DoM | DEPARTMENT *of* MEDICINE

Improving Lives

PROGRESS & PROFILES | 2017-18

DRS. MELISSA ANDREW & KENNETH ROCKWOOD, GERIATRICIANS

Division of
Geriatric Medicine

Story on page 10

INDEPENDENT LIVING SIMULATION (ILS) SUITES

Division of Physical Medicine & Rehabilitation

Story on page 15

Photo credit: QEII Foundation

DR. SIMON HOUSTON, RESPIROLOGIST

Division of
Respirology

Story on page 15

DoM

PROGRESS & PROFILES | 2017-18

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VISION

TO BE LEADERS
IN ACADEMIC MEDICINE
PROVIDING INNOVATIVE,
COLLABORATIVE
AND APPROPRIATE CARE
THAT IS SUSTAINABLE.

MISSION

WE ARE A
DIVERSE GROUP
OF HIGHLY TRAINED
PROFESSIONALS DEDICATED
TO IMPROVING HEALTH
THROUGH EDUCATION,
RESEARCH AND
PROVIDING EXEMPLARY
CLINICAL CARE
TO OUR COMMUNITY.

A MESSAGE FROM THE DEPARTMENT HEAD

DR. CHRISTINE SHORT

My first year as Department Head has proven to be a rewarding challenge. As I committed at the beginning of my term, this would be a **year of listening and learning**. In doing so, I learned a great deal and was continuously reminded of how privileged I am to work alongside so many competent, skilled and passionate people. I am grateful for each and every one of you and how you have helped me transition into this role.

I see so many opportunities for us as a department and I hold strongly to **my belief that we are stronger together**. This statement resonated with me time and again as I met with our own Department leaders, physicians and administrators, along with our many health partners. These discussions demonstrated that many of our challenges and solutions are shared. We also hold a common dedication to the people in our communities and a desire to improve.

This year marks the last year of our current strategic plan. I'm proud of the accomplishments our Department has **made over the last five years in advancing our priorities** of attracting and growing the best; leading quality care through innovation; and driving research excellence. We have actioned much of the strategic plan with recruitment of top ranked residents and faculty and the creation of new education and quality committees that have enabled significant growth and development of our academic and clinical mandate. In addition, we have remained extremely successful in research funding despite shrinking opportunities locally and nationally. I encourage you to read this annual report to learn how each division continues to focus on these priorities bringing excellent care to Nova Scotia and the Maritimes, providing exceptional education to the next generation of physicians and contributing to national and world leading advances in research.

As we start to build our next strategic plan, we have asked many of our partners in care to help inform the Department's priorities over the next five years. Family physicians, executive leaders, patients and our colleagues in New Brunswick have **all offered valuable insight**. In order for our Department to have the greatest impact over the next five years, we know we must think beyond ourselves. While we are still early in the process we have certainly heard a strong message from you and our stakeholders for the Department to embrace our role in leading system change through collaboration and innovation.

This past year, with input from all of you and the dedication of our long-standing practice plan committee, we adopted a new Departmental Practice Plan. This document represents the latest **set of financial and operational guidelines**, which are proposed to govern the activities of the members of our Association of Physicians. I think this new plan brings us greater transparency and accountability; as well as a framework that we hope will support all Department members. Most important will be our ongoing evaluation of this plan to make sure it continues to meet the needs of the DOM.

Our Department is fortunate to be one of 22 Departments within Dalhousie University's Faculty of Medicine. In 2018, we had much to honour as our Faculty reached **its 150th anniversary** and Dalhousie University celebrated the remarkable **milestone of 200 years**. As the thirteenth head of the Department of Medicine I feel privileged to be part of such a rich history.

To everyone, thank you for your support and help in building our Department of Medicine – the largest clinical and academic Department in the province. We are a vibrant, innovative and productive team, and **by working together we are stronger**. I look forward to great opportunities for us over the next year.

CHRISTINE SHORT, MD, FRCP(C), FACP

Head, Department of Medicine, Dalhousie University
Chief, Department of Medicine, Central Zone, Nova Scotia Health Authority
Associate Professor of Medicine, Dalhousie University

WHO WE ARE
& WHAT WE DO

WE ARE CLINICIANS, TEACHERS AND RESEARCHERS WHO SERVE THE COMPLEX MEDICAL NEEDS OF ADULTS THROUGHOUT HALIFAX, THE PROVINCE OF NOVA SCOTIA AND THE MARITIMES.

