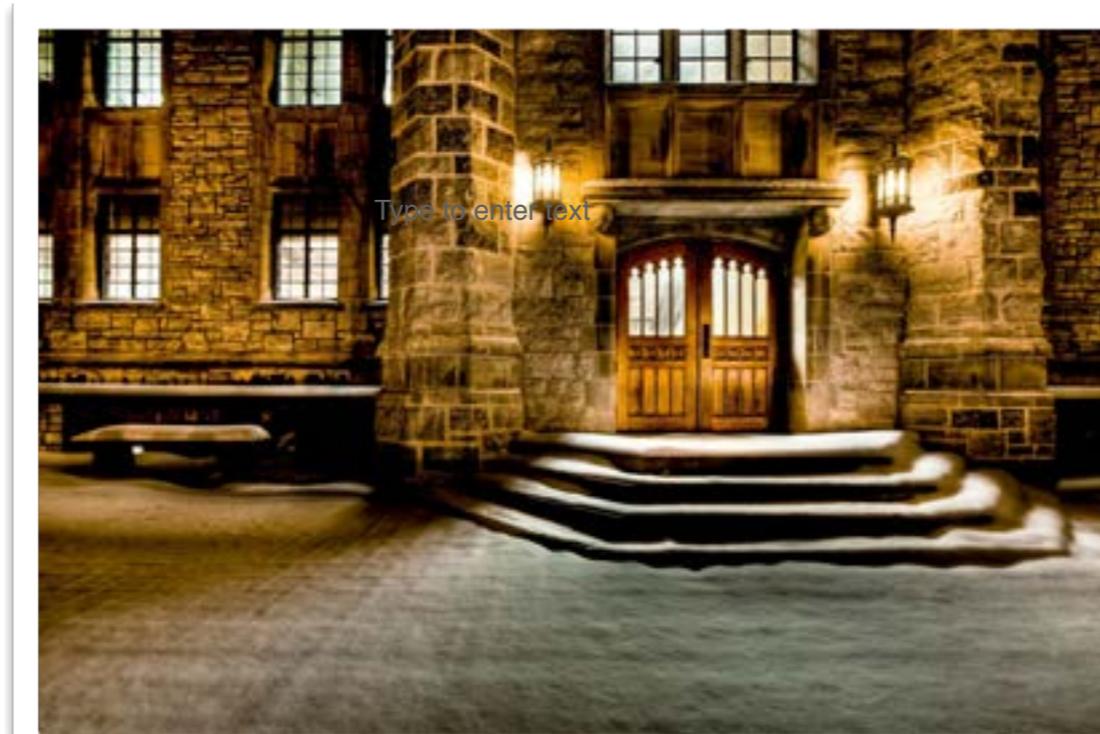


Department of Medicine Annual Report



2016 - 2017

Introduction

Program Reports

Divisional Reports

Patient Stories

Welcome to the Queen's Department of Medicine Annual Report for 2016-17. This report provides a recap of Departmental activities and achievements of note. The report provides updates on faculty, patient stories, research achievement, educational accomplishments and new innovations and projects in the Department.

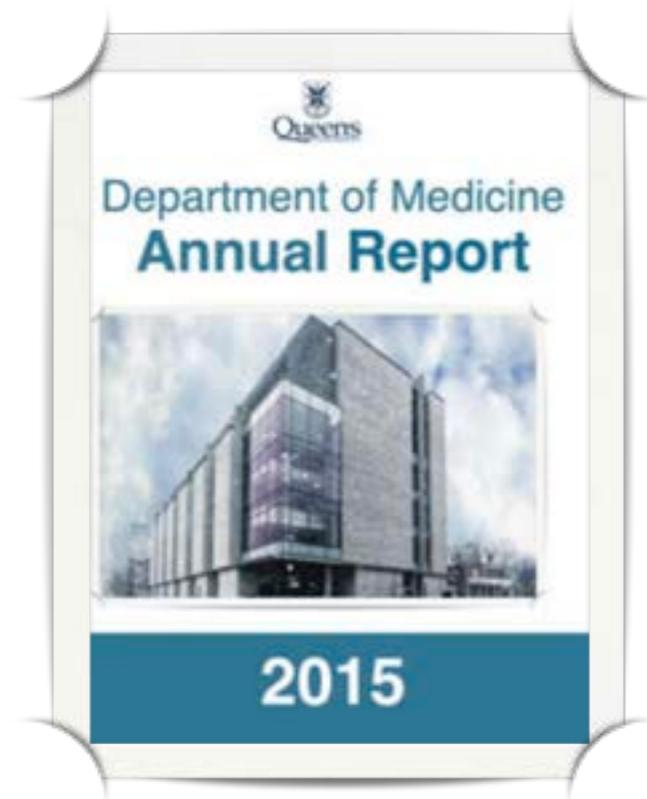
The electronic format that the Department has adopted allows the reader to enjoy many interactive features such as video, photograph galleries, and links to external websites for additional information.

Reading this Electronic Book

As you browse through, you'll see that this electronic book is a multi-touch medium, embedded with a variety of widgets. To maximize your experience, *tap on everything you see*. Some text boxes are scrollable, some photos have pop-up dialogue boxes, some photos are interactive and some words are hyperlinked to websites (*they appear in red*). [Click here](#) to learn more tips and tricks for using an electronic book.



Prior Annual Reports



For access to previous
Annual Reports Please click
on images above

Milestones

12 New Faculty Recruits

45 faculty involved in 1st
Women In Medicine Event

1st University to Implement
Competency Based Medical
Education

\$8.1M Research Funding in
2015/16

1st In Canada Hybrid Atrial
Fibrillation Ablation Procedure
Completed

1st Living Related Renal Donor
Transplant Performed

Over 20% of All Dialysis
Patients on Home Dialysis

Facilitated Creation of 3 Dedicated
Regional Stroke Sites to Reduce Mortality
Rate

Executive Report



2016 and 2017 (to date) have been exceptional years for the Department of Medicine. Departmental faculty and staff members continue to work extremely hard to meet and exceed targeted metrics set out for the Department, and we continue to focus on excellence in clinical care, research innovation, and education domains. The collegiality and cohesive nature of the Department of Medicine has been a profound theme this year. We have increased collaboration within our teams, added new faculty who are integrating well, and have improved our communications strategies so that we share the many successes of the Department.

A highlight of ongoing projects within the Department of Medicine can be seen below, a further testament to the drive and dedication of faculty and staff.

Women In Medicine Committee Launch

The Department of Medicine pushes forward with the newly launched Women in Medicine initiative. This initiative is focused on:

- Promotion of women in leadership roles
- Professional development opportunities
- Recognition of achievement
- Facilitation of work life balance opportunities
- Creation of networking opportunities and support systems within the Department

Leadership Learning Catalogue

The Department of Medicine strongly supports professional development and the continuing education of faculty members. To facilitate this, and improve uptake on professional development, the department will create a Leadership Learning Catalogue of recommended courses.

Physician Wellness Committee Launch

The Department of Medicine held a retreat in 2016, focused on physician wellness. Themes were discussed and action items identified. The goal moving forward is to further expand the grass-roots physician wellness program with support from the Department Head, in collaboration with the University at large and the hospital leadership.

Department of Medicine Continuing Medical Education Day

The Department of Medicine hosts an annual Continuing Medical Education (CME) event, which sees increased attendance year over year. This year, the Department piloted remote participation, and will continue to expand upon the reach as well as the topics presented in this event. The 14 Divisions within the Department of Medicine are also working to phase in division-specific CME events for the Kingston community physicians and allied health professionals.

Creation of Translational Institute of Medicine (TIME) & TIME Graduate Program

The Translational Institute of Medicine has been integrated into the Faculty of Health Sciences strategic plan as a priority for the University. The coming year will focus on further development of the TIME framework and hiring for key positions within the institute.

The TIME Graduate Program, led by Hematologist Dr. Paula James, received pre-approval by the Graduate Studies Executive Council in November 2016. Moving forward Dr. James will continue to work on creation of a new graduate program (MSc and PhD) under the Queen's University Quality Assurance Processes. A project coordinator has been hired to lead the development of the full application and proposal.

For more on the Translational Institute of Medicine Graduate Program click [here](#).

Creation of Queen's Cardiopulmonary Unit (Q-CPU)

Following the positive news about the successful CFI grant application to fund the creation of the Q-CPU, much work has been done to prepare for the establishment of the research centre. The space has been designed and constructed and staff have been hired to push the project to opening (expected Fall 2017). The Q-CPU unit is an 8,000 square-foot state of the art facility inside the Queen's Biosciences complex. The Q-CPU is a leading research group, which focuses on understanding

molecular mechanisms underlying, as well as the development of translational therapeutics of pulmonary arterial hypertension.

The Q-CPU consists of three cores:

- 1) Pre-clinical discovery and experimental therapeutics
- 2) Translational research and clinical trials
- 3) Population health.

For more on the Q-CPU see the [Research Report](#).

Quality Improvement

The Department of Medicine has a robust Quality Improvement committee, however with the recent departure of Dr. Roy Ilan, there will be a change in leadership and composition of the committee. There will be a renewed agenda and structure, and the committee will be co-chaired by Dr. Digby and Dr. Abunassar. Moving forward, the projects within the committee will see continued momentum as well as furthering the development of a cohesive group of QI specialists working together to achieve improvement goals. It is hoped that education resources in QI for existing staff members will be developed to increase efforts on a broad scale.

For more on Quality Improvement within the Department of Medicine click [here](#).

Enhanced Research Networking Opportunities

The Department of Medicine held a very successful inaugural research fair in 2016, which provided an opportunity for members to showcase their research, and for residents to

connect with potential faculty supervisors. The Department will host the next event in September 2017 with a more enhanced and directed format.

Referral Project

During the Fall Retreat in 2015 it was suggested by faculty that the Department of Medicine launch a centralized referral process. Since that time this has been discussed with the Local Health Integrated Network (LHIN) with a plan to apply for pilot funding. Internally, the Department of Medicine will push this initiative forward for pilot divisions with the possibility of expansion. The goal of this initiative is to streamline incoming patient referrals for the referring physician.

Website Redesign Project

In partnership with the Faculty of Health Sciences the Department of Medicine website will be completely revamped in both content and visual identity. The website redesign process will improve access to information for patients, researchers, and potential students of the Department of Medicine.

Faculty Succession Planning

As the Department of Medicine continues to experience rapid growth, and as senior faculty members continue to be selected for leadership roles across the faculty and hospitals, the department plans to focus on internal succession planning via two avenues. Firstly, the department will focus on identification of stellar trainees and provide them the development opportunities to become full-time faculty within the department

upon completion of training. Additionally, the second avenue is to identify members of faculty with leadership potential and provide development opportunities with the intent of them filling the leadership roles, such as future Division Chairship.

Communications – Social Media and E-Newsletter

The Department of Medicine is increasing focus on communication. The Department will continue to showcase success stories, achievements, upcoming dates, and innovative programs via new communication channels. The Department has launched a Twitter account @QueensuDOM and additionally distributes a monthly E-Newsletter feature to faculty that is also distributed via Twitter.

Enhancing and Clarifying Promotion Application Process

The Department of Medicine will focus on pro-active identification of candidates for promotion, seek support from Division Chairs, develop clear check-lists and guidelines for promotion applications, and facilitate internal mentorship by senior faculty to junior faculty with the goal of promotion. The goal of this project is to provide encouragement and support to faculty members while ensuring those applying for promotion are provided with as much information and impartial guidance as possible to see maximal success. An education CME-style event will be hosted on this topic.

Quality Clinician Promotion Track

As noted, Quality Improvement and Patient Safety are important to the Department of Medicine. To that end, the department is developing a Quality Improvement and Patient Safety promotions track that encourages and recognizes quality improvement efforts. With the support from the Dean and Faculty of Health Sciences the Department of Medicine will pilot this track, and if successful, the hope is that it will be expanded to other faculties.

Preparing for Competency Based Medical Education (CBME) launch

Dr. Chris Smith established a Department of Medicine CBME Committee, comprised of all Training Program Directors. This committee helps with navigation and implementation of CBME to ensure that it occurs smoothly and with the greatest success. CBME dollars were pooled together to hire two educational consultants to help training programs with their CBME objectives.

Acknowledgements

The successes of the Department would not have been possible without the immense effort put forth by faculty, residents, house-staff and support staff. I would like to specifically thank Dr. Stephen Vanner, Deputy Head of Medicine, as well as the talented administrative team that I am honored to work with.

Administrative update:

2017 is a year of transition for the Administrative Team, with upcoming maternity leaves and new recruitment.

Ms. Anita Ng, Manager of Operations, is wished the best of luck in her journey to motherhood. Anita will be leaving the Department on a 6-month maternity leave beginning in November. Her support of the Department of Medicine faculty and administrative team is second to none and her absence will be felt immensely.

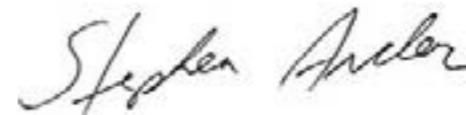
Secondly, Ms. Emily Briffett, Finance Officer, is also embarking on a maternity leave in August 2017, and is wished the very best in her transition to motherhood. Her sound financial advice and levelheaded approach to Departmental finances will be missed. The department is thrilled to welcome Ms. Erin Braidford who will take the wheel in Emily's absence. Erin is welcomed to the Department of Medicine where her years of previous experience, and approachable manner make her an ideal candidate for the position.

Ms. Whitney Montgomery, former Research & Grants Coordinator within the Department of Medicine has taken on the position of Manager Facilities & Operations, QCPU, and Research Associate, TIME. During her time with the Department of Medicine as Research & Grants Coordinator, Whitney made a huge impact and took on an immense workload with multiple additional projects added to her portfolio. The transition to her new role will allow her to further develop these

projects and the department is grateful for her efforts and dedication. Ms. Chao Xue has been hired as the new Research & Grants Coordinator and is an ideal candidate for this position. Her positive attitude and eagerness to learn the role is already felt in the short time that she has been with the department. Welcome Chao!

The Department of Medicine Administrative Team bade farewell to Ms. Clarrie Lam as she embarked on her new journey to Russia. Her absence is felt immensely, though her friends and colleagues wish her the best of luck.

Ms. Jennifer Andersen (Research and Staffing Officer), Ms. Jill McCreary (Special Projects and Communications Coordinator), and Ms. Stephanie Hartwick (Administrative Assistant to the Department Head) will remain in their positions working diligently on their portfolio's whilst welcoming and orienting the new staff members to the Department of Medicine.



Head,
Department of Medicine

2016/17 Recruitment Update



Ramana Appireddy
Neurology



Genevieve Digby
Respirology



Joe Abunassar
Cardiology



Sidd Srivastava
General Internal Medicine



Sara Awad
Endocrinology



Stephen Gauthier
General Internal Medicine



Sam Silver
Nephrology



Moogeh Baharnoori
Neurology

2016/17 Recruitment Update

2016/2017 New Faculty



Evan Wilson
Infectious Diseases



Andrew Smaggus
GIM



Wael Abuzeid
Cardiology



Alison Flanagan
Palliative Care

Education Report



Dr. David Taylor
Director, Core Internal
Medicine Program

This past year has seen numerous challenges and even more successes for the education programs within the Department. The collective move towards the implementation of competency-based medical education continued as a primary focus. Departmental programs have made great strides over the year developing the resources and tools needed to move towards the CBME launch date – July 1st, 2017. The Department has a great team of education leaders doing amazing work preparing for this titanic shift in post-graduate medical education.

2016 also saw numerous awards recognizing exceptional contributions to departmental programs. Dr. Sidd Srivastava was awarded the PARO resident teaching award at Queen's for his amazing contributions to resident education. Dr. Thiwanka Wijeratne was likewise awarded the PARO faculty teaching award for his teaching. At the undergraduate level, the Connell award for outstanding contributions to the education of the graduating class again was awarded to department of medicine members—Dr. Tony Sanfilippo and Dr. Sue Moffatt each receiving this honour.

Beyond the awards, all of the department members continue to provide the kind of education that keeps Department of Medicine programs at the forefront of medical education in Canada.

Medical Grand Rounds



Medical Grand rounds is a well-attended traditional medical education venue whereby faculty at the Department of Medicine share discoveries and advances in their field of expertise. The Department of Medicine Medical Grand Rounds experience is robust and engaging and provides an excellent learning opportunity for all in attendance.

This past year has seen a number of topics on a range of hot topics including, but not limited to:

Topics

Dr. Jennifer Flemming New Kid on the Block - The Global Epidemic of Fatty Liver Disease

Dr. Stephen Archer Meds '66 - Meds 2016: What's Changed in 50 Years?

Dr. Roy Ilan Goals of Care Decision Making - for Hospitalized Patients

Dr. Ray Viola What's in a name? Would palliative care by any other name be the same?

Dr. Ben Glover AF Stroke Prevention - Caught Between a Rock and a Hard Place

Dr. Yuka Asai Skin Cancer Screening: Who, What, When, Where, Why and How

Dr. Tabitha Kung Rheumatoid Arthritis: Early Treatment and Beyond

Dr. Sita Bhella Allogeneic Hematopoietic Stem Cell Transplantation 101: the Good, the Bad and the Ugly

Dr. Sudeep Gill Assessing Rehabilitation Potential in Older Adults

Dr. Genevieve Digby Improving Quality and Value in the Lung Diagnostic Assessment Program

Providence Manor Update

Celebrating the Opening of Providence Care Hospital

This year was an exciting one for Providence Care. After years of advocating and planning for a new hospital, the dream became a reality when two of our facilities were brought together under one roof. In April 2017, all patients from St. Mary's of the Lake Hospital and Mental Health Services site (formerly the Kingston Psychiatric Hospital) moved to the new Providence Care Hospital. The inpatient move day went very smoothly with outstanding support from staff and physicians across the organization. In particular, we had sending physicians on each unit who were responsible for assessing patients prior to departure and receiving physicians that welcomed patients to their new unit alongside staff and volunteers. Although move day was a huge success, what happened behind the scenes to prepare for this day is an even greater accomplishment. The countless number of hours, days, weeks and years that were spent preparing for our new facility was a critical success factor. Providence Care's staff, physicians and volunteers deserve recognition for dedicating their time to plan for our transition.

The need for a new hospital initially came from a Health Services Restructuring Commission direction in 1998. The direction was amended in the early 2000s and the need to consolidate facilities was articulated in more detail in 2004. During this time, the St. Mary's of the Lake Hospital site and Mental Health Services site were deemed to be dated, oversized and inefficient facilities that required significant upgrades as they aged. In 2011, the government approved plans to build a 270-bed facility on the King Street site, next to Lake Ontario Park. Over





Kingston Health Science Centre Update



Christopher Gillies
Director, Medical Affairs
Kingston Health
Sciences Centre

Over the past year, Kingston Health Sciences Centre (KHSC), with the support and engagement of the Department of Medicine (DOM) have collaborated on a number of initiatives, at both Hotel Dieu Hospital (HDH) Site and Kingston General Hospital (KGH) Site to enhance our clinical and academic mandate. Here is a quick snapshot for some of the accomplishments over the past year:

- Implementation of a dedicated WiFi network, for the launch of CBME, at the HDH site and enhanced the private network at the KGH site;
- Development of a “Resident Inbox” in the patient care system (PCS) so residents can have real time information on our patients to review and manage patient care activities and enhance our training for transitioning into practice;
- The ongoing development of a revised eDischarge Summary, that is tailored to meet the specific needs of respective divisions;
- Integration of the KGH and HDH into the KHSC; and
- Regional Credentialing system for physicians.

The above initiatives could not have been developed or implemented without the support from our physicians and residents and the support of the KHSC’s Information Management Department. A number of physicians and residents in the DOM spent significant time in guiding and advising KHSC on the development of these initiatives and we thank them for your continued time and support.

Research Report



Research Report

The goal of the research committee includes growth of our research capacity through provision of seed grants, development of an internal peer review program and provision of protected time for research for clinician scientists.

DOM Research Funding

The total research revenue received by the Department of Medicine in Fiscal 2015/2016 was \$8.1M (Figure 1). Approximately \$5.6M was received from peer-reviewed funding and \$2M from clinical trials funding (Figures 2 and 3).

DOM Innovation Fund

In 2016 the Department of Medicine held its annual grant competitions for the DOM Innovation Fund, DOM Research Award and John Alexander Stewart (JAS) Fellowship to support research opportunities within the Department.

A total of \$171,076 was awarded across the three categories for the 2016 competition. Three faculty members received DOM Research Award Operating Grants, and two faculty members were awarded DOM Innovation Fund grants (one ICES project grant and one Education grant). Two JAS fellowships were awarded to Post Doctoral Fellows supervised by DOM Faculty members.

DOM Innovation Fund

In 2016 the Department of Medicine held its annual grant competitions for the DOM Innovation Fund, DOM Research Award and John Alexander Stewart (JAS) Fellowship to support research opportunities within the Department.

A total of \$171,076 was awarded across the three categories for the 2016 competition. Three faculty members received DOM Research Award Operating Grants, and two faculty members were awarded DOM Innovation Fund grants (one ICES project grant and one Education grant). Two JAS fellowships were awarded to Post Doctoral Fellows supervised by DOM Faculty members.

