



Department of Medicine
Annual Report 2018-2020
ACROSS THE DEPARTMENT



Cover: Dr. Verdu and her Research Team

Top row: Dr. Heather Galipeau, Dr. Elena Verdu

Middle row: Dr. Xuanyu Wang, Dr. Alba Santiago

Bottom row: Dr. Marco Constante, Dr. Josie Libertucci

A United Team with a common purpose:

Dr. Verdu's Research Team investigates diet-microbiota interactions in chronic intestinal disorders. The team's line of research includes: the metabolic activity of gut bacteria on the digestion of the dietary protein and gluten, the role of proteolytic imbalance in ulcerative colitis, and the contribution of proteolytic bacteria to colonic inflammation. The team also explores mechanisms through which microbes can modulate intestinal inflammation and mechanisms that could help develop therapies to treat celiac disease, and ulcerative colitis.

In addition to being committed to research excellence, this team is committed to each other and to the wellbeing of others. The members of this high performing team have been consistent supporters of charity events to raise awareness and funds for the "Canadian Digestive Health Foundation" and "Crohn's and Colitis of Canada" research, recently surpassing their target fundraising goal at the last virtual GUTSY Walk 2021 event. As a collective team, they have weathered the COVID-19 pandemic and have come together on this cover to illustrate that their common purpose and "united team" approach has not wavered even in this virtually connected 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.

Welcome to the 2018-2019 and 2019-2020 Annual Report

This report is a special one as it captures the Department of Medicine's extraordinary contributions to our local community and the world over the past two years. As well as showcasing the achievements of the department's leaders, faculty, and clinicians, this report also highlights the personal stories of some of the outstanding individuals within the department. You'll hear our faculty describe their groundbreaking research projects; their deep commitment to improving global health;

their innovative education methods; and their passion for advocating for some of the most vulnerable members of our community.

As you read the report and extraordinary stories highlighted throughout, you will find evidence of our faculty's commitment to excellence in learning, research and clinical care.

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A MESSAGE FROM THE President and Vice-Chancellor

“**The Department’s high-quality teaching, excellence in research and clinical impact are a driving force IN MCMASTER’S consistent ranking AMONG THE TOP universities in the world.**”

— Dr. David Farrar

Congratulations to the Department of Medicine on its significant achievements in research, education and clinical care over the 2018-2019 and 2019-2020 academic years.

As the largest department within the Faculty of Health Sciences, the Department of Medicine’s faculty and staff possess talent and expertise in a vast array of specialties. The Department’s collaborative approach to improving people’s lives, contributing to global knowledge, and to advancing the health and well-being of individuals locally and around the world is extremely impressive.

Over the last two years, faculty members have achieved extraordinary success in publishing their work, and are frequently cited in the medical field’s most prestigious journals. Their world-renowned research attracts millions of dollars in research grants and support from government, industry, charitable organizations, and private donors. In 2019-2020, generous donations were received from Hamilton philanthropists Charles and Margaret Juravinski, as well as McMaster alumnus Walter Schroeder and his family. We are extremely grateful for their contributions and commitment to McMaster.

The Department’s high-quality teaching, excellence in research, and clinical impact are a driving force in McMaster’s consistent ranking among the top universities in the world. McMaster remains one of only four Canadian universities ranked among the top 100 in the world by major global ranking systems. It is also not surprising that the 2020 list of the world’s most highly cited researchers includes 16 scientists from the Faculty of Health Sciences at McMaster University. The Clarivate Analytics Highly Cited Researcher List included eight from the Department of Medicine. The Department’s influence can be found in its publications and also through faculty members’ active participation in both national and international media.

David
Farrar

President and Vice-Chancellor
McMaster University

Beyond the tireless commitment to leading-edge research and innovation, as well the exemplary instruction and mentoring of students, I would also like to congratulate the Department’s faculty and staff for your tremendous work in managing and working to combat COVID-19. Your curiosity, innovation and strong purpose in advancing the health and well-being of patients and the world’s population has generated new knowledge and has advanced care, even in these personally and societally challenging times.

Thank you to all faculty and staff of the Department of Medicine for your unwavering commitment to providing outstanding education, unparalleled research and excellence in clinical care, and increasing the profound impact the Department of Medicine is having on Canada and the world. Congratulations on all that you have achieved over the past two academic years and my very best wishes for the future. ■



David Farrar
President & Vice-Chancellor



BRIGHTER WORLD

A MESSAGE FROM THE Dean and Vice-President

“The Faculty...
ranked **11th overall**
in the world for clinical,
pre-clinical and
health subjects
for 2020.”

— Dr. Paul O’Byrne

As Dean and Vice-President of the Faculty of Health Sciences, it gives me great pleasure to reflect on the many accomplishments of the Department of Medicine over the last two years.

While the COVID-19 pandemic has shifted the culture of our institution, our community and our world, as our Faculty’s largest department, you have continued to make very meaningful contributions to our world’s health. In my role as dean, I have witnessed an incredible amount of resilience, creativity and commitment to excellence among all of the faculty members, students and staff of the Department of Medicine and I am especially proud of the many important initiatives that are aimed at keeping our communities and our world healthy and safe.

The Department of Medicine’s pioneering educational advances and excellence in world-class research continues to place McMaster among the top 50 universities in the world for health and medicine, and one of Canada’s top research-intensive university for the past three years. We also ranked 11th in the world for clinical, pre-clinical and health subjects by the Times Higher Education World University Rankings 2021, a remarkable achievement made possible by the extraordinary efforts of the members of the Department of Medicine. The Department’s impact is further recognized by the fact that 16 researchers in the Faculty of Health Sciences are among 18 McMaster University affiliated scientists recognized among the top one per cent of scientists in the world, according to their citations.

Indeed, McMaster’s Faculty of Health Sciences has had many reasons to celebrate over the past two years. Most recently, we have led the world in COVID-19 research, through the newly established Canada’s Global Nexus for Pandemics and Biological Threats, that brings together our world-class resources, elevates our capabilities and amplifies impact. This has included rapidly developing and testing new second-generation COVID-19 vaccine candidates, assisting the Public Health Agency of Canada in better understanding the spread of COVID variants of concern and making recommendations to inform Ontario’s vaccine rollout.

Among our other noteworthy successes:

- In 2019, the Michael G. DeGroot School of Medicine celebrated its 50th anniversary, commemorating accomplishments in small group, problem-based education, and a focus on self-directed, life-long learning.
- The Department released the *McMaster Textbook of Internal Medicine*, the first comprehensive Canadian textbook of internal medicine. A full range of topics, such as allergy, hematology,

Paul
O’Byrne

Dean and Vice-President
McMaster University



endocrinology, psychiatry, and rheumatology, is covered in its pages, almost all authored by McMaster faculty members who are considered leaders in their fields.

- We opened new, world-leading research centres, among these the David Braley Centre for Antibiotic Research and the Centre for Metabolism, Obesity and Diabetes Research.
- We celebrated the generous support of many of McMaster’s friends, including a legacy gift from Hamilton philanthropists Charles and Margaret Juravinski, who pledged an endowment of more than \$100 million to support researchers across Hamilton Health Sciences, McMaster University and St. Joseph’s Healthcare Hamilton, and \$10 million from McMaster alumnus Walter Schroeder and his family to fast-track treatment and prevention research for the search to cure allergies.
- We formed a networking think-tank focused on fostering success in entrepreneurship and innovation, called The College of Health Inventors. The College is an initiative of the Michael G. DeGroot Initiative for Innovation in Healthcare.

Congratulations to all members of the Department of Medicine for your dedicated approach, ongoing commitment to our patients, our mission, and our community and impressive achievements that have contributed to these and other successes within the Faculty of Health Sciences.

Although the past year brought forth challenges due to the pandemic, and tragic events involving systemic injustices and inequities, we should applaud our collective tenacity, creativity and resourcefulness that has allowed us to continue to make important contributions to our world, and remain steadfast in our ambition to advance human and societal health and well-being. ■

Dr. Paul O’Byrne
Dean and Vice-President
Faculty of Health Sciences
Michael G. DeGroot School of Medicine
Distinguished University Professor
McMaster University

A MESSAGE FROM THE Chair of the Department of Medicine

“COVID-19... highlighted the excellence of our faculty, residents and staff... illustrated by the Department’s ability to pivot ... to online care and teaching over a matter of weeks...”



DR. BARRY LUMB
Physician-in-Chief HHS



DR. LORI WHITEHEAD
Program Director
Internal Medicine Residency
Training Program



DR. AZIM GANGJI
Chair of Subspecialty
Program Directors
Committee

2018/19 and 19/20 represented additional landmark years for the Department of Medicine at McMaster University. Spanning the breadth of excellent clinical care, world leading research and outstanding educational achievement, the Department of Medicine continues to lead the Faculty of Health Sciences and the broader University through its excellence. In 2019, the Michael G. DeGroot School of Medicine celebrated its 50th anniversary.

This golden anniversary was a time for us to reflect on the school’s significant record of achievements and its world impact in education, research and, most importantly, improved outcomes in health care. Thanks to the visionary leadership of Drs. John Evans, James Anderson, Fraser Mustard, William Spaulding and William Walsh, McMaster is internationally recognized as a leader in medical education. Their legacies live on in the outstanding productivity of our faculty and learners.

At the end of the 2019/20 academic year, the Department had 283 full-time faculty, 43 professor emeriti, 31 joint and associate members, and 24 clinical scholars complemented by a total of 404-part-time faculty located in Hamilton, Kitchener-Waterloo, St. Catharines and elsewhere in Ontario. We also welcomed 41 new full-time faculty and 86 part-time faculty over these two academic years. Our regional program in Kitchener-Waterloo continued to grow under the leadership of Dr. Mountjoy, the Regional Associate Dean, as we had two more highly successful groups of medicine residents initiate training through our Waterloo Regional Campus. At the start of the 2018/19 academic year we had welcomed Dr. Mountjoy, and thanked Dr. Cathy Morris, the founding Dean of the Kitchener-Waterloo campus, as she came to the end of her term.

Our excellence in clinical care could only occur through work with our partner hospitals and community groups. At Hamilton Health Sciences and St. Joseph’s Healthcare Hamilton,



Mark
Crowther

Chair, Department of Medicine
McMaster University
Leo Pharma Chair in Thromboembolism
Research



Dr. Barry Lumb and Dr. Alistair Ingram, respectively, carry our mission of academic and clinical excellence forward. I would like to personally thank Drs. Lumb and Ingram; their tireless support for the Department ensures that our academic mission is prominently featured to hospital administration on a day-to-day basis. Of note, at the end of the 19/20, Dr. Lumb stepped down as Physician-in-Chief at HHS after 12 years of dedicated service. During his tenure, Dr. Lumb oversaw dramatic changes in our clinical service delivery model including the implementation of Access to Best Care. Dr. Lumb always carried out his role with remarkable equanimity, fairness and a degree of enthusiasm that was remarkable given the workload associated with this role. He will be missed in this role, but is not going too far given his new leading role in the implementation of EPIC at HHS.

Dr. Lori Whitehead continued in her role as program director for the core Internal Medicine Residency Training Program and during these years has been leading the Department’s response to various stressors while simultaneously maintaining our position as one of Canada’s most desired training loca-

tions. Work on implementing Competency by Design continued as did work on adapting our coverage model to changing resident educational expectations and variable availability of some of our international educational colleagues. Also, as Chair of the Subspecialty Program Directors Committee, Dr. Azim Gangji continued his long-standing work to increase the visibility of our subspecialty training programs and clinical fellowships. Advanced training and clinical fellowships are an area into which we continue to invest significant resources. We see excellence in post-residency subspecialty training as an area of significant growth and opportunity, and an area within which we can highlight how McMaster implements its leading-edge research observations into day-to-day clinical practice.

I would be remiss if I did not mention the impact of COVID-19. I cannot even begin to delineate the footprint that the pandemic has had on the Department other than to say that it brilliantly highlighted the excellence of our faculty, residents and staff. This excellence has been illustrated by the Department’s ability to pivot to working at home, provide excellent patient care

under continued stress, transition from face-to-face to online care and teaching over a matter of weeks, while also having to deal with greater than usual impacts on home life.