WHAT WE DO:

Cardiology
Clinical Dermatology & Cutaneous Science
Digestive Care & Endoscopy
Endocrinology & Metabolism
General Internal Medicine
Geriatric Medicine
Hematology
Infectious Diseases
Medical Oncology
Nephrology
Neurology
Palliative Medicine
Physical Medicine & Rehabilitation
Respirology
Rheumatology

180

SUBSPECIALISTS

WE SPEND OUR TIME:

70% .... patient care
12%..... teaching & education administration
10%..... research
8% ..... clinical administration

+276

DALHOUSIE APPOINTMENTS

e.g. joint/cross/adjunct appointments, community-based specialists with an academic appointment

+45

NSHA APPOINTMENTS

e.g. PhD researchers, clinical assistants, hospitalists

WE PROVIDE CARE*

108,487 Inpatient Bed Days at VG and QEII

17 24/7 On Call Services

157,468 Ambulatory Patient Visits

88,649 Inpatient Visits

93.7% Occupancy

14,263 Patient Chart Checks

WE GO TO THE PATIENT*

17,730 Care by Phone

12 Satellite Clinics

1,052 Home Visits

2,554 Telemedicine Visits

**Data is based on academic funding plan deliverables and nephrology reporting. Data is compared to 2016-2017.*

WE TEACH

21% Full Professorship Status

3,500+ Teaching Hours

128 Residents (up 4%)

554 Continuing Professional Development Sessions / Invited Lectures

376 Resident Applications to Core Internal Medicine

WE RESEARCH

$16,362,701M Research Funding (up $3.4M)

211 Peer-Reviewed Publications

319 Abstracts & Research Presentations

6 Endowed Chairs

RESEARCH FUNDING – DIVISION TOTALS:

Cardiology	$3,047,366
Hematology	$2,538,949
Infectious Diseases	$2,432,607
Medical Oncology	$2,317,053
Nephrology	$1,953,188
Geriatric Medicine	$964,202
Neurology	$846,803
Endocrinology & Metabolism	$715,585
Digestive Care & Endoscopy	$480,473
Rheumatology	$386,184
Research General	$222,821
Respirology	$186,175
General Internal Medicine	$134,545
Clinical Dermatology & Cutaneous Science	$113,262
Physical Medicine & Rehabilitation	$23,488

TOTAL RESEARCH FUNDING

$16,362,701

2017-18

DIVISION HIGHLIGHTS

STRATEGIC PLAN

The Department committed to focus on three priorities in the 2013-18 Strategic Plan.

The Division highlights showcase the progress in achieving these priorities.

1

PRIORITY 1:
Attracting and growing the best

2

PRIORITY 2:
Leading quality care through innovation

3

PRIORITY 3:
Driving research excellence

This strategic plan was brought to life through the vision of former Department Head, Dr. David Anderson, and implemented through the hard work of our strategic committees and all our Department members.

PRIORITY 1

DIVISION OF CLINICAL DERMATOLOGY & CUTANEOUS SCIENCE

DR. KERRI PURDY AIMS TO ENRICH DERMATOLOGY RESIDENCY

When symptoms change, so must treatment. This acknowledgement prompted Residency Program Director, Dr. Kerri Purdy, to make changes when she re-joined the Department in July 2017.

Although preparing for the November 2018 Accreditation of their residency training program occupied her initially, enhancing a more personalized curriculum drives her efforts. "Things have changed in the way we were taught. More and more, what physician training entails is not only book knowledge, but also being an excellent clinician. I'm attempting to add more of the paramedical aspect."

Kicking off that trajectory was a session on mindfulness which linked psychology and dermatological diseases. Interested individuals were encouraged to pursue the subject matter. In addition, motivational interviewing, targeted to more complex psycho-social factors of dermatology is now part of the curriculum.

"I'd still like to do more for colleagues," she adds, noting another session is planned on communication and feedback. "It's difficult to give constructive feedback. As teachers, we need to be better." She points to Competence by Design, the new Royal College of Physicians and Surgeons of Canada education curriculum standard for residency education.

Generational differences in learners has created a shift in communication perspectives. "Current residents and students are used to specific objectives and detailed feedback. Some learners have even had previous careers." Building the structure that they seek will be Dr. Purdy's next goal.

Dr. Purdy also wants to address physician resiliency. "Right now, there's mounting evidence that burnout is a huge issue across the board. Although dermatology's work-life balance is better than other specialties, it is still a very stressful time. We want our residents to know they are not alone and equip them with information to help them live a normal life as a resident, and to recognize the signs when they need to take a break."

2017-18 DIVISION STATISTICS

7,268 ..... Outpatient clinic visits (steady)
518..... Day surgeries
256 ..... Telemedicine consults (up 13%)

PRIORITY 2

DIVISION OF DIGESTIVE CARE & ENDOSCOPY

DIVISION REDUCES THEIR SEMI-URGENT WAITLIST WITH COORDINATED APPROACH

Through leadership, organization and shared ownership, the Division of Digestive Care and Endoscopy has methodically reduced the semi-urgent waitlist which was sitting at more than 2,400 patients to less than 500.

Under the leadership of Dr. Stacey Williams, the group set its sights on being more coordinated and efficient. From booking clerks to administrative assistants to nurse practitioners to physicians, the whole team was part of the process. The **waitlist became a shared responsibility**, with clear expectations. Moving away from individual waitlists, every physician was allocated a set time to see semi-urgent patients, equally distributed between clinics and scopes. Booking teams, armed with clearer definitions on non-urgent, semi-urgent and urgent patients, booked patients based on a pre-established schedule, streamlining the entire booking process. Form letters were created for patients who did not need to be seen. Team meetings were established to monitor the process and to hold each other accountable. Fast forward three years and the problematic waitlist is closer to the target wait time. Similar approaches are now being extended to the non-urgent or elective waitlist for new referrals and the repeat colon cancer screening waitlist.

The need to streamline referrals was essential. The Division offers services not available anywhere else in the province. For example, Division gastroenterologists are the only group to provide urgent endoscopies after hours and on weekends all year round. Division Head, Dr. Kevork Peltekian explains that, in addition to the subspecialty care, other regional centres are facing chronic speciality shortages putting pressure on the group. Dr. Peltekian adds, "of course our ability to recruit and replace the three gastroenterologists who have left the province is going to be part of the solution."

While the problems are complex, Dr. Peltekian believes solutions are possible. Reflecting on his Division's latest example, he believes similar approaches could be applied on a grander provincial scale to reach other desired outcomes.

"It's about being very coordinated – physicians working with all levels of administration – and together we own the problem and build the solution," said Dr. Peltekian. "It seems simple; however, I believe that is where the most meaningful change begins."

2017-18 DIVISION STATISTICS

669 ..... GI endoscopy cancer screenings
9,125..... Outpatient clinic visits (down 4%)
7,054 ..... Endoscopy unit visits (down 2%)

PRIORITY 2

DIVISION OF ENDOCRINOLOGY & METABOLISM

ONLINE FORM ENHANCES THE COORDINATION OF DIABETIC CARE

Caring for patients with diabetes is a team effort and stronger collaboration creates better care. That is why in early 2017, the Division of Endocrinology and Metabolism created the electronic diabetes form for the Division's endocrinology clinic.

Dr. Churn-Ern Yip, Dr. Ferhan Siddiqi, Craig Winser, IT Services, and Department of Medicine Data Manager, Tom Henneberry created the form.

A new easy-to-use online form has translated the way in which care is managed at the clinic for patients with diabetes. **The form captures and shares patient information in real-time, improving communication with the whole care team**, including diabetes nurses, dieticians and specialists. This single improvement alone reduced the need to dictate and transcribe patient encounter notes as well as reduced the need to repeatedly ask patients questions about their medical history.

The form also brings forward pertinent information for follow-up visits including medication lists, insulin pump settings, weight, blood pressure, and laboratory indicators such as hemoglobin A1C and creatinine. Clinicians are prompted when routine surveillance investigations are overdue, such as the annual diabetic retinopathy screening and the diabetic foot examination.

"We approached this work with a goal to improve how we provided care to our longer-term patients with diabetes," said Dr. Yip. "We believe we are achieving that, along with strengthening our communication with both our internal care team and the referring primary care providers."

The creation of the form is just the beginning, explains Dr. Yip who is now in the process of assessing the impact that the form is having on primary care providers.

"We have planned for it to be fully integrated into future electronic medical records and potentially expand its use in other diabetic care settings," said Dr. Yip. "The newly captured information is also now available for future research and other quality improvement projects."

2017-18 DIVISION STATISTICS

3,095..... Registrations to physicians with diabetes diagnosis (up 2%)
7,080 ..... General endocrine clinic visits (up 1%)

Dr. Martin Gardner, cardiologist

DIVISION OF CARDIOLOGY

SAVING LIVES THROUGH KNOWLEDGE AND EARLY DETECTION

The Division of Cardiology is home to many clinics including two genetic heart disease clinics which when developed were the first of their kind in the country. Dr. Martin Gardner leads the Inherited Heart Disease Clinic and Dr. Gabrielle Horne spearheads the Maritime Connective Tissue Clinic. Both are saving lives through knowledge and early detection of genetic heart and vascular conditions.

INHERITED HEART DISEASE (IHD) CLINIC

At the IHD clinic, Dr. Gardner and his team conduct research and provide diagnosis and treatment for patients living with genetic cardiac conditions, such as cardiomyopathies and ion channel abnormalities, including Long QT syndrome (LQTS) and Brugada syndrome. The goal is to reduce the risk of sudden death. The clinic sees about 1,500 patients a year.

Care is coordinated by cardiologists (Drs. Martin Gardner, Chris Gray and Ciorsti MacIntyre), pediatric cardiologists, nurses, medical geneticists, genetic counsellors and research coordinators.

"As our work progresses we see increased value in what we are doing," said Dr. Gardner. **"We have identified a large number of individuals who would otherwise not be diagnosed, and instituted therapies, including prophylactic ICD, that have saved lives."**

The group has also taken its work on the road. In 2009, an LQT gene was identified by the genetics team in one of the clinic's largest Indigenous families. Through eight onsite visits to the family's community, and assessment of more than 300 individuals, the clinic untangled the various diagnoses, symptoms and a pedigree identifying the gene responsible for their LQT (LQT3). The ongoing research helped half of the individuals learn that they did not carry the gene and cannot pass it along to their children, while the other half are now equipped with information on how to avoid LQT arrhythmias, how to be vigilant with medications to ensure they do not cause more QT prolongation and to report symptoms urgently to their healthcare provider.

Dr. Gardner also helped launch the national cardiac genetics network Hearts in Rhythm Organization (HiRO), and he and his team helped pen the new Canadian Guidelines for Genetic Testing.

Despite the clinic's success, Dr. Gardner knows there is more work to do.

"We plan to expand both our clinical and research areas," said Dr. Gardner. "We will use telehealth to see more patients across the Maritimes without needing to travel, and we want to initiate a new national research protocol in ECG use to diagnose the disorder better. We also hope to establish a Fellowship Program for Inherited Heart Diseases."

Dr. S. Gabrielle Horne, cardiologist

PRIORITY 2/3

MARITIME CONNECTIVE TISSUE CLINIC (CTC)

Born out of tragedy, the Maritime Connective Tissue Clinic was the first fully multidisciplinary clinic in Canada – potentially the world – for patients with hereditary connective tissue disorders and aneurysm syndromes.

Established by cardiologist Dr. Gabrielle Horne and cardiovascular surgeons Drs. John Sullivan and Jeremy Wood, the clinic opened its doors in 2009 with four patients; today, 2,300 patients are seen. Clinic services include general cardiology, cardiac surgery, vascular surgery, specialized radiology, orthopedics, ophthalmology, vascular neurology, medical genetics and genetic counselling. There are also close links with maternal fetal medicine. The majority of patients are between the ages of 16 and 50.

The clinic was formed following the death of a young patient during pregnancy. She had a tear in her aorta and her diagnosis was unknown. Dr. Horne and her team surged into a world of uncertainty determined to solve this mystery.

"These patients are in the prime of their lives," said Dr. Horne. "A vascular catastrophe has a high mortality. We must continue to learn better ways to protect patients and families with genes that cause aneurysms," said Dr. Horne.

In addition to its unique expertise, the team's care model is innovative, raising the bar for multidisciplinary care by collaborating with more than 17 healthcare disciplines. We strive to promote true collaboration among the specialists while working together, and, whenever possible, scheduling collaborative care at the clinic to make it easier for patients. The team includes nurse practitioners, cardiac and vascular surgeons, a psychologist, cardiovascular radiologists, medical geneticists, genetic counsellors, ophthalmologists, a rheumatologist, an orthopedic surgeon, vascular neurologists and neurosurgeons, among other specialists.

As it nears its tenth anniversary, the clinic has developed a reputation as a North American leader in its field. The team has grown in size and in scope, and has improved how it detects and treats patients. Yet, Dr. Horne and her colleagues continue to push forward for new discoveries.

"We are now launching research into the mechanics of the aorta in our patients to better identify markers for the vulnerable aortas even earlier," said Dr. Horne. "We hope this will enable us to target the right patients for early surgical interventions to repair the aorta before a tear occurs, and ultimately prevent more sudden deaths in this young population of patients."

2017-18 DIVISION STATISTICS

2,082 .... Patients transferred from other provincial hospitals (down 2%)
693..... Visits to cardiology congenital heart clinic (up 16%)
1,173 ..... Transfers to the coronary care unit (up 5%)

PRIORITY 3

DIVISION OF GERIATRIC MEDICINE

MILLIONS USE FRAILTY INDEX

The research of the DOM is world leading and millions of people in the United Kingdom are benefitting from the work of Dr. Kenneth Rockwood and his team. In the past year, the **National Health Service (NHS) in England and Wales adopted the latest rendition of their screening tool, the electronic Frailty Index (eFI).** The eFI measures the health status of older individuals and translates the risk level of frailty in patients with multiple social and medical problems.

The updated index is the result of expertise coming from each person on the team of Drs. Olga Theou (PhD), Melissa Andrew (MD), and Arnold Mitnitski (PhD).

Frailty, an important factor in care, increases the risk for problems like long hospital stays and deaths. Dr. Rockwood, Dalhousie University's leading authority on frailty with hundreds of publications and nine books, relays that, at any one time, up to one-third of an aging population is frail, and over one-half of an acutely ill older population will be frail - a big challenge in acute care. "If you can't measure something, you can't manage it. The tool quantifies frailty and helps us understand whether or not people are getting better in response to treatment, which is surprisingly tricky."

Evolving since the late 1990s, the newly upgraded tool advances to understand biomarkers such as MRIs and performance, with two useful measures being: 1) Might a patient be frail? If so, how frail? and 2) What are the root causes and what is ameliorable in that patient?

"Typically, older people proceed through a period where they have progressive inability to do daily activities, often including mobility and balance problems," Dr. Rockwood explains. "Staging the degree of frailty is useful because it helps make care more appropriate. Better decision-making tools at every stage can help us understand who is most likely to benefit from treatment," he adds. "The real trick is to avoid using frailty from the standpoint that 'nothing can be done'. These patients may be less frail as a consequence of interventions."

Dr. Rockwood sees United Kingdom's adoption of the scale as a great opportunity. "What's happening is a really increased recognition of the importance of aging of the population and of frailty strategies. I think the time is right to make strides."

2017-18 DIVISION STATISTICS

1,386..... Inpatient consults (down 1%)
3,020..... Visits to geriatric day hospital program (up 26%)
209..... Home visits (up 1%)

PRIORITY 3

DIVISION OF HEMATOLOGY

A CLINICAL RESEARCH MACHINE

Despite its modest size of 12 physicians, the Division of Hematology holds an impressive track record of research productivity.

This past year, the group managed 66 active research projects while recruiting on average 10 patients a month into new clinical trials. What may be even more inspiring is that this year wasn't an exception, it's the norm.

"Our high research productivity is by design," explains Division Head Dr. Stephen Couban. "We approach our research as a group, rather than individually. Every Division member participates. We pool our expertise and resources while keeping one another apprised about each study's status. This collaborative and cooperative approach creates an economy of scale – allowing us to do more and optimize our resources."

The Division's governance structure also formally supports its research arm, integrating it into the Division's overall mandate. As a result, the group has built a clinical research machine that is sustainable and growing.

The research itself is ground-breaking and holds international status. From thrombosis to myeloma to lymphoma and hematopoietic stem cell transplantation, the Division's research success is translating to new therapies and improved patient care. For example, Dr. David Anderson completed the EPCAT II clinical trial, a practice-changing study of more than 3,400 patients looking at the use of aspirin to prevent blood clots after hip and knee replacement surgeries (see spotlight on page 22). Similarly, Dr. Darrell White has led local participation in studies looking at new agents in the treatment of myeloma which have drastically improved the outcome of patients with this disease.

Looking forward, the Division hopes to secure an endowed chair and expand, beyond Halifax, patients' access to its clinical trials.

2017-18 DIVISION STATISTICS

602..... Inpatient admissions (down 9%)
11,899 .... Ambulatory care visits (down 5%)
66..... Active research studies

PRIORITY

3

DIVISION OF INFECTIOUS DISEASES

DEVELOPING MOLECULAR TOOLS – INFECTION TO IMMUNITY

Waiting for a seed planted eight years ago to grow might seem endless but Dr. Jason Leblanc is now observing positive impacts of pneumococcal vaccines given to children around 2010 and the reduction of *Streptococcus pneumoniae* disease for those now in adulthood.

"This year, we're seeing herd immunity in adults from childhood vaccination, but there is still much vaccine-preventable disease in adults. They can still benefit from vaccination."

As a certified Clinical Microbiologist, Dr. Leblanc's research with Dalhousie's Infectious Diseases Division is complex. He identifies two important infectious disease connections: the Serious Outcomes Surveillance (SOS) Network of the Canadian Immunization Research Network (CIRN), and the Canadian Centre for Vaccinology (CCfV).

While tracking immunity levels of Nova Scotians, Dr. Leblanc focuses on both *Streptococcus pneumoniae* and influenza in hospitalized patients. *Streptococcus pneumoniae* alone represents about 30 per cent of pneumonias causing hospitalization, and 75 per cent of this is vaccine preventable.

"People who go into hospital don't always bounce back to what they were before. Sometimes, it's the trigger point that pushes them over the edge," Dr. Leblanc explains. "Our research questions how much of this disease is vaccine preventable, and how well vaccines work at preventing it by developing molecular tools to identify the pathogens causing disease."

Canadian hospitals provide all data and specimens for Dr. Leblanc's research in Halifax — home of the CIRN and CCfV. **"It's a powerhouse of expertise,"** he adds, citing efforts of Drs. Shelly McNeil (ID Division Head and CIRN SOS Network principal investigator); Todd Hatchette (Microbiology Service Chief); Paul Bonnar (antimicrobial stewardship); Lisa Barrett (guru for Hepatitis C); and Ian Davis (access to fecal transplant and *C. difficile* research).

Each of these projects has emphasis on — Immunology, Inflammation, Infectious Diseases and Virology (I3V) which was named a Dalhousie University research priority through its Wave 1 program.

2017-18 DIVISION STATISTICS

4,899 ..... Clinic visits (up 14%)
5,303..... Inpatient consults (up 6%)
2,088 ..... Visits to general infectious diseases clinic (up 18%)

PRIORITY

2/3

DIVISION OF MEDICAL ONCOLOGY

IMPROVING ACCESS TO CLINICAL TRIALS TO MEET PATIENT NEED

Evaluating new treatments for cancer is critical in advancing new and better treatment options for patients and ensuring Nova Scotians have access to the most innovative and helpful cancer treatments available.

The Division of Medical Oncology and the Atlantic Clinical Cancer Research Unit (ACCRU) held the first Halifax Oncology Clinical Trials meeting in 2018, which afforded a rare opportunity for clinician researchers and innovative pharmaceutical companies to meet in person and discuss how access to clinical trials can better align with patient needs in our province. The meeting brought together 12 pharmaceutical research companies and involved every member of the Division of Medical Oncology as well as representation from ACCRU.

Atlantic Canada has one of the highest cancer rates in the country making it critical for patients to have access to the most cutting edge and relevant clinical research. Clinical trial research is at the core of the division's research activity and, through its work with ACCRU, the division conducts 20-30 academic and industry-affiliated clinical trials annually across all cancer sites.

Beyond bolstering the Division's research mandate, an active clinical trial environment optimizes quality care and helps to create a vibrant research environment within our division.

Clinical trial research impacts all advances in cancer therapy and leads to better outcomes for patients across all disease sites. This field of research also attracts cancer care physicians and expands access to innovative therapies for our patients.

The division plans to host the 2nd Halifax Oncology Clinical Trials meeting in 2019 as part of a continued commitment to optimize quality care and expand the divisional research portfolio.

2017-18 DIVISION STATISTICS

165.7%... Inpatient bed occupancy rate (QEII) (up 55%)
12,967.... Visits to medical oncology clinic (QEII) (up 8%)
7,807 ..... Telephone/chart check interventions (up 19%)

DIVISION OF GENERAL INTERNAL MEDICINE

RESHAPING ACCESS TO CARE: INTERNISTS PARTNER WITH FAMILY PHYSICIANS

Physicians with the Division of General Internal Medicine (GIM) are reshaping how they deliver care to outpatients. The shift is based on both necessity and an entrenched belief that they can do better.

This past year, the Division adopted several new models of care that centred on improving patient access while building stronger relationships with family physicians.

"When patients are waiting 10 months to see us, we know there is a problem," said Dr. Ashley Miller, the Division's internist driving the change.

With a mission to provide better care more efficiently, Dr. Miller, supported by Division Head, Dr. Stephen Workman and colleagues began a process of building a more appropriate and systematic triaging process within the General Internal Medicine clinic.

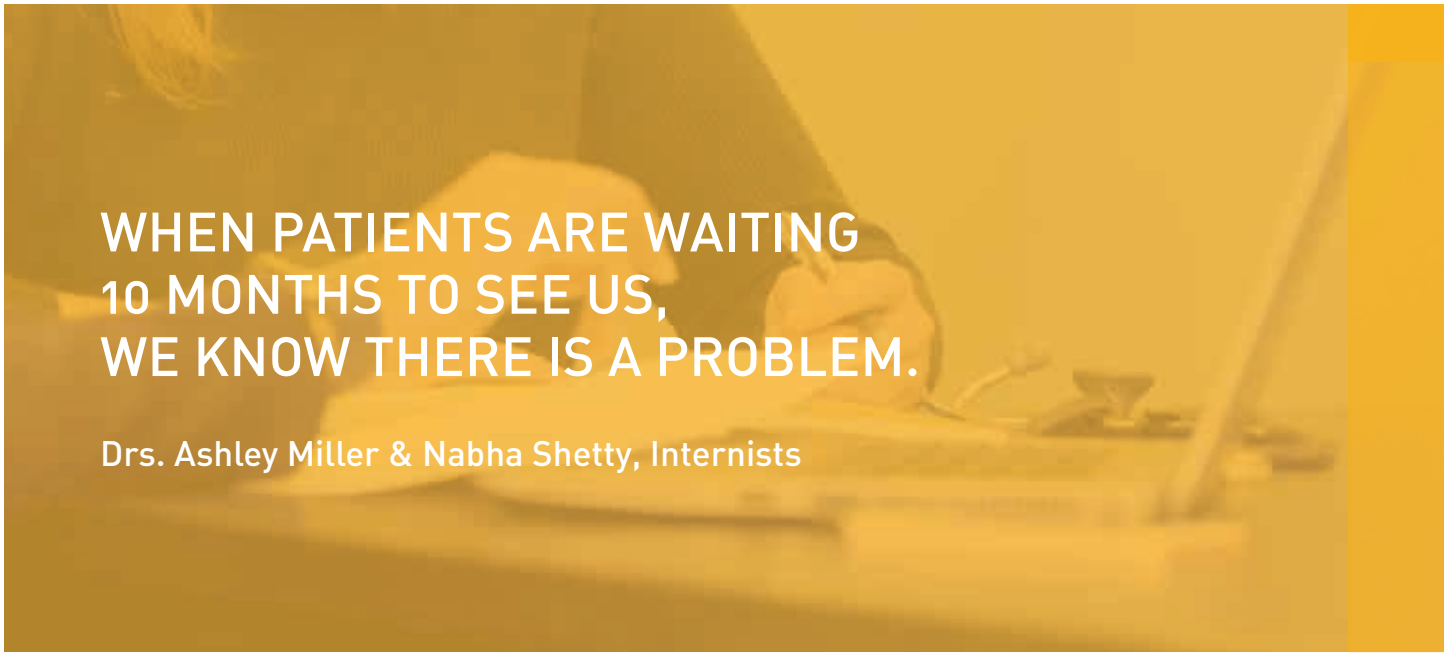
"When we looked more closely at the type of care we were providing our patients we saw tremendous opportunity to improve our efforts in providing the right care, at the right place, at the right time," said Dr. Ashley Miller. "Often our family physicians are caring for patients with complex chronic conditions and sometimes they face situations where a particular condition may become more complex and requires extra attention to manage. The family physician knows they need support, information and advice and feel their only option is to start the complex referral process. We want to change that."

Dr. Miller picked up the phone and began to call family physicians who had referred patients. **She opened the line of communication to discuss the patient's case over the phone and support the family doctor**, answering their questions, providing her expertise and together coming up with a treatment plan on how to manage the patient's care, through the family physician.

By discussing a patient's care by phone, four patients can be cared for in the time it takes for one in-person visit. Dr. Miller also believes the care and patient experience is better as the patient does not have to wait months to be seen. The patient continues to be cared for by their trusted family physician and often avoids a long commute to Halifax. This model also frees up space for the General Internal Medicine clinic to see the patients who need to be seen in person, sooner. Early assessments suggest 25 per cent of these cases created the opportunity to provide appropriate care without the in-person consultation.

Dr. Natasha Deshwal, a family physician and President of the Nova Scotia College of Family Physicians, has experienced direct benefits from participating in phone consults with Dr. Miller.

"I LOVE THIS E-CONSULT TYPE SERVICE," SAID DR. DESHWAL. "IT'S TIMELY AND INTERACTIVE AND ALLOWS ME AN OPPORTUNITY TO ASK QUESTIONS, CONFIRM A DIAGNOSIS, CONSIDER TREATMENT OPTIONS AND VALIDATE THE NEED FOR MY PATIENTS TO SEE A SPECIALIST."



WHEN PATIENTS ARE WAITING 10 MONTHS TO SEE US, WE KNOW THERE IS A PROBLEM.

Drs. Ashley Miller & Nabha Shetty, Internists

PRIORITY 2

"It's an example of how we can provide care differently. It is not only right for the patient but is more efficient and saves the health-care system money. These simple phone conversations have helped me avoid referring my patients unnecessarily, supported me in starting a treatment plan right away and in some cases has helped me reach a different diagnosis much faster than would be possible without the benefit of a conversation. I hope we see this type of service expand to other specialties."

Looking forward, Dr. Miller aspires to see this model of care evolve where the collaboration between family physicians and specialists is second nature, easily facilitated, and has a sense of true partnership in caring for their shared patients.

Dr. Nabha Shetty, another Division member and Co-chair of the Department of Medicine's Quality and Professional Appraisal Committee; is aligned with Dr. Miller's line of thinking. She has introduced a care model that provides on-site patient consults at family doctor offices thereby facilitating informal communication, or "corridor consultation" with family physicians. Similar to the phone consult, this **reduces the patient's wait, keeps the patient connected with their family physician and builds a strong relationship** between Dr. Shetty and family physicians.

Dr. Shetty is also assessing her efforts. Early assessment results show the model is useful. Data from six months of this practice show on average one corridor consult occurs during each half-day clinic and 77 per cent of those discussions avoided a referral to general internal medicine or other specialist. Family physicians reported that 96 percent of the time the onsite consults saved them time, helped them better understand how to interpret tests, and supported them in initiating appropriate next steps in diagnosis and management.

"This is about supporting and empowering our family physician colleagues while creating more accessible and appropriate care for our patients," said Dr. Shetty.

To date the model is set up at the Dalhousie Family Medicine Spryfield and Mumford clinics, and expansion to other clinics is being explored.

The onsite and phone consult services are only two of many examples of how the Division is striving to reduce its waitlists and see the patients who need them the most, sooner.

Dr. Shetty explains, "This is thinking about how we provide care differently, while always asking ourselves: can we do this better?"

2017-18 DIVISION STATISTICS

13,533 ... MTU/IMCU patient encouters by GIM members (up 9%)
3,307..... General Internal Medicine general clinic visits (