed unique opportunities for our trainees, and have provided a sense of community for all of our residents. On behalf of the Medicine program directors, I would like to acknowledge and thank Dr. Akbar Panju and Dr. Mark Crowther for providing us a voice in the Department of Medicine and for being so supportive of our education initiatives. In addition, I would like to acknowledge Dr. Lori Whitehead whose collaborative and respectful manner has allowed all of the program directors in the Department of Medicine to function as one strong unit. Lastly, on behalf of all of the program directors, I would like to acknowledge all of the division directors in the department who have always provided us support in so many ways and the independence in order for us to achieve our goals in education.

PROGRAM	FELLOWSHIPS
Cardiology	<ul style="list-style-type: none"> a. Echocardiography b. Interventional cardiology c. Arrhythmia d. Perioperative medicine e. Nuclear cardiology
Gastroenterology	<ul style="list-style-type: none"> a. Inflammatory bowel disease b. Motility c. Nutrition d. Hepatology e. Advanced endoscopy
General Internal Medicine	<ul style="list-style-type: none"> a. Bariatric medicine
Hematology	<ul style="list-style-type: none"> a. Red cell disorders b. Thromboembolism c. Transfusion medicine d. Homeostasis/Bleeding Disorders e. Malignant Hematology
Infectious Disease	<ul style="list-style-type: none"> a. Infection prevention control b. Medical microbiology
Medical Oncology	<ul style="list-style-type: none"> a. Radiation Oncology b. Medical Oncology c. Malignant Hematology d. Investigative New Drug (IND)
Nephrology	<ul style="list-style-type: none"> a. Solid Organ Transplantation (AFC Fellowship) b. Glomerulonephritis c. Home Dialysis
Neurology	<ul style="list-style-type: none"> a. Stroke b. Neuromuscular c. Epilepsy d. Multiple sclerosis e. Neurology and neuro-restoration
Respirology	<ul style="list-style-type: none"> a. Airway and interstitial lung disease b. Rehabilitation and COPD c. Sleep Medicine d. Tuberculosis e. Cystic fibrosis
Rheumatology	<ul style="list-style-type: none"> a. Vasculitis b. Lupus



COORDINATOR REPORT

Undergraduate Director

The Medicine Clerkship Program is mandatory for all McMaster Medical students and consists of a six-week core rotation and a two-week Medical Subspecialty Selective (MSS) rotation. The Internal Medicine Clerkship Program has had a successful year in 2016-2017. Under the leadership of Dr. Jill Rudkowski the program flourished and I hope to use this solid foundation to continue to develop the Undergraduate Medicine Program. Dr. Rudkowski is now overseeing clerkship in all specialties as the clerkship chair. The Department of Medicine faculty within the Hamilton, Niagara, and Waterloo campuses work tirelessly to ensure that our students have the best educational experience. The collaboration between the sites is a genuine strength of the program.

Monthly meetings of all regional education leads and site coordinators are held where difficulties within the program and suggestions for innovation in teaching are discussed. Student representatives from each site also join these committee meetings to give feedback on the student experience of the rotation. The dedication to educational excellence shown by our entire faculty is fundamental to high quality teaching that occurs during the rotations, and the Undergraduate Medical Program is extremely grateful to those who share their knowledge and expertise with our students.

CAMPUS UPDATES

In the next calendar year, it will be a decade since the first few pilot students came through the Waterloo campus. What an evolution we have seen since then! Leadership of the program has been very stable. Dr. Mary Jackson continues in the regional education lead (REL) role and Dr. Rebecca Kruisselbrink as Clinical Teaching Units (CTU) director and local lead for our Internal Medicine Residency program. Our CTU is hitting its stride at capacity with ideal, complex medical patients seen as an Internal Medicine resource by the hospitalists and with ongoing enthusiastic support from allied health on the team. The residency presence is increasing, soon to include some of our own Internal Medicine residents. This will help to encourage the vertical learning that can richly enhance the experience. We have

had a number of young additions to faculty. Dr. Catherine Morris tries to meet with each of these individuals to introduce the local campus and explore potential areas of collaboration. This has led to many excellent teaching sessions for Undergraduate clerks. We are grateful to our hospitalists in Kitchener-Waterloo and Guelph, along with the Family Practice Residency program for their unwavering support of our curriculum. Our hospitalist services see a very broad range of medical problems that ensure that the students see diagnoses across the spectrum. We have six committed tutors that are providing teaching and leadership to our students. What has been so good to see over the last decade is the welcome that the patients, community, hospital staff (both medical and non-medical) have demonstrated to our learners. They are not just a curiosity anymore, but part of the fabric of our community.

There has been significant recruitment at the Niagara campus with six new members within General Internal Medicine (GIM), some of whom have subspecialty interests that will complement the teaching that already occurs at this site. With this increase in staff there will be additional efforts into the continuous quality improvement of the learner's experience. A first step will be adding an additional physician to the schedule to take all of the less acute patients to allow more time for bedside teaching, and review of acute admissions.

Within the Hamilton campus, the students participate in their core rotations on the Clinical Teaching Units (CTUs) at the Hamilton General Hospital (HGH), the Juravinski Hospital (JH) and St. Joseph's Hospital (SJH). Dr. Juan Guzman continues as HGH site coordinator, Dr. Ahraaz Wyne continues at JH as the site coordinator, and Dr. Daniel Brandt Vegas continues at SJH as the site coordinator. The CTUs continue to provide an excellent and innovative teaching environment for the clerks. This is due to the support from the CTU directors: Drs. Marianne Talman, Ameen Patel, Jason Cheung and John Neary, as well as their administrative assistants. Dr. Lori Whitehead, Internal Medicine Residency program director, continues to work closely with the Undergraduate Medicine Program to ensure that the teaching environment is advantageous to all levels of learners. We are particularly grateful to the chief medical residents who provide valuable teaching to the clerks

AWARDS

The Medicine Clerkship Program has been privileged to offer a number of awards to students and faculty since 2011. One medical student from each of the five training sites has been chosen to receive the **Dr. Paul O'Byrne Award for Outstanding Clinical and Academic Achievement**. Dr. O'Byrne and Dr. Alan Neville's dedication, enthusiasm and passion for medical education and its learners has inspired and supported many students to specialize in



Dr. Helen Neighbour

MB BS MRCP(UK) PhD
Faculty Undergraduate Director,
Internal Medicine Clerkship Programs

this field and has helped to strengthen our Medicine Clerkship Program. Awardees are recognized for their outstanding performance by having their names posted on the medportal Internal Medicine (IM) and MSS clerkship websites. The awards are presented at the annual awards dinner every spring. At this year's dinner we were honoured to have as guests; Drs. Akbar Panju, Heather McLeod, Alan Neville, Raj Bobba, Dave Russell, and Doug Holder to help present our awards. Faculty from the Department of Medicine were recognized for their excellence in teaching during our medicine clerkship rotations.

DR. PAUL O'BYRNE AWARD FOR ACADEMIC ACHIEVEMENT

For the Class of 2017 "Dr. Paul O'Byrne Award for Academic Achievement" during the Internal Medicine core clerkship rotation was awarded to the following students:

Hamilton Campus - Sites

HGH – Andrew Kamphuis
JH – Steven Long
SJH – Perry Menzies

Waterloo Regional Campus

Gabriel Jeyasingham

Niagara Regional Campus

Katelyn Baker

TEACHING EXCELLENCE AWARDS

Hamilton Campus

Internal Medicine
HGH – Dr. Nishma Singhal
JH – Dr. Amitabha Chakroborty
SJH – Dr. Dan Perri
MSS – Dr. Maggie Larché

Waterloo Regional Campus

Internal Medicine
Dr. Rebecca Kruisselbrink
MSS – Dr. William Plaxton

Niagara Regional Campus

Internal Medicine
Dr. Lorraine Jensen
MSS – Dr. Jennifer Tsang

PROGRAM UPDATES

Dr. Akbar Panju has worked with the Core Internal Medicine Clerkship Committee to develop a new "Professionalism Award". This will be awarded to a student from each of the five training sites; Hamilton General Hospital (HGH), Juravinski Hospital (JH), St. Joseph's Healthcare Hamilton (SJH), Niagara, and Waterloo; who exemplifies the practice of medicine in the areas of compassion, service, altruism, and trustworthiness. This award will be new for the class of 2018 and given at the annual award dinner.

The Internal Medicine Clerkship Committees, with representation from faculty within the regional and Hamilton campuses from the core and MSS programs, second and third year classes, Internal Medicine (IM) residents, and administrative staff, continues to be an integral part of our program. The committees hosted their combined annual retreat and faculty development session in November 2016. This meeting serves both as an annual review of the core and MSS programs and a chance for the committee members to enhance their professional skills. It brings together student representatives, faculty, and administrators from all three campuses and allows the programs to reflect and establish new directions for the upcoming year. Drs. Amanda Bell and Allyn Walsh presented a faculty development session on "Recognizing and aiding the student in difficulty" which was well received by all attendees.

ACKNOWLEDGEMENTS

On behalf of the Internal Medicine Clerkship Program and the students, I would like to thank the following people and groups without whom these programs would not be possible: Ms. Tina Laporte, Medicine Clerkship administrative program coordinator; the Medicine Clerkship Committee members; the regional education leads (REs), site coordinators, and their assistants; Dr. Akbar Panju; Ms. Annette Rosati; the Department of Medicine division directors, their faculty and assistants; Dr. Ameen Patel, associate chair, Education; Dr. Barry Lumb, physician-in-chief, Department of Medicine HHS; Dr. Alistair Ingram, chief, Department of Medicine SJH; the CTU directors and their assistants; Drs. Rob Whyte, Jill Rudkowski, Karl Stobbe, and Cathy Morris; Ms. Cathy Oudshoorn, Ms. Fran Geikie, Ms. Tami Everding, and the Undergraduate Medical Education office; Dr. Lori Whitehead, Ms. Jan Taylor of the Internal

Medicine Residency Program, its residents and administrative staff. It is due to the generous support and unfaltering commitment to providing first-class teaching and innovation in education that our Medicine Clerkship Program continues to grow and maintain their high academic standard.

I must also express a huge debt of gratitude to the patients and their families. Without their understanding and tolerance of the need for education in medicine, our program would fail at the first hurdle. ■



COORDINATOR REPORT

Medical Subspecialty Selectives Clerkship Program

It is a pleasure to report on the Medical Subspecialty Selectives (MSS) Clerkship program at McMaster. In 2011, the Michael G. DeGroot School of Medicine introduced a core two-week clerkship rotation to be completed in a medical subspecialty or non-Internal Medicine (IM) specialty. Since the introduction of the MSS Clerkship program, a large number of excellent medical subspecialty rotations have been developed at each of the three campuses. Most recently, at the Hamilton campus, the Dermatology Selective was initiated by Dr. Rosilene Lanzini. Below is a list of our diverse Medical Selectives offered to our clinical clerks at McMaster.

HAMILTON CAMPUS	KITCHENER/WATERLOO CAMPUS	NIAGARA CAMPUS
Cardiology	Allergy/Immunology	Cardiology
Dermatology	Cardiology	Gastroenterology
Gastroenterology	Endocrinology	Geriatrics
Geriatrics	Gastroenterology	General Internal Medicine
Hematology	Geriatrics	ICU Medicine
ICU Medicine	Hematology/Oncology	Infectious Disease
Medical Oncology	ICU Medicine	Medical Oncology
Nephrology	Infectious Disease	Nephrology
Neurology	Nephrology	Neurology
Rheumatology	Neurology	

In an effort to provide a focused platform to determine the curriculum and format of the MSS programs, a MSS Program Coordinators Committee was established. This committee is comprised of regional educational leads (RELs) from the Niagara and Waterloo campuses and rotation coordinators from the 10 Hamilton campus rotations as well as clerk representatives.



Dr. Azim Gangji

MD MSC FRCPC FACP
Associate Professor of Medicine,
Clerkship Director, Medical Subspecialties Selectives

The current MSS Committee consists of the following faculty:

PROGRAM/ROLE	COORDINATOR/REL	CAMPUS	DEPARTMENT
Clerkship Director	Dr. Azim Gangji (Chair)	Hamilton	Medicine
REL	Dr. Theresa Liu	Kitchener/Waterloo	
REL	Dr. Adnan Hameed	Niagara	
Cardiology	Dr. Syam Divakara Menon	Hamilton	Medicine
Dermatology	Dr. Rosilene Lanzini	Hamilton	Medicine
Gastroenterology	Dr. Robert Spaziani	Hamilton	Medicine
Geriatrics	Dr. Heather McLeod	Hamilton	Medicine
Hematology	Dr. Kylie Lopic	Hamilton	Medicine
ICU	Dr. Peter Kraus	Hamilton	Anesthesia
Medical Oncology	Dr. Louise Bordeleau	Hamilton	Oncology
Nephrology	Dr. Christine Ribic	Hamilton	Medicine
Neurology	Dr. Barbara Connolly	Hamilton	Medicine
Rheumatology	Dr. Maggie Larché	Hamilton	Medicine



Given the diversity of the MSS rotations and vast number of faculty participating (over 350 physicians), the MSS Committee has formalized and standardized the program to provide a comparable clerkship experience across all three campuses and rotations. A new manual was created for residents and faculty as well as an updated Medportal website. A pocket card was developed to ensure faculty and clerks were aware of expectations and requirements. The MSS program was the first clerkship rotation to target a competency-based medical education approach with the adoption of the American Association of Medical Colleges Physician Competencies Reference Set (PCRS), a competency-based curriculum utilized by undergraduate medical education programs in the United States. In 2015, the MSS clerkship rotation successfully participated in its first accreditation process as a part of Undergraduate Medical Education (UGME) accreditation.

INTRODUCTION OF COMPETENCY-BASED MEDICAL EDUCATION IN UGME

Undergraduate Medical schools in Canada, including the Michael G. DeGroot School of Medicine are now in the process of implementing competency-based medical education using the PCRS document as its platform. In the upcoming year, the clerkship director's committee will be introducing a new format for evaluating clerks which will be competency-based. This will bring upon new challenges in implementation and resource management as well as in the realm of faculty development.

CAMPUSES

In 2016, the Michael G. DeGroot School of Medicine admitted 203 students with 147 attending the Hamilton campus and 28 students each being enrolled in the Waterloo and Niagara campuses. With the introduction of Medical Selectives, numerous faculty at each of the campuses have been recruited in order to provide clinical clerks a breadth of opportunities. I would like to acknowledge Dr. Theresa Liu, REL of the Waterloo campus, and Dr. Adnan Hameed, REL of the Niagara campus, for their efforts in partnering with the MSS committee in faculty recruitment and faculty development.

AWARDS

The MSS has established numerous awards in recognition of outstanding clinical clerks and faculty. In addition, four divisions in the Department of Medicine at the Hamilton campus have established awards recognizing clerks who have performed in an exemplary manner during their subspecialty MSS rotation. In 2016, the committee established an award in recognition of residents who provide an excellent learning exposure and teaching to clerks in their MSS rotation. Two residents are the recipients of this award and are selected based on clerk evaluation and feedback. The MSS committee is proud to acknowledge our award winners below.

CLERKSHIP AWARDS

DR. ALAN NEVILLE ACADEMIC AWARD FOR MEDICINE SUBSPECIALTY SELECTIVE AWARD

Man Hymn Edwin Ho	Hamilton Campus
Jenifer Truong	Kitchener/Waterloo Campus
Jessica Shanahan	Niagara Campus

DR. IRENE TURPIE ACADEMIC ACHIEVEMENT AWARD FOR MEDICINE SUBSPECIALTY SELECTIVE IN GERIATRICS

Margaret McNee

DR. FRED BIANCHI ACADEMIC ACHIEVEMENT AWARD FOR MEDICINE SUBSPECIALTY SELECTIVE IN RHEUMATOLOGY

Emily Dewhurst

DR. DAVID RUSSELL ACADEMIC ACHIEVEMENT AWARD FOR MEDICINE SUBSPECIALTY SELECTIVE IN NEPHROLOGY

Ankur Goswami

DR. DOUG HOLDER ACADEMIC ACHIEVEMENT AWARD FOR MEDICINE SUBSPECIALTY SELECTIVE IN CARDIOLOGY

Mengchen Xi

MSS OUTSTANDING RESIDENT TEACHING AWARD

Dr. Nandini Gupta
Dr. Abdulrahman Al Theaby

FACULTY AWARDS

Dr. Maggie Larché	Hamilton Campus
Dr. Jennifer Tsang	Niagara Campus
Dr. William Plaxton	Kitchener Waterloo Campus

ACKNOWLEDGEMENTS

I would like to acknowledge numerous individuals who have been extremely supportive of the Medical Selectives Program. It has been a pleasure to collaborate with the Internal Medicine Clerkship Director, previously Dr. Jill Rudkowski and currently Dr. Helen Neighbour. The MSS and IM Clerkship committees have worked closely together over the years in faculty development as well as in our annual awards dinner acknowledging clinical clerks and faculty. I would like to thank the RELs, Drs. Adnan Hameed and Theresa Liu, for helping engage faculty at the distributive campuses and their support in curriculum implementation; the selective coordinators at the Hamilton campus who have been a major support in helping develop and enhance the educational experiences for clinical clerks; the program administrators, led by Joyce Munga, who have collaborated and developed a committee to implement the various changes in our curriculum; and Dr. Akbar Panju and Dr. Mark Crowther who have provided the opportunity for MSS to be recognized in the realm of education delivery in the Department of Medicine.

COORDINATOR REPORT

Director of Administration

During 2016-17 the Department of Medicine saw yet another transition in leadership. Congratulations to Dr. Akbar Panju on his successful year as acting chair of Medicine. His energy and enthusiasm during this past year has been unparalleled. Dr. Mark Crowther has been appointed as our new chair of Medicine and we look forward to many successful years of growth and transition with him at the helm. As director of administration for the Department of Medicine, I have the privilege of working with many exceptional faculty and staff. In fact, there was a dramatic increase of new faculty recruits during this year, which has led to an increase in the number of staff to provide support.

These dedicated and talented individuals span across all hospital sites including Hamilton Health Sciences (McMaster University Medical Centre, Juravinski Hospital and Cancer Centre, and the Hamilton General Hospital) and St. Joseph's Healthcare, Hamilton. The department continued to maintain a healthy financial position in 2016-17 and was able to continue to support important educational initiatives. Discussions began regarding the Royal College mandated Competence by Design which is scheduled for launch in Medicine in July 2019. Faculty development also remained a key priority as we identify talented faculty to be mentored for leadership positions within the



Back Row: Gabriela Ciofliceanu, Tanja Petrovic, Cathy Stampfli, Sara Sellers, Julie Paul, Leslie Steinberg, Melissa Robinson
Front Row: Gail Laforme, Graeme Matheson, Annette Rosati, Lorrie Reurink, Lisa Greer

department. Our Council of Medicine held another leadership retreat in January 2017 at the Pillar & Post, Niagara-on-the-Lake. This retreat focused on professionalism in the workplace and all attendees took away an important message regarding this issue. These retreats enable our division directors and the department's other leadership to liaise in a non-working environment and hopefully learn important leadership and management information along the way.

McMaster University continues to be committed to developing its management team and provide the tools required in order that members of the Management Group can be effective and successful during these challenging times of adapting to technological changes. The DeGroote School of Business has developed an advanced executive management program and an executive management program. These courses are developed to further enhance our management skills of our administrative leadership. I am happy to say that many of our department managers took advantage of attending these continuing education courses.

Many strategic decisions are made by the core leadership group within the academic Department of Medicine. This cohesiveness and collegial executive team consists of Dr. Akbar Panju (acting chair), Dr. Barry Lumb (physician-in-chief, Hamilton Health Sciences), Dr. Alistair Ingram (chief of Medicine, St. Joseph's Healthcare, Hamilton), Dr. Jeff Weitz (associate chair, Research) and Dr. Ameen Patel (associate chair, Education). Dr. Panju also served as associate chair, Clinical. This group continues to provide invaluable insight related to the challenges in clinical service, research and education. Departmental leadership is instrumental in sustaining the academic mission of the department.

The Department of Medicine's Management Team consists of business managers at each of our hospital sites. These are: Gail Laforme (Juravinski Hospital), Roberta Petitti (Hamilton General Hospital), Zrinka Granic (St. Joseph's Healthcare) and Leslie Steinberg (McMaster University Medical Centre). These dedicated business managers are "hands-on" and liaise closely with hospital personnel to ensure an engaged and collegial university-hospital relationship. They are invaluable and a direct link to new faculty recruits as they get settled in their new surroundings. They also serve as our liaison with our administrative and research support in all geographic location.



Annette Rosati

BA
Director of Administration
Department of Medicine

Other equally important members of the Department's management team include Lorrie Reurink (human resources manager), Lisa Geer (finance manager) and Graeme Matheson (AFP budget manager). Graeme continues to work closely with the AFP Executive and Finance Management Committees, including Dr. Ameen Patel (associate chair, Education) and Dr. Jeff Weitz (associate chair, Research) with regard to the AFP academic merit process. Mr. Matheson is also spearheading advances to the Department's IT systems – creating databases to have ready access to information.

The university continues to make essential and necessary changes to its finance, human resources and student services systems. To manage these changes effectively, it is imperative to have effective communication to keep faculty, students and staff informed of proposed changes implemented by the university. The Department of Medicine's leadership and management teams are committed to supporting the university's initiatives and to advocate the merits of change to our faculty, students and staff. ■

COORDINATOR REPORT

Department of Medicine at Hamilton Health Sciences

It's my pleasure, to provide my tenth update on the Department of Medicine at Hamilton Health Sciences.

I would like to start by acknowledging Dr. Akbar Panju's contribution over the last year as acting chair of the Department of Medicine. As always, working with Akbar has been extremely collegial and productive. Serving in an "acting" role is always extremely difficult but Akbar managed to get through the year making significant contributions to the Department while being respectful of the need for the new chair to establish their own vision.

Dr. Mark Crowther has assumed the role of chair of the Department. Mark's immense energy and highly collaborative style, will undoubtedly continue to move the Department in a very strong and highly regarded direction.

Dr. Ameen Patel has stepped down as the Clinical Teaching Unit (CTU) director at the Juravinski site. Ameen's contribution beginning at McMaster University Medical Centre (MUMC), transitioning through the Access to the Best Care (ABC) initiative and then ongoing at the Juravinski has been incredibly successful. I would like to offer my most sincere thanks to Ameen and welcome Dr. Samir Raza as the new CTU director.

I would also like to thank Drs. Martha Fulford and Khalid Azzam for their ongoing support of the Department in their site chief roles. I am delighted to welcome Dr. Tim Karachi as the site chief at the Juravinski site effective September 1, 2017. Dr. Alistair Ingram and Annette Rosati continue in their roles and always helpful and supportive.

In last year's report, I outlined the role of the Post-graduate education and Clinical Service Task Force chaired by Dr. Mark Walton. Dr. Walton and Vera Dodds have undertaken an extremely comprehensive review of the service and work hour issues in post-graduate education both locally and provincially. We are anticipating the initial

report from the Task Force in September 2017. Once completed, this will set the framework for the role of residents in the provision of clinical service going forward. This is an extremely important issue, especially as we move to the introduction of Competence by Design as mandated by the Royal College of Physicians & Surgeons.

Hamilton Health Sciences is undertaking a comprehensive review of the Ambulatory Care services throughout Hamilton Health Sciences. This has included a very detailed review of all current ambulatory clinics structure and functionality. Similarly, a comprehensive review of best practice opportunities in Canada and abroad has been completed. The review has included very comprehensive stakeholder involvement including physicians, allied health, clerical support and physical space. Extensive patient feedback has been solicited and all of our external partners have been invited to be part of this review. It is anticipated, that recommendations around long term direction for ambulatory care will be tabled in late fall 2017. The importance of a highly functional ambulatory program is critical for HHS to meet the clinical demands in the face of every tightening budgets and overwhelming inpatient volumes. We must be sure that all of these deliberations are undertaken with our educational and research commitments fully supported.

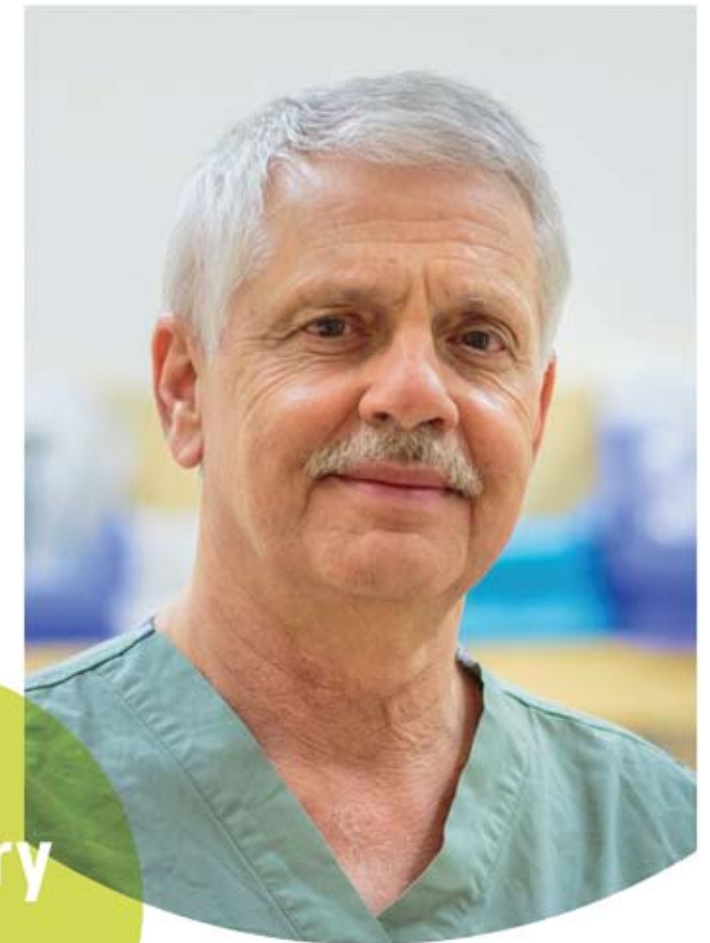
As mentioned, the Royal College has endorsed Competence by Design as the fundamental principle of residency education. This

massive change in the structure of residency education will be extremely challenging to implement over the next several years. We are fortunate to have Drs. Lori Whitehead and Azim Gangji lead the general medicine and subspecialty programs into this new reality. As this is implemented it will almost certainly affect the way in which we provide care on the inpatient units and in the clinic. Excellence in patient care will always be our most important metric.

My annual report would not be complete without a comment around the continued extreme fiscal realities of hospital based health care. Hamilton Health Sciences is challenged every day to manage an ever increasing number of patients within an ever decreasing budgetary envelope. Over the last year, our bed utilization has consistently exceeded 100% and the stress on our health care system is continuously evident. The heroic care by all members of our health care team cannot be over-estimated.

I would like to formally welcome the following new Faculty members:

Dr. Colleen Connolly, Neurology
Dr. Muntasir Saffie, Respiriology
Dr. Maura Marcucci, General Internal Medicine
Dr. Erwin Montgomery, Neurology
Dr. Serena Gundy, General Internal Medicine
Dr. Noel Chan, Hematology
Dr. Shawn Mondoux, Emergency Medicine. ■



Dr. Barry Lumb

MD, FRCP(C)
Physician-in-Chief
Hamilton Health Sciences
Professor of Medicine

"The efforts of the chiefs of Medicine in these two hospital systems, Dr. Barry Lumb at HHS and Dr. Alistair Ingram at SJH, have resulted in advanced infrastructure, quality of care improvements, and three of Canada's best clinical teaching units at Hamilton General Hospital, Juravinski Hospital and St. Joseph's Hospital."

— Dr. Mark Crowther

COORDINATOR REPORT

Department of Medicine at St. Joseph's Healthcare

The Department of Medicine at St. Joseph's Healthcare Hamilton (SJHH) continues to develop its academic mission and institute new clinical initiatives to deal with the very large demand for General Internal Medicine (GIM) and subspecialty clinical services. SJHH remains by some way the busiest GIM site in the city.

The Community Internal Medicine rapid Access Clinic (CIMRAC) opened in early 2015, staffed by GIM specialists from St. Joseph's Healthcare Hamilton (SJHH). This clinic has now been opened to referrals from the pre-anaesthesia assessment clinic, also located at the West 5th campus, in the hope of providing a streamlined assessment for medically complex patients scheduled for surgery. The General Internal Medicine Rapid Assessment Clinic (GIMRAC), located adjacent to the Emergency Department (ED) at the Charlton Campus, sees several thousand patients per year and continues to grow. A new focus is the same-day utilization of GIMRAC for patients in ED to prevent admission where possible.

The average daily inpatient census for the GIM Service is now over 160 patients. This remarkably busy clinical service is led by Dr. Joe McMullin. SJHH, along with other Ontario hospitals, continues to be challenged by very large numbers of Alternate Level of Care (ALC) patients admitted to the hospital, often with long stays due to a lack of bed capacity in other programs or community facilities. An ALC team charged with engaging community resources to help minimize admissions from the ER for essentially "social" reasons has successfully helped several hundred patients and their families access care in the community. SJHH is undertaking a major redevelopment in light of these ongoing challenges to create more isolation and "flex" bed space. It is anticipated that this will allow the GIM teams to function in a more "geographic" manner and optimize communication between MDs, nursing and therapy staff. This redevelopment is slated to begin September 2017.

The Clinical Transformation project, termed "Dovetale", which will see the in-patient hospital information system migrate to the EPIC platform in early December 2017 is well underway. Dovetale is ably led by our Chief Medical Information Officer, Dr. Chris Hayes. SJHH physicians in all areas of Medicine have stepped forward to help with the "build" and to become "super users". Order set migration into Dovetale is largely complete and now the vital individual training sessions are upon us. Physicians have signed up for training days and many services are making plans to increase physician numbers on the wards in early December at the time of roll-out. Although we anticipate that Dovetale will eventually result in improved patient safety and care, it is highly likely that patient flow will be affected around the time of implementation.

Recruitment within the Department of Medicine continues apace. Those below have come on as Assistant Professors of Medicine; Dr. Marvin Chum joined Neurology, and Dr. Seychelle Yohanna Nephrology (renal transplantation). Dr. Andrew Burkett has been recruited to Respiriology both to support interventional respiratory and the pleural space clinics. Dr. Joshua Wald started in July and supports both the respiratory rehabilitation and the COPD program. Drs. Reema Shah and Steve Wong are new clinical scholars in endocrinology and GIM respectively, who are anticipated to join as assistant professors in July 2018.

Many SJHH Medicine physicians continue to be academic leaders. Highlights in 2017 include respirologist Param Nair's NEJM

paper showing the efficacy of benralizumab in severe asthma and continued remarkable academic productivity in infectious disease and virology, particularly by Jim Mahony and Max Chernesky, in several areas, especially enhanced detection of chlamydia and vaccination for chlamydia. Rick Adachi continues to publish high-impact observations in the vital areas of osteoporosis and frailty, including a large trial of a sclerostin inhibitor as osteoporosis treatment in NEJM.

In administration, SJHH physicians hold the three most important leadership positions in or concerning the University Department of Medicine in 2016. Dr. Lori Whitehead is the Internal Medicine Residency program director, Dr. Paul O'Byrne is dean of the Faculty of Health Sciences and Dr. Mark Crowther was just appointed chair of Medicine for July 2017. Therefore, we anticipate that the excellent relationship that exists between SJHH and the McMaster University Faculty of Health Sciences, particularly the Department of Medicine, will continue.

I would again like to close by thanking SJHH Medicine physicians for continuing to provide exemplary clinical care in a resource-tight environment with ever-increasing volumes and complexity. I would also like to again thank our chief of staff, Tom Stewart, for his recognition and support of this work. I have no doubt that our physicians are more than up to meeting the challenges, particularly the implementations of both Dovetale and the new bed map redevelopment, that we will face in the next year. ■



Dr. Alistair Ingram

MD, FRCPC
Chief of Medicine,
St Joseph's Healthcare Hamilton
Professor of Medicine