World-leading research remains the fundamental cornerstone of the Department. The Department continued its remarkable track record of publication and grant funding success. It is a rare week when there is not at least one research publication from a McMaster Department of Medicine researcher featured in one of the leading general internal medicine journals. Critical papers in cardiology, gastroenterology, respirology, hematology and thromboembolism, and many other disciplines have been published by our faculty within the last year. It is not an exaggeration to say that McMaster's Department of Medicine continues to fundamentally alter the research and clinical landscape through its outstanding productivity. COVID-19 again highlighted this, with Department of Medicine faculty leading the way both in basic science and clinical research, as well as guideline promulgation for the pandemic.

The success of our faculty is reflected in the awards that they achieved; rather than list these awards here I would suggest that you read through this report where these achievements are highlighted and, in many cases, explored in further depth.

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

International Influence

DEPARTMENT OF MEDICINE: INVITED PRESENTATIONS 2018-2020

Locations where Department of Medicine faculty presented during 2018-20, showing the Department's international influence.



Publication highlights JULY 2018 — JUNE 2019

July 2018

Drs. R. Hart, M. Sharma, M. O'Donnell, J. Weitz, A. Shoamanesh, and S. Connolly et al *NEJM* Rivaroxaban for Stroke Prevention after Embolic Stroke of Undetermined Source. *NEJM*. 2018 Jun 7;378(23):2191-2201.

August 2018

Drs. I. Nazy, M. Larche, J.C. Moore, J.W. Smith, J.G. Kelton and D.M. Arnold et al *J Thromb Haemost* Cellular immune responses to platelet factor 4 and heparin complexes in patients with heparin-induced thrombocytopenia. *J Thromb Haemost*. 2018 Jul;16(7):1402-1412.

September 2018

Drs. P.J. Devereaux, G. Guyatt, V. Tandon, W. Szczeklik, P. Magloire, J. Neary, J. Eikelboom, C. Kearon, M. Sharma, S. Connolly, S. Yusuf et al *Lancet* Dabigatran in patients with myocardial injury after non-cardiac surgery (MANAGE): an international, randomised, placebo-controlled trial. *Lancet*. 2018 Jun 9;391(10137):2325-34.

October 2018

Dr. P. Moayyedi et al *Lancet* Esomeprazole and aspirin in Barrett's oesophagus (AsPECT): a randomized factorial trial. *Lancet*. 2018 Aug 4;392(10145):400-408.

November 2018

Dr. M. Kolb et al *NEJM* Nintedanib plus Sildenafil in Patients with Idiopathic Pulmonary Fibrosis. *NEJM*. 2018 Nov 1;379(18):1722-31.

December 2018

Dr. J. Douketis, M. Tiboni, M. Crowther, D. Siegal et al *J Thromb Haemost* Weight-adjusted tinzaparin for the prevention of venous thromboembolism after bariatric surgery. *J Thromb Haemost*. 2018 Oct;16(10):2008-15.

January 2019

Dr. K. Teo, S. Anand, S. Yusuf et al *Lancet* Association of dairy intake with cardiovascular disease and mortality in 21 countries from five continents (PURE): a prospective study. *Lancet*. 2018 Nov 24;392(10161):2288-97.

February 2019

Dr. Z. Punthakee, H. Gerstein et al *Diabetes Care* Hypoglycemia and Incident Cognitive Dysfunction: A Post Hoc Analysis from the ORIGIN Trial. *Diabetes Care*. Epub 2018 Nov 13. pii: dc180690.

March 2019

Dr. J. Stearns, N. Khalidi, P. Nair et al *Am J Respir Crit Care Med* Sputum Antineutrophil Cytoplasmic Antibody-Negative Eosinophilic Granulomatosis with Polyangitis. *Am J Respir Crit Care Med*. 2019 Jan 15;199(2):158-70.

April 2019

Drs. J. Vrbensky, J. Moore, D. Arnold, J. Smith, J. Kelton, and I. Nazy *J Thromb Haemost* The sensitivity and specificity of platelet autoantibody testing in immune thrombocytopenia: a systematic review and meta-analysis of a diagnostic test. *J Thromb Haemost*. Epub 2019 Feb 23.

Dr. S. Mehta *NEJM* Refining Antithrombotic Therapy for Atrial Fibrillation and Acute Coronary Syndromes or PCI. *NEJM*. Epub 2019 Mar 17.

Dr. J. Healey et al *NEJM* The RACE to Treat Atrial Fibrillation in the Emergency Department. *NEJM*. Epub 2019 Mar 18.

Drs. P. Nair and P. O'Byrne *Eur Respir J* The interleukin-13 paradox in asthma: effective biology, ineffective biologicals. *Eur Respir J*. 2019 Jan 31;53(12).

May 2019

Dr. S. Connolly, M. Crowther, J. Eikelboom, D. Siegal et al *NEJM* Full Study Report of Andexanet Alfa for Bleeding Associated with Factor Xa Inhibitors. *NEJM*. 2019 Apr 4;380(14):1326-35.

June 2019

Drs. C. Kearon, F. Spencer, S. Schulman, J. Douketis, J. Ginsberg et al *J. Thromb Haemost* Long-term risk of recurrence in patients with a first unprovoked venous thromboembolism managed according to D-dimer results; a cohort study. *J Thromb Haemost*. Epub 2019 Apr 29.

Publication highlights JULY 2019 — JUNE 2020

July 2019

Drs. D. Chu, S. Wasserman, J. Brozek, H. Schunemann et al *Lancet* Oral immunotherapy for peanut allergy (PACE): a systemic review and meta-analysis of efficacy and safety. *Lancet*. 2019 Jun 1;393(10187):2222-32.

August 2019

Drs. D. Douketis, P. Gross, S. Bates, F. Spencer, D. Arnold, K. Moffat, S. Schulman et al *JAMA Internal Medicine* Perioperative Management of Patients With Atrial Fibrillation Receiving a Direct Oral Anticoagulant. *JAMA Intern Med*. Epub 2019 Aug 5.

September 2019

Dr. H. Gerstein et al *Lancet* Dulaglutide and cardiovascular outcomes in type 2 diabetes (REWIND): a double-blind randomised placebo-controlled trial. *Lancet*. 2019 Jul 13;394(10193):121-130.

October 2019

Drs. S. Yusuf, P. Joseph, S. Rangarajan, K. Teo, D. Leong, M. O'Donnell et al *Lancet* Modifiable risk factors, cardiovascular disease, and mortality in 155 722 individuals from 21 high-income, middle-income, and low-income countries (PURE): a prospective cohort study. *Lancet*. E-pub 2019 Sep 2.

Drs. S. Mehta, T. Sheth, N. Pinilla-Echeverri et al *NEJM* Complete Revascularization with Multivessel PCI for Myocardial Infarction. *NEJM*. Epub 2019 Sep 1.

November 2019

Drs. JD Schwalm, S. Yusuf et al *Lancet* A community-based comprehensive intervention to reduce cardiovascular risk in hypertension (HOPE 4): a cluster-randomized controlled trial. *Lancet*. 2019 Oct 5;394(10205):1231-42.

December 2019

Drs. H. Gerstein, G. Paré et al *Diabetes Care* Novel Biomarkers for Change in Renal Function in People with Dysglycemia. *Diabetes Care*. Epub 2019 Nov 14.

January 2020

Drs. C. Kearon, K. de Wit, S. Schulman, F. Spencer, S. Bates et al. *NEJM* Diagnosis of Pulmonary Embolism with D-Dimer Adjusted to Clinical Probability. *N Engl J Med*. 2019 Nov 28;381(22):2125-34.

Drs. A. Patel, F. Borges, G. Guyatt, W. Szczeklik, A. Garg, M. Walsh, S. Yusuf, P.J. Devereaux et al. *Ann Intern Med* Preoperative N-Terminal Pro-B Type Natriuretic Peptide and Cardiovascular Events After Noncardiac Surgery. 2020 Jan 21;172(2):96-104.

February 2020

Dr. G. Steinberg et al. *Nat Rev Drug Discov* AMP-activated protein kinase: the current landscape for drug development. *Nat Rev Drug Discov*. 2019;18(7):527-551.

March 2020

Dr. I. Walker et al. *Lancet Hematology* Addition of anti-thymocyte globulin to standard

graft-versus-host disease prophylaxis versus standard treatment alone in patients with Haematological malignancies undergoing transplantation from unrelated donors; final analysis of a randomised, open-label, multicentre, phase 3 trial. *Lancet Hematol*. 2020 Feb;(7)2:e100-e111.

Drs. M. Pigeyre, S. Yusuf, H. Gerstein, G. Paré et al. *Diabetes Care* ACE and Type 2 Diabetes Risk: A Mendelian Randomization Study. *Diabetes Care*. 2020 Feb 4. pii: dc191973.

April 2020

Drs. S. Anand, K. Schulze, K. Teo, S. Yusuf *Stroke* Reduced Cognitive Assessment Scores Among Individuals With Magnetic Resonance Imaging-Detected Vascular Brain Injury. *Stroke*. 2020 Apr;51(4):1158-1165.

May 2020

M. Mukherjee, A. Bhalla, J. Cherukat, H. Al-Hayyan, A. Ayoub, P. Nair et al. *Eur Respir J* Sub-optimal Treatment Response to anti-IL-5 Monoclonal Antibodies in Severe Eosinophilic Asthmatics With Airway Auto-immune Phenomena. *Eur Respir J*. 2020 May 22;2000117.

June 2020

S. Mithoowani, A. Cervi, N. Shah, E. Sirotych, I. Nazy, D. Arnold et al. *J Thromb Haemost* Management of Major Bleeds in Patients With Immune Thrombocytopenia. 2020 Jul;18(7):1783-1790.



GIFT REPORT

\$100M+ endowment to fund health research in perpetuity

Charles and Margaret Juravinski's gift one of Canada's largest legacy gifts ever.

In 2019, Charles and Margaret Juravinski made an estate gift of \$100 Million to support researchers across McMaster University, Hamilton Health Sciences and St. Joseph's Healthcare Hamilton. Their estate gift is one of Canada's largest legacy gifts ever. The proceeds will fund the Juravinski Research Institute, a partnership of the three organizations. Each organization will receive up to \$5 million annually, in perpetuity, for health research that will continue to improve life in Hamilton. In their letter released to the community the Juravinskis stated:

"We want to be sure our remaining resources are able to do as much good for as many people for as long as they can. It brings us great pleasure to think that when we are gone, our legacy to this community may be measured in the good health of those who come after us."

The legacy gift will be used to fund research in aging & related diseases, cancer, lung health & respiratory care

and mental health. The Research Institute is currently funding many projects including one led by Dr. Alexandra Papaioannou. The GERAS Frailty Rehabilitation at Home Virtual-bundled care for seniors to build strength and resilience during COVID-19 is an ongoing study that is working to build resilience in vulnerable seniors through at-home rehabilitation services, including exercise, nutrition, socialization and support with medication.



GIFT REPORT

\$10M funding accelerates search for allergy cure

Gift from McMaster alumnus Walter Schroeder and his family

In 2020, McMaster University was fortunate to receive a generous gift of \$10 million from McMaster University's alumnus Walter Schroeder and his family. This significant gift was provided to the university to fast-track treatment and prevention research for the search to cure allergies. The funding is two-pronged, and will establish the Schroeder Allergy and Immunology Research Institute, which will support senior scientists and scholars in allergy investigation. The proposed Schroeder Institute at McMaster will be home to an Endowed Chair in allergy and immunology research, and the inaugural holder will help set the vision for a world-class program in immunology and allergy over the next five years. The investment will also support several postdoctoral fellows in allergy bioinformatics as well as graduate students and scholars.

"We are grateful for Charlie and Margaret's and Walter and his family's confidence in McMaster's researchers' ability to positively impact the health outcomes of people here in Hamilton and across the world. Their remarkable gift will enhance the lives of many today and for years to come."

— Dr. Mark Crowther

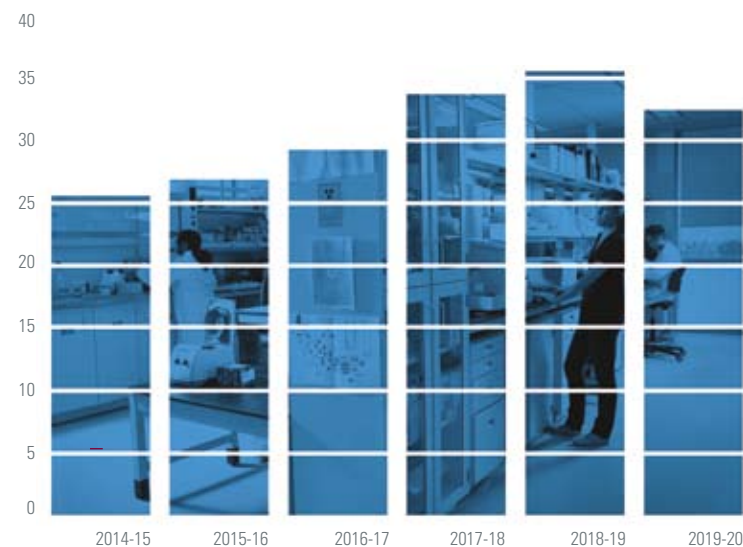


Associate Chair, Research

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) continuously updating and refining 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.

RESEARCH FUNDING IN MILLIONS



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, Tenure and Promotion, Executive Finance, and Alternate Funding Plan Committees. The role of the associate chair on these committees is to advise and advocate for research.

The Department of Medicine offers Internal Career Awards for new faculty members as well as mid-career awards. These awards can be held for up to three years and are granted on a competitive basis. The early career awards are available for both research and education and are aimed at fostering the next generation of researchers and educators. 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 the Faculty of Health Sciences, McMaster University. The amount of research funding for 2019-20 was \$32.4 million, which represents an 8% decrease from the \$35 million that was received in 2018-2019. Most of the funding came from peer-reviewed sources, with 60% from the federal government (tri-council), 17% from disease-specific funding agencies, 10% from provincial/regional/internal funds, 10% from corporate sponsors, and 6% from foreign sources such as the National Institutes of Health (see Table). The modest decrease in funding from last year

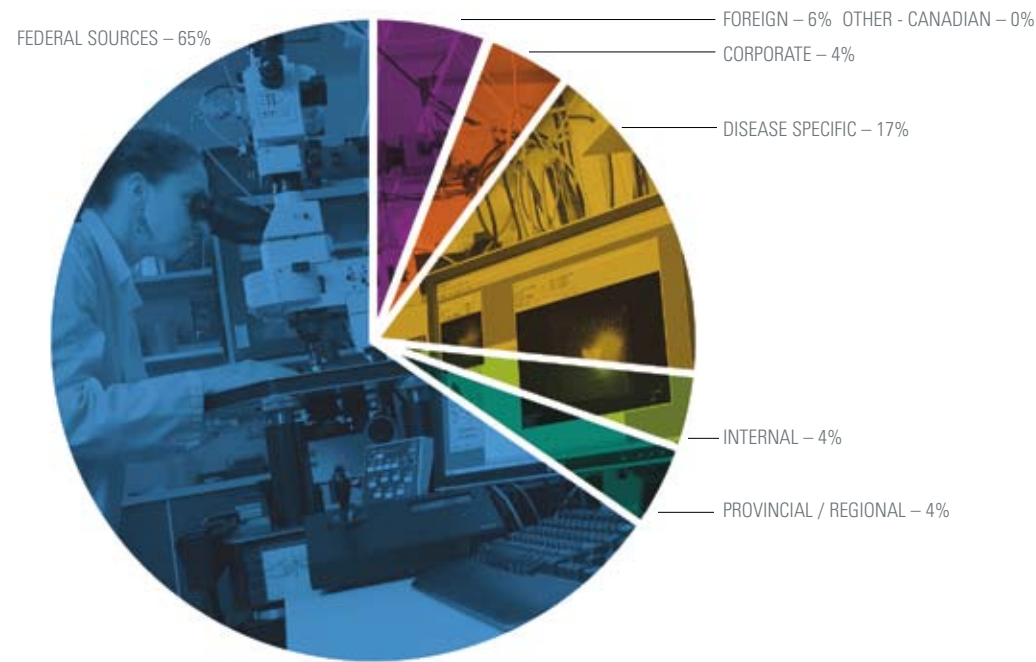


Dr. Jeffrey Weitz

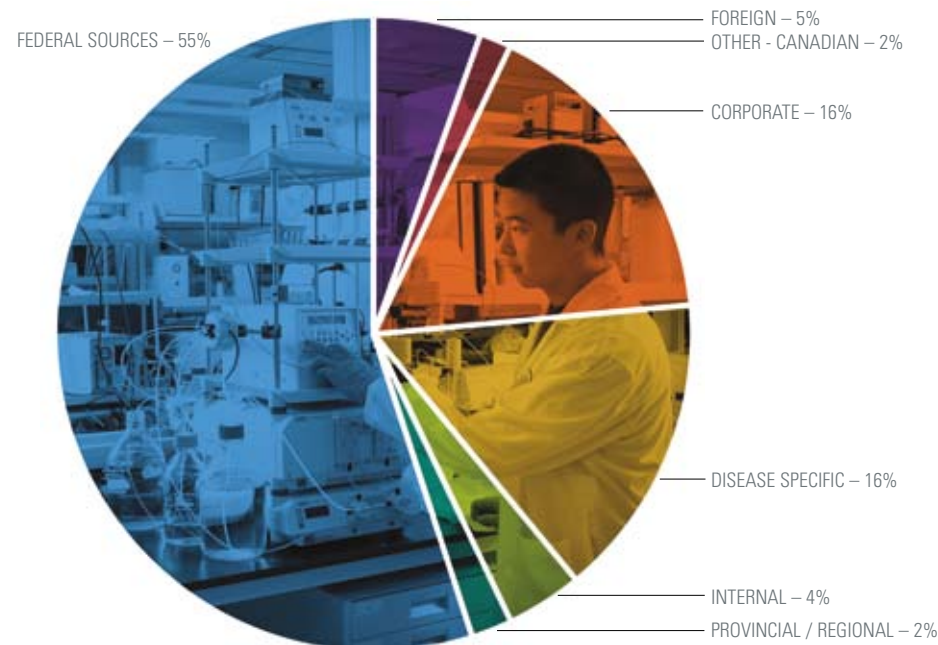
MD, FRCP(C), FACP, FCCP
Associate Chair, Research
Professor of Medicine and Biochemistry & Medical Sciences, McMaster University
Executive Director, Thrombosis and Atherosclerosis Research Institute
HSFO/J. Fraser Mustard Chair in Cardiovascular Research
Canada Research Chair in Thrombosis (Tier 1)

likely reflects the pressures of the COVID-19 pandemic, which has curtailed clinical research activities and limited the time available for clinical faculty to focus on research. ■

RESEARCH FUNDING BY SOURCE
2018-2019 \$35,312,323



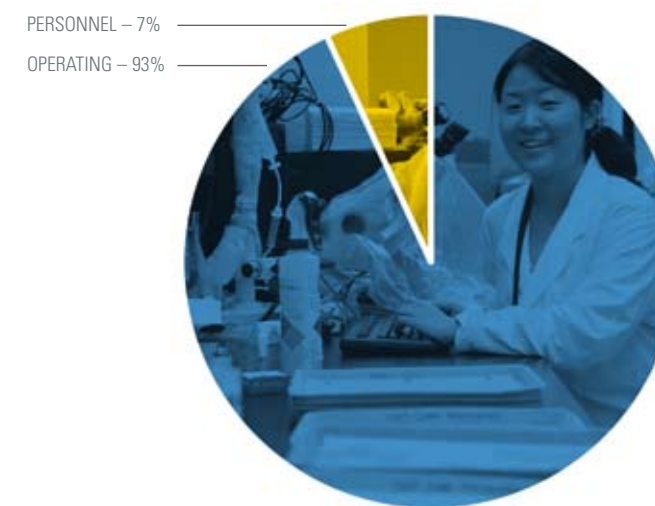
RESEARCH FUNDING BY SOURCE
2019-2020 \$32,427,518



RESEARCH FUNDING BY TYPE
2018-2019 \$35,312,323



RESEARCH FUNDING BY TYPE
2019-2020 \$32,427,518



“ It is a rare week when there is not at least one research publication for a **McMaster Department of Medicine** researcher in one of the **leading general interest medicine journals.** ”

— Dr. Mark Crowther

COORDINATOR REPORT

Associate Chair, Education

The Associate Chair, Education (ACE) and the Department Education Coordinator (DEC) plays a fundamental role in recruitment, mentoring, reappointment and promotion, and oversight of the education component of the Department’s academic contributions.

The Department Education Coordinator is a member of the Department of Medicine Council and holds the position as Associate Chair, Education. The Associate Chair, Education (ACE) and the Department Education Coordinator (DEC) are leadership positions within the Department of Medicine with the mandate to promote excellence and leadership in education, coordinate and assist with the development of departmental educational activities and processes across all divisions and represent the Department locally and externally. The ACE/DEC plays a fundamental role in recruitment, mentoring, reappointment and promotion, and oversight of the education component of the Department’s academic contributions.

The ACE/DEC will coordinate and assist with the development of departmental educational activities and processes within the areas of undergraduate, postgraduate, graduate and continuing education, and faculty development. For the 2018/2019 and 2019/2020 academic years, Department of Medicine faculty contributed over 61,000 hours of teaching in the Undergraduate Medical Program. This included over 32,000 hours in the Undergraduate Medical Pre-clerkship Program and over 26,000 hours in the Undergraduate Medical Clerkship Program. Department members contributed over 3,300 hours of teaching in the Undergraduate Physician Assistant Program. The Department’s contribution to postgraduate teaching in Internal Medicine and its subspecialties for the 2018/2019 and 2019/2020 academic years totaled over 113,000 hours. For these two years, department members contributed over 9,600 hours to continuing education, over 5,600 hours to teaching in the Undergraduate Bachelor of Health Sciences Program, over 3,800 hours of teaching to the Undergraduate Biochemistry Program, over

3,500 hours to teaching in the Biochemistry Graduate Program and over 4,500 hours of teaching to the Health Research Methodology Program in the Department of HEI. Department members contributed over 800 hours of teaching in the Masters of Science in Health Education Program.

The ACE/DEC interviews all potential full-time and part-time recruits and provides a recommendation to the Chair. After recruitment has been approved, the ACE/DEC will meet with all candidates to provide a detailed orientation on scholarship expectations: teaching, education and clinical scholarship, evaluations, MacFACTS CV, faculty development and leadership opportunities. The ACE/DEC will also meet with all full-time and part-time faculty within the first six months after they have started their academic appointment, as well as prior to reappointment and promotion, and on an as-needed basis during the first four years of their academic appointment. In 2018, 37 members were successfully reappointed or promoted. This included 14 members who were successful in promotion to Associate Professor with CAWAR and four who were successful in attaining full Professorship. In 2019, 37 members were successfully reappointed

Teaching Hours	Program
9,600	Continuing Education
5,600	Bachelor of Health Sciences
3,800	Biochemistry (Undergraduate)
3,500	Biochemistry Graduate
4,500	Health Research Methodology
800	Masters of Science in Health Education

or promoted. There were 13 members who were successfully promoted to Associate Professor with CAWAR and six who were successfully promoted to full Professorship. In 2020, there were 35 members who were successfully reappointed or promoted including 19 who were promoted to Associate Professor with CAWAR and four to full Professor status.

The ACE/DEC promotes and encourages Department members to apply for internal career awards and is a member of the Department Internal Career Awards Grant Committee.

In the last two years, led by the ACE/DEC, Dr. Crowther and Dr. Lumb, Department members have developed a robust Community of Practice in Quality Improvement and Safety. The Department’s congratulations and appreciation to Drs. Amna Ahmed, Shawn Mondoux, Dominik Mertz and Seychelle Yohanna for leading this very important initiative. This group has gathered an impressive cohort of contributors and are welcoming members from other clinical faculties. The mandate of the Quality Improvement and Patient Safety Community of Practice is to improve the outcomes and experiences of patient partners by accelerating the impact of all those working across McMaster University’s healthcare organizations who are passionate about quality improvement and patient safety. The vision is to build the Department of Medicine Quality Improvement and Patient Safety Community of Practice to become a national and international leader in quality improvement and patient safety. The Quality Improvement and Patient Safety Community of Practice will work to build capacity for improvement, support scholarly activity and foster collaboration. The leaders of this initiative have had a major positive impact on



Dr. Ameen Patel

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

quality improvement and patient safety through the creation and delivery of curriculum for multiple postgraduate training programs and faculty.

The Department has undertaken a similar initiative to establish a Community of Practice of Education. This initiative is being led by Drs. Meera Luthra and Teresa Chan and Sarrah Lal. The growth and advancement of the Community of Practice and Education has been impacted by the pandemic; however, I am confident it will grow and have significant positive impact beyond the Department of Medicine. This group’s most recent webinar on how gaming and gamification can be infused into teaching practice is an example of the group’s dedication to sharing innovations in education.

The Department of Medicine established the Division of Education and Innovation in 2019. This division is the vision of Drs. John Kelton, Paul O’Byrne and Mark Crowther and was created to bring together faculty members who are exploring innovative pedagogical approaches in Health Sciences education and/or using their work to generate socioeconomic value. The Division is comprised of clinician and

113,000

Total number of weighted teaching hours that Department of Medicine faculty contributed to Postgraduate Internal Medicine and subspecialties in 2018-20

OTHER MAJOR ACHIEVEMENTS

Dr. Paul Moayyedi 2018/2019

Dr. Paul O'Byrne 2019/2020

Recipients of the Jack Hirsh Award for Outstanding Academic Achievement

Dr. Anne Holbrook 2018/2019

Dr. Roman Jaeschke 2019/2020

Recipients of the William Walsh Award for Outstanding Educational Achievement

non-clinician educators and has affiliated members from multiple faculties. The Division and its members are closely aligned with the Michael G. DeGroot Health Innovation, Commercialization and Entrepreneurship initiative, the Integrated Biomedical Engineering Program, Program for Faculty Development, MERIT and the McPherson Institute.

I encourage you to read more about the clinic and the +Mac, Health Venture Program (HVP) and Innovators in Scrubs Program, initiatives of the MGD Health ICE.

In closing, I would like to thank all members of the Department of Medicine who have led by example with enormous dedication, commitment, and passion to ensure that healthcare delivery, teaching and scholarship continued at its usual high level during a challenging 2019. As is tradition, the Department of Medicine led from the front with members demonstrating flexibility, innovation and passion in establishing new safe methods to meet its teaching and education commitments and to deliver an enormous amount of frontline health care under challenging circumstances. On behalf of the Department of Medicine, my sincerest gratitude and appreciation to all of you

Since the last Department of Medicine Annual Report, several members of the Department have been successful in landing senior education leadership positions. Length restrictions will not allow me to recognize all members but I would like to acknowledge the following faculty:

SENIOR EDUCATION LEADERSHIP POSITIONS

Dr. Teresa Chan

Assistant Dean, Program for Faculty Development

Dr. Sonia Anand

Associate Chair, Equity and Diversity

Dr. Jonathan Sherbino

Assistant Dean of MERIT

RECIPIENTS OF THE DEPARTMENT OF MEDICINE INTERNAL CAREER AWARDS

W. Watson Buchanan Clinician Educator Award: **Dr. Shawn Mondoux** and **Dr. Leslie Martin**

E. J. Moran Campbell Internal Career Research Award: **Dr. Om Kurmi** and **Dr. Emilie Belley-Cote**

AFP Internal Career Research Award: **Dr. Maura Marcucci** and **Dr. Marie Pigeyre**

AFP Clinician Educator Award: **Dr. Nathan Hambly**
Internal Career Research Award: **Dr. Neeraj Narula**, **Dr. Kanjana Pereira** and **Dr. Flavia Borges**

Mid-Career Research Award: **Dr. David Conen** and **Dr. Mike Walsh**.

PROGRAM DIRECTORS

Dr. Meera Luthra, Endocrinology

Dr. Zahira Khalid, General Internal Medicine

Dr. Eva Piessens, Infectious Diseases

Dr. Simran Basi, Physical Medicine and Rehabilitation

Dr. Kim Legault, Rheumatology

Dr. Mino Mitri, Palliative Medicine

ENDOWED CHAIRS

Dr. Alberto Caminero Fernandes

Douglas Family Chair in Gastroenterology Research 2018/2019

Dr. Alfonso Iorio

Bayer Chair for Clinical Epidemiology Research in Bleeding Disorders 2018/2019



The new textbook and app for McMaster Internal Medicine.

DIVISION DIRECTORS

Dr. Susan Wasserman, Clinical Immunology and Allergy

Dr. Jeff Healey, Cardiology

Dr. William Harper, Endocrinology and Metabolism

Dr. John Neary, General Internal Medicine

Dr. Joye St. Onge, Geriatric Medicine

Dr. Dominik Mertz, Infectious Diseases

Dr. Nora Cullen, Physical Medicine and Rehabilitation

Dr. Tim Karachi, Critical Care

Dr. Michelle Welsford, Emergency Medicine

Dr. Ameen Patel, Division of Education and Innovation ■

Total number of weighted teaching hours that Department of Medicine faculty contributed to the Faculty of Health Sciences in 2018-20 in the Undergraduate Medical programs

61,000

SPECIAL REPORT

New Media Textbook and International Partners

ROMAN JAESCHKE, PIOTR GAJEWSKI, PAUL M O'BYRNE

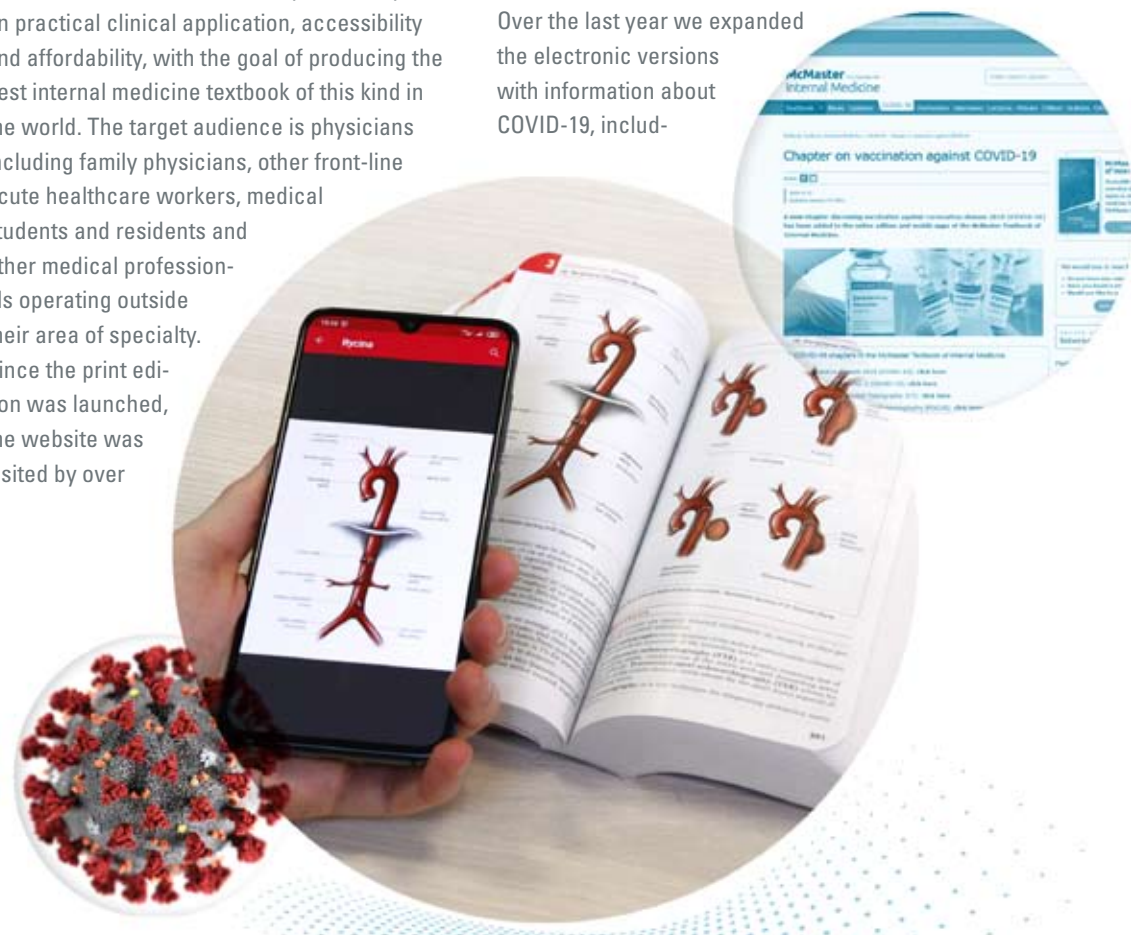
The first edition of the McMaster Textbook of Internal Medicine made its formal debut in time for the 50th anniversary celebrations of the Michael G. DeGroote School of Medicine in October 2019. It is the first comprehensive Canadian textbook of internal medicine, written with contribution of over 200 McMaster authors. The textbook exists in print, as a website (www.mcmastertextbook.com) and in the form of a (highly popular) mobile app (mcmastertextbook.com/app or search for 'mcmaster textbook' via Google Play or App Store). The editors and authors placed emphasis on practical clinical application, accessibility and affordability, with the goal of producing the best internal medicine textbook of this kind in the world. The target audience is physicians including family physicians, other front-line acute healthcare workers, medical students and residents and other medical professionals operating outside their area of specialty. Since the print edition was launched, the website was visited by over

Number of individual users visiting the website

200,000

200,000 individual users from over 60 countries and the app was downloaded over 25,000 times. Most users are based in the United States, with Canada, India and Saudi Arabia following.

Over the last year we expanded the electronic versions with information about COVID-19, includ-



ing COVID 19-focused chapter updated at least monthly, interviews with leading medical experts and a series of short videos on medical problems for non-specialists, all compiled in a central COVID-19 resource hub. For the future, the plan is to make the textbook a complete resource, including a drug database and a section for patients to learn more about their health issues.

The McMaster Textbook of Internal Medicine represents just one of the areas of successful collaboration between McMaster University and its Polish partner: the Polish Institute for Evidence Based Medicine. Other examples include MIRCIM – the McMaster International Review Course in Internal Medicine (www.mircim.eu), which is currently in its 6th (this year virtual) annual reiteration (the 5th edition attracted participants from 56 countries), and MEF – the Medical Education Forum (www.medforum.eu), one of the prime international events for medical educators. MIRCIM has attracted the partnership of over 40 national societies of internal medicine from around the world as well as of the International Society of Internal Medicine and European Federation of Internal Medicine.

The future looks bright!



Dr. Paul O'Byrne speaking at the McMaster International Review Course in Internal Medicine in Kraków, Poland.

Second from left: Dr. Akbar Panju, Dr. Christine Ribic and Dr. PJ Devereux.

Photo taken pre-COVID



COORDINATOR REPORT

Internal Medicine Residency Training Program

The McMaster Internal Medicine Residency Program supports 118 Internal Medicine residents across 4 years of training within a central campus located in Hamilton and a distributive site in Waterloo. Many residents from other postgraduate programs rotate within our Clinical Teaching Units as a required component of their training.

I am incredibly impressed by the dedication and resilience of our residents and faculty who have been partners in facing recent challenges in health care. With the test of adversity comes opportunity and growth. The events having the most impact on the Internal Medicine Program over the past 2 years are the transition to Competency Based Medical Education (CBME) and the response to the COVID-19 pandemic. I believe our residents will look back on the events of the last few years with pride, knowing they have been active participants in educational transformation and in response to a healthcare crisis.

CBME

Since July 2019, incoming residents to the Internal Medicine program have been trained under a new CBME curriculum. The CBME transition has stimulated a flurry of scholarly activity across the campus resulting in a renewed focus on bedside teaching, development of new methods/tools for assessment, faculty development in CBME, partnership with Postgrad and other residency programs, and the practice of resident reflection as a key component of independent lifelong learning.

PANDEMIC RESPONSE

COVID-19 has impacted all aspects of health care and has affected professionals working in hospital and community-based services. Training programs have implemented rapid changes in their curricula to preserve the educational mandate for learners.

The Internal Medicine residents and faculty have responded with incredible flexibility to accommodate new policies and the ever-changing service demands. I believe our program has grown stronger because of the crisis. Virtual learning/ambulatory care, modules to guide independent learning, enhanced skills in infection control practices, and exposure to new innovations such as the science of the COVID vaccination are exciting discoveries. The residents stepped up by developing a learning platform, "The Virtual Ward" for McMaster Medicine undergraduate students displaced from clinical training experiences. Other residents are working on a project to fortify Boot Camp using simulation for incoming PGY1 residents who may have missed opportunities to acquire skills as a clinical clerk on the CTU. Our Wellness Committee developed new ways to connect residents and to build team spirit. As active participants, the Internal Medicine residents have borne witness to the power of partnerships in managing a healthcare crisis of extraordinary magnitude.

118 — Internal Medicine residents across 4 years of training

“ I believe our residents **will look back** on the events of the last few years **with pride.** ”

Dr. Lori Whitehead

MD, FRCPC
Director, Internal Medicine Residency Program



WHAT IS ON THE HORIZON FOR THE FUTURE?

The learning curve for CBME has been steep and is ongoing. It is an iterative process requiring a Continuous Quality Improvement lens and a receptive approach to program modification. The trajectory and downstream effects of the pandemic cannot be predicted. The Internal Medicine program will pivot with the changes that are ahead, taking full advantage of lessons learned in the process. Strong alliances between residents and the healthcare team will continue to support education and patient care. The health and wellness of our residents and teaching faculty will continue to be a high priority, as this is foundational for our ongoing success as a national leader in Internal Medicine residency training.

Special thanks for the support of:

All faculty educators
Dr. Mark Crowther, Chair, Department of Medicine
Dr. Parveen Wasi, Associate Postgraduate Dean
Dr. Barry Lumb/Dr. Khalid Azzam - Physician-in-Chief HHS
Dr. Alistair Ingram - Chief of Medicine SJHH

Dr. John Neary, Division Director, GIM
Annette Rosati/Graeme Matheson – Chair’s Office
Deputy Program Directors - Dr. Leslie Martin, Dr. Joshua Wald, Dr. Haroon Yousuf
Sub-program director, R4 Internal Medicine residents – Dr. Ameen Patel
Regional Education Lead, Waterloo Regional Campus – Dr. Rebecca Kruisselbrink
CTU Directors – Dr. Andrew Cheung, Dr. Samir Raza, Dr. Marianne Talman, Dr. Mohamed Panju (ACTU)
Director of Research – Dr. Christine Ribic
Chair of Assessment - Dr. Naufal Mohammed
Internal Medicine residency administrative support – Jan Taylor, Sharlene Honaizer, Christine Knight, Susan Serro, Andrea Mitchell ■

COORDINATOR REPORT

Medical Specialties Residency Programs

The Department of Medicine programs have continued to work collaboratively to support and enhance medical education at McMaster University and the academic health sciences centres. Although, 2019 and 2020 have been challenging years that have stretched residency programs due to various factors including, Competency-By-Design Medical Education (CBME) roll out, Saudi residents' withdrawal and the COVID-19 pandemic, these circumstances proved to demonstrate how resilient and innovative the Medical Specialties residency programs have become. Collaboration has brought about innovation and sharing of novel ideas, financial and human resource stability, and enhancement of all the Medical Specialties residency programs.

The Medical Specialties Central Office has been pivotal in developing processes, providing structure and in promoting innovation to support all aspects of Medical Specialty education including:

1. Residency Programs
2. Fellowship Programs
3. Undergraduate Specialty Selective Clerkship Program
4. Undergraduate Specialty Electives Clerkship Program
5. Physician Assistants Program

The Medical Specialties Central Office has also played a major role in collaborating with the core Internal Medicine (IM) Residency Program to enhance and support our core IM residents in education and exam preparation.

The Medical Specialties program has introduced numerous awards and grants, developed a combined academic half day curriculum to further resident education, initiated resident-led

activities in promoting resident wellness and developed new partnerships as well as solidified existing ones. These are detailed below.

1. Medical Specialty Residency Programs
 a. Medical Specialties Residency and Fellowship Grants

The Medical Specialty residency and fellowship programs are committed to providing a broad educational experience to McMaster trainees by enhancing and supporting scholarly activity. The aim of the Medical Specialties grants is to:

- promote original research and innovation between programs,
- develop grant application skills and,
- to encourage collaboration between divisions and, supervisors and trainees.



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

Grants are awarded for clinical research, medical education research, basic science research or quality improvement and patient safety. Grants were awarded to the following recipients:

YEAR	RESIDENT	SUPERVISOR
2020	Dr. Ankit Garg (Cardiology)	Dr. Sanjit Jolly
Title: Development and validation of medical device to measure jugular venous pressure for purpose of remote monitoring for heart failure.		
2020	Dr. Paula Pop (Geriatrics)	Dr. Alexandra Papaioannou
Title: Association between sarcopenia and post-operative outcomes among older adults undergoing elective hip or knee arthroplasty		

b. Medical Specialty Program Resident Awards
 i. Medical Specialties Resident Research Awards

A separate award has been established for Medical Specialties residents for presentation at the Department of Medicine Residents Research Day. The aim is to recognize our residents' scholarly contributions. Clinical and scientific abstracts are reviewed by the Medical Specialties faculty who have been invited to judge and select top trainees in poster or oral presentations.

The following residents were recipients of MS Resident Research Awards:

AWARD	YEAR	RESIDENT	PROGRAM
Medical Specialty Scientific Poster presentation	2019	Dr. Michael Wang	GIM
Medical Specialty Clinical Poster presentation	2019	Dr. Ola Tarabzuni	Nephrology
DOM Residency Oral Presentation (Gold)	2020	Dr. Anasuiya Surendran	Endocrinology
DOM Residency Oral Presentation (Bronze)	2020	Dr. Jason An	Rheumatology
Medical Specialty Scientific Poster Presentation	2020	Dr. Megan Guay	Neurology
Medical Specialty Clinical Poster Presentation	2020	Dr. Xena Li	Infectious Disease

ii. Dr. Jeff Ginsberg Award

The Dr. Jeff Ginsberg award is presented to Medical Specialties residents who consistently demonstrate professionalism, collaboration, leadership, and commitment to academic achievement. The following residents were recipients of this award:

YEAR	RESIDENT	PROGRAM
2018	Dr. Zeeshan Ahmed Dr. Siraj Mithoowani	Cardiology Hematology
2019	Dr. Derek Chu Dr. Andrew Kelly	Clinical Immunology & Allergy Cardiology
2020	Dr. Andrea Cervi Dr. Kenji Onizuka	Hematology Rheumatology

c. Critical Appraisal Sessions

The Medical Specialties residency and fellowship programs identified a need to add critical appraisal sessions for the combined academic programs. These sessions are designed to familiarize residents with fundamental concepts regarding critical appraisal, medical research design and implementation. Additionally, residents gain more understanding about research and increase their ability to synthesize research data which is vital as a basis for developing an evidence-based approach practice. This course has been led by Dr. Mark Inman since January 2020 and I am deeply appreciative of his time dedicated in running this highly successful course.

d. Resident Leadership

The Medical Specialties Central Office has been working collaboratively with Medical Specialty residents to promote residency education. This was made possible by implementing resident committees to oversee the Combined Academic Half Day curriculum, resident wellness events and facilitate Mock OSCE sessions and post CBL sessions. I would like to recognize the following resident co-chairs who have provided outstanding leadership and dedication to the Medical Specialties resident committees:

ACADEMIC YEAR	RESIDENT CO-CHAIRS
2018/2019	Dr. Chenchen Hou (Hematology) Dr. Arani Sathiyapalan (Medical Oncology)
2019/2020	Dr. Shivani Dadwal (Medical Oncology) Dr. Dr. Marissa Laureano (Hematology)
2020/2021	Dr. Meera Joseph (Nephrology) Dr. Dana Trafford (Geriatrics)

e. Medical Specialties Combined Academic Half Day Sessions

The Medical Specialty residency programs are committed to prepare residents to be successful physicians

after completing their training. Combined academic half day sessions are organized for all Medical Specialty residents in alignment with the intrinsic CanMEDS roles such as communication, leadership, collaboration and professional.

The annual curriculum consists of separate sessions for PGY4 and PGY5/6 residents with respect to the training required for each level and to help support residents transition into practice. This was acknowledged by the Royal College at the last accreditation as a novel and unique format to educate residents and promote collaboration.

f. Resident Social and Wellness Committee

The Medical Specialty residency programs are involved in promoting resident wellness within the programs and as a group. Combined Specialty residency programs established a resident-led wellness and social committee in 2018. This committee organizes events and sessions to support resident mental, emotional, physical, and psychological health. Some of the events organized have included drive-in movie nights and virtual cooking sessions. I would like to acknowledge and thank Dr. Meera Joseph, Dr. Dana Trafford, Dr. Olivia Green and Dr. Laiya Carayannopoulos, the committee leaders for their efforts and organization of these events and in ensuring resident and fellow wellness as a priority.

g. Standardized Training of Program Coordinators

Medical Specialties Central Office implemented standardized training of new program coordinators to ensure application of best practices across all UGME and PGME programs. To date the program has trained 8 program coordinators.

h. Establishment of the new Residency and Fellowship Programs Website

The Medical Specialties residency and fellowship programs websites were transitioned to a new platform that is easier to navigate for potential learners. The websites were rolled out in 2020.

i. Partnerships in Global Health

The Medical Specialties residency and fellowship programs as a part of global health have developed partnerships with several organizations to help support residency and fellowship training at McMaster University. I would like to acknowledge Ms. Mary Ann Breitigam and the St. Joseph's Healthcare International Outreach Program (SJHIOP) who have helped in providing financial and housing support for residents from around the globe including Uganda, Somalia, Guyana, Haiti, Pakistan, Philippines and many other nations. On behalf of all of the program and fellowship directors, I would like to thank SJHIOP for all of their assistance and we look forward to our ongoing collaboration.

j. COVID-19 Support

2020 was a difficult year to navigate for most residency programs due to disruptions caused by the COVID-19 pandemic. The Medical Specialties residency programs implemented innovative strategies to ensure that medical education continued while adhering to government guidelines regarding physical distancing in the clinical settings. Innovations included introducing the first Zoom OSCEs at the university, organization for Zoom academic half days for all medical specialty programs and implementation of reverse classrooms. In addition, the Medical Specialties assisted PGME in planning for redeployment and supported the coverage of program coordinators who were on leave.

As I complete my term as Chair of the Medical Specialties Program Directors, I would like to acknowledge and thank all of the program directors who I have worked with and who have supported our vision and achieved our mutual goal in assisting each other, ensuring all of our residency programs in our department are supported both financially and from a human resource perspective. It is due to their collaboration that our programs are of even higher quality. At our last accreditation, the Royal College identified our collaboration as "unique and one for other universities to model." As a united group, we have enhanced the training of our residents and provided opportunities for them to have a strong voice in their education and have promoted collaboration and overall resi-

dent wellness. We have also introduced and supported new training programs, built new collaborations in Global Health in supporting resident training in Hamilton and have provided our residents an opportunity to learn abroad. Our centralized structure has allowed us to weather through crisis situations

and we have come out stronger and more unified as a group. It has truly been a pleasure to work with all of the program directors, program coordinators and our residents over the years and I look forward to more innovations in our Medical Specialties group in the years to come. ■

COORDINATOR REPORT

Medical Specialties Fellowship Programs

The Medical Specialties programs established a Fellowship Directors committee comprised of at least one director from each division and including all departmental Royal College accredited Area of Focused Competency Fellowships. The Medical Specialties Fellowship Directors Committee, now as an organized body, has developed multiple processes, templates and forms as well as provided administrative support for the establishment and approval of new fellowship programs in the Department of Medicine. To date the Department has 51 fellowship programs and we recently introduced the first inter-divisional co-lead fellowship between Nephrology and Geriatrics. The fellowship programs are an integral part of education as they support the overall education mandate and provide trainees the opportunity to further their careers in designated areas in their sub-speciality. The fellowship programs also play a fundamental role in supporting our clinical scholars in developing an area of expertise.

Below are the representatives of the Medical Specialties Fellowship Directors Committee:

DIVISION	FELLOWSHIP DIRECTOR
Cardiology	Dr. Darryl Leong Dr. Omid Salehian Dr. Shamir Mehta Dr. Syam Divakara Menon Dr. Tej Sheth
Dermatology	Dr. Mohannad Abu Hilal
Endocrinology	Dr. Aliya Khan
Gastroenterology	Dr. Neeraj Narula
General Internal Medicine	Dr. Maria Tiboni
Geriatrics	Dr. Mona Sidhu
Hematology	Dr. Graeme Fraser Dr. Madeleine Verhovsek Dr. Vinai Bhagirath
Infectious Disease	Dr. Dominic Mertz
Nephrology	Dr. Azim Gangji (Chair)
Neurology	Dr. Jim Sahlas
Physical Medicine & Rehabilitation	Dr. Agnes Chmiel
Respirology	Dr. Muntasir Saffie Dr. Nathan Hambly
Rheumatology	Dr. Stephanie Garner

The Medical Specialties Central Office has focussed on supporting our current fellowship programs as well as establishing new programs and encouraging and assisting in the development of Royal College Area of Focussed Competency programs. The Medical Specialties Fellowship Directors Committee has developed a structure for developing formalized fellowships within the department. The Central Office has developed a centralized fellowship application process and workflow for fellow applications that have significantly reduced processing time.

In promoting our fellowships, we have created and re-designed fellowship websites to provide more information for potential applicants. Lastly, in conjunction with PGME, we have developed a workflow for establishing new fellowship programs. This has provided guidelines for fellowship directors to use when developing new programs and has facilitated the development of new programs in a systematic format.

The Medical Specialties Fellowship programs have been leaders in the University in establishing Royal College accredited Area Focused Competency (AFC) fellowship programs. There are 5 programs that have received this designation with the first one being established in 2015. The AFC programs include:

AFC FELLOWSHIP	FELLOWSHIP DIRECTOR	DIVISION
Solid Organ Transplantation	Dr. Azim Gangji	Nephrology
Thrombosis	Dr. Vinai Bhagirath	Hematology
Echocardiography	Dr. Omid Salehian	Cardiology
Interventional Cardiology	Dr. Shamir Mehta	Cardiology
Electrophysiology & Cardiac Pacing	Dr. Syam Divakara Menon	Cardiology

The Department of Medicine also continues to be a leader in the number of Non-AFC fellowship programs and with our new structure, we have ensured our programs meet high quality education standards.

The following are Non-AFC Fellowship Programs:

NON-AFC FELLOWSHIP	FELLOWSHIP DIRECTOR	DIVISION
Advanced Coronary Imaging	Dr. Tej Sheth	Cardiology
Heart Failure Nuclear	Dr. Eva Lonn Dr. Alison Montgomery	Cardiology
Peri-Operative Transcatheter Aortic Valve	Dr. Vikas Tandon Dr. Tej Sheth	Cardiology
Transcatheter Mitral and Tricuspid Valve	Dr. Shamir Mehta	Cardiology
Vascular Medicine	Dr. Sonia Anand	Cardiology
Cardio-Oncology	Dr. Darryl Leong	Cardiology
Advanced Clinical Dermatology	Dr. Mohannad Abu Hilal	Dermatology
Metabolic Bone Disease	Dr. Aliya Khan	Endocrinology
Advanced Endoscopy	Dr. Frances Tse	Gastroenterology
Hepatology	Dr. Marco Puglia	Gastroenterology
Inflammatory Bowel Disease	Dr. John Marshall Dr. Neeraj Narula	Gastroenterology
Motility	Dr. Stephen Collins	Gastroenterology
Nutrition	Dr. David Armstrong	Gastroenterology
Geriatric Clinical Pharmacology	Dr. Joanne Ho Dr. Tricia Woo	Geriatrics
Geriatric Nephrology	Dr. Mona Sidhu Dr. Azim Gangji	Geriatrics
Bariatric Medicine	Dr. Maria Tiboni	General Internal Medicine
Bleeding Disorders	Dr. Madeleine Verhovsek	Hematology
Red Cell Disorders	Dr. Alfonso Iorio	Hematology
Infection Prevention Control	Dr. Dominic Mertz	Infectious Disease

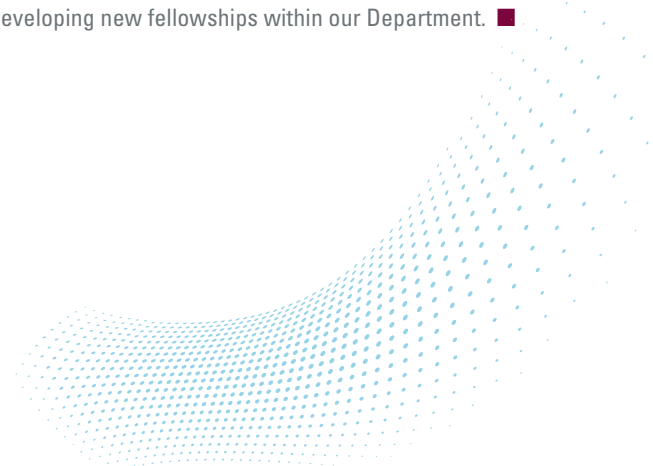
NON-AFC FELLOWSHIP	FELLOWSHIP DIRECTOR	DIVISION
HIV	Dr. Shariq Haider	Infectious Disease
AST Renal Transplant	Dr. Azim Gangji	Nephrology
Geriatric Nephrology	Dr. Azim Gangji Dr. Mona Sidhu	Nephrology/ Geriatrics
Glomerulonephritis	Dr. Azim Gangji	Nephrology
Home Dialysis Nephrology	Dr. Azim Gangji	Nephrology
Nephrology Genetics	Dr. Matt Lanktree	Nephrology
Epilepsy	Dr. Joseph Perumpillichira	Neurology
Interventional Neuroradiology	Dr. Brian Van Adel	Neurology
Multiple Sclerosis	Dr. Suresh Menon	Neurology
Neurophysiology	Dr. Ammar Gilani	Neurology
Stroke	Dr. Luciana Catanese	Neurology
Neuromuscular Neurorehabilitation	Dr. Steven Baker Dr. Simran Basi	PM+R PM+R
Spinal Cord Injury	Dr. Agnes Chmiel	PM+R
MSK Rehabilitation	Dr. Agnes Chmiel	PM+R
Airway Diseases	Dr. Parameswaran Nair	Respirology
Cystic Fibrosis	Dr. Andy Freitag	Respirology
Interstitial Lung Disease	Dr. Nathan Hambly	Respirology
Pulmonary Hypertension	Dr. Nathan Hambly	Respirology
Rehabilitation/ COPD	Dr. Martin Kolb Dr. Rebecca Amer	Respirology
Sleep Medicine	Dr. Juliana Li	Respirology
Lupus	Dr. Mark Matsos	Rheumatology
Scleroderma	Dr. Maggie Larché	Rheumatology

NON-AFC FELLOWSHIP	FELLOWSHIP DIRECTOR	DIVISION
Rheumatology Point of Care Ultrasonography	Dr. Maggie Larché	Rheumatology
Vasculitis	Dr. Stephanie Garner	Rheumatology

Due to our unique centralized model, the Medical Specialties Central Office has provided invaluable support to fellowship directors who are looking to establish new fellowship programs. The following new fellowships were launched since 2020:

1. Advanced Coronary Imaging
2. Advanced Clinical Dermatology
3. Geriatric-Nephrology
4. Nephrology Genetics
5. Pulmonary Hypertension
6. Scleroderma
7. Spinal Cord Injury
8. Rheumatology Point of Care Ultrasonography

This is an opportunity for me to thank our outstanding Fellowship Directors for all of their hard work, ongoing collaboration and commitment in ensuring our learners receive high quality education. I look forward to working with you in further developing our fellowship processes and in supporting faculty in developing new fellowships within our Department. ■



COORDINATOR REPORT

Medical Specialties Undergraduate Programs

UNDERGRADUATE MEDICAL ELECTIVES CLERKSHIP PROGRAM

The Medical Specialty Undergraduate Elective Coordinators are committed in increasing and enhancing elective opportunities for clerks in a fair and transparent manner. The Medical Specialties Central Office identified a gap in ensuring fair access to electives for all clerks from all campuses and in processing timeliness for clinical elective clerks (which varied between days to months). This led to variable clerkship elective options and exposure. The Medical Specialties Central office consolidated the processing of elective requests to one central person who ensured that all requests were processed within 48 hours. Additionally, we surveyed and implemented a process that obtained real-time capacity from all programs. This identified an approximate 40% increase in overall capacity in the department for clinical clerks. The improved system provided clerks greater opportunities and ensured fairness and transparency. With the disruptions due to COVID-19, this process was vital in ensuring accommodation of clerks whose visiting electives were cancelled. The UGME electives office acknowledged the Medical Specialties Central Office's project implementation and has now adopted this system centrally for all clerkship placements.

Medical Specialties Clerkship Electives Coordinators Committee is comprised of the following programs:

PROGRAM	FACULTY COORDINATOR
Cardiology	Dr. Matt Sibbald
Clinical Allergy & Immunology	Dr. Mike Cyr
Dermatology	Dr. Mohannand Abu Hilal
Endocrinology	Dr. Reema Shah
Gastroenterology	Dr. Robert Spaziani
Geriatrics	Dr. Mimi Wang
Hematology	Dr. Rick Ikesaka (SJHH) Dr. Graeme Fraser (JH)
Infectious Disease	Dr. Eva Piessens
Nephrology	Dr. Azim Gangji (chair)

PROGRAM	FACULTY COORDINATOR
Neurology	Dr. Barbara Connolly
Peri-Operative Medicine	Dr. Ameen Patel Dr. Vikas Tandon
Physical Medicine & Rehabilitation	Dr. Tatjana Zdravkovic
Respirology	Dr. Madhu Chari
Rheumatology	Dr. Maggie Larché

PHYSICIAN ASSISTANT PROGRAM

In association with the Physician Assistant (PA) program, the Medical Specialty Central Office has established clinical placement opportunities for PA students. Capacity was created in the Medical Specialty programs and PA students are now able to secure placements in Gastroenterology, Nephrology and Neurology programs. In addition, a pre-entry clerkship exposure for PA students was accommodated by the Division of Nephrology. Thus far, the feedback from the PA program has been very positive and the plan moving forward is to develop additional opportunities for PA students to gain clinical exposure in all of the medical specialty programs.

ACKNOWLEDGEMENTS

The Medical Specialty Programs have made significant gains, and this would not have been possible without the creation of the Medical Specialties Central Office that supports and helps oversee administrative aspects of education in UGME, the PA program, residency and fellowship programs. The diagram below highlights the broad support provided by the Medical Specialties Central Office. I would be remiss if I did not acknowledge the outstanding contributions of the Medical Specialties Central Office and the individuals that make all of this happen. I would like to extend my gratitude to Joyce Munga, Rachele Dymont, Vanessa Munford, Judy Mosher and Robin Carroll for their dedication to our mission of being open to innovation, enhancing collaboration, improving organization and efficiency and to the advocacy of learners. ■

COORDINATOR REPORT

Specialty Selectives Clerkship Program

DR. ROB SPAZIANI

I am happy to report that despite the challenges posed by the COVID-19 pandemic, the Specialty Selectives (SEL) Clerkship Program has had a very productive year at all three of our campuses. I stepped into the role of SEL Clerkship Director in October 2019, after serving three years as the Gastroenterology Faculty Co-ordinator.

Amidst the background of the pandemic, we have been preparing to transition the Specialty Selectives program to accommodate exciting new changes in the undergraduate medicine curriculum. In response to the new curriculum introduced in the Fall of 2020, the Medical Subspecialties Selectives (MSS) took on a new name: Specialty Selectives (SEL). As part of the new curriculum, we have doubled our capacity to accommodate additional learners as the Selectives rotations will move to the later phase of clerkship titled "transition to residency". Positioning the Selectives this way will afford the students the opportunity to have completed their core medicine rotation before the start of their Selective rotation, allowing them to glean even more from the Specialty rotations.

In the past year, we expanded the SEL program and were happy to welcome two new specialties, adding both Infectious Diseases and Respiriology to our roster. We also expanded the Cardiology Selective across all three Hamilton Sites. We welcomed several new faculty coordinators: Dr. Ali Iqbal (Nephrology), Dr. Aiman Alak (Cardiology) and Dr. Dina Khalaf (Hematology). We are extremely grateful to those who served in those roles previously: Dr. Christine Ribic (Nephrology), Dr. Syam Divakaramenon (Cardiology) and Dr. Kylie Lepic (Hematology). Their enthusiasm and passion for teaching fostered positive and productive learning experiences for our students.

We have continued the process of streamlining the organization of the SEL Program in response to student and faculty

feedback, moving to a centralized orientation video format (established 2019), and introducing on-demand (established 2018) and point-of-contact evaluations to ensure timely feedback to students. Transitioning the centralized orientation and tutorials to a virtual format has reduced travel time for students who no longer need to move between sites to attend in-person learning.

The pandemic also marked the need to provide alternative learning opportunities for the students after they were pulled from the clinical learning environment. I am extremely grateful to the many residents, fellows and faculty who committed their time to reviewing and evaluating the Critical Appraisal Topic (CAT) assignment the Selectives team was asked to oversee.

CAMPUSES

I would like to acknowledge Dr. Theresa Liu, Regional Education Lead (REL) of the Waterloo campus, and Dr. Adnan Hameed, REL of the Niagara campus, for their continued efforts in partnering with the SEL committee in faculty recruitment and faculty development. Their hard work, creativity, and commitment to education and clinical teaching maintained the students in the clinical environment in the regional campuses despite the reduced capacity caused by the pandemic.

ACKNOWLEDGEMENTS

I would like to acknowledge the numerous individuals who have been incredibly supportive of the Specialty Selectives Program. In particular, I would like to thank the RELs and their

administrators: Drs. Adnan Hameed and Hayley Sicard (NRC), Theresa Liu and Michelle Lamontagne (WRC) for their leadership and support at their respective campuses in helping engage faculty and continued curriculum development, the selective coordinators at the Hamilton campus who have been a major support in providing educational experiences for clinical clerks, and the administrative support of the Medicine Specialties Central Office by Rachelle Dymont, assisted by Robin Carroll, who have worked tirelessly to provide and organize an efficient and supportive framework for both the student and faculty experience in the Selective program. I would like to take this opportunity to thank Dr. Azim Gangji for his mentorship and guidance as I took on the role of Clerkship Director.

Finally, I would like to thank Dr. Mark Crowther for his continued support and enthusiasm for the Selectives program. With his leadership and support, the program has continued to grow and flourish as one of the core components of the clerkship experience making it an integral part of undergraduate education delivery in the Department of Medicine.

AWARDS

In 2019 we established the addition of a new Selectives award, the Dr. Deborah Marcellus, Academic Achievement Award for Specialty Selective in Hematology.

We are also happy to announce the establishment of an Academic Achievement Award for Specialty Selective in Respiriology in 2021.

The following SEL Program awards were presented to the following students, residents, and Faculty:

SPECIALTY SELECTIVE CLERKSHIP PROGRAM FACULTY AWARDS

Year	Name	Campus
2019	Dr. Kylie Lepic	Hamilton
	Dr. Subhas Ganguli	Hamilton
	Dr. Khaled Ibrahim	Niagara
2020	Dr. Joanna Graczyk	Kitchener-Waterloo
	Dr. Tricia Woo	Hamilton
	Dr. Mark Matsos	Hamilton
	Dr. Lara Gunton	Niagara
	Dr. Natalie Needham-Nethercott	Kitchener-Waterloo

DR. MARK CROWTHER RESIDENCY TEACHING AWARD

Year	Residents	
2019	Dr. Sarah Patterson	Dr. Zhaowei Gong
2020	Dr. Rebecca Rosart	Dr. Naif Alghamdi

DR. ALAN NEVILLE SPECIALTY SELECTIVE ACADEMIC ACHIEVEMENT AWARD

Year	Clerk	Campus
2019	Adam Eqbal	Hamilton
	Aaron Prosser	Niagara
	Victoria McKinnon	Kitchener-Waterloo
2020	Tyler McKechnie	Hamilton
	Bilal Bagha	Niagara
	Tyler Pitre	Kitchener-Waterloo

AWARD

Dr. Irene Turpie, Academic Achievement Award for Specialty Selective in Geriatrics	Jasneet Dhaliwal (2019) Raechelle Gibson (2020)
Dr. Fred Bianchi, Academic Achievement Award for Specialty Selective in Rheumatology	Matei Stoian (2019) Shama Khattak (2020)
Dr. David Russell, Academic Achievement Award for Specialty Selective in Nephrology	Maylynn Ding (2019) Shannon Brent (2020)
Dr. Doug Holder, Academic Achievement Award for Specialty Selective in Cardiology	Tina Nham (2019) Charlotte Fuller (2020)
Dr. Jan Irvine, Academic Achievement Award for Specialty Selective in Gastroenterology	Arden Azim (2019) Sama Anvari (2020)
Dr. Deborah Marcellus, Academic Achievement Award for Specialty Selective in Hematology	Giuliana Guarna (2019) Partha Sharma (2020)

Faculty Undergraduate Director

The Internal Medicine Clerkship Program is mandatory for all McMaster medical students and consists of a 6-week core rotation attached to the inpatient medicine units in Hamilton and at the regional campuses in Waterloo and Niagara. The Internal Medicine Clerkship Program has continued to evolve to meet the changing needs of the students. The Internal Medicine Curriculum Committee meets monthly and the enthusiasm and contributions from the members of this committee are the biggest strengths of this program. This committee is composed of the Site Coordinators for the Hamilton Hospitals, the Regional Education leads at Waterloo and Niagara, student and resident representatives.

We saw changes in the members of the clerkship team. Dr. Mary Jackson at the Waterloo regional campus left her role as Regional Education Lead after many years of supporting education. We all benefited from her experience and advice and thank her for her contributions. Dr. Stephen Giielck took over this role and has continued to build on the strong foundation left by Dr. Jackson. Dr. Shervin Zandi stepped down as Regional Education Lead at the Niagara Regional Campus, and Dr. Faraz Masood has shown great enthusiasm as he has taken over this role. Dr. Daniel Brandt Vegas left the site coordinator role at St Joseph's Hospital to pursue other opportunities and Dr. Sergio Mazadi has taken on this important role.

AWARDS

The Medicine Clerkship Program has been privileged to offer a number of awards to students and faculty. These awards are given to a student from each of the five training sites: Hamilton General Hospital, Juravinski Hospital, St Joseph's Hospital, Niagara, and Waterloo. One medical student from each of the five training sites are chosen to receive the Dr. Paul O'Byrne Award for Outstanding Clinical and Academic Achievement. The award is given to acknowledge a student who has excelled in the Internal Medicine Clerkship in the domains of clinical acumen and knowledge of internal medicine. The Dr. Akbar Panju Award for Professionalism is awarded to a student who exemplifies the practice of medicine in the areas of compassion, service, altruism, and trustworthiness. Faculty from the Department of Medicine are also recognized for their excellence in teaching during the clerkship rotations.

The Dr. Paul O'Byrne Award is given to a student who has excelled in the Internal Medicine Clerkship in the domains of clinical acumen and knowledge of internal medicine.



Dr. Helen Neighbour

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

2019
DR. PAUL O'BYRNE AWARD FOR ACADEMIC ACHIEVEMENT
For the Class of 2019 the Dr. Paul O'Byrne Award for Academic Achievement during the internal medicine core clerkship rotation was awarded to the following students:

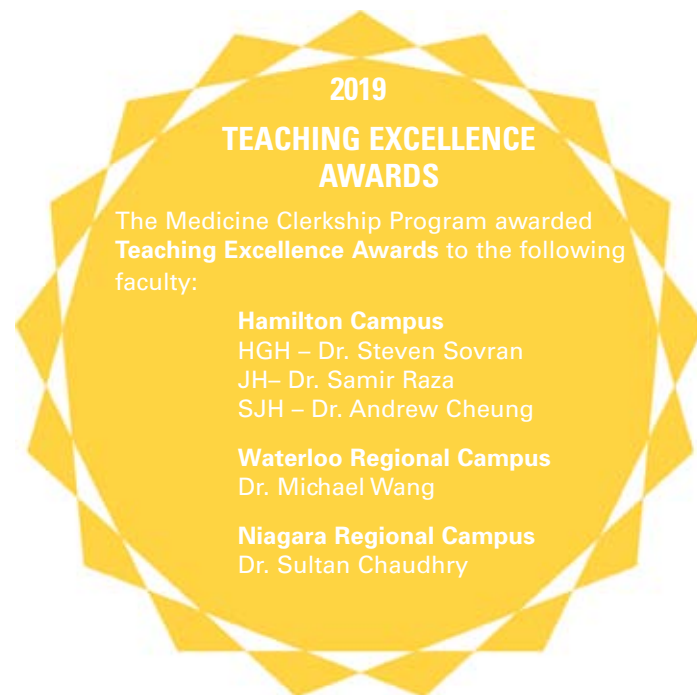
- Hamilton Campus - Sites**
HGH – Anvita Kulkarni
JH – Ryan Peters
SJH – Cameron Henry
- Waterloo Regional Campus**
Jaymee Shell
- Niagara Regional Campus**
Kim Moore

2020
DR. PAUL O'BYRNE AWARD FOR ACADEMIC ACHIEVEMENT
For the Class of 2020 the 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 – Avery Bibby
JH – Edward Koo
SJH – Shamal Khattak
- Waterloo Regional Campus**
Tyler Pitre
- Niagara Regional Campus**
Karun Tandon



The Akbar Panju Award is given to a student who exemplifies the practice of medicine in the areas of compassion, service, altruism, and trustworthiness.



PROGRAM UPDATES

The 6-week Internal Medicine rotation is intense with a significant amount of knowledge to be acquired and a demanding call schedule. With the support of the Clinical Teaching Unit directors and the Chief medical residents, we were able to combine teaching into an academic half day for the students. Previously, the students had a 2-3 hour tutorial and a clinical skills teaching session lead by the Chief Medical Residents. These were scheduled at different times during the week and the students had to combine these with their clinical duties for the day. We combined these educational activities into an academic half-day to allow students to have a focused time of study during the week. The feedback received through our student representatives indicated that this would improve student wellness and reduce some of the pressure of the rotation. Following the successful introduction of MacDOTS, a direct observational tool for clinical encounters, we continued to build on the foundation of bedside teaching in medicine.

Internal Medicine continues to play a role in the clerkship orientation. Dr. Zahira Khalid leads a well-received session on paging including simulated paging scenarios. We have now added a session on insertion of nasogastric tubes supervised by Department of Medicine faculty.

The onset of the pandemic in March of 2020 necessitated rapid and significant changes to way we taught medicine. The class of 2021 was removed from the clinical environment and entered into a virtual longitudinal clerkship that enabled students to work on the objectives of clerkship in a virtual setting. Department of Medicine faculty delivered interactive large group sessions on a variety subjects that the students found engaging and beneficial to their learning.

In addition to the monthly meetings of the Internal Medicine Clerkship Committee, we hold an annual retreat to perform a more in-depth review of the program and to have a personal development session for faculty and student representatives. We had a great opportunity to work with Colleen Aynn to get guidance on how to improve our presentation skills and engage our audience, and also heard from Kim Ades on how changing our beliefs around the problems we encounter can lead to success.

“ *The class of 2021 was removed from the clinical environment and entered into a virtual longitudinal clerkship that enabled students to work on the objectives of clerkship in a virtual setting.* ”

ACKNOWLEDGEMENTS

On behalf of the Internal Medicine Clerkship Program and the students, I would like thank the following people and groups without whom these programs would not be possible: Ms. Tina Laporte, internal medicine clerkship administrative program coordinator; Medicine Clerkship Committee members and their administrative assistants; Dr. Mark Crowther; the Clinical Teaching Unit directors and their assistants; Dr. Lori Whitehead and Ms. Jan Taylor of the Internal Medicine Residency Program, its residents and administrative staff. Without the engagement and support of these people, we would not have a successful program. I am also grateful to the Clerkship Directors in other programs who are always willing to share ideas and successes from their own programs and to Dr. Rob Whyte and Dr. Rudkowski for their leadership.

The students continue to inspire us with their dedication to their education and we are particularly grateful to our student representatives who ensure that students are involved in our program decision making. ■

COORDINATOR REPORT

Director of Administration

As Director of Administration for the Department of Medicine, I continue to work closely with many exceptional and talented faculty and staff. The Department of Medicine is continually expanding and recruiting new faculty.

With the addition of approximately 20 faculty recruits and 20 clinical scholars annually, the number of staff also increases, consistent with this growth. These dedicated and talented individuals span across all hospital sites including Hamilton Health Sciences (McMaster University Medical Centre, Juravinski Hospital and Cancer Centre, Hamilton General Hospital and St. Peter's) and St. Joseph's Healthcare, Hamilton. The department has been financially strong during 2018-19 and 2019-20 fiscal years, ending with clinical practice

plan surpluses. These surplus funds have enabled the department to support essential educational activities as well as other leadership initiatives. Faculty and staff development also remained a key priority as we identify talented faculty to be mentored for future leadership positions within the department.

McMaster University continues to be committed to developing its management team and to providing the team the necessary tools to be as effective and successful as possible during these challenging times. Several departmental managers are working towards Masters of Business Administration degrees, which will ultimately strengthen and enhance their skills set within the administrative team. The commitment of the The Management Team and staff have significantly contributed to the Department of Medicine's success.

The Department of Medicine's management team consists of dedicated and hardworking managers responsible for faculty and staff at each of the hospital sites. Ms. Gail LaForme is the Site Coordinator for the Juravinski Hospital and Cancer Centre. Leslie Steinberg is the Manager, Staff and Operations at the McMaster hospital site as well as the Hamilton General Hospital. Tanja Petrovic and Mallory Freed were responsible for faculty and staff at the St. Joseph's Hospital sites. These dedicated business managers are "hands on" and liaise closely with hospital leadership to ensure an engaged, collegial and collaborative 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 locations.

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 allowing readily accessible information.

The university continues to make essential and necessary changes to its key functional areas, such as Human Resources, Finance, and Information Technology Systems. Relaying these changes to faculty and staff requires effective and regular communication. 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.

The tail end of the 2019-20 academic year saw the beginning of the Covid-19 pandemic. On March 20, 2020, the Department of Medicine's administrative staff began working remotely to help curb the transmission of the virus. Faculty and staff have diligently followed the direction and guidance of the University, the Faculty of Health Sciences and our partner hospitals with regard to the pandemic. ■



Annette Rosati

BA, EMBA (candidate)
Director of Administration
Department of Medicine

“... 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

As I write this report, covering two years from the last report, it is truly staggering to see how our world has changed. Many of the issues that have been part of our ongoing activities in the Department continue to be extremely challenging and important. However, all of this is dwarfed by the impact of COVID-19 on every aspect of our lives.

I would begin by acknowledging the massive spirit of collegiality and cooperation together with the resilience of our colleagues in the Department and across all of the physician community. Our members have made huge contributions locally, provincially, and internationally at the bedside, in education and research.

At the time of my last report, I noted that I had been approved for a two-year extension to my term as Physician in Chief. I have now stepped down as the PIC and handed the reigns to an outstanding colleague. Dr. Khalid Azzam will be a fantastic PIC and carry the Department forward with humility and skill.

The never-ending issue of Clinical Teaching Unit resident and staff shortages has not gone away. Beginning in late 2019 it became clear that we would be very challenged to have enough resident support to provide both day and night time coverage in all of our sites. This issue extends well beyond Medicine affecting many other disciplines. With the help of external consultants and many meetings, a strategy to move forward was established. One of the most important aspects of this was to much more fully engage Physician Assistants as part of our care teams. The addition of three PAs to the medicine teams at each site has been very successful and indeed, critical in helping to deal with the waves of COVID patients. In General Medicine, we were fortunate to also recruit a

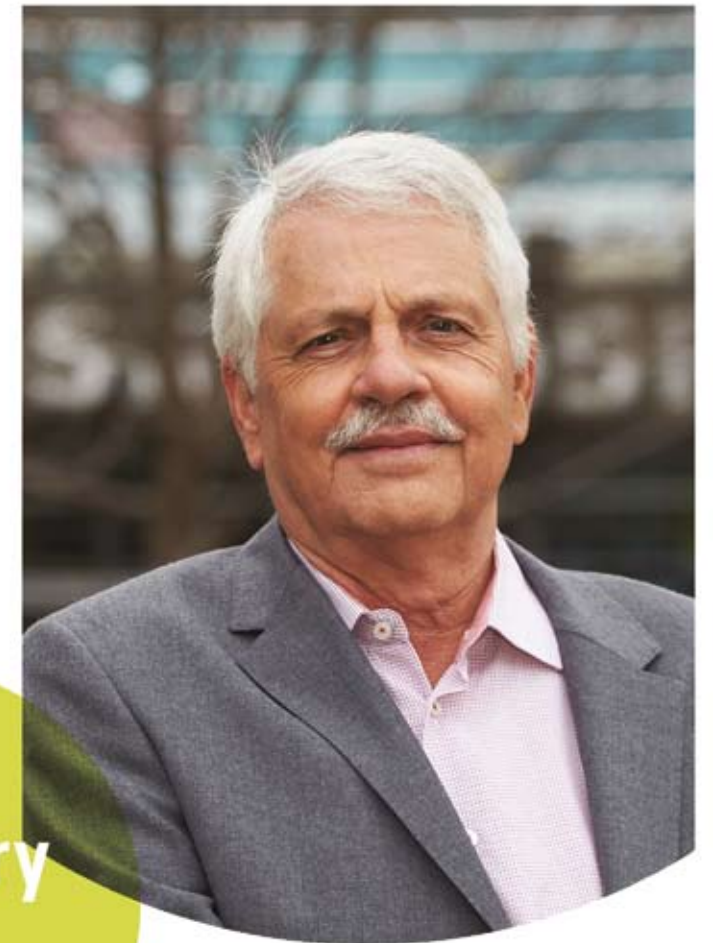
“ **THANK YOU DR. LUMB**
for 12 years of
dedicated service
as the Physician in Chief
at HHS.
You have always
carried out your role
with equanimity,
fairness and excellence.
Through your
strong leadership
and deep commitment
to others,
you have enhanced
clinical care, learning,
and education. ”

— Dr. Mark Crowther

higher number of international trainees as well as a couple of transfers from other programs. As a result, we have enjoyed a very good year in terms of resident numbers. However, this will not last, and I expect that further changes will need to be developed. These discussions will likely be on the agenda of our leaders as long as we are a teaching institution.

Hamilton Health Sciences has committed to implement Epic as the new enterprise-wide electronic health record. This will be the largest single project in the history of HHS and finally bring HHS into the modern digital world. Every aspect of the day-to-day care of our patients will change. Although HHS is implementing its' own instance of the Epic platform, the interoperability capabilities of Epic will allow patients to seamlessly move across all of our hospital sites and truly establish a single source of truth for a patients' care. The Department has embraced this project and we are fortunate to have several members involved at the leadership level. I am privileged to be the HHS Executive Lead for this project.

In my last report, I mentioned the importance of the Department moving ahead on the Quality and Patient Safety dimension of aca-



Dr. Barry Lumb

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

demical work. I am delighted to see that a group of very dedicated colleagues have now established a Quality Community of Practice for the Department and are planning their first QIPS Symposium for May 2021.

As I step away from my PIC role, I want to very gratefully acknowledge the help and support of our many colleagues who contribute every day to make us a highly successful academic department providing the very best care, education, and research. In particular, I need to thank Paul O'Byrne, Mark Crowther, Alistair Ingram, Annette Rosati, and Lori Whitehead. It has been an incredible privilege to hold this position for the last 12 years. I have truly gained much more than I was able to give.

As I noted above, Khalid Azzam is now the Physician in Chief. He brings extensive leadership experience to the role and is already showing us that he will be an outstanding leader going forward. You are in very good hands. ■

COORDINATOR REPORT

Department of Medicine at St. Joseph's Healthcare

It is difficult for me to put into words the admiration that I have for the medical staff and how they have performed during the pandemic... I particularly want to give a "shout out" to those Department of Medicine colleagues who volunteered to work in the covid unit during the 9 months before vaccination was available.

I have been asked to report on activities in the Department of Medicine at St. Joseph's Healthcare Hamilton (SJHH) for the period July 1 2018 to June 30 2020. Whilst it seems to me that pre and post roughly March 1 2020 might be a more appropriate construct, I will do my best.

General Internal Medicine continues to be very clinically busy at SJHH, with average daily inpatient census routinely exceeding 160 patients before COVID. This remarkably busy clinical service is led by Dr. Joe McMullin. Prior to covid, SJHH, along with other Ontario hospitals, was 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. This has been somewhat ameliorated by the creation of a temporary "satellite Health Facility" at the former Crowne Plaza Hotel downtown, funded by the Ministry until June 2022 per current plans. Sadly, we are also seeing a reduction of ALC pressures in the hospital as capacity in LTC becomes available, partly as a result of the terrible loss of life in the LTC sector secondary to COVID.

It is difficult for me to put into words the admiration that I have for the medical staff and how they have performed during the pandemic. My office has created an exhaustive "surge" schedule every 4 months or so during the pandemic; whilst we have rarely had to use it almost every member of the Department indicated without hesitation their willingness to participate according to their skills. I particularly want to give a "shout out" to those Department of Medicine colleagues who volunteered to work in the covid unit during the 9 months before vaccination was available. SJHH has

performed remarkably to date during the pandemic, with very few outbreaks. This has allowed us to maintain capacity to support the Region throughout the pandemic. I attribute this to a culture of attention to infection control practices by the medical, nursing and professional staff- indeed it seems by everyone who works in the hospital. It has been impressive.

The new Epic corporation electronic medical record, "Dovetale", has been the rails on which this organization runs now since December 2 2017. Although we expected a battle, most of us have no idea how we functioned in the antebellum period now. We continue to learn about and optimize Dovetale, and Dan Perri (our CIO) continues to lead us in this evolution, as well as deal with endless queries with considerable aplomb. Steve Wong and Andrew Cheung are leading a very exciting individual physician feedback program based on Dovetale data, meant to give Department members (starting with GIM) insight into their individual practices vis a vis their peers. All Department of Medicine out-patient areas are on Dovetale now too. Dovetale's ability to allow virtual visits has been a blessing of immeasurable proportions, and many of us will never have out-patient practices that look quite the same as before March 2020 again. We look forward to being "Happy Together" (a propriety epic program that joins two instances of Dovetale) when HHS finishes their "Odyssey" and goes live on Epic. The city and region will greatly benefit.

When I last wrote I highlighted some *New England Journal of Medicine* publications from the Firestone, this time I would like to highlight the largest ever clinical trial in vasculitis, the Pexivas

study, also in the NEJM, led by our own Mike Walsh in Nephrology. Other exciting developments are happening on the research front at SJHH; Lehana Thabane has just assumed the role of VP Research and a new Integrated Care Research Centre, which will use Dovetale "big data" to guide identification of and interventions for high-use GIM patients will open its doors in July 2021.

Major changes have occurred in the executive suite at SJHH. Melissa Farrell is our new President, and she cannot say that her new job has been without interest! Winnie Doyle assumed the role of interim CEO of the Health System and is bringing her characteristic sharp insight into evaluating how the system can best operate to meet the needs of its component organizations and patients going forward. Azim Gangji has assumed the new role of VP research here at SJHH; his unique energy is already being felt. David Russell has provided stability throughout the pandemic in his role as interim Chief of Staff and many of us have found his presence quite a comfort.

I would again like to close by thanking SJHH Medicine physicians for continuing to provide exemplary clinical care, lately at some peril to themselves but never missing a beat. It will be interesting to see what aspects of medicine, and our lives, have changed irrevocably when the pandemic is over. ■



Dr. Alistair Ingram

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

160+

The average daily number of patients the GIM Service routinely served before COVID.