2016/17 Research Awards

Dr. Amer Johri

- Awarded the 2015/16 Mihran and Mary Basmajian Award for Excellence in Health Research recognizing meritorious contributions to health research by faculty members with maximum eight years research experience http://healthsci.queensu.ca/research/research_resources/basmajian_award

Dr. Stephen Archer

- Recognized with the **American Heart Association (AHA) Distinguished Scientist** Award, honoring AHA/ASA members who have made extraordinary contributions to cardiovascular and stroke research

Dr. Stephen Vanner

- Recipient of Queen's University 2016 Prize for Research Excellence awarded to outstanding Queen's researchers to celebrate major research contributions either completed or recognized in recent years

Research Report

Other Notable Research News

Dr. Paula James

- Launch of Canadian Health and Family **Von Willebrand Program on Canadian Health and Family (CTV)**
- New website, **“Let’s Talk Period”** launched

Dr. Christopher Simpson

- Named Director at Large of the Canadian Academy of Health Sciences (CAHS) Board: CAHS brings together Canada’s top-ranked health and biomedical scientists and scholars to make a positive impact on the urgent health concerns of Canadians

SEAMO Innovation Fund Showcase 2016:

The following DOM Faculty were invited to present at the SEAMO Innovation Fund Showcase event held in Toronto:

- **Dr. David Maslove** for project entitled Intelligent monitoring for hospital inpatients based on continuous physiologic signals
- **Dr. Diane Lougheed** for project entitled AsthmaLife: integrating performance evaluation into the process of asthma care
- **Dr. Elaine Petrof** for project entitled Elucidating the factors that determine success in fecal transplant therapy for c. difficile infections

Internal Grant Review Program

The Internal Grant Review Program was established to provide opportunities for Department members applying for external grants to receive feedback from their peers. The program continues to play an active role in the Department with the aim of increased success for grant applications submitted by DOM members. In 2016, five proposals or grant ideas were reviewed under the program. This included proposals for Tri-council funding (CIHR) as well as for Foundation funding.

In response to recent changes for CIHR Project Scheme and Foundation grant competitions, together with the Faculty of Health Sciences of the DOM has expanded its internal grant review program to include a mandatory review process for CIHR applications. This process will take effect for 2017 CIHR grant competitions.

Research Report

Translational Institute of Medicine (TIME)

Led by Dr. Stephen Vanner and Dr. Archer, the concept for Translational Institute of Medicine (TIME) was first presented to DOM Faculty members at the 2015 Fall Annual Retreat and made strategic priority by the DOM Executive. The aim of TIME is to optimize expertise and state-of-the-art research platforms, improve collaboration and enhance access to technology and infrastructure resources.

In 2016 the Department formed the TIME Advisory Committee to advise on the creation of TIME, and developed a proposal for the Queen's Senate Advisory Research Committee (SARC) to request provisional approval of TIME under direction of Dr. Stephen Vanner (Interim Director, TIME). TIME has since been granted provisional approval as a Faculty-based Institute in FHS by the Office of the Provost and Vice-Principal (Academic) (read more here). Also in 2016, the Translational Medicine Graduate program, a key initiative of TIME led by Dr. Paula James, was granted approval by the Graduate Studies Executive Council (GSEC) to proceed with a full graduate program application.

Research Committee

The goal of the DOM Research Committee includes growth of research capacity through provision of seed grants, development of an internal peer review program and provision of protected time for research for clinical scientists. Members of the Department of Medicine Research Committee in 2016 included Drs. Stephen Vanner (Chair), Rachel Holden, Paula James, Diane Lougheed, Elaine Petrof, Denis O'Donnell and Mark Ropeleski. The ex-officio members are Drs. John Fisher, Stephen Archer and Roger Deeley.

The Committee is currently being reconstituted with membership comprised of

2016 Research Highlights:

- Overall research revenue received by the Department of Medicine was 8.1M
- The Department received approximately \$5.6M in peer-reviewed funding and \$2M in clinical trials funding
- DOM Innovation Fund, DOM Research Award and JAS competitions awarded \$171,076 in funding to DOM Faculty and their trainees
- The TIME Advisory Committee was established to advise on the creation of TIME and to oversee development of the proposal for provisional institute status
- The Translational Medicine Graduate Program was granted approval by the Graduate Studies Executive Council (GSEC) to proceed with a full graduate program application
- The Core Internal Medicine Residency Training Program & DOM partnered to host the Resident Research Fair, aimed to inspire research connections and collaboration between residents and faculty

Research Report

Resident Research Fair

The Core Internal Medicine Residency Training Program & Department of Medicine teamed up to host the Resident Research Fair in September 2016. Born in response to needs identified by resident leadership, the event aimed to inspire research connections and collaboration between residents and faculty through networking, sharing best practices for new residents' approach to research, and highlighting research opportunities for residents within the Divisions.

Dr. Amer Johri was the Faculty keynote for the event and several residents shared their experiences with research and 'tips for success' for their resident peers. Resident presentations were delivered by Dr. Sahil Koppikar, Dr. Adam Fundytus, Dr. Kerry Lake and Dr. Jamil Ladha. We look forward to building upon the success of this event at the next Resident Research Fair in 2017.



Research Report

Research Funding by Fiscal Year

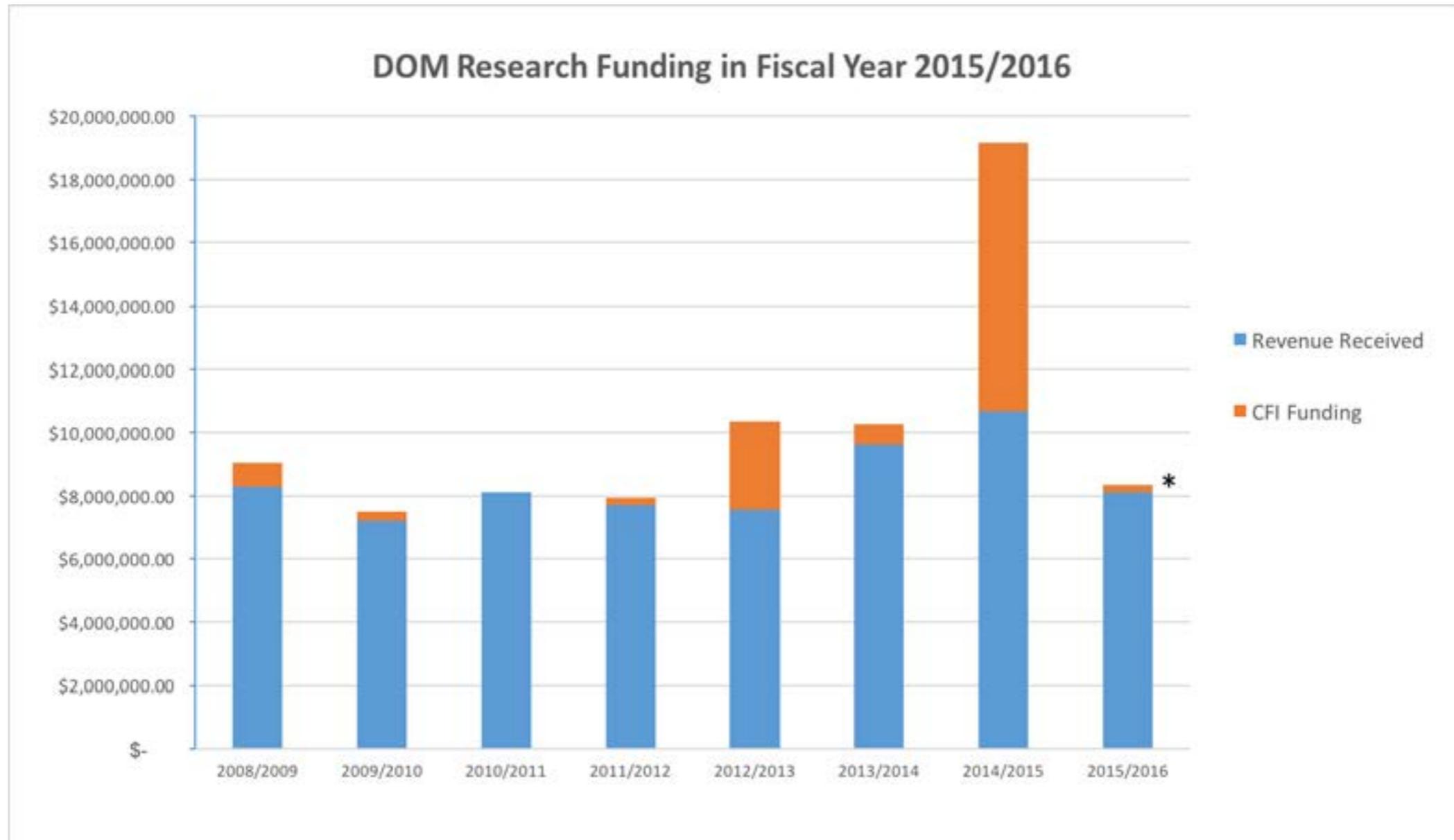


Figure 1: Research Funding in Fiscal Year 2015/2016 including Revenue Received and CFI awarded funding.

*The Department of Critical Care Medicine is now formally recognized as a Department of Queen's independent from the Department of Medicine. As a result, research revenue for investigators now associated with Department of Critical Care Medicine (DCCM) which would have previously been recorded for DOM is now recorded as revenue for DCCM effective Fiscal Year 2015/2016.

Research Report

Fiscal Research Funding Distribution (Total \$)

Fiscal 2015/2016 Research Funding Distribution (Total \$10.5M)

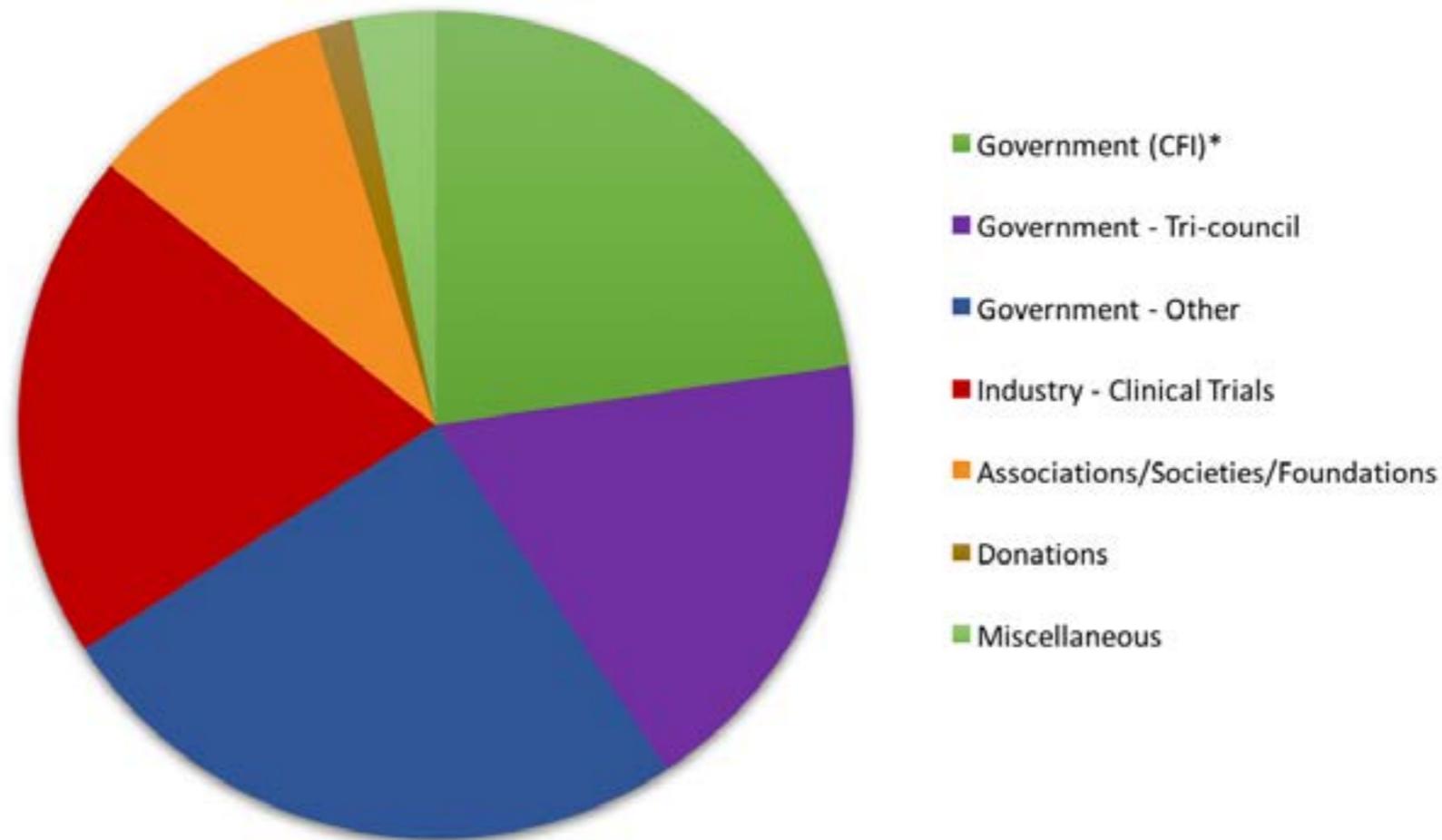


Figure 2

Research Report

Fiscal Research Funding By Division

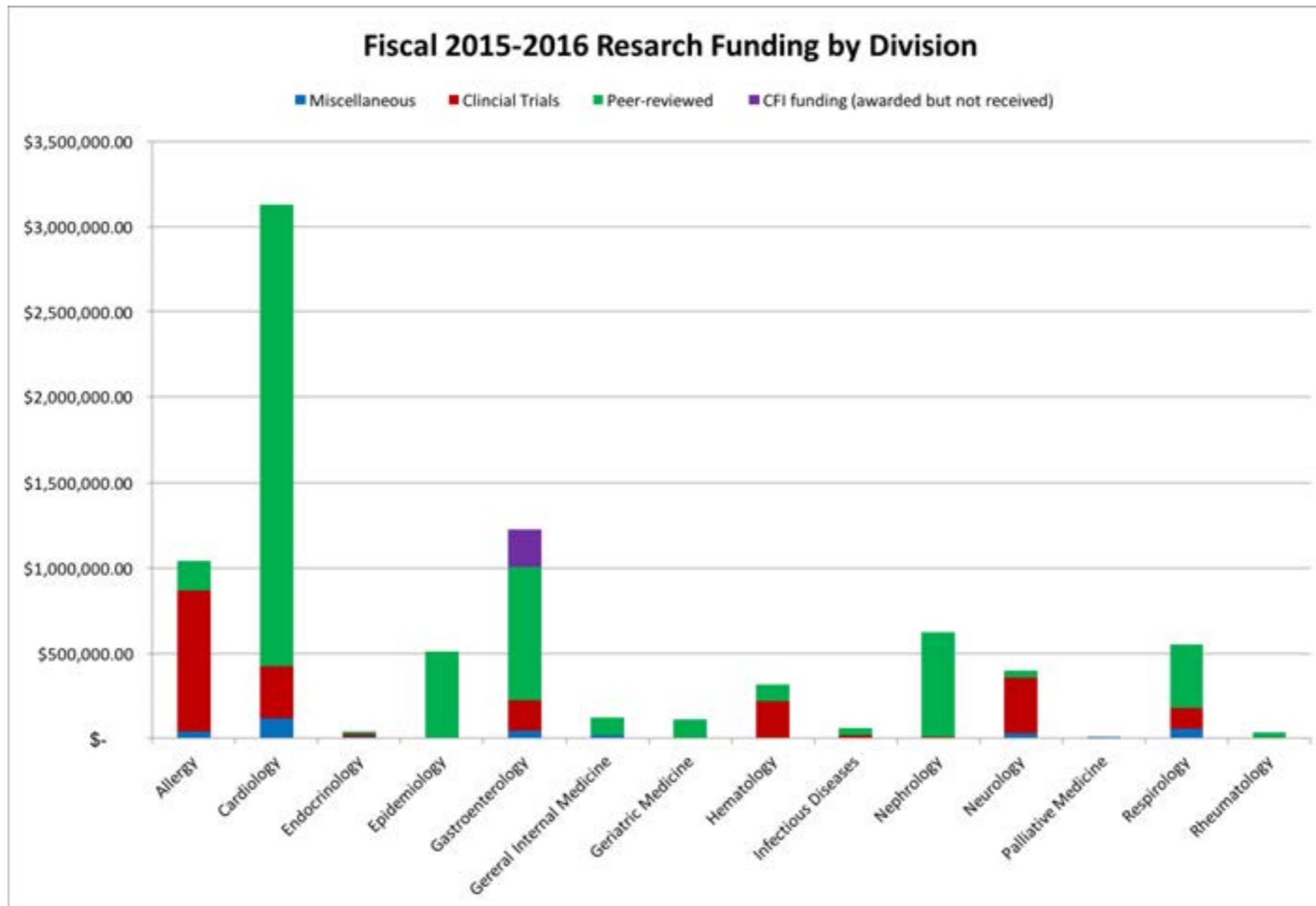


Figure 3

Research Report

Number of Research Trainees in 2016

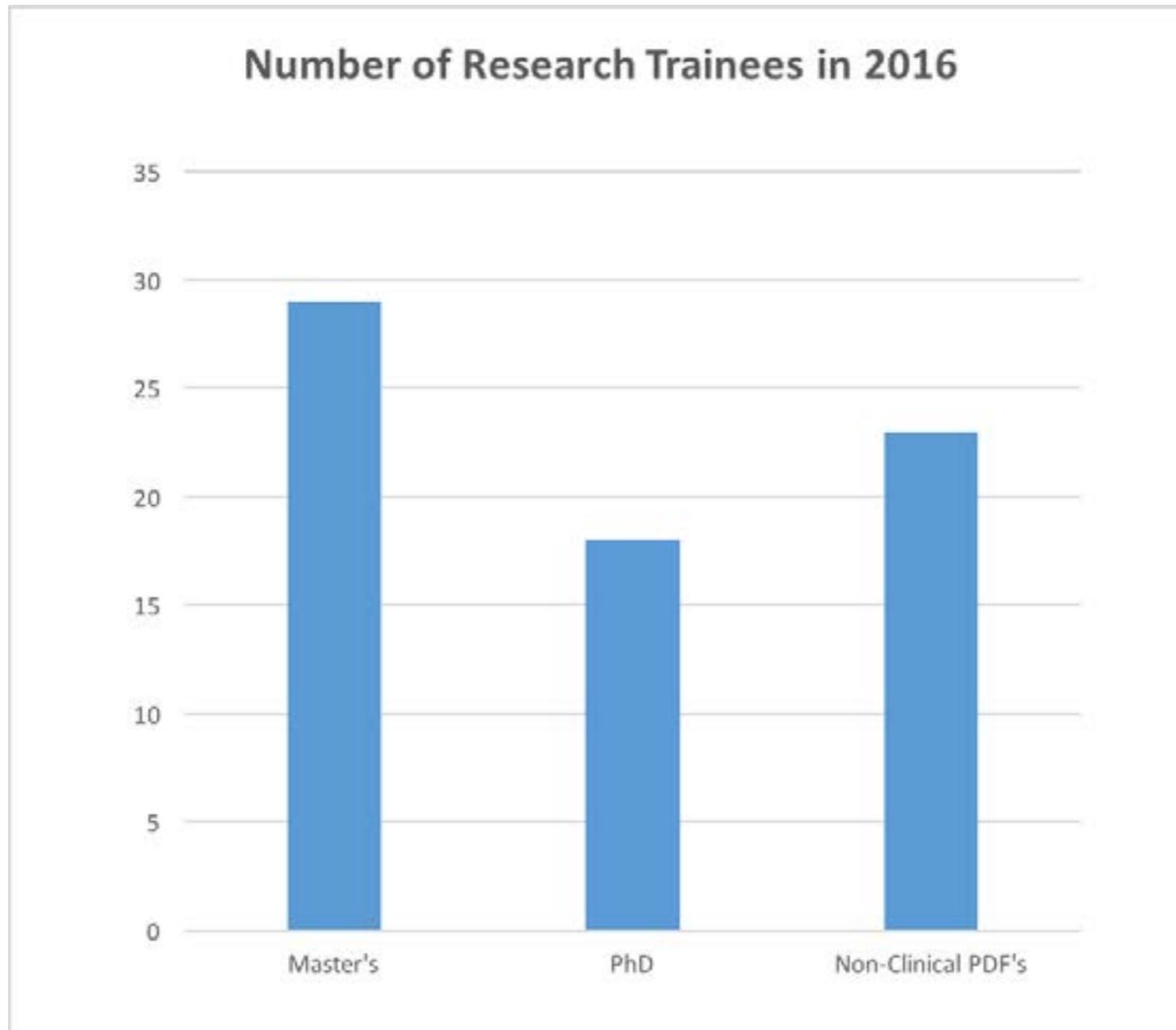


Figure 4

Events and Awards



CME Day 2017

The 4th Annual Department of Medicine CME day was held on May 16th, 2017, and was a tremendous success. With nineteen informative and educational seminars presented throughout the day, the audience were provided with top quality education on a wide range of topics.

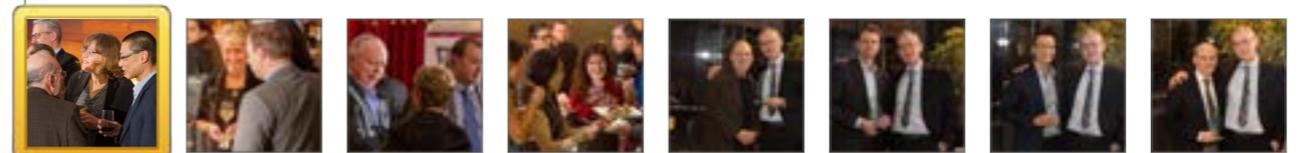
The day's Keynote Speaker, Dr. Leslie Flynn, provided a fascinating presentation on Physician Health and Wellness which was well received by the attendees. One member of the audience noted "This was a great day. excellent speakers! Leslie Flynn's talk was life changing."

The 5th Annual CME Day has been scheduled for May 30, 2018 and



Annual Awards Ceremony

The Annual Awards Ceremony is a memorable event hosted by the Department of Medicine to celebrate the outstanding contributions our faculty members have made to the Department and to their fields. Winners in the following award categories, including those deserving a special mention, are announced at the Annual Awards Ceremony. It is a night where we all have a chance to come together as a Department and reflect on everything that we have accomplished throughout the year – it is a night that should not be missed! The 2016 Awards Ceremony was one like no other. Due to a power outage, the first event was cancelled at the last minute. Thankfully, the children participating as part of our charity **Sistema Kingston**, were able to perform, albeit for a small audience. Their performance video can be viewed on the next page of the report.





Sistema Kingston's Performance at the First Department of Medicine Annual Awards Ceremony

Physician Health

Physician Health Project

As a result of the 2016 Department of Medicine Fall retreat, focused on physician health and wellness, the Department of Medicine is in the beginning stages of forming an official Physician Health Committee.

This committee will be comprised of faculty in various stages of their career, working together to push this grass roots initiative forward. As seen in the below review document, the Department of Medicine Fall Retreat identified some major themes of focus including:

- Improved new faculty on-boarding process
- Facilitated mentorship events
- Revamped research mentorship program
- Networking and social event planning
- Leadership and succession planning
- Peer support
- HR management support
- Improved communications
- Retirement transition plans
- Learning catalogue



Women In Medicine

Women In Medicine Committee

The Department of Medicine launched a 'Women in Medicine Committee' at the beginning of 2017. The inaugural event was formatted as an evening of sharing and celebration for the women in the Department of Medicine. This initiative has the goal of providing support, improving faculty networking and highlighting educational and promotion opportunities specifically targeted to the female members in the Department of Medicine.

The inaugural event hosted keynote speakers on a variety of pertinent topics including History of Women in Medicine (Dr. Jacalyn Duffin), Women Working at Queen's & Various Supports (Ms. Jennifer Valberg), and Dr. Elizabeth Eisenhauer presented on her experiences as one of the first Women in Medicine at Queen's.

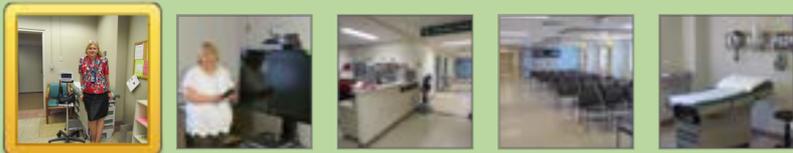
The evening was an immense success and many themes were identified such as the importance of:

- Appreciation and celebration
- Community for Women in Medicine
- History of Women in Medicine
- Promoting Leadership in Women in Medicine

Clinical Report: Outpatients



Dr. Houlden in the Telemedicine Clinic



Dr. Robyn Houlden
Chair Ambulatory Clinics
Committee

Ambulatory Clinics Report 2016

Robyn Houlden, Chair, Ambulatory Clinics Committee

The ambulatory care clinics have continued to be a hub of clinical activity for the Department of Medicine. Most activity occurs at the Hotel Dieu Hospital (HDH) clinics with the exception of nephrology clinics at Kingston General Hospital (KGH), geriatric clinics (Providence Care Hospital), multidisciplinary neuromuscular clinics (Providence Care Hospital), respiratory rehabilitation clinics (Providence Care Hospital), and cancer clinics (Kingston Regional Cancer Centre). Clinic utilization at HDH remains high, running at 94%. Clinic utilization reports are regularly shared with Department Heads, Division Heads, Program Operational Directors and Program Managers.

Forms for requests for new or expanded clinics have been updated, and are now posted on the intranet and can be completed online. In addition, ambulatory treatment record sheets have been developed for each division and have been customized based on divisional input regarding their unique recording needs.

The use of telemedicine in ambulatory care continues to increase with both direct (when the physician talks to the patient) and indirect (when two physicians discuss a patient without the patient being present) events. Telemedicine is also being used for educational and administrative events. A tri-hospital Telemedicine Working group comprised of Kingston Health Sciences Centre (KGH/HDH sites), SEAMO and Providence Care continues to meet regularly to plan increased use of the technology at each site.

Availability of Personal Computer Video Conference (PCVC) continues to progress. This initiative will allow the patient to use their computer at home and videoconference with the physician at the hospital via a secure portal.

A new Medical/Surgical Assessment and procedure Clinic (MSAP), at KGH was started in 2016, funded by the Ministry of Health, in which patients were seen with minor issues not

Clinical Report: CTU

CTU Report 2016

The Clinical Teaching Units (CTUs) provide the educational environment for teaching undifferentiated clinical medicine to our residents. Teamwork and collaboration with our allied health colleagues is emphasized in providing care to our patients and the care navigators continue to be key members of the CTU teams. Daily bullet rounds were moved to 9am each morning in an effort to consolidate discharge plans early in the day.

Currently the 5 CTUs (A-E) admits and discharges over 4600 patients a year. Like all internal medicine services across the province, inpatient medicine is becoming busier each year with a 30% rise in admissions over the past 6 years. Just over 60% of the CTU Attendings are from the Division of General Internal Medicine (GIM) and the remainder are from the other Divisions in the Department of Medicine. Some locum attending coverage has been required with the majority being former trainees from our programs. The CTU H service is run by Dr. Rasika Wijeratne and our Nurse Practitioner Bernie Cowperthwaite and has been consolidated onto Connell 3 ward. They provide excellent care for a subset of the medical patients who require a prolonged hospital stay for a variety of medical and social reasons.

There were no major structural changes during the calendar year, but a significant geographical reorganization of the medicine bedmap is planned for 2017. It is anticipated this will help reduce gridlock of internal medicine patients waiting in the Emergency Department for a bed.

Each of the teams has their own teaching room and educational conferences occur most days. With the departure of Dr. Morton morning report has lost one of its iconic teachers. However a variety of Attendings have stepped in to continue the tradition of Faculty moderated discussion of clinical cases on the wards.



Chris Smith
Associate Professor of
Medicine
Head, Division of
General Internal
Medicine

Quality Report

Quality Improvement Report

There have been many exciting advances in Quality Improvement and Patient Safety (QIPS) within the Department of Medicine over the last year.

Under the guidance of Dr. Roy Ilan, a long-standing member of the DOM whose career has been devoted to QIPS, there has been marked increase in popularity of this scholarly and educational focus. His work has had meaningful impact in terms of developing strategies to improve handover, documentation of goals of care, and through development and implementation of checklists to standardize evidence-based care delivery. He has been the Chair of the Department's QIPS Committee, recently joined in a co-chair role by Dr. Geneviève Digby, a new Department member with a QI background. Furthermore, along with Dr. Johanna Murphy and Dr. Digby, the Internal Medicine Patient Safety Rounds have flourished. This year, the committee is very sad to be losing Dr. Ilan as he will be returning to Israel where he will continue his passionate work in QIPS. While he will be sorely missed, he is leaving behind a QIPS program that has grown tremendously over the last several years, and Department members who will continue to advance the educational and scholarly curriculum he developed.

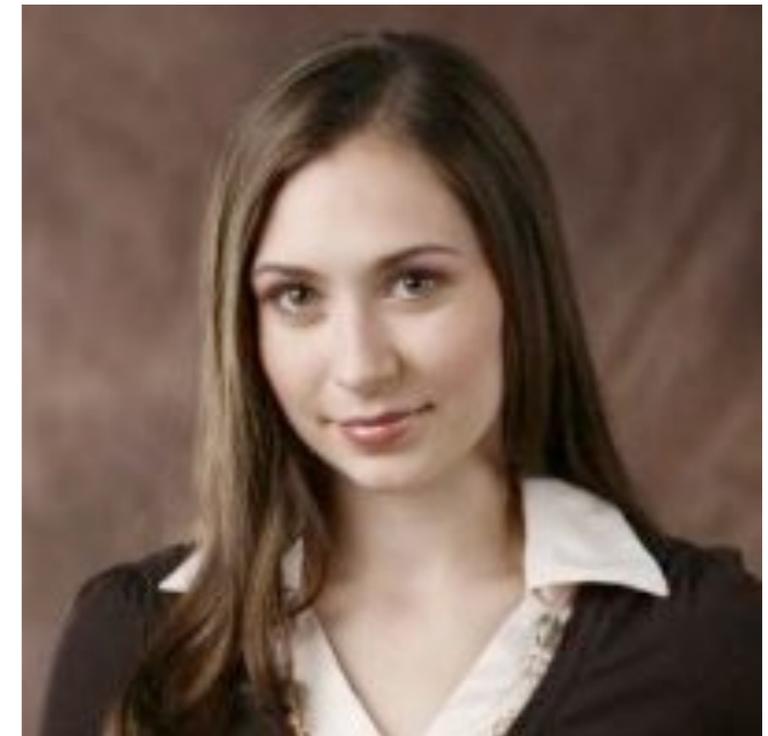
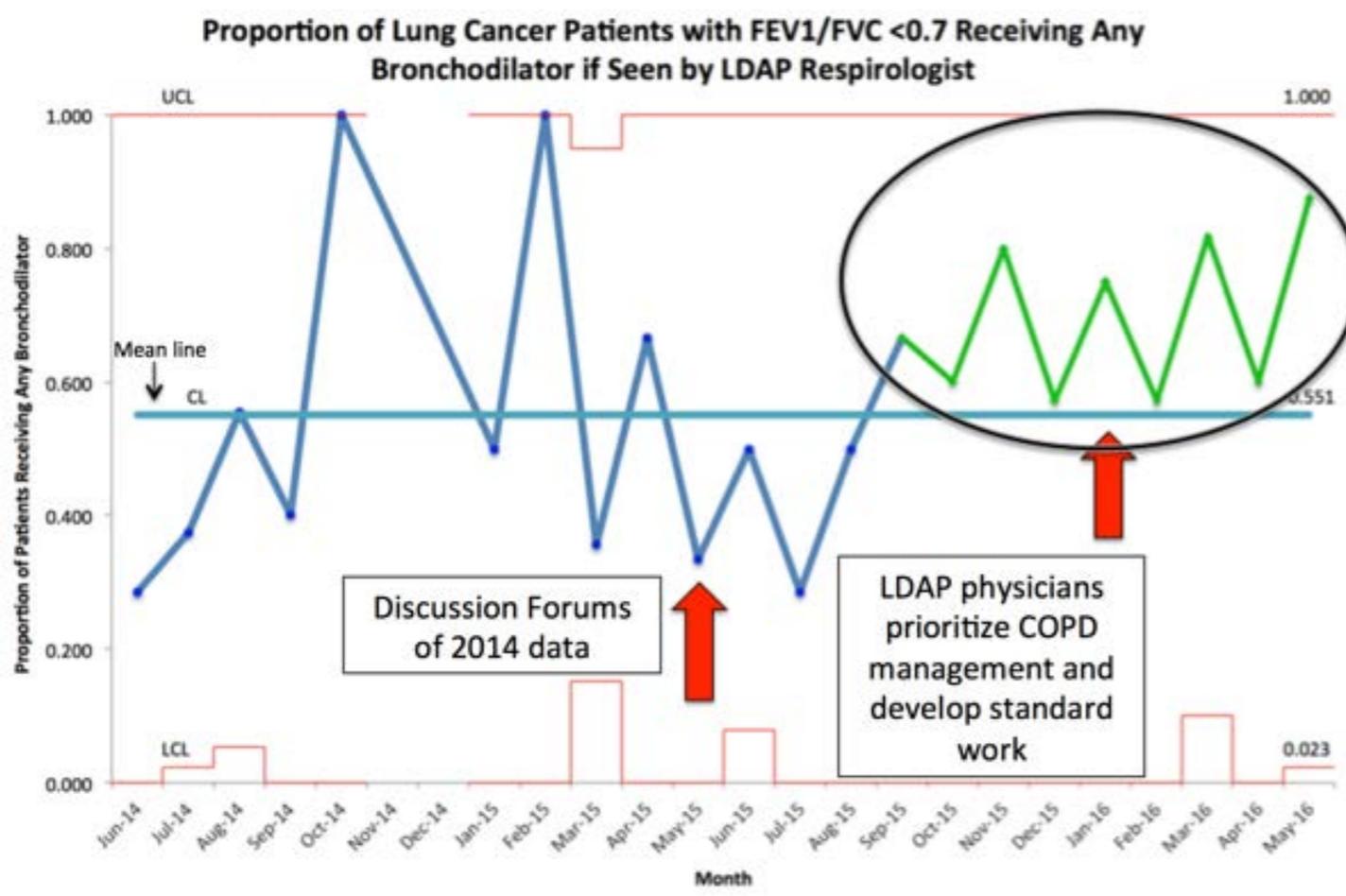
The Department of Medicine is fortunate to have hired 2 new Department members with specialized training in Healthcare Quality Improvement. In fact, one of Dr. Ilan's mentees, Dr. Digby, completed her Masters of Science in Healthcare Quality at Queen's University and is a new hire to the Division of Respiriology. She is joined by Dr. Joseph Abunassar, a newly hired Interventional Cardiologist, who completed a Masters of Science in Quality Improvement and Patient Safety from the University of Toronto. Both Dr. Digby and Dr. Abunassar are already developing busy scholarly programs in their respective fields to improve care delivery.



Profile Page: Dr. Digby

Dr. Genevieve Digby

Dr. Digby's work thus far has focused on improving timeliness of oncology assessment and treatment for lung cancer patients. She has also led a quality improvement project focused on optimizing the diagnosis and treatment of COPD in lung cancer patients, which led to a substantial increase in bronchodilator therapy in patients with airflow obstruction.



Profile Page: Dr. Abunassar

Dr. Joe Abunassar

Dr. Abunassar is leading work in Cardiology with specific focus in the cardiac catheterization laboratory as well as inpatient clinical Cardiology. He is currently working to improve patient flow through the catheterization lab with the aid of the newly set up Radial Lounge. He is also supporting the KGH Quality Improvement specialists with regards to numerous pilot QI projects in inpatient Cardiology and has recruited numerous students from the IHI Queen's Chapter to assist with this work. He is also working on QI initiatives for radiation safety in the catheterization laboratory and recently collaborated with colleagues at Sunnybrook Hospital to publish a research project on this topic. Finally, one of his Sunnybrook collaborators, Dr. Wael Abuzeid, was also recently recruited to Queen's and the Kingston Health Sciences Centre (KHSC) to further the commitment to quality improvement and patient safety in Cardiology.



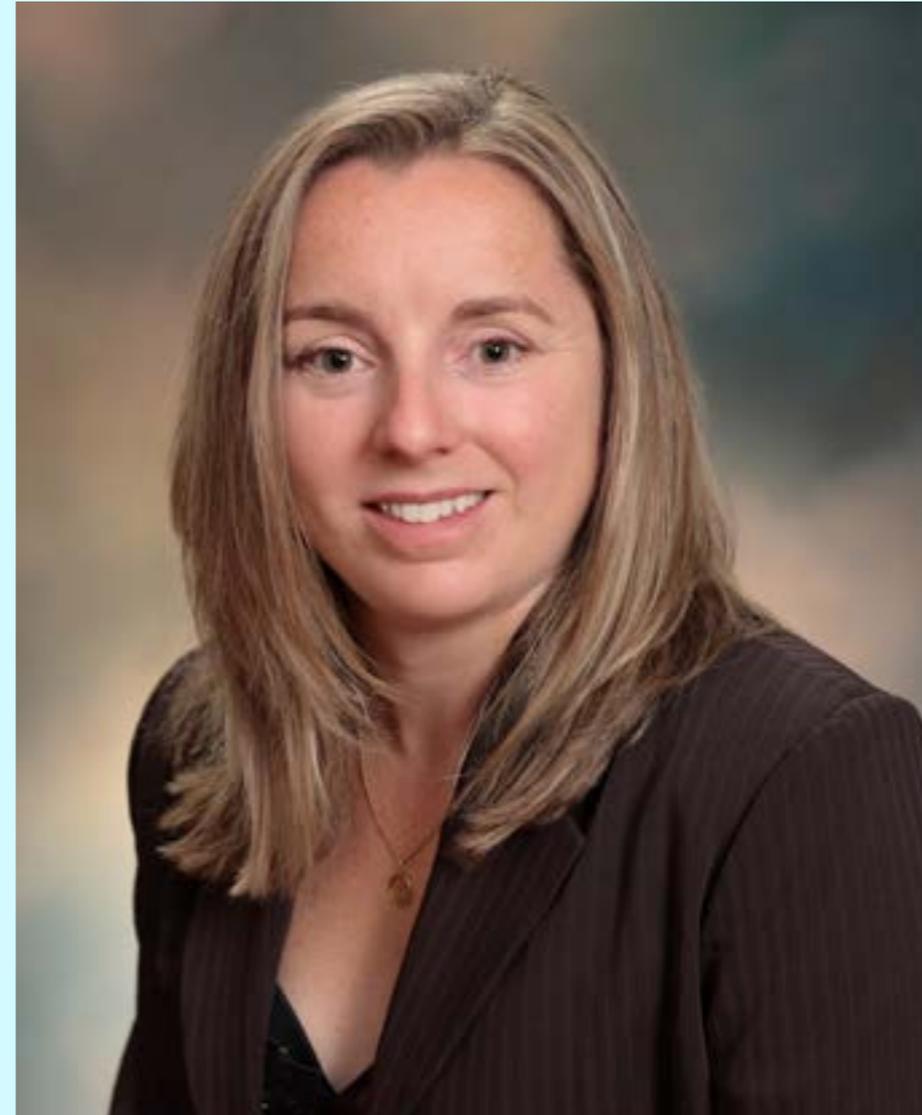
Division Reports



Division of Allergy & Immunology

Mission

To provide high quality care to patients suffering from allergic conditions and immunodeficiency in the Southeastern Ontario region while enhancing the Division's global reputation for excellence in research into the allergic condition.



Dr. Anne Ellis



Division of Allergy & Immunology

Overview:

The Division of Allergy & Immunology is comprised of Dr. Anne K. Ellis, Associate Professor and Chair, a Clinician Scientist with a 70% research portfolio, Dr. Rozita Borici-Mazi, Associate Professor, a Clinician Scholar with 80% clinical activity and 10% educational commitment, and Dr. Ellie Tsai, and Adjunct Assistant Professor who is in Community Private Practice. Drs. Ellis and Borici-Mazi collectively run 8 to 9 half-day clinics per week at Hotel Dieu Hospital and provide year round in-patient consult coverage at Kingston General Hospital and Providence Care. In their outpatient Allergy/Immunology clinics, a full spectrum of allergic and immunologic disorders are evaluated and treated, including (but not limited to) allergic rhinitis, asthma, atopic dermatitis (eczema), urticaria, angioedema, food allergy, anaphylaxis, drug allergy, stinging insect allergy and immunodeficiency.

The research activities within the Division are tremendous, and are highlighted by the clinical trials conducted by the Allergy Research Unit led by Dr. Ellis. The flagship of this research program is the Environmental Exposure Unit (EEU), an internationally recognized and validated controlled allergen challenge model of allergic rhinitis. The Division also participates in studies of direct nasal allergen challenge facilitated by the Allergic Rhinitis – Clinical Investigator Collaborative, an AllerGen NCE funded program with Dr. Ellis as Principal Investigator. The Allergy Research Unit also participates in multi-centre

Professors

Dr. Anne Ellis

Associate Professors

Dr. Rozita Borici-Mazi

Accomplishments in Clinical Medicine:

The Queen's University Allergy and Immunology clinic at Hotel Dieu Hospital is extremely efficient, busy and productive. Over the calendar year of 2016, Drs. Borici-Mazi and Ellis collectively **assessed x new patients and y repeat patients.**

Ongoing contributions to the Antimicrobial Stewardship program ensure that the results of the penicillin skin testing clinic evaluations are updated in the KGH/HDH patient care system and accurately reflect the true drug allergy status of patients seen at both hospitals. The ongoing ability to test for, and successfully desensitize patients, with stinging insect allergy dramatically improves quality of life and reduces the risk of anaphylaxis in the affected patients.

Community Outreach

Members of the Division are active within the Canadian Society of Allergy and Clinical Immunology (CSACI), as well as the American College of Allergy, Asthma and Immunology (ACAAI) and the American Academy of Allergy, Asthma and Immunology (AAAAI). Dr. Ellis is on the Board of Directors for the CSACI and is the Chair of the Anaphylaxis committee for the ACAAI. Dr. Borici-Mazi sits on the Royal College Subspecialty Training committee for Clinical Immunology & Allergy. Locally, Dr. Ellis has been interviewed extensively by local media outlets (CKWS TV, the Whig Standard) who have highlighted her recent research accomplishments.

Division of Allergy & Immunology

Education

The Division contributes broadly to the education of Undergraduate Medical Students through lectures and the facilitation of small group learning (SGL) sessions in the 1st year of training. In addition to the pre-clerkship course, the Division contributes to the Licentiate of the Medical Council of Canada (LMCC) review program. The Division hosts a rotating Allergy/Immunology combined with Endocrinology in the clerkship year and contributes to clerkship subspecialty teaching seminars as well as Undergraduate Medical Education observerships. They contribute to postgraduate education through participation in Academic Half Day, and Allergy/Immunology rotation, and both members contribute to teaching on the Internal Medicine CTUs.

Key accomplishments for the Division in 2016 include the development of a new Directed Independent Learning module for Pruritus by Dr. Ellis with Dr. Lindsay Davidson for first year medical students to complete. The Division continues to participate in clinical skills teaching and clerkship rotation (started in 2012) shared with Endocrinology and remains a subspecialty Medicine Clerkship block that has been rated highly by the students.

Research Highlights

In 2016 the Allergy Research Unit conducted several industry funded clinical trials, self-funded studies, as well as made numerous advancements to remain on the cutting edge of clinical research.

The Environmental Exposure Unit was used for a rather large

Currently efforts focus on establishing and assessing the potential use of the EEU for house dust mite exposure. The facility has already been built, and distribution feasibility studies are complete. In 2017, the HDM-EEU will be clinically validated with human participants.

Furthermore, the research group is carrying out a number of clinical trials involving novel therapies for allergic rhinitis (in both the adult and pediatric population), asthma, nasal polyps, chronic spontaneous urticaria and primary humoral immunodeficiency disease (PHID).

The Allergy Research Unit also conducts several basic science/translational medicine activities. Using the nasal allergen challenge model, the group investigated the role of group 2 innate lymphoid cells (ILC2s), a recently described novel cell type, in the context of allergic rhinitis. Preliminary results were presented at the 2016 Canadian Society of Allergy and Clinical Immunology Annual Scientific Meeting and the final results were submitted for publication as a letter to the editor to the Journal of Allergy and Clinical Immunology.

The Division has newly established a collaborative research program with Dermatology, examining the genetic basis of peanut allergy and how it relates to allergic rhinitis. This project is funded by the Canadian Allergy, Asthma and Immunology Foundation and 61 participants have been enrolled (recruitment ongoing). Questionnaires (family history of allergic disease), patch test responses (to peanut and birch pollen protein), and blood samples have been collected from all enrolled participants. Isolated DNA samples from blood will be sent to collaborators at

Patient Story: Susan Jelley

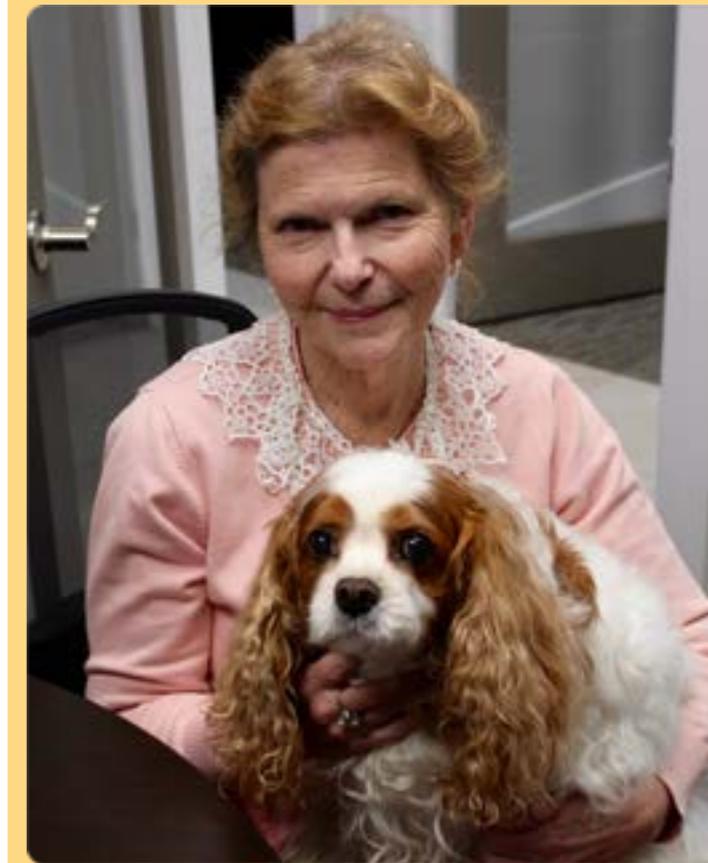
Five years ago Mrs. Jelley had never taken an antibiotic or had any health issues to speak of. She was active, happy and enjoyed spending time outdoors. Shortly before Christmas, Mrs. Jelley experienced severe shortness of breath and chest pain and visited a local clinic thinking she had a flu virus. At that time she was directed to Hotel Dieu Hospital where she was diagnosed with pneumonia. However, in addition to pneumonia, Mrs. Jelley had rash, aching joints and other complicating factors that could not be diagnosed.

Mrs. Jelley struggled to recover after initial diagnosis, with multiple subsequent pneumonias. Due to the increasing frequency of Pneumonia, Mrs. Jelley was prescribed Prednisone, however she began to have orthopedic complications with deteriorating hip bone and associated pain. Mrs. Jelley continued Prednisone for 3-6 months where at that time she was referred to Dr. Moffatt (Respirology). At this time the Prednisone was discontinued due to cataract formation and chronic hip pain.

Whilst under the care of Dr. Moffatt, Mrs. Jelley was admitted to hospital and diagnosed with another pneumonia accompanied by a large rash on her leg, aching joints and large sores in her mouth. During her inpatient visit Dr. Moffatt requested that Dr. Fitzpatrick review Mrs. Jelley's case. As the two respirologists worked together to assess Mrs. Jelley she received her final diagnosis of Behchet disease. Once the diagnosis was found she was immediately able to begin treatment for her illness.

Mrs. Jelley was referred to Dr. Ellis (Allergy and Immunology) for further investigation and was given Hyzantra. Mrs. Jelley reports that she has been taking this medication for over a year and is feeling much better. Her incidence of pneumonia has gone from once per month down to three times in over 12 months, a marked improvement.

Mrs. Jelley enjoys working with Dr. Ellis, the nursing team and the blood bank. From her initial diagnosis to the ongoing support she receives in obtaining her self-administered



Division of Cardiology

Mission

To improve the heart health of residents in Southeastern Ontario and beyond, through a focus on timely delivery of quality care, innovation, discovery, teaching, and learning



Dr. Cathy McLellan



Major Accomplishments

The Electrophysiology Program at Queen's and Kingston Health Sciences Centre is now Royal College Accredited thanks to the tremendous efforts of Dr. Ben Glover and his team. This achievement allows Queens to join only four other programs in Canada for this subspecialty. Dr. Glover believes that this accreditation will enhance the quality of trainees interested in the program at Queens.

Dr. Peggy DeJong has been elected Vice President/Secretary of the Medical Staff Association. Dr. DeJong will be responsible for the maintenance of the financial records for the MSA, and the provision of financial updates at meetings, including the annual general meeting.

Dr. Chris Simpson was awarded MSA Outstanding Clinician of the Year award. Dr. Simpson has demonstrated outstanding contributions to the medical community. The nomination references his exceptional morals and ethics, his ability to lead, and his open minded approach to addressing multiple view-points in leadership.

Professors

Dr. Chris Simpson
Dr. Hoshier Abdollah
Dr. Stephen Archer
Dr. John McCans
Dr. Tony Sanfilippo
Dr. Michael Baird

Associate Professors

Dr. Adrian Baranchuk
Dr. Damian Redfearn
Dr. James Brennan

Assistant Professors

Dr. Gerald Adams
Dr. Henry Kafka
Dr. Amer Johri
Dr. Stephen LaHaye
Dr. Paul Malik
Dr. Cathy McLellan
Dr. Kevin Michael
Dr. Michael O'Reilly
Dr. Raveen Pal
Dr. Brendan Parfrey
Dr. Amar Thakrar
Dr. Peggy DeJong

Professors Emeriti

Dr. Gary Burggraf

Division of Cardiology

New Procedures Launched

Drs. Ben Glover and Gian-Luigi Bisleri performed the first in-Canada Hybrid Atrial Fibrillation procedure in 2017. Dr. Bisleri summarizes their work as follows: “This procedure allows the operator to access the inside surface and the outside surface of the heart so that we can create deeper burns across the heart and more successfully target short circuits in areas which were previously not easily accessible. We hope that this will allow us to increase the success of the procedure. This should result in an improvement in patients symptoms and potentially allow us to close areas of the heart where clots are more likely to form.” The latter comment refers to surgical closure of the left atrial appendage, which is where most clots form in AF (as seen in the Figure above). By closing the appendage stroke risk should be reduced.

For more information on this procedure and the importance of innovative patient centred care please check out [this article](#) and review their online interview [here](#).



Kingston doctors perform Canadian first

By Joseph Cattana
Monday, July 10, 2017 5:09:04 EDT PM



Cardiac surgeon, Dr. Gianluigi Bisleri (R) works alongside cardiologist, Dr. Ben Glover (L) during the procedure in the operating rooms at KHSC's KGH site.

Division of Cardiology

Research

The Division of Cardiology has a robust and innovative research portfolio that grows each year. An example of some Divisional research can be found in the Arrhythmia service, along with the Cardiovascular Imaging Network at Queen's

(CINQLab.com, Echo lab and Cath lab research) which are active research groups within the program with numerous ongoing clinical trials and a growing international reputation. Recently this group embarked on an ambitious research program assessing the use of point of care ultrasound for the assessment of chest pain in close collaboration with the Emergency Department(ED). This cross-disciplinary project holds the potential to impact both care and wait times and is funded by a SEAMO Innovation Award.

Drs. Baranchuk (electrophysiology) and Redfearn (electrophysiology) are established clinician scientists within the Division who have subsequently mentored Dr. Johri (Echo). High quality research is also conducted by Drs. Pal, LaHaye, Simpson, Archer, and Michael. The successes of this group are driven by vision, creativity, high quality advanced training, and a recognition that research and discovery can innovate care.

There is a strong research program largely driven by Dr. Johri who is carrying out multiple echocardiography related research initiatives for which several publications have been developed and external funding provided. Dr. Johri has received a number of accolades for his research including the Basmajian Award, which is a highly prestigious Queen's University award for research. His research efforts are supported by the Division and Echo Group.

Three large research units have been developed (CINQ, Q-CPU and ARO), covering areas such as Imaging and cardiovascular diseases, Pulmonary Hypertension and



Division of Cardiology

Education:

The Cardiology training program is a 3-year Royal College accredited training program generally attracting residents who are keen to work and learn in a smaller center, and who form a strong group bond amongst the trainees. The smaller group allows for excellent sharing of procedural experience amongst the trainees to ensure that all trainees get adequate exposure to certain procedures.

The Faculty of Health Sciences commitment to CBME has provided an influx of support and research money into the medical education environment. This provides a unique opportunity to move Queen's to the forefront of medical education research. For example, the EP fellowship program is actively involved in a study on feedback from the fellows as a part of a research study.

The ECHO service has recently developed an Echo Fellowship program. Two Echo fellows have completed the program, and 2 others are currently undergoing training to acquire Level III designation. The Echo lab has an active program of graduate supervision (PhD and MSc levels) completing thesis requirements in cardiac imaging sciences. The CINQ (Echo + Cath lab) is



The EP Lab. Photo Credit KGH



Patient Story: Mr. Ellis

Mr. Ellis is a 77-year-old gentleman who lives at home with his wife. He is an avid gardener, camper, grandfather and great grandfather. He enjoys an active lifestyle including continuing to work at his passion, piano repair and tuning.

However, 9 years ago, Mr. Ellis' quality of life drastically decreased when he became very ill and was admitted to Kingston General Hospital with a virus. At that time, he was diagnosed with atrial fibrillation, something that he suffered with for 8 years.

During the 8 years plagued with atrial fibrillation Mr. Ellis experienced severe exhaustion, lack of stamina, and struggled to keep up with his passions in life. He recalls looking at the stairs in his house and being exhausted at the sight of them. However, Mr. Ellis was determined, he continued to garden and repair pianos, albeit a lot slower than before and with lots more effort and resting.

In May 2017 Dr. Bisleri called Mr. Ellis to inform him that he was at the top of the list for AFIB Hybrid ablation, a new therapy offered at Kingston Health Sciences Centre. Mr. Ellis and his family went in to meet with Drs. Bisleri and Glover and found out all about the procedure. They were told that this new procedure allows the physician access to the inside and outside surface of the heart so that they can target any "short circuits" in areas that were previously not easily accessible before the new therapy. They were thrilled with the amount of detail and support they received from the physicians and accepted the surgery.

In June 2017, Mr. Ellis had one of the first AFIB Hybrid ablation procedures performed by Dr. Bisleri and Dr. Glover. He was in the hospital for 3 days post-surgery and returned home to continue his recovery. As soon as his surgery was performed, Mr. Ellis was no longer in atrial fibrillation and every day he gets stronger and stronger.

He has resumed his gardening and walking and looks forward to his further recovery over



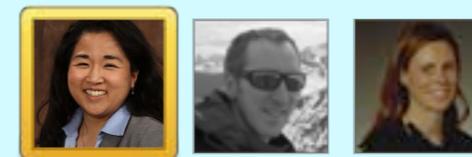
Division of Dermatology

Mission

- ◆ To provide specialist-level medical and surgical care for individuals with skin disease
- ◆ To educate undergraduate and postgraduate learners and health professionals on the diagnosis, prevention and treatment of skin disease
- ◆ To educate the public and promote awareness of the causes, prevention and impact of skin disease
- ◆ To advocate for patients
- ◆ To advance knowledge of skin disease through research



Dr. Yuka Asai



Division of Dermatology

Assistant Professors

Dr. Yuka Asai

Dr. Benvon Moran

Dr. Mark Kirchhof

The Division of Dermatology is one of the newest founded divisions in the Department of Medicine. During the past year they have worked together to cement their mission statement for the division.

The mission of the Division of Dermatology is five-fold:

- 1) to provide specialist-level medical and surgical care for individuals with skin disease
- 2) to educate undergraduate and postgraduate learners and health professionals on the diagnosis, prevention and treatment of skin disease
- 3) to educate the public and promote awareness of the causes, prevention and impact of skin disease
- 4) to advocate for patients
- 5) to advance knowledge of skin disease through research

2016/17 has been a year of transition and change for the newly minted division. Dr. Mark Kirchhof has begun a new and exciting career in Ottawa, making space for two new recruits to the division. Dr. Sonja Molin will be taking the position of Division chair, and is expected to arrive in May 2017. Dr. Thomas Herzinger will also be joining the division as a general dermatologist with a passion for medical education.

In addition, two locum dermatologists will be providing their assistance in the Mohs clinic. The division welcomes Dr. Erin Dahlke and Dr. Ilya Shoimer from the University of Toronto.

Activities this year:



Dermatology CME Day in action



Education:

Dermatology Day, an annual CME event, was again a success with a sold-out clinical portion aimed at dermatology procedures.

The program was created as part of a committee to ensure that content was of appropriate interest to potential attendees. The attendance to the event was spectacular, as well as the feedback received from attendees.

The dermatology clinic has continued to educate medical residents, clinical learners and students. The feedback received from the dermatology rotation has been positive. xx residents as clinical learners and xx students. Residents in training have come from core internal medicine, general internal medicine fellows, ophthalmology and family medicine.

Dr. Kirchhof undertook a significant amount of undergraduate medical education. This education was well received, and highlighted the importance of medical education in the field of dermatology.

Medical students Christina Huang and Wilfred Ip are working with Dr. Asai and Dr. Kirchhof , and are presenting at the Canadian Dermatology Association meeting in June.

Research:

The division is currently recruiting for a clinical research database, which will be used to conduct studies on dermatology health care utilization and look at feasibility for additional future clinical studies. Dr. Asai continues her work on collaborative research in food allergy, with her colleagues across the country. Research collaborations within Queen's with Dr. Anne Ellis in Allergy, Dr. Mark Ormiston, and Dr. Ami Wang in Pathology are also ongoing.

Dr. Asai has recently received word of acceptance of a large AllerGen National Centre of Excellence Project Grant (i6CanFAST2: Causes and Prevention: Identifying the Genetic Basis of Peanut Allergy) and was awarded a Canadian Dermatology Foundation grant.

Division of Endocrinology

Mission

- ◆ To provide the best possible care for patients with endocrine disease in Southeastern Ontario;
- ◆ To teach undergraduate students and postgraduate trainees at Queen's University, and regional healthcare providers about optimal management of endocrine disease;
- ◆ To educate patients and the public about endocrine disease and advocate for the best endocrine care; and
- ◆ To conduct research in clinical care and education related to endocrine disease



Dr. Robyn Houlden



Division of Endocrinology

Divisional Overview

The Division of Endocrinology currently consists of 3 members, all of whom are clinician scholars.

The Division Chair, Dr. Robyn Houlden, serves as the lead for undergraduate medical education in Endocrinology and Metabolism, as well as the clinical programs. She has a special interest in diabetes; diabetes and pregnancy; insulin pumps and continuous glucose monitoring; and inpatient management of diabetes.

Dr. Kathy Kovacs has a clinical interest in all aspects of endocrine disease. She serves as the lead for supervising the education of postgraduate trainees on the Endocrine Service.

Dr. Josh Lakoff has a clinical interest in management of thyroid disease and cancer. He also has an interest in medical education and is currently enrolled in the 2-year Maastricht University Masters of Health Professions Education in the Netherlands. He is leading efforts to establish a residency program in Endocrinology and Metabolism at Queen's.

In August 2017, Dr. Sara Awad will be joining the Division. Dr. Awad is well known to the Division from Internal Medicine residency training at Queen's University. She is currently completing residency in Endocrinology & Metabolism at the University of Ottawa. Dr. Awad has an interest in pituitary disease as well as medical education. She is planning on completing a Masters of Medical Education. She will be assisting Dr. Lakoff in developing a residency program in Endocrinology at Queen's.

The Division of Endocrinology works closely with a number of allied healthcare teams including the:

- HDH Diabetes Education and Management Centre
- KGH Diabetes Consult Service with Sarah Moore, APN, CDE; Jennifer Olajos-Clow, APN, and Melanie Huffman, RN, CDE

Professors

Dr. Robyn Houlden

Assistant Professors

Dr. Kathy Kovacs

Dr. Josh Lakoff



Achievements in Education

There is increased recognition that lifestyle factors, including nutrition, physical activity, emotional well-being and stress management, tobacco use, alcohol consumption, and sleep habits, are major determinants of health. Dr. Houlden continues to develop strategies to teach Lifestyle Medicine to medical trainees and other healthcare providers. In 2017, she published a paper outlining how to take a lifestyle history. The article proposed 13 screening questions healthcare providers should consider exploring with patients, and provided the rationale and scientific evidence supporting each question as well as key counseling points.

Houlden RL, Yen HH, Mirrahimi A. The lifestyle history – a neglected but essential component of the medical history. *American Journal of Lifestyle Medicine*. Published online April 11, 2017. DOI: 10.1177/1559827617703045.

Last year, she assisted with the introduction of a session educating second year medical students on motivational interviewing techniques taught in collaboration with the Queen's School of Kinesiology.

Dobrowolski S, Baillie C, Houlden RL, Skelding S, D'Urzo, K, Houlden R, Tomasone J. Evaluating the impact of a workshop aimed at enhancing medical students' Motivational Interviewing knowledge, skills and social cognitions to counsel patients on physical activity, nutrition and

Achievements in Clinical Medicine

Multidisciplinary Thyroid Cancer and Thyroid Nodule Clinic. This clinic is held weekly in the Cancer Centre of Southeastern Ontario. It is a multidisciplinary endeavour that enhances the flow of care for patients with thyroid nodules with clinical and ultrasonographic risk factors for malignancy. With the availability of rapid access to onsite ultrasound guided fine needle aspiration (FNA) biopsy, patients can be easily streamlined for surveillance or surgery. Patients with thyroid cancer also receive care in the clinic and have access to a team of providers including head and neck surgeons, endocrinologists and radiation oncologists. The clinic has been successful in achieving its goal of facilitating access to multidisciplinary thyroid cancer care and teaching medical trainees about management of thyroid disease and the technique of ultrasound guided FNA biopsy.

Endocrine Multidisciplinary Cancer Conference: The Division participates in this committee of surgeons, pathologists, radiologists, radiation oncologists and endocrinologists that meets monthly to discuss complex patients with thyroid and adrenal endocrine tumours, and to develop standardized management protocols.

Insulin Pumps Clinic: The Division of Endocrinology cares for one of the largest insulin pump patient populations worldwide with over 600 adults and 100 children on insulin pumps. Patients are seen in the HDH Diabetes Education

Division of Endocrinology

Achievements in Research

Dr. Houlden and Dr. Lakoff are currently participating in multicentre studies examining the use of a SGLT2 inhibitor (empagliflozin) in type 1 diabetes and immunotherapy for patients with newly diagnosed type 1 diabetes in an effort to preserve beta cell function. Dr. Houlden is also participating in a study examining the effect of a gluten free diet on patients with type 1 diabetes and asymptomatic Celiac disease. In the fall of 2017, she will begin a trial examining a hybrid closed loop insulin pump – one of the final steps towards the creation of a fully automatic or closed loop insulin pump (“bionic pancreas”).

Dr. Houlden supervised several quality improvement projects by postgraduate trainees evaluating presentation and management of patients with diabetes ketoacidosis. Dr. Lakoff and Houlden also supervised the writing of several case reports by residents.

Xiong PY, Lakoff J, Houlden RL. Mediastinal parathyroid adenoma mimicking cancer metastatic to bone. AACE Clinical Case Reports doi: <http://dx.doi.org/10.4158/EPI61510.CR>

Kraut E, Sarkar R, Houlden RL. Cerebral venous thrombosis associated with Graves' hyperthyroidism. AACE Clinical Case Reports. AACE Clinical Case Rep. 2017;3:e70-e73

Achievements in Administration

Dr. Houlden has continued her role of Chair of the 2018 Canadian Diabetes Association Clinical Practice Guidelines. The guidelines will be published in April 2018 and continue 37 chapters outlining recommended management for the prevention and management of diabetes in Canada.

In 2016, she assisted with an update to the Pharmacologic Management of type 2 diabetes chapter incorporating findings of new cardiovascular safety studies:

Booth G, Lipscombe L, Butalia S, Dasgupta K, Goldenberg R, Khan N, MacCallum L, Shah B, Simpson S, Houlden RL. Pharmacologic management of type 2 diabetes: 2016 Interim Update. Canadian Journal of Diabetes 2016;40:484-486

She also serves as Medical Advisor to the Lawson Foundation of Canada that provides \$2.2 million in funding to research projects related to delivery of diabetes prevention, treatment and management programs and services through innovation, translational research, knowledge mobilization and quality improvement (<http://lawson.ca/diabetes2016call>)

Patient Story:

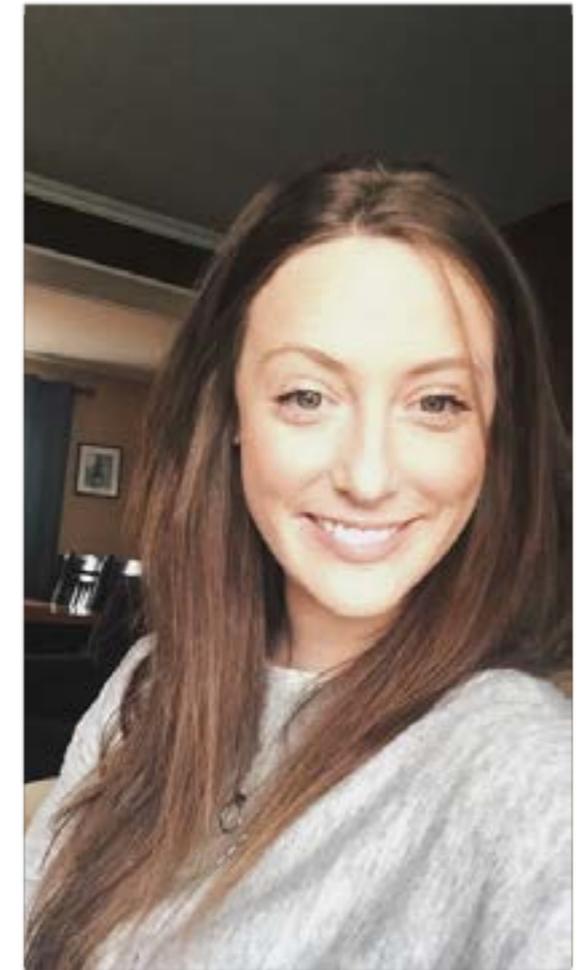
D'Arcy knew something wasn't right. Normally a healthy and highly active young woman, she began experiencing palpitations and the feeling she was going to black out while exercising in March 2016. D'Arcy was initially referred to Dr. Chris Simpson of the Division of Cardiology after 48 hour monitoring of her heart rhythm (Holter monitoring) revealed she was experiencing an intermittent, rapid, and potentially lethal heart rhythm known as ventricular tachycardia. However, it wasn't clear if the abnormal heart rhythm occurred while D'Arcy was experiencing her symptoms.

To try to clarify the picture, Dr. Simpson arranged for a device known as ILR or implantable loop recorder to be implanted. This revealed that not all of D'Arcy's spells occurred during the abnormal heart rhythm.

Unfortunately, the frequency of the spells and the intensity of her symptoms continued to worsen and eventually became so severe as to require a hospitalization in December 2017. During her stay, D'Arcy was seen by another member of the Division of Cardiology, Dr. Damian Redfearn who noticed that D'Arcy's blood pressure was high during her spells. He wondered if she might have a rare endocrine condition known as a pheochromocytoma in which a tumour in the adrenal gland releases high amounts of catecholamines or stress hormones. Testing confirmed D'Arcy's catecholamines were much high than normal, and she was referred to Dr. Robyn Houlden of the Division of Endocrinology.

Further endocrine testing was quickly organized and revealed the presence of a large tumour in her right adrenal gland. Surgery to resect a pheochromocytoma is extremely dangerous. When the tumour is touched inter-operatively, it can release catecholamines and cause the blood pressure to rise to life threatening levels. Medications are started before surgery to reduce the risk of this happening. One of these medications, phenoxybenzamine, is extremely expensive and permission must be obtained from Health Canada to import it into Canada. Working with members of the KGH Pharmacy, Dr. Houlden was able to obtain the medication for D'Arcy and in Feb 2018, Dr. Touma of the Department of Urology successfully removed her tumour laparoscopically. Although she will require long term monitoring to ensure she doesn't develop additional pheochromocytomas, genetic testing suggests there is not a genetic cause for her tumour.

Most importantly, D'Arcy is thrilled to be symptom free and back to the exercise she loves.



D'Arcy is thrilled to be symptom free and back to the exercise she loves.

Gastroenterology

Mission

To create a culture of excellence
in the integrated care and study
of patients with digestive
diseases



Dr. Lawrence Hookey



Gastroenterology

Key Clinical Accomplishments:

The GI division continues to provide novel and advanced clinical care. Dr. Bechara has established his Per Oral Endoscopic Myotomy program and is performing the procedure on 4 patients each month, with interest in the procedure coming from around the country. Several physicians have come to observe Dr. Bechara and he is mentoring other sites such as Vancouver General and the University of Alberta as they start their programs. In addition, Dr. Bechara performed what is likely the first Peroral Endoscopic Tumour resection in Canada. [For more information on this please see Dr. Archer's blog.](#)

Our [off site hepatology clinic](#) continues to allow Drs. Flemming and Lowe to provide excellent timely care to our region's population.

Our division welcomed Chao Zhu, a nurse practitioner with expertise in liver disease. Chao has quickly established himself as an integral part of the care team in both hepatology and inflammatory bowel disease.

With a great deal of effort and negotiation with the provincial authorities, we have striven to improve our efficiency and overall volume of cases in endoscopy, thus making a clear impact on wait times while providing a consistently high level of care.

This past year also saw new collaborations with other divisions: Dr. Ropeleski is working with the Respiriology division on a colon screening project for patients with cystic fibrosis (they are at higher risk of colon cancer yet have several challenges associated with completing the procedure). Drs. Lowe and Flemming have established multidisciplinary rounds with the hepatobiliary surgeons and interventional radiologists

Professors

Dr. Bill Paterson
Dr. Jacob Louw
Dr. Stephen Vanner

Associate Professors

Dr. Michael Beyak
Dr. Lawrence Hookey
Dr. Mark Ropeleski
Dr. Michael Blennerhasset*
Dr. Alan Lomax*

Assistant Professors

Dr. Cathy Lowe
Dr. Jennifer Flemming





Gastroenterology

Research:

The gastroenterology division continues to strive for excellence in the clinical, basic science, and translational research fields. GIDRU members continue to conduct important studies that examine nutrient and pain signaling in the intestine (Dr. David Reed), satiety signaling (Dr. Beyak), liver cancer (Dr. Flemming), inflammation, pain signaling, stem cells (Drs. Vanner and Lomax), inflammation and strictures (Dr. Blennerhassett), and optimization of colon cleansing and endoscopic procedure techniques (Drs. Hookey/Vanner).

Notable research awards:

- Drs. Vanner and Reed were awarded a CIHR grant for \$688,500 to study “Novel signaling mechanisms leading to pain in irritable bowel syndrome.”
- Dr. Vanner and Reed are key investigators in the CIHR funded Inflammation, Microbiome, and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects: the IMAGINE-SPOR (Strategy for Patient-Oriented Research) Chronic Disease Network, and KHSC is the base site for the Irritable Bowel component of the study. The local funding for this study will be \$1,800,000.
- Dr. Vanner was awarded a grant from Crohn’s and Colitis Canada for the project: “Turning off the “switch”: Preserving the analgesic actions of the endogenous opioid pathway in IBD.” This grant is valued at \$355,000.
- Dr. Flemming received the SEAMO innovation fund grant worth \$99,951 to study the cost effectiveness of a hepatitis C screening program in an outpatient endoscopy unit.

Notable Recent Discoveries

Dr. Jennifer Flemming and colleagues, using population level data, that the incidence of cirrhosis has increased in Ontario over the past two decades, with the largest increase being in those born after the baby-boomers and in women. Since the majority of chronic liver diseases are related

Education:

As we all know, Queen’s has led the way nationally in the development and implementation of competency based medical education (CBME). Mark Ropeleski, as program director of the GI training program, has been instrumental in bringing CBME to the division, but is also a leader nationally in the implementation of CBME in gastroenterology.

For over a quarter century now the Queen’s GI Division has been recognized for its expertise in “Neurogastroenterology”, which encompasses a large number of poorly understood disorders of gastrointestinal motility and sensation. In addition to major research and educational programs in this discipline, Queen’s has served as a quaternary referral centre for patients with these disorders, receiving referrals from academic centres across Canada. This has led to us having a trainee completing extra training and research in Motility in each of the last three years.

to modifiable environmental exposures, efforts to reduce the burden of non-alcoholic fatty liver disease, alcohol use, and hepatitis C are urgently needed to reverse these trends for future generations.

Drs. Hookey, Louw and Paterson lead a study of bowel cleansing prior to video capsule endoscopy, which questioned the conventional wisdom that preparation is needed at all; Hookey, L., et al. (2017). "Lack of benefit of active preparation compared with a clear fluid-only diet in small-bowel visualization for video capsule endoscopy: results of a randomized, blinded, controlled trial." *Gastrointest Endosc* 85(1): 187-193.

Other notable publications:

- McIntosh K., Reed D., Schneider, T., Dang F., Keshteli A. K., de Palma G., Madsen K., Bercik P., Vanner S. 2016. FODMAPs alter symptoms and the metabolome of irritable bowel syndrome patients: A randomized controlled trial. *Gut* 66(7):1241-1251.
- Cervi A.L., Moynes D.M., Chisholm S.P., Nasser Y., Vanner S.J., Lomax A.E. 2017. A role for interleukin 17A in IBD-related neuroplasticity. *Neurogastroenterol Motil*. Published first online May 30, 2017; doi: 10.1111/nmo.13112.
- Lowe C., Aiken A., Day A.G., Depew W., Vanner S.J. 2017. Sham acupuncture is as efficacious as true acupuncture for the treatment of IBS: A randomized placebo controlled trial. *Neurogastroent Motility*. Published first online March 2, 2017; doi: 10.1111/nmo.13040.
- Reed D.E., Vanner S.J. 2017. Emerging studies of human visceral nociceptors. *Amer J Physiol Gastrointest Liver Physiol* 312(3): G201-207.

- Rolland-Fourcade C., Denadai Souza A., Cirillo C., Lopez C., Obed-Jaramillo J., Cenac N., Motta J-P., Vanden Berghe P., Neunlist M., Coron E., Kirzin S., Portier G., Bonnet D., Alric L., Vanner S., Deraison C., Vergnolle, N. 2017 Epithelial expression and function of trypsin-3 in irritable bowel syndrome. *Gut*. Published first online January 17, 2017; doi: 10.1136/gutjnl-2016-312094.

- Guerrero-Alba R., Valdez Morales E.E., Jimenez-Vargas N.N., Lopez Lopez C., Jaramillo Polanco J., Okamoto T., Nasser Y., Bunnnett N.W., Lomax A.E., Vanner S.J. 2016. Stress activates pronociceptive endogenous opioid signaling in DRG neurons during chronic colitis. *Gut* 0:1-11. Published first online September 2, 2016; doi: 10.1136/gutjnl-2016-311456.

- Flemming JA, Kim WR, Brosgart CL, Terrault NA. Reduction in liver transplant

wait-listing in the era of direct-acting antiviral therapy. *Hepatology*. 2017

- Mar;65(3):804-812.

- McInnes MD, Nanji S, Mackillop WJ, Flemming JA, Wei X, Macdonald DB, Scheida

N, Booth CM. Utilization of pre-operative imaging for colon cancer: A

population-based study. *J Surg Oncol*. 2017 Feb;115(2):202-207.

- Flemming JA, Zhang-Salomons J, Nanji S, Booth CM. Increased incidence but improved median overall survival for biliary tract cancers diagnosed in Ontario from 1994 through 2012: A population-based study. *Cancer*. 2016 Aug 15;122(16): 2534-43.

Gastroenterology

Heptology Clinic:

The Division of Gastroenterology launched an off-site liver clinic in May 2016 with tremendous success.

Staffed by Dr. Cathy Lowe and Dr. Jennifer Flemming, this clinic sees patients with hepatitis C, elevated liver enzymes, fatty liver disease, and patients taking Methotrexate.

A compliment of support staff provide coordination of care (Jackie), reception duties (Nicole) and on-site Fibroscan (Benoit). The team works closely with the patient population, providing a warm and welcoming environment.

The cost associated with hepatitis C treatment can exceed \$20,000 per month, and staff member Jackie walks patients through the process of assessing and obtaining coverage eligibility for the medications, while tailoring a plan for their care.

The new liver clinic improves the care for patients in the region. by reducing wait times for clinic visits, and is anticipated to grow in size, increasing the impact to the community.



Patient Story: William Eves

Mr. Eves is a long-standing resident of Kingston who began experiencing significant heartburn consistent over a prolonged period of time. After assessment by his family physician he was referred to the division of Gastroenterology. At that time, Mr. Eves underwent a series of testing including endoscopy and colonoscopy to determine the cause of his heartburn.

As a result of the testing, Mr. Eves was diagnosed with esophageal cancer.

At that time he was put under the care of a new recruit to the Department, Dr. Rob Bechara, who recommended the POEM Procedure. For [more on the POEM](#) procedure and Dr. Bechara please review this blog post completed by Dr. Archer.

Shortly before Christmas 2016 Mr. Eves was admitted to Kingston General Hospital for his procedure. Whilst admitted he experienced several delays in his surgery due to emergent cases coming in to the hospital. However, he noted that Dr. Bechara went above and beyond in his care and completed the surgery as soon as he could. Mr. Eves notes that Dr. Bechara took the time to explain the surgery to him and his daughter so that both entered this new procedure with a sound understanding of what to expect.

The surgery was performed without any complication or difficulty and Mr. Eves returned home the next day. Since that time Mr. Eves notes that his symptoms have been completely resolved and he is now cancer free thanks to the efforts of Dr. Bechara and his team.



Division of General Internal Medicine

Mission

To provide excellence in patient care, research and teaching of internal medicine



Dr. Chris Smith



Division of General Internal Medicine

Overview

The Division of General Internal Medicine (GIM) continues to grow and currently consists of 13 Division members (3 shared with critical care). David Taylor successfully defended his Thesis in the Masters of Health Professions of Education (MHPE) Program at the University of Illinois at Chicago.

The newest recruit is Dr. Siddhartha Srivastava who is a recent graduate of our 2-year GIM fellowship program. Sidd's interests are in Medical Education and Medical Informatics.

The Division's work is focused on the Clinical Teaching Units (CTUs), the GIM Consult service and in the outpatient general, urgent, bariatric, hypertension and perioperative clinics.

Members of the Division hold several key administrative positions in the Department of Medicine. Chris Smith is the GIM Division Chair and CTU Director. David Taylor is the Program Director for the Core Internal Medicine Training Program and Barry Chan is the Associate Program Director. Laura Marcotte is the Program Director for the GIM subspecialty program and Laura Milne is the Clerkship Medical Director. Phil Wattam continues in his role as Assistant Dean for Distributed Education in the school of Medicine.

Clinical Accomplishments

Excellence in Clinical Care and Teaching

The GIM division provides 2/3 of the coverage for the medicine patients admitted to CTU and the Medical Short stay unit. Again it has been a busy year with a steady increase in admissions like other academic centres across the Province. Efficiencies have been maintained with no increase in the length of stay or readmission rates.

Perioperative Clinic & GIM Consult service

Associate Professor

Dr. Chris Smith

Assistant Professors

Dr. Laura Marcotte

Dr. Johanna Murphy

Dr. Laura Milne

Dr. David Taylor

Dr. David Maslove

Dr. Barry Chan

Dr. Kristen Marosi

Dr. Phil Wattam

Division of General Internal Medicine

Research

David Maslove continues to be successful in obtaining research funding. In 2016 he was awarded a grant worth over \$450,000 from NSERC and OCE for 'Powering Clinical Trials Research through a secure and integrated data management platform'.

His work supported on the CONFOCAL (Cerebral Oxygenation and neurological outcomes) study supported by the Physician Services Inc. agency (\$230,000) continues. He also received funding (\$30,000) for a study on 'Heart rate variability in critically ill patients' from ACM SIGHPC/Intel computational and data science fellowship.

Thiwanka Wijeratne is the Principal Investigator for a study involving the effect of language proficiency on adverse drug events (\$35,000 from the Ontario Drug Policy Research Network). He also received \$20,000 from a Pulmonary HTN operational grant to study the burden of pulmonary hypertension in Ontario.

David Taylor received internal funding grants (total \$24,000) related to the implementation of Competency Based Medical Education (CBME) to the core internal medicine program. Projects include work on the evaluation and revision of entrustable professional activities (EPAs) in the internal medicine training programs, validation of a Delphi approach to developing EPAs, and transforming rotation orientation into a learners guide for CBME success.

Laura Marcotte was successful in obtaining Postgraduate Medical Education Funding (PGME) special purpose grant funding (\$10,000) to assess the implementation of work based practical assessments in the GIM



Patient Safety and Quality Improvement

Roy Ilan continues to teach in the Queen's University Master of Science in Health Care Quality MSc (HQ) program. He also participates in other national organizations for patient safety – as a facilitator in patient safety workshops at the Canadian Patient Safety Institute; and on the Royal College committee tasked with developing modules for Advancing Safety for Patients in Residency Education (ASPIRE) workshops. Johanna Murphy and Roy have both been key educators for the internal medicine residents during their patient safety rounds.

Papers

Errors, Omissions, and Outliers in Hourly Vital Signs Measurements in Intensive Care.

Maslove DM, Dubin JA, Shrivats A, Lee J.

Crit Care Med. 2016 Nov;44(11):e1021-e1030.

Accuracy of a Wrist-Worn Wearable Device for Monitoring Heart Rates in Hospital Inpatients: A Prospective Observational Study.

Kroll RR, Boyd JG, Maslove DM.

J Med Internet Res. 2016 Sep 20;18(9):e253. doi: 10.2196/jmir.6025.

Diagnostic utility of different blood components in gene expression analysis of sepsis

Maslove DM, Marshall JC. Shock. 2016 Mar;45(3):292-8.

Non-essential blood tests in the intensive care unit: a prospective observational study.

Mikhaeil M, Day AG, Ilan R.

Can J Anaesth. 2017 Mar;64(3):290-295. doi: 10.1007/s12630-016-0793-9. Epub 2016 Dec 20.

Education Awards

Several members of the GIM Division have again been recognized for their teaching and clinical skills:

Barry Chan – Received the Faculty Award from Senior Residents in recognition of his outstanding contribution to their training

Chris Smith – Received the Outstanding Clinician of the Year Award from KGH/HDH. He also received a Departmental Exceptional Service Award for contributions to Residency Education.

Sidd Srivastava – Received the Departmental Fellows' Award for Excellence in Teaching during his PGY5 year prior to being hired as a new Faculty member. In addition he received the Provincial PARO Resident's Teaching Award from Queen's University.

David Taylor – Received the prestigious Connell Teaching Award from the Queen's University medical students for Undergraduate Medical Education.

Thiwanka Wijeratne – Received the CTU clinical teaching award from the Medical residents for excellence in inpatient teaching.

Training Program

The GIM Fellowship training program continues to thrive. CoBMS matching has been successful every year and all of



Resident Story: Nicole

Originating from Calgary, Nicole began her Queen's Internal Medicine Residency in 2016 after completing medical school in Edmonton, Alberta. Nicole loved living in Alberta and was always outdoors especially skiing in the Rockies and running. Before matching to Queen's, Nicole had heard great things about Kingston and the program, but had only ever spent 2 days in Kingston during the CaRMS interviews. When Nicole matched to Queens, she was thrilled as she had friends that already lived in Kingston and her roommate from Alberta matched to the Queen's Family Medicine program.

So far Nicole has had an incredible experience in Kingston. She enjoys spending the Summer on the lake swimming, paddle boarding or kayaking. Nicole loves travel and the proximity of Kingston to Ottawa, Toronto, Montreal and Prince Edward County allow for weekend excursions.

Her experience in Queen's Internal Medicine has been exceptional. She notes that “while residency can be overwhelming at times, the other residents and staff that I work with are very supportive, and there is no shortage of people around to bounce ideas off of and ask for help.” Nicole finds that people in Kingston, and in the Internal Medicine Program, look out for and encourage one another. Nicole says that “the community is small and tight-knit so it is one of those places that residents from all different sub specialties are friends outside of work, and I have made lifelong friendships here.”

In the Internal Medicine Program, Nicole takes advantage of the many opportunities to become involved in extracurricular activities. She has helped in the development a CTU orientation document and training video, therefore expanding her skillset with special projects. Nicole has worked with other residents to plan resident wellness activities including fitness classes and rock climbing and has enjoyed enhancing resident wellness within Queen's. Although Nicole has loved all of her rotations through the specialties she is now considering a future in General Internal Medicine or Nephrology.



“The community is small and tight-knit so it is one of those places that residents from all different sub specialties are friends outside of work, and I have made lifelong friendships here.”

Division of Geriatric Medicine

Mission

To promote excellence in clinical service, education, research and innovation intended to improve health care outcomes for frail seniors throughout Southeastern Ontario



Dr. John Puxty



Division of Geriatric Medicine

Divisional Overview:

The Division of Geriatric Medicine supports ambulatory and inpatient geriatric assessment and treatment services throughout Southeastern Ontario. Our offices and main inpatient and ambulatory services operate out of Providence Care Hospital (PCH) in Kingston.

Achievements in Clinical Medicine:

The clinical services of the Division have successfully transitioned to the new Providence Care Hospital (PCH) site at 752 King Street West. The new 30 bed geriatrics inpatient unit includes single inpatient rooms that meet current infection control and accessibility standards, on unit therapy areas and enhanced educational spaces. Closely adjacent are enhanced seniors day rehabilitation and outpatient services. An enhanced inter-professional memory disorders clinic model is under development in partnerships with Geriatric Psychiatry and Neurology.

Achievements in Research:

Dr. Puxty is continuing collaborative work with Dr. John Lewis of the University of Waterloo and Dr. Birgit Pianosi of Laurentian University on Age-Friendly Communities in Ontario. The program is funded by the Ministry of Seniors Affairs and is building on its initial success of the previous two years by expanding its scope to address the needs of small-urban rural and special population needs (indigenous, immigrants and francophone) over the next two years with \$382,000 in additional funding. This work has been showcased at a recent Provincial Summit on Aging organized by the MOH<C.

Dr.'s Puxty and Frank have been awarded a contract with Correctional Services Canada (CSC) for \$99,000 to develop, evaluate and disseminate a blended e-learning education pilot regarding Care of the Older Offender for CSC staff starting in the fall of 2017. Based on findings of the pilot a national roll out of the strategy and resources is anticipated

Associate Professors

Dr. Chris Frank
Dr. Sudeep Gill
Dr. John Puxty

Assistant Professors

Dr. Michelle Gibson
Dr. Agata Szlanta
Dr. Erica Weir
Dr. Christine Ann Miller



Division of Geriatric Medicine

Achievements in Leadership:

Dr. Puxty continues his role as Division Chair and Director of Centre for Studies in Aging and Health at Providence Care and has taken on new role as Clinical Director of Seniors Rehabilitative and Restorative Care for Providence Care. Dr Frank continues as Chair of MAC at Providence Care Hospital



Artist in Residence Program

In 2014 I attended a session on arts and healthcare at a national family medicine conference and was inspired by the speaker, a Saskatchewan artist called Jeff Nachtigall. Jeff spoke about his work at Sherbrooke Nursing home in Saskatoon, where he was the artist in residence for a year. That project became the subject of an NFB documentary ([A Year At Sherbrooke](#)) given the positive impact on residents' quality of life and independence.

Jeff's emphasis on doing art for art's sake rather than as "therapy" resonated with me, and the experiences of participants at Sherbrooke was profound for some. I became interested in trying to recreate the Open Studio concept at Providence Care but had no money to support it. Fortunately, I found support at the Foundation and within Providence Care, and we were so pleased to have Chris Miner as our first artist. The Foundation provided financial support via bequests that aimed to support the use of the arts in healthcare, and as you will see in Chris' statement, the works done by Chris and by patients and staff far exceeded the donors' goals. We really look forward to hosting a show of photographic work done by patients and their families, and to hosting artists from a variety of disciplines as our artist in residence in the future.

Dr. Chris Frank

Geriatric Medicine



“Jeff’s emphasis on doing art for art’s sake rather than as “therapy” resonated with me”

Artist in Residence Program

From November 2016 to April 2017 I had the remarkable opportunity of being the first Artist-in-Residence at St. Mary's of the Lake Hospital. Having worked in this unique and compassionate environment my perception of what each of us are capable of has changed. Throughout my time at St. Mary's of the Lake Hospital I made a number of close friends, both patients and staff, and these friendships are ones I continue to enjoy and reflect back upon with fondness.

In what follows, I will describe some aspects of my work at St. Mary's and how I understand different patients experienced the Artist-in-Residence program.

On Monday evenings, I offered seminars in which a group of four to eight patients would learn about lighting, composition, portraiture, and other photographic skills. I brought with me lights, a backdrop, and props in order to transform the cafeteria into a temporary studio. Volunteers and I would demonstrate and assist patients in using digital cameras. One of the cameras we used was an advanced touch screen camera; this allowed patients with limited strength, mobility, or vocal abilities to participate fully in producing their own photos. Patients took pride in their ability to produce quality photos and learn about photographic methods; they also enjoyed the camaraderie of working together. I also brought with me a portable ink-jet printer which enabled patients to take away 5x7" high quality prints following seminars. I heard from patients, their families, and staff how pleased patients were of their prints – and how eager they were to show off what they had created. On more than one occasion staff would stop me in the hall to talk about how important the photos were to the patients and to relay how they learned more about the patients' lives through their photo work. Some patients who participated in the seminars even used these photos as greeting cards at Christmas.

As a former group therapist, one approach I value when working with others is to be as inclusive as possible. It was wonderful to see patients overcome different barriers to be able to participate in the program, and I felt satisfaction in creating ways of sharing the joys of photography with patients who possessed a wide range of abilities and knowledge.

A regular attendee at the seminars was Carol. She is a delightful woman, who loves her two daughters very much and asked for copies of her work to share with them. Carol was an

“As a former group therapist, one approach I value when working with others is to be as inclusive as possible. It was wonderful to see patients overcome different barriers to be able to participate in the program, and I felt satisfaction in creating ways of sharing the joys of photography with patients who possessed a wide range of abilities and knowledge.”

~
Chris Miner
Photographer

Division of Geriatric Medicine

Artist in Residence Program



Photographs from the Artist in
Residence Art Project

Division of Hematology

Mission

- ◆ To ensure excellence in the care of patients with blood disorders
 - ◆ To provide the highest standards of undergraduate and postgraduate Hematology education
- ◆ To advance knowledge in diseases of the blood to the benefit of patients and society



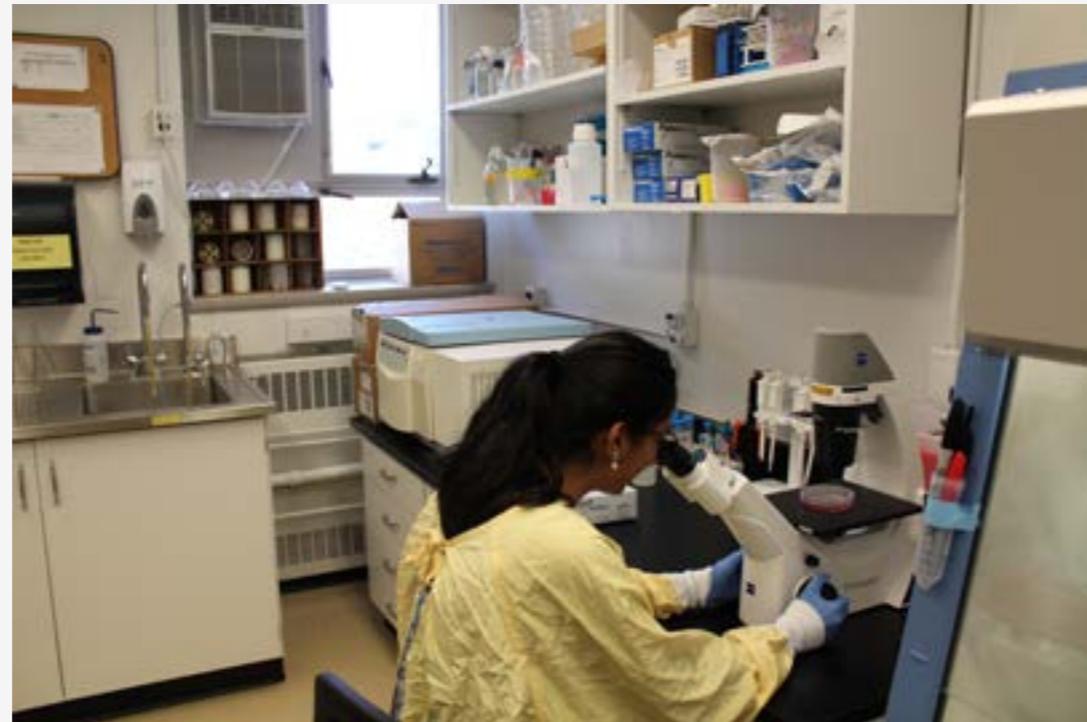
Dr. David Lee



Division of Hematology

Who We Are

The Division of Hematology is comprised of Drs. David Lee (Division Chair), Paula James, Annette Hay, Sita Bhella, and Janet Lui. In 2016, Dr. John Matthews retired after a long history of exemplary service. Daily operations would not be possible without our Administrative Assistants: Shelly Cox, Amanda Carquez, Amanda Hilhorst, Sam Biesick, and Lea Smith.



The Division works closely with the Division of Hematopathology, Department of Pathology and Molecular Medicine, the Department of Oncology, and the Cancer Program to achieve its mission. This collaborative effort includes physicians, nurses, pharmacists, scientists, research assistants, technologists, administrators, and administrative assistants. Cross-departmental synergy is one of the many strengths of the Division.

Professors

Dr. John Matthews

Associate Professors

Dr. David Lee

Dr. Paula James

Assistant Professors

Dr. Jill Dudebout

Dr. Annette Hay

Division of Hematology

Key Clinical Accomplishments



Stem Cell Transplant Program

The Stem Cell Transplant Program continues to grow and flourish thanks to Dr. Bhella's tireless efforts and leadership. In fiscal 2016, 55 autologous stem cell transplants were performed by the vibrant multidisciplinary transplant team (figure 1), increased from 46 in 2015. This represents a steady increase in volume since the inception of the program (figure 2). Enhanced procedures have improved stem cell collection efficiency, reduced febrile neutropenia rates, and hospitalizations post-transplant. In 2016, the [Stem Cell Transplant Program website](#) went live.

The Stem Cell Transplant Program now participates in a shared-care program with the Ottawa

Professors

Dr. John Matthews

Associate Professors

Dr. David Lee

Dr. Paula James

Assistant Professors

Dr. Cheryl Cline*

Dr. Jill Dudebout

Dr. Annette Hay

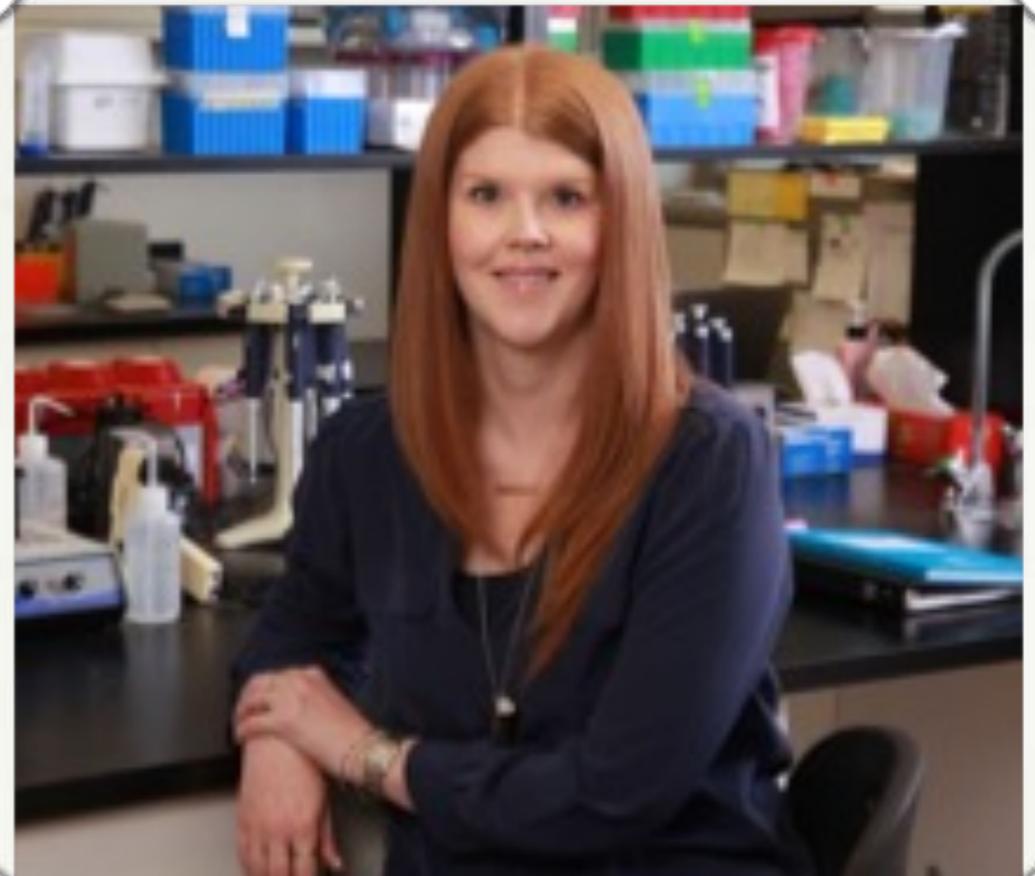
**Director, Office of Bioethics*

Research Highlights

Dr. Annette Hay continues as Senior Investigator in the Canadian Clinical Trials Group (CCTG). Dr. Hay's responsibilities include the development and conduct of clinical trials, economic evaluations of cancer interventions, and improving opportunities for adolescents and young adults with cancer to participate in clinical research. Interests also include exploration of more efficient means to conduct clinical trials, whilst upholding patient privacy and safety. She is emerging as a recognized figure in the national and international clinical trials landscape in malignant hematology. She has published 9 papers from 2016 into early 2017.



Dr. Paula James' hemostasis program continues its internationally recognized work in von Willebrand disease and translational research. In 2017, she was awarded the distinguished Dr. Cecil Harris Award by the Canadian Hemophilia Society in recognition of distinguished contributions in the areas of research or the advancement of the care of patients with inherited bleeding disorders. It has not been awarded for the past 10 years. Her profile includes several leadership positions in the international hemostasis community. She has published 20 papers from 2016 into early 2017.



Education

Undergraduate Education

The Blood and Coagulation course (Meds 125) continues its long run as one of the flagship courses in the School of Medicine, under the course directorship of Dr. James. Its course ratings remain among the highest in the undergraduate curriculum. In 2016, Dr. Lee was awarded another Aesculapian Lectureship Award for his teaching in the course.

Postgraduate Education

The Hematology Residency Training program currently has 5 residents. Under the leadership of Drs. Jill Dudebout (Program Director) and Janet Lui (CBME Lead), and supported by Ms. Shelley Cox (Program Assistant), the Program is well positioned to transition to Competency Based Medical Education in July 2017.

In 2016, Dr. Lui was recognized for her excellence in teaching, as she was awarded the Internal Medicine Subspecialty Teaching Award. Dr. Lui was also awarded a Maudley Scholarship and Research award, and a Department of Medicine Innovation Fund Education Grant. She has also presented at educational workshops internationally.

The Division boasts high quality research by trainees of all levels, thanks to the enthusiastic mentorship of Drs. Hay, Bhella, James, and Lillicrap. At the 2016 Canadian Hematology Society Awards, 3 of 4 awards were bestowed to Queen's trainees!



Figure 5. Two heads are better than one: CBME lead and Director of the Hematology Residency Training Program, Drs. Janet Lui and Jill Dudebout.

Two heads are better than one: CBME lead and Director of the Hematology Residence Training Program Drs. Janet Lui and Jill Dudebout

Division of Infectious Disease



Dr. Gerald Evans



Division of Infectious Disease

The Division of Infectious Diseases provides important contributions to tertiary clinical care of patients across Southeastern Ontario through inpatient and outpatient care at Kingston General Hospital and Hotel Dieu Hospital. The division makes significant contributions to medical education at all levels from undergraduate through postgraduate and continuing medical education at Queen's University. The division contributes to the operation of Infection Prevention & Control Services at KGH, HDH, Providence Care, and Lennox & Addington County General Hospital. It is responsible for and provides leadership in Antibiotic Stewardship at KGH, and the Southeast Ontario LHIN. Active research areas in the Division includes: the role of the gut microbiome in health and disease, HIV clinical trials including the impact of aging and cardiovascular health in PLHIV, Lyme disease, and the microbiology

Professors

Dr. Gerald Evans

Associate Professors

Dr. Elaine Petrof

Assistant Professors

Dr. Jorge Martinez-Cajas

Dr. Evan Wilson

Key clinical accomplishments:

These were limited in 2016 due to staffing shortages and problems encountered in affecting recruitment. Despite this the division was able to maintain the provision of clinical care to patients served by our hospitals and regionally with no interruptions. The division has also been challenged as well in the ability to look at innovative care models in Antibiotic Stewardship, outpatient parenteral antimicrobial therapy (OPAT) and assisting in the care of high risk patient groups in critical care, Haematology/Oncology, and Transplant Medicine. The importance of ID in meeting the demands of an impending decision to provide allogeneic stem cell transplantation at KGH cannot be underscored enough. Solutions to the challenges posed by staff shortages in ID are being given high priority.

Division of Infectious Disease

Education:

The Division continues to meet its needs in postgraduate education in the department. Clinical rotations provided for undergraduate and PG trainees remains a major focus of the division. The division makes significant contributions to departmental and faculty CME regionally.

Research highlights:

Publications

1. HG Stiver, FY Aoki, UD Allen, GA Evans, M Laverdiere, DM Skowronski, Update on influenza antiviral drug treatment and prophylaxis for the 2015-2016 influenza season, *J Assoc Med Microbiol Infect Dis Can*, 2016;1:5-7
2. JA Leis, GA Evans, W Ciccotelli, GG Garber, D Gregson TC Lee, N Le Saux, DR MacFadden, L Saxinger, S Shafran, WL Gold Choosing Wisely Canada: Top five list in infectious diseases: an official position statement of the Association of Medical Microbiology and Infectious Disease Canada *J Assoc Med Microbiol Infect Dis Can*, 2016;1:8-12
3. M Becker, J Cox, GA Evans, S Haider, SD Shafran, AMMI Canada position statement: The use of early antiretroviral therapy in HIV-infected persons *J Assoc Med Microbiol Infect Dis Can*, 2016;1:79-85

Abstracts

1. MD Saint-Pierre, K Hockmann, GA Evans, JL Martinez-Cajas, JA Neder, W Wobeser, O Moran-Mendoza, A Rare Case of Pulmonary

Mycobacterium Szulgai Treated with Combined Drug Therapy and Surgery CHEST Annual Meeting Los Angeles, CA - October 22-26, 2016

2. MacFarlane, S., Valickis, D, Chambers, A., Cooper, S., Augustin, A., McCreight, L., Zvonar, R., Evans, G., Fraser, L., Garber, G., Moore, J. Less is More. Pilot and Formative Evaluation of a new UTI Program for long term care homes IPAC Canada 2016 National Conference, Niagara Falls, ON - May 15-18, 2016
3. Augustin A., Cooper S., Chambers A., Garber G., Evans G., Fraser L., McFarlane S., Zvonar R. Valickis D., McCreight L. Building an Evidence Based-Theory Driven Program (ETP) to Address Antibiotic Related Harms in Long Term Care IPAC Canada 2016 National Conference, Niagara Falls, ON - May 15-18, 2016
4. J. Johnstone, C. Chen, M. Policarpio, K. Adomako, L. Rosella, F. Lam, C. Prematunge, E. Nadolny, J. Robertson, G. Garber on behalf of the Ontario VRE Investigators (incl. G Evans), Vancomycin Resistant Enterococcus (VRE) positive blood cultures: Results from a province-wide multi-site case series analysis in Ontario, Canada, January 2009 to December 2013 ID Week, New Orleans, LA - October 26-30, 2016
5. R. Zvonar, C. Johanson, A. Hogg, S. Raybardhan, J. Cook, G. Evans, G. DiDiodato, G. Garber, Development of Antimicrobial Stewardship On-Line Resources by Public Health Ontario - P58 AMMI-CACMID Annual Conference Vancouver, BC - Mar 30 - Apr 2, 2016

Division of Nephrology

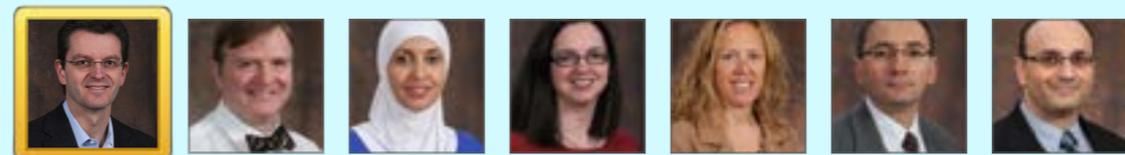
Mission

The Nephrology Division in the Department of Medicine at Queen's University strives to provide:

- ◆Excellent clinical care throughout the Kidney Disease continuum.
- ◆Comprehensive training in adult nephrology to undergraduate, postgraduate, established physicians, allied health care professionals and education in preventative strategies to family practitioners and the general public.
- ◆New scientific information to the medical community in general and the nephrology community specifically.
- ◆Leadership in clinical care delivery, research and education in underserved areas recognized to be at high risk for chronic kidney disease.



Dr. David Holland



Division of Nephrology

Comprised of individuals with strong academic backgrounds, the Division of Nephrology's prime responsibility is the provision of exemplary medical services to the Kidney Disease population of Southeastern Ontario and the Moose Factory Zone.

The second responsibility is scholastic; both in the contribution of scholarship to current clinical problems, leadership in medical education, and furthering research within the field of Nephrology.

Education

The Division remains active in undergraduate, postgraduate, and continuing medical education.

Postgraduate Medical Education

The Postgraduate Nephrology Training Program offers a two year residency program that is fully accredited by the Royal College of Physicians and Surgeons of Canada.

The Nephrology Training Program also offers fellowship training to International Medical Graduates with external funding.

The Nephrology Training Program has gained a well-deserved reputation for exemplary teaching and direct supervision.

The Director of the Nephrology Training Program, Dr. Khaled Shamseddin, has developed and recently implemented a new curriculum - Competency Based Medicinal Education (CBME). Competency Based Medical Education focuses on a foundational approach to learning with achievement of specific milestones.

The Division is also proud of the success of its residents. Dr. Dorothy Thomas is the recipient of the Department of Medicine Award for best clinical vignette poster presentation, while Dr. Heather

Professors

Dr. Ross Morton

Associate Professors

Dr. Rachel Holden

Dr. David Holland

Dr. Eduard Iliescu

Dr. Christine White

Dr. Karen Yeates

Assistant Professors

Dr. Sarah Aloudat

Dr. Jocelyn Garland

Dr. Khaled Shamseddin

Dr. Hasitha Welihinda PGY5: Letter to the Division

I have been part of the Nephrology Subspecialty Training Program at Queen's University in Kingston from July 2015 to August 2018. I have found the experience very positive and am very happy to share my thoughts about the unique experience this program has to offer.

When I started, I felt insecure having moved to a new city, starting a new training program, and working in a new hospital. I quickly learned how joining the program here was like becoming part of a family. I felt very welcome, and always felt I could turn to my mentors in the program for advice.

Kingston has a smaller program with 10 Nephrologists, all of whom are very collegial. It has been my pleasure to get to know and work with each of them. Because I was able to work directly with them, they were able to gauge my progress over the subsequent months and guide me along the path from Junior Resident to independent practice, granting me more autonomy as both our comfort levels grew. I felt very supported; whether it was placing a hemodialysis line in the middle of the night, or starting immunosuppression on a patient in ICU, or some novel issue which had very little evidence to guide management. Towards the end of my training, I was entrusted with running a busy ward service as the Junior Attending, for which I felt well prepared.

The program has been very supportive of my academic pursuits. I have had a special interest in Palliative Care and the Program Director supported my learning by arranging for specialized electives in this area. I felt comfortable proposing various Palliative Care related projects to the Nephrology Division. The program fully supported me creating a Conservative Care Clinic for patients, including arranging for rotating staff coverage. They also arranged for me to receive further training with the Division of Palliative care. I feel this would not be possible anywhere else.

I believe that Queen's Nephrology Subspecialty Training Program would be an excellent choice for residents who are motivated and have a specific training objective: whether general community nephrology practice, further subspecialty training, or niche expertise in a particular area. I am certain that the program will help them pursue these goals. One of the main benefits of this program is the flexibility built into the rotations, combined with the supportive staff and program director.

Division of Nephrology

ADULT NEPHROLOGY TRAINING PROGRAM Program

Director: Dr Khaled Shamseddin

The Adult Nephrology Training Program at Queen's University is a two-year residency program that was fully accredited by the Royal College of Physicians and Surgeons of Canada in 2013. Our Training Program is also offering a two-year Nephrology Clinical Fellowship for international Medical Graduates (IMG) with external funding.

The philosophy of our program is that residents are here to learn and not to provide service. Faculty members do not rely on residents for clinical work and we are able to provide an excellent education: service ratio allowing residents to have hands-on experience at any time, and preventing competition amongst trainees for procedural skills.

As a part of moving toward competency based medical education (CBME), Queen's University and the Nephrology Training Program are leading the country in implementing the new CBME curriculum in July 2017. The CBME model will allow our Nephrology trainees to achieve their academic and training milestones and will enhance their performance as competent Nephrologists serving their societies.

Our training program has expanded significantly under the current Program Director, Dr. Khaled Shamseddin as a result of excellent

THE MORNING REPORT ELECTRONIC BOOK

Supervisor: Dr Ross Morton

Dr Morton continued to supervise of the Chief Medical Residents in the preparation of a collection of interesting cases from Morning Report. The presenting trainees outline the case with images and interactive material as appropriate. The Chief Residents collate the cases and add further educational material. The completed case is then sent to one of the Department Members with expertise in that area to provide a discussion. These case collections continue to be published on a regular basis.

Patafio F, Skinner J, Leiderman Z, Morton R, Smith S, Archer S. The Morning Report Spring 2015 Edition. Electronic book [https://
itunes.apple.com/ca/book/the-morning-report/id985036986?mt=11](https://itunes.apple.com/ca/book/the-morning-report/id985036986?mt=11)

Montague S, Wu Z, Curran S, del Paggio J, Morton AR The Morning Report Fall 2015 Edition. Electronic book [https://itunes.apple.com/ca/
book/the-morning-report-fall-2015/id1106724119?mt=11](https://itunes.apple.com/ca/book/the-morning-report-fall-2015/id1106724119?mt=11)

Division of Nephrology

Research

Dr. Rachel Holden has accepted the position of Divisional Director of Research.

Under the leadership of Dr. Holden, the Division has established the Queen's Kidney Disease Research Unit.

The role of the Research Unit is to provide infrastructure for promotion of research opportunities, including administrative support, research expertise, and identification of funding opportunities. To this end, the Research Unit has hired two research coordinators with experience and expertise in protocol development and statistical analysis.

Dr. Karen Yeates is featured in the Queen's Gazette due to the mobile technology innovation used to improve health care in low resource settings. Dr. Yeates has received \$500,000 in funding from Grand Challenges Canada to expand her cervical cancer screening program. For more information click [here](#)

Nephrology in Primary Care

Dr. Iliescu is the Ontario Renal Network (ORN) representative for the South Eastern Ontario LHIN,

In this role, he has made significant contributions to the ORN primary care engagement plan, including implementation of the Kidney Wise Tool Kit.

The Kidney Wise Tool Kit assists primary care practitioners in identifying patients who can benefit from referral to a nephrology program.

Dr. Iliescu has actively promoted nephrology education in primary care by his regular supervision of Family Medicine Residents in renal clinics, as well as his frequent participation in CME events.

Dr. Iliescu's interests also include several Quality Improvement initiatives, including reduction of dialysis catheter-related infections. In fact, Kingston Health Sciences Centre has one of the lowest dialysis catheter-related infection rates in the province.

Division of Nephrology

Clinical - Specialized Kidney Disease Clinic

Although most kidney failure is due to diabetes and hypertension, some is the result of various forms of glomerulonephritis.

The treatment of glomerulonephritis has changed dramatically in the last decade due to the conclusions drawn from various research studies, as well as the introduction of new immunosuppressive medications.

Consequently, the management of glomerulonephritis has become increasingly targeted, requiring a more focused patient-centred approach.

A Specialized Kidney Disease clinic has been introduced in order to provide evidence-based treatment of glomerulonephritis and promote continuity of care. Under the leadership of Dr. Jocelyn Garland, the clinic ensures patient access to specialized investigations, state-of-the-art medications, and treatment protocols.

The Division is especially proud of the fact that Dr. Garland was the recipient of the regional Ontario Renal Network Human Touch Award, which recognizes the delivery of tertiary care technology while not forgetting the need for personalized and humanistic patient-centred care.

The story of a one of her patients with a rare but serious kidney disease can be found on Dr. Archer's blog: [Claire and the House of Miracles](#).



Division of Nephrology



HLA and Microbiology Team: Kristina Jones, Leslie Todd, Kelly Clark, Dr. Lois Shepherd, Marie Guthrie, Laura Webber, Julie McClatchey and Tammy Edwards



For more information check out: [News, Innovations and Discoveries Blog](#)
[Creating a Live Renal Donor Program: Overcoming the 4 hurdles to achieve excellence](#)

Clinical - Kidney Transplantation

Kidney transplantation offers patients with end stage renal disease improved quantity and quality of life compared to life on dialysis.

Kingston General Hospital performed its first kidney transplant procedure in the late 1960's and continues to do about 10 deceased donor transplants each year. The renal program currently follows a cohort of about 165 transplant recipients.

However, kidney transplantation from live donors (rather than deceased donors) could not be performed in Kingston due to the absence of surgical expertise in the area of laproscopic live donor nephrectomy. Patients pursuing live donor transplantation had to be referred to other centres.

However, all that changed on June 13, 2017. Under the leadership of Dr. Khaled Shamseddin from the Division of Nephrology and Dr. Tom McGregor from the Department of Urology, Kingston Health Sciences Centre performed its first live donor nephrectomy and live donor transplant in almost 15 years.

This is a historic game changer. A kidney from a deceased donor may last 9 years on

Division of Nephrology

Clinical – Conservative Care Clinic

There is no doubt that dialysis is life saving. The long-term success of chronic dialysis therapy for management of end stage renal failure was first demonstrated in 1960, and since then, has been taken for granted.

Most patients with end-stage kidney disease choose to pursue dialysis, and some may be fortunate enough to go on to receive a kidney transplant.

Yet, despite the life saving promise of dialysis, there is equally no doubt that, for some patients, quality of life may still suffer. For example, in-hospital hemodialysis requires three treatments weekly, each treatment lasting 4 hours, with obvious restrictions in travel, diet, and overall independence.

It is perhaps not surprising then that some patients - particularly those who are elderly with comorbidities - may consider another option – conservative care.

That is to say, some patients, for the purpose of maintaining quality of life and independence, may choose not to pursue dialysis, with the full knowledge and understanding that their decision may lead to an earlier death.

In the interest of patient-centred care, and with the support of our Nephrology Fellow, Dr. Hasitha Welihinda, the Division has established a conservative care clinic to offer patients the opportunity to discuss goals of care, and whether they wish to pursue dialysis.

After completing his nephrology fellowship this spring, Dr. Welihinda will be pursuing additional training through the Palliative Care Program in Kingston.

Clinical – Satellite Clinics

Surprisingly, most out-patient hemodialysis treatments are actually performed within the hospital, located on Burr 3.

Unfortunately, visits to a hospital, even on an out-patient basis, can contribute to a sense of dependence, as well as increase the amount of time and cost devoted to travel.

However, dialysis clinics located outside of Kingston help recapture a sense of independence and minimize inconvenience.

Kingston Health Sciences Centre has operated a large number of so-called satellite dialysis clinics for many years including Belleville, Picton, Smith Falls, Brockville, Bancroft, and Moose Factory.

Consistent with the overarching strategy to increase patient independence and lessen reliance of in-hospital dialysis, and in keeping with a tradition of patient-centred care, the Division has opened a new satellite dialysis clinic in Napanee, attended by Dr. Khaled Shamseddin.

As well, under the leadership of Dr. Christine White, new clinics have been opened in Napanee and Belleville for management of patients with chronic kidney

Division of Nephrology

Clinical - Home Dialysis

Patients with end stage renal disease require renal replacement therapy, which consists of either dialysis or kidney transplantation.

Dialysis is traditionally performed in a hospital setting with the aid of nurses and physicians.

However, as technology has improved, home dialysis has become possible for a growing number of patients, and promises to offer greater independence and improved quality of life compared to in-hospital dialysis.

Various forms of home dialysis are now available, including peritoneal dialysis, home hemodialysis, and most recently, NxStage dialysis.

Under the leadership of Dr. Ben Thomson, our Director of Independent Dialysis, the Home Dialysis Program has expanded significantly.

In fact, this year marks a milestone - the Home Dialysis program has now grown to encompass 20% of all dialysis patients. Moreover, Kingston Health Sciences Centre is currently the largest user of NxStage technology of all Ontario renal programs!

As part of the overarching strategy to increase patient independence and lessen reliance of in-hospital dialysis, the Home Dialysis program is planning continued expansion to include 30% of all dialysis patients.



There is nothing unusual about the birth of a baby.

Except in this case.

Most women on dialysis are infertile. And in those rare cases where conception is possible, miscarriage is very common. In fact, less than 5% of women on dialysis are able to become pregnant, and of those, less than half will reach successful term delivery.

However, this year, against the odds, one of our dialysis patients delivered a healthy baby boy, Joshua.

Preventing miscarriage required a team effort led by Dr. Graham Smith, an obstetrician from the High Risk Pregnancy Team, and Dr. Khaled Shamseddin, from the Division of Nephrology. Joshua's mother has kidney failure due to Alport's Syndrome, and her management included intensive daily dialysis to increase Joshua's chance for survival.

The expertise and coordination of a dedicated multidisciplinary team involving



Kidney Transplant Success

The Easter Bunny was especially kind this year to three patients with end stage kidney disease, Ms. RB, Mr. JC, and Mr. GK.

All three patients had required dialysis treatment for quite a long time. And all three were fortunate to each receive a kidney transplant during the same long-weekend during Easter!

There can be no doubt that dialysis is life-saving for patients with kidney failure. However, it is not the best treatment. Not surprisingly, patients who receive dialysis have shorter life-expectancy and decreased quality of life compared to patients without kidney failure.

However, kidney transplantation, either from a deceased or live donor, offers the promise of improved survival and better quality of life compared to patients receiving dialysis. Transplantation offers freedom – freedom from dialysis, freedom to travel, financial freedom, and dietary freedom, to name only a few of the more obvious benefits.

Our recent kidney transplant recipients, Ms. R. B, Mr. J. C., and Mr. G. K. are thankful that they no longer need to visit the hospital three times each week for dialysis treatments, each treatment lasting four hours.



Patient Story: Karen

Karen is a wonderfully optimistic woman whose journey with familial amyloidosis began in 2000, shortly after the birth of her son in 1999. Karen's mother passed away from the same condition and her brother and sister also suffer from the same disease. All siblings are at various stages of their treatment and look to one another for support as they share their experiences.

Karen's diagnosis came in the form of a positive kidney biopsy in 2000, at which point she began working closely with the nephrology team to monitor her kidney function and blood pressure to help maintain her kidney function. Understanding that this journey would lead to dialysis it was still a shock in 2010 when Karen was faced with the decision between hemodialysis and peritoneal dialysis.

Hemodialysis requires the patient to go to the hospital frequently to be hooked up to a machine, which has a filter to clean the blood. It acts as an "artificial kidney" and this process is done multiple times per week.

The second option, the one Karen chose, is peritoneal dialysis. During this process a catheter is placed in the patient's stomach during a minor surgery. This tube is then used as the connection point for the cleansing fluid used in the dialysis process. Once hooked up, the fluid enters the peritoneal cavity and at this point the lining of the peritoneal cavity acts as a natural filter, letting waste and extra fluid in the blood pass through into the cleansing fluid. At the same time, the lining holds back the important things that the body needs.

The decision to choose peritoneal dialysis, although a difficult choice at the time, is one that Karen has no regrets about. She recalls immediately feeling an immense flow of energy after she began dialysis. The feelings of extreme lethargy, fatigue and sickness quickly disappeared and she felt rejuvenated and able to keep up with her busy life as a mother of two and dedicated employee in two busy jobs.



Patient Story: Rachel

Rachael H. is a 23 year old female who became critically ill due to a type of thrombotic microangiopathy called Atypical Hemolytic Uremic Syndrome.

Rachel was successfully treated by Dr. Jocelyn Garland and a nurse practitioner, Ms. Susanne Jeffery, who run the new Specialized Kidney Diseases Clinic.

The Specialized Kidney Disease Clinic is where some of the sickest patients with kidney failure receive complex care that requires close observation and follow-up. The medications used to treat the various diseases can be quite toxic and have many potential side effects.

Dr. Garland is the Medical Director of this clinic, following over 100 patients with a variety of different kidney diseases.

Rachael H. became critically ill in the summer of 2015. Rachael was traveling, hiking with friends, and perfectly healthy. But when she returned from holiday, Rachel's world was turned upside down in less than one week.

She originally presented to Kingston Health Sciences Centre with abdominal pain. At that time, investigations, including bloodwork, were normal, and with nothing specific to find, she was sent home.

But one week later, she returned, this time with more severe abdominal pain. Within 24 hours, she developed kidney failure, anemia, low platelet count, and failure of multiple organs.

Rachel required admission to intensive care, and would need to stay there for several weeks.

A kidney biopsy was completed within 24 hours of admission, which showed severe



Division of Neurology



Dr. Michel Melanson



Division of Neurology

Clinical Accomplishments

The Division of Neurology has had another successful year. From the recruitment perspective, new faculty members Moogeh Baharnoori and Ramana Appireddy have joined the division to provide some expert assistance for patients in the region. The new faculty members are assimilating well into the division.

In a recent interview with the Department of Medicine Communications Coordinator Ms. Cally Martin, Regional Director of the Stroke Network of Southeastern Ontario, discussed release of a provincial report card by the Ontario stroke network. In this report the South East LHIN is highlighted as having experienced the largest decline of all 14 LHINs in 30-day mortality rate following an acute stroke, a decline of 2.6 percentage points.

This unprecedented drop in mortality rate marks a tremendous improvement in stroke care for the region.

This achievement is associated with the regional consolidation of acute stroke care to three dedicated stroke units within our region in Bellville General Hospital, Kingston Health Sciences Centre and Brockville General Hospital. The drop in mortality rate was an anticipated outcome of this evidence-based re-organization of acute stroke services.

Ms. Martin and Dr. Al Jin worked with a strong regional team and many local partners to spearhead health system change. This involved re-organizing acute stroke care from 10 acute care sites to three dedicated acute stroke units across the region.

Congratulations are extended to the many stroke survivors, families, stroke teams and leaders of the SE LHIN and the Stroke Network of Southeastern Ontario for their dedication to improving stroke care in this region. Dr. Al Jin, Queen's University and KHSC Stroke Neurologist, Regional Medical Leader and Cally Martin, Regional Director note how grateful they are to have worked with such expert teams to make this difference.

Professors

Dr. Donald Brunet
Dr. Charles Bolton

Associate Professors

Dr. Michel Melanson

Assistant Professors

Dr. Gordon Boyd
Dr. Albert Jin
Dr. Giovanna Pari
Dr. Stuart Reid
Dr. Sean Taylor
Dr. Lysa Lomax

Professors Emeriti

Dr. Henry Dinsdale

Division of Neurology

Fundraising:

Dr. Giovanna Pari, in partnership with Shaw Insurance and UHKF held a successful fundraising event in support of the division of neurology clinical care and innovation.

During this fundraising event over \$70,000 was donated by various donors, as well as additional funds received from silent auction items.

This large philanthropic donation will make a tremendous impact to patient care in the division of neurology.



Dr. Allison Spiller Endowment:



Kingston Whig Standard Article

The new Allison E. Spiller Epilepsy Education Endowment Fund, which raised \$50,000, has been established to “support health-care practitioners pursuing education in the assessment and treatment of epilepsy.” The Division of Neurology, and the Department of Medicine, fondly remembers Dr. Spiller.

Researcher Profile:

Dr. Lomax is an assistant professor at Queen's University jointly appointed to the Division of Neurology and the Division of Respiriology, with Fellowship training in the areas of epilepsy, genetics, and sleep medicine. She is involved in developing transition guidelines for pediatric patients graduating into the adult clinic, as well as harmonizing epilepsy driving guidelines throughout Canada.

Her primary research interests include the genetics of sudden death in epilepsy (SUDEP), cardiac arrhythmia in epilepsy, and sleep related hypermotor epilepsy. She is collaborating with Dr. Danielle Andrade (Toronto Western Hospital) investigating the genetic markers associated with sudden death in epilepsy (SUDEP). She and Dr. Andrade have determined that a gene for sleep related hypermotor epilepsy may play a role in SUDEP risk. Dr. Lomax has also collected a large series of patients with ictal arrhythmia. In collaboration with Dr. Adrian Baranchuk, she will be characterizing cardiac rhythms and hopes to perform whole exome sequencing on these patients.

She is also collaborating with Dr. Birgit Frauscher (McGill) using high-density (HD) 256-channel EEG to distinguish sleep-related hypermotor epilepsy from non-REM parasomnias. The ultimate aim of the proposed research is to improve the management of people with epilepsy with respect to its challenging differential diagnosis. improved



Dr. Lysa Lomax

Division of Palliative Medicine

Mission

We are dedicated to the development and provision of a regional Palliative Care Network that will provide an integrated programmatic approach of accessible, quality palliative care to all persons in the region. The Palliative Care group has a mandate to develop patient care systems throughout the region, to educate undergraduates, postgraduates and practicing physicians, and to conduct research.



Dr. Deborah Dudgeon



Division of Palliative Medicine

Divisional Overview

Members of the Division of Palliative Medicine consult and care for people with advanced disease or uncontrolled symptoms in Kingston Health Sciences Centre - Kingston General Hospital and Hotel Dieu Hospital sites, Providence Care Hospital and in the community. They participate in undergraduate teaching, provide one month educational rotations for over 70 post graduate trainees and provide continuing medical education to physicians and other health professionals in the region.

Achievements in Clinical Medicine

Palliative Care Pathways and Redesign KHSC-KGH and CCSEO

Queen's Palliative Medicine Program is co-leading the development of Integrated Palliative Care Pathways with KHSC, CCSEO and Queen's Department of Medicine Senior Leaders. There is mounting evidence to support clinical and systems benefits when Palliative Care Specialists and palliative care approaches are integrated earlier in the illness trajectory in patients with life-limiting diseases.

Specialists from Palliative Medicine, Oncology, Cardiology, Nephrology, Respiriology, General Internal Medicine and Patient Experience Advisors have developed specific clinical pathways for patients with advanced: COPD/ILD, CHF, CKD and Metastatic Cancer (breast, lung, colon and pancreas). Triggers for referral to palliative care are embedded in the pathways reflecting criteria specific to each specialty. The pathways have adapted a palliative care model that delineates the operational integration of disease management and palliative care for these people with advanced illnesses that would benefit from early Palliative Medicine consultation or a palliative approach to care. This work targets both inpatient and ambulatory clinic services. It builds on known models, tools, best practices and processes. It integrates and compliments already proven successes in Palliative Care/Medicine that KGH-CCSEO and the SE LHIN have supported (e.g., Palliative Care Integration Project, ESAS, PPS, Symptom Response Kits, Yellow Folder for Advance Care Planning, Goals of Care Project).

Deborah Dudgeon

Chris Frank

Craig Goldie

Ingrid Harle

Natalie Kondor

Greg Patey

Ray Viola

Stephanie Connidis

Division of Palliative Medicine



Achievements in Education

The new Royal College Subspecialty of Palliative Medicine begins in July 2017. Dr Harle has developed the documents for accreditation of a program for Queen's University. She has also developed the competencies for the Palliative Medicine Program for the new competency-based educational approach.

Dr Dudgeon is the chair of the Palliative Medicine Subspecialty for the Royal College of Physicians and Surgeons of Canada.

Achievements in Administration

Achievements in Research

Grants

2014 – 2018 - \$797,585.60 – OICR Grant: Improving the management of pain in cancer patients in Ontario. Lisa Barbera

Co-Investigators: Howell D (PI), Seow H, DeAngelis C, Sutradhar R, O'Brien M, Earle C, Husain A, Sussman J, Atzema C, Dudgeon D

September 2017 - August 2021 – \$835,000 - Canadian Institutes for Health Research (CIHR), Canada, Research Grant. Program: Project Scheme-2016 1st Live Pilot. Development and Validation of a Patient-reported Measure of Compassionate Care. Sinclair S, Sawatzky R, Hack TF, Barwich D, Baxter S, Chochinov HM, Cory S, Dudgeon D, Embleton L, Forbes H, Garland E, Hagen N, Harlos M, Heyland D, Krawczyk M, Lechelt L, Leget C, McClement S, Puchalski C, Quail P, Raffin-Bouchal S, Russell L, Selman L, Singh P, Sinnarajah A, Stajduhar K, Thompason G, Doucet M, Jajszczok M, Kimel G, Patton M, Wheler B.

Mr. & Mrs. Cruickshank

Mr. Cruickshank was introduced to Palliative Care when his wife was diagnosed with terminal stage 4 cancer. After working with the oncology team under Dr. Biagi, Mrs. Cruickshank was transferred to Dr. Viola in palliative care who facilitated her wish of spending her last days in her beautiful home.

The relationship between Dr. Viola, Mr. and Mrs. Cruickshanks and the palliative care team was excellent. Mr. Cruickshank noted that the providers were very honest, very frank and very supportive, leaving him with nothing but positive experience about the palliative care team.

Of note, Mr. Cruickshank noted a time where Dr. Natalie Kondor visited Mrs. Cruickshank and knelt down by her bedside. He expressed his gratitude that Dr. Kondor got down on her knees and had a face to face conversation with his wife when she needed it most. The small gesture meant the world to Mrs. Cruickshank and her family.

Mr. and Mrs. Cruickshank's children live across the world, and Dr. Viola recorded soundbites after each visit so that the children could hear first-hand of their mother's condition.

Mrs. Cruickshank passed away in her beautiful kitchen 1.5 hours after this final recording on May 15, 2016:

“This is Dr. Ray Viola, just visiting your mother at 2:30 Sunday afternoon. As you probably know her condition has worsened over the last couple of days. At this time, she is reasonably comfortable, and minimally responsive, with her eyes moving somewhat when spoken to. The timeframe is in hours to a day or two that she will survive. The nursing staff will visit her and monitor her pain levels. I think she is pretty comfortable at home and will die in the kitchen. It has been great taking care of her. “

Mr. Cruickshank looks back at this hard time with warm feelings towards Dr. Viola and his team.



Division of Respiriology

Mission

- ◆ To provide excellence in the care of respiratory patients in our community. To continuously improve the treatment and prevention of respiratory illnesses by conducting and supporting high quality clinical research, and by educating students and caregivers in state of the art clinical practice of respiratory medicine.



Dr. Diane Lougheed



Division of Respiriology

Introduction:

The Division of Respiriology at Queen's University currently has ten active clinical faculty, who provide advanced respiratory clinical care to the majority of southeastern Ontario. The Respiriology Division is also the major regional provider of research and educational services in respiriology. Three faculty members have major undergraduate and postgraduate leadership roles (Drs. Heffernan, Moffatt and Parker), three members have major research time protection (Drs. Lougheed, Neder and O'Donnell), three members) have a 50% commitment to the Department of Critical Care Medicine (Drs. D'Arsigny, Heffernan and Parker, and three (Drs. Digby, Fitzpatrick, and Moffatt) have attending commitments on the internal medicine clinical teaching units.

The major clinical programs operated by the division include:

Asthma: Dr. Diane Lougheed

COPD: Drs. Denis O'Donnell & Alberto Neder

Cystic fibrosis (adults): Dr. Diane Lougheed

Cough: Dr. Diane Lougheed

General respiriology: Drs. Christine D'Arsigny, Susan Moffatt and Onofre Moran-Mendoza with assistance from all other clinical faculty.

Interstitial lung disease: Dr. Onofre Moran-Mendoza

Lung cancer: Drs. Geneviève Digby & Chris Parker

Neuromuscular disease (adults): Dr. Michael Fitzpatrick (in collaboration with a multidisciplinary neuromuscular team led by Dr. Karen Smith, Providence Care)

Pleural Space Clinic: Drs. Geneviève Digby, Michael Fitzpatrick, Paul Heffernan, Susan Moffatt &

Professors

Dr. Michael Fitzpatrick
Dr. Diane Lougheed
Dr. Alberto Neder
Dr. Denis O'Donnell

Associate Professors

Dr. Christine D'Arsigny
Dr. Lutz Forkert
Dr. Susan Moffatt
Dr. Onofre Moran-Mendoza
Dr. Christopher Parker

Assistant Professors

Dr. Paul Heffernan
Dr. Helen Driver*

Professors Emeritus

Dr. Ronald Wigle

**Coordinator, Sleep Disorders
Laboratory*

Division of Respiriology

Key accomplishments in 2016 - 2017:

Research:

Research productivity within the Division remained exceptional. In PubMed alone, 93 peer-reviewed articles were listed with many more in press or in review. Publications cover a diverse range of topics including: population health studies in asthma, development and assessment of new knowledge translation tools, mechanisms of cough in asthma (Dr. Loughheed); cardiopulmonary interactions in patients with combined COPD and heart failure (Dr. Neder); the systematic interrogation of the heterogeneous physiological abnormalities in patients with apparent “early” COPD (Dr. O’Donnell); and insights into ventilation-gas exchange coupling in chronic thrombo-embolic pulmonary hypertension (Drs. Neder, D’Arsigny and O’Donnell). Important work has also been published by Dr. Geneviève Digby on the preponderance of undiagnosed (and untreated) COPD among patients being evaluated for lung cancer.

Featured Researcher:

Dr. Denis O’Donnell is a clinician scientist in the Division, and a world-renowned expert in the mechanisms of exertional dyspnea in COPD and ILD, as well as exercise physiology and pulmonary mechanics. Cross-appointed to the Departments of Biomedical & Molecular Sciences (Physiology), Rehabilitation Medicine and Kinesiology & Health Studies at Queen’s University, he is the senior author of

Education:

Postgraduate Training Program in Respiriology: Dr. Paul Heffernan has been the Program Director since late 2015, and has already made tremendous contributions in this role. He is leading the program into the new era of competency based medical education, which will commence in July 2017.

The training program has graduated 4 trainees in the past 18 months. Both of our graduating trainees of June 2016 (Drs. Natalie Kozij, Mathieu Saint-Pierre) successfully completed their Royal College respiriology subspecialty examinations. Dr. Kozij has set up practice in Kitchener-Waterloo, Ontario and Dr. Saint-Pierre is practicing in Ottawa. Dr. Amany Elbehairy completed a fellowship in respiratory research and sleep medicine. Drs. Christina Liak and Karlo Hockmann graduated in June 2017. Dr. Liak is undertaking additional sub-specialty training in sleep medicine at Western University, and Dr. Hockmann plans to establish a community practice in the greater Toronto area. As of July 2017, there will be five FRCP candidates in our respiriology training program (Drs. Sean O’Loghlen, Brent Guy, Christopher Davis, Chanel Kwok and Nicholas Woolnough), two fellows training in Interstitial Lung Disease (Sami Alyami and Sharina Aldhaheri) and one sleep medicine fellow (Jaspreet Kambo).

The respiriology training program offers an innovative annual Foundations of Respiriology course, which provides our incoming residents with an overview of core topics and skills. Using a variety of educational strategies including directed independent learning, facilitated small group learning, and peer-to-peer learning, our half days stress the importance of interactive learning rather than rote didactic teaching. During training, our residents accrue extensive experience in technical skills, supported by the use of both low- and high-fidelity medical simulation, and training now includes use of endobronchial ultrasound. Our residents continue to excel as scholars, and present original work at national and international conferences. Plans for the immediate future include application of a new competency-based framework and a competency-based assessment strategy.

Leadership External to Queen's

Dr. Lougheed has been on the Executive Committee and Board of Directors of the Canadian Thoracic Society (CTS) since 2012. During her tenure as President (2015-2016) and Past-President (2016-2017), she guided the CTS through several major transitions, including its incorporation as an independent professional society, and the creation of its own, new peer-reviewed journal – the Canadian Journal of Respiratory, Critical Care and Sleep Medicine, which was launched in January 2017. She also helped establish a joint membership opportunity with the European Respiratory Society, and will be co-chairing the American College of Chest Physician's CHEST conference in Toronto in October 2017.

Undergraduate Education:

Dr. Susan Moffatt continues to co-chair of the Circulation-Respiration course in second year, is the Director of the 3 in-class courses that occur during clerkship, and teaches in all 4 years of the undergraduate curriculum.

Dr. Chris Parker Chairs the one-month "Complex Presentations" course in the 4th year of clerkship and has introduced effective high-fidelity simulation at progressively more advanced levels of sophistication to the 3 clerkship in-class courses. He is recognized for his excellence as an instructor in all 4 years of the undergraduate curriculum.

Awards:

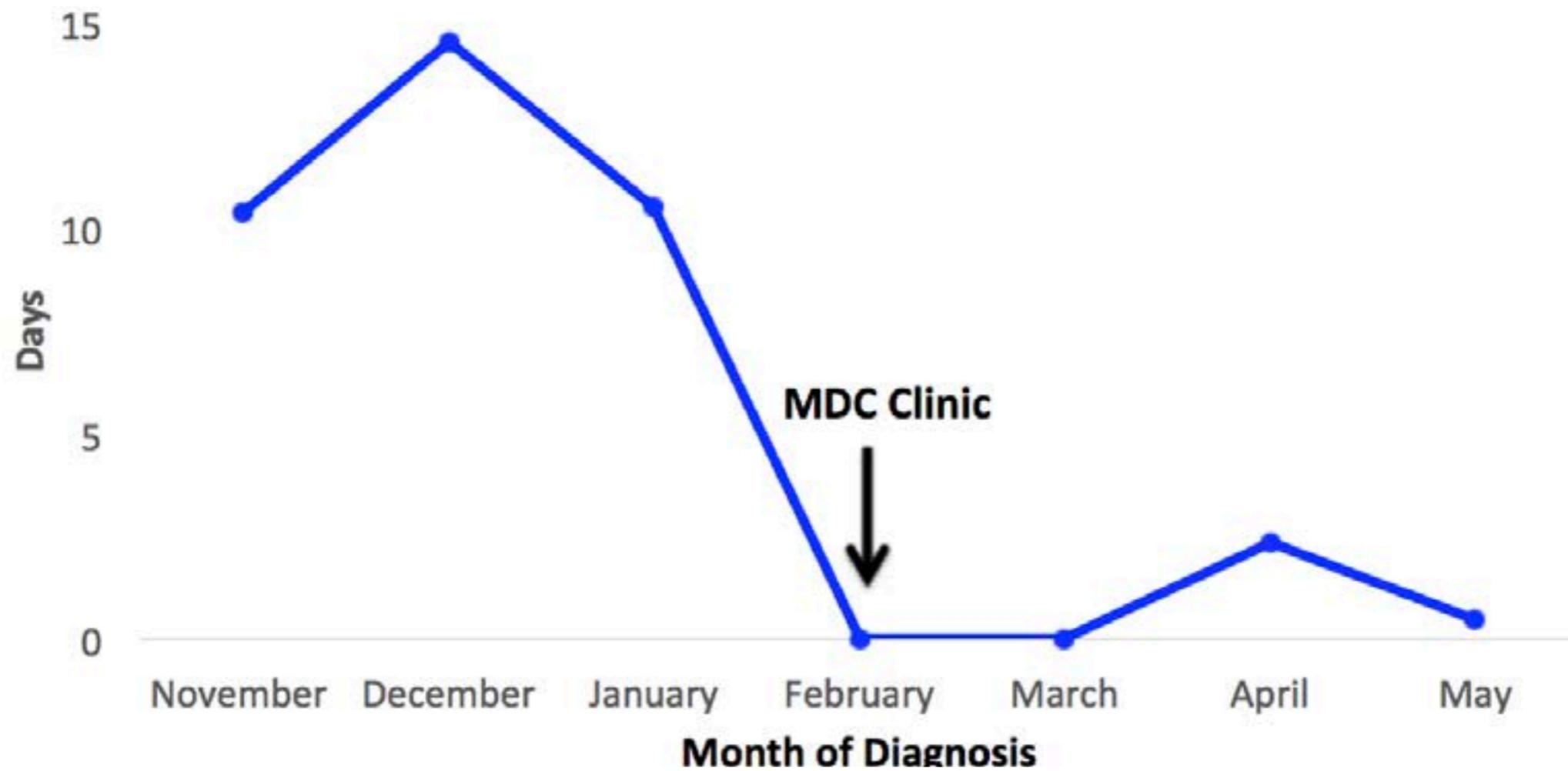
Innovations within Clinical Programs of Distinction in 2016 to 2017:

The LDAP Multidisciplinary Clinic: Improving the Diagnostic and Treatment Journey of Patients with Lung Cancer

In 2016, a new lung cancer multidisciplinary clinic involving Respiriologists and Oncologists was developed to improve the timeliness of care delivered to patients with a new diagnosis of lung cancer. The Lung Diagnostic Assessment Program (LDAP) at Kingston Health Sciences Centre (KHSC) is the main pathway by which patients with suspected lung cancer are evaluated. In 2014, about 60% of lung cancer diagnoses were made through the LDAP with more than three-quarters of patients seen by Respiriologists. Historically, patients would return to the LDAP after investigations to receive the results of their diagnostic tests, and those with confirmed cancer would be referred to Oncology in the Cancer Centre, where they would be seen an average of 13 days later.

In the summer of 2016, Dr. Geneviève Digby, the newest member of the Division of Respiriology, and Dr. Andrew Robinson, medical oncologist, collaborated to create the new LDAP Multidisciplinary Clinic (LDAP MDC) where patients returning to the LDAP for results had the opportunity to undergo initial oncology consultation at the same clinic visit. The initial pilot project was very successful,

Days from Oncology Referral to Consult



Pulmonary Hypertension Clinic

The Pulmonary Hypertension Clinic is directed by Dr. Christine D'Arsigny, and has seen a significant growth since the clinic's establishment in 2001. Presently, there are 200 new patients seen annually, including inpatient referrals. Over 400 repeat visits occur annually and in 2017, the clinic was joined by a dedicated pulmonary hypertension nurse, Kaitlyn St. Germain. Additional physician coverage was added in 2017, with Dr. George Chandy and soon to start, Dr. Louis Phillippe Gagnon. Recognition of our clinic was made in the book: History of Pulmonary Hypertension Management in Canada.

All classes of pulmonary hypertension are assessed in pulmonary hypertension clinic, with 20-30 hemodynamic studies done each year. Twenty five percent of patients are found to have chronic thromboembolic pulmonary hypertension, for which medical and/or surgery is offered. Fifteen percent are found to have pulmonary arterial hypertension for which directed therapy is started. Co-management of right heart dysfunction is often offered for the other classes of pulmonary hypertension.

Currently, there are opportunities for patients to participate in research studies for both pulmonary arterial hypertension and chronic thromboembolic pulmonary hypertension, with more studies being considered for the upcoming year.

Asthma Program

Asthma care is provided by a multi-disciplinary team including a physician (Dr. Diane Lougheed), a nurse practitioner (Delanya Podgers), and two Certified Respiratory Educators (Patricia Moyse and

Patient Story: Brooks

Mr. Brooks is a 61 year old male with a long history with Respirology. A 40 year heavy smoker with his own lawn care business. One evening he awoke with increased shortness of breath and was diagnosed with end stage (4) COPD.

At that time he was admitted under the care of Dr. Ingrid Harle in palliative care. During that time he and his wife fought to get a lung transplant to give himself a chance to live.

For 8 months he was attending HDH palliative care and received care from Dr. Harle. However he was not willing to give up with his fight for a lung transplant.

For 8 months he and his wife were faced with facing death. He was connected with Mr. Len Campbell of the Eastern Ontario lung transplant advocacy group. He met with Mr. Campbell who helped them understand each step to reach the lung transplant team. This group support system helped them feel comfortable and prepared navigating each step of the way.

In order to reach the transplant team in Toronto Mr. Campbell met with numerous specialists within the Department of Medicine as he was worked up to ensure he was a suitable candidate for lung transplantation.

Mr. Brooks takes epilepsy medication which would have to be transitioned to another medication before consideration for transplantation. This would have to be done under the supervision of a neurologist. Dr. Lysa Lomax called the patient immediately and transitioned his medication over a 15 week period. His experience with neurology was fantastic.

Additionally he needed to undergo angiogram by Dr. Cathy McLellan, which was done in Kingston General Hospital with great results and great efficiency and timeliness so as not to delay his care or possible transplantation.

In December 2016 Mr. Brooks was added to the transplant list and on January 13th he received the call that his lungs were available for transplantation. He stayed in Toronto for 3 months undergoing follow up rehabilitation and treatments. His support system in Gananoque Ontario organized various fundraisers to help with expenses associated with the surgery and rehabilitation. He and his



Mr. Brooks pointed out that the main hero of his story is his wife Susan. Without her constant companionship, support and drive to achieve the lung transplantation he would not have been able to do what they did.

Division of Rheumatology

Mission

To Provide:

- ◆ Care that is excellent and compassionate for patients with rheumatic diseases in our region
- ◆ Education, at all levels of medical education including undergraduate, postgraduate and continuing education
- ◆ Research that is cutting edge and translational in areas including:
 - Conditions of bone and cartilage
 - The epidemiology of osteoporosis
 - The patient experience



Dr. Mala Joneja



Division of Rheumatology

Rheumatology Training Program

It's been a busy few years in the rheumatology training program! Perhaps the interesting array of new immunological based drugs and the ability to truly manage our patients' diseases has drawn an increasing number of trainees into our specialty. The fact that there are job opportunities across Canada doesn't hurt either. We have had the opportunity to attract outstanding residents to Queen's which increases our ability to strive for clinical and academic excellence. Our residents are involved in wide variety of scholarly projects for which we are quite proud; this includes a recent oral presentation at the prestigious EULAR meeting.

CBME is well under way capturing the skills of our new residents. This was quite a challenge to implement as many of the faculty at Queen's are well aware. While it is a work in progress, the benefits of a highly organized and thorough approach only serves to improve our training program and fine tune the skills of our trainees and faculty alike. While it was challenging to begin the

Clinical Rheumatology

Dr. Kung has a particular interest in Rheumatoid Arthritis (RA) and runs the Early Inflammatory Arthritis Clinic. The goal of this clinic is to identify patients with RA and provide early access to therapy as early effective treatment has been associated with better patient outcomes in patients with RA. Dr. Kung also has training in point-of-care musculoskeletal ultrasound which is used as part of this clinic to detect early inflammatory arthritis and can help distinguish inflammatory and non-inflammatory conditions.

Professors

Dr. Tanveer Towheed

Associate Professors

Dr. Mala Joneja

Dr. Inka Brockhausen*

Assistant Professors

Dr. Marie Clements-Baker

Professors Emeriti

Dr. Tassos Anastassiades

**Research faculty member*



Division of Rheumatology

Research Highlights

The Anastassiades Rheumatology Research Lab continues its work on Connective Tissue Metabolism. Currently, we are focused on chemical modifications of the important naturally-occurring polymer hyaluronic acid (HA). This very large polymer, which is found in abundance in connective tissues of many organs. HA plays key roles both biomechanically, especially in the joints, as well as metabolically. It turns out that intact HA is generally protective, but degraded, smaller molecular weight HA can be pro-inflammatory (i.e. causes inflammation). We had found that the smaller molecular weight HA stimulates human macrophages to secrete many pro-inflammatory molecules (cytokines).

Further, we discovered that through a fairly simple chemical modification of HA we can prevent the pro-inflammatory effect. This chemically modified low molecular HA has multiple potential commercial applications. We have submitted the discovery as a patent in conjunction with PARTEQ, and we are currently exploring several opportunities.

The Canadian Multicenter Osteoporosis study (CaMos) continues to provide a wealth of epidemiological information and publications



Division of Rheumatology



Trainee Research Highlights (Supervisor – Dr. Tanveer Towheed)

Anas Makhzoum and Larissa Petriw: Systematic review and meta-analysis of bisphosphonates in glucocorticoid-induced osteoporosis. Submitted for publication to *Seminars in Arthritis and Rheumatism*. Presented at the American College of Rheumatology meeting in 2016, Canadian Rheumatology Association meeting in 2017, and at EULAR in 2017.

Stephanie Pipe (Clinical Clerk, Queen's) and Ambika Gupta: Systematic review evaluating the risk of fragility fractures in Rheumatoid Arthritis. Submitted for publication to *International Journal of Rheumatic Diseases*. Presented at American College of Rheumatology meeting in 2016, Canadian Rheumatology Association meeting in 2017.

Anbwar Albasri and Shiv Goberdhan: Epidemiology of septic arthritis at KGH. Submitted for publication to *Seminars in Arthritis and Rheumatism*.

Yasser Bawazir: Review article on Post-Streptococcal Reactive Arthritis. Submitted for publication to *International Journal of Rheumatic Diseases*.

Elvira Bangert: Case Report and review of the literature of CPPD Arthritis in a prosthetic knee joint. To be submitted for publication to *Journal of Clinical Rheumatology*.

Newton Wong: Development of a rapid screening instrument for detecting skin diseases in patients presenting to a rheumatology clinic. Published in *International Journal of Rheumatic Diseases*.

Sahil Koppikar, Sabrina Lue and Kamran Shaikh: Update of systematic review of therapies for hand osteoarthritis. Published in *Osteoarthritis and Cartilage*.

Mike Sattin: Systematic review of TNF inhibitors and cardiovascular disease in RA. Published in *Current Rheumatology Reviews*.

Patient Story: Hickey

Mrs. Hickey's involvement with the Division of Rheumatology began after she noted increased swelling, stiffness and weakness in her wrist. The debilitating pain she was experiencing had a tremendous impact on her quality of life. An avid artist, she had to put down her paintbrush and lost that creative joy in her life. Mrs. Hickey went to her family physician and was referred to Dr. Joneja in the Rheumatology Division.

At that time, she was diagnosed with rheumatoid arthritis and prescribed medication to treat the condition. To her delight the medication and treatment she received from Dr. Joneja helped her overcome her debilitating pain and swelling.

Had Dr. Joneja not been able to treat the arthritis so effectively Mrs. Hickey's life would have changed tremendously, and she attributes the fantastic care of rheumatology to her continued happiness in her beautiful home. Mrs. Hickey enjoys a life willed with her three children and 5 grand children and can participate fully in art work with them as a family. Her family has strong ties to Queen's University, with her late husband being a former Queen's Engineering grad, and her daughter a former Queen's Fine Arts Grad.



Painting by Rosemary Hickey

**Photos Courtesy of Queen's University, Kingston Health Sciences Centre
and Dr. Stephen Archer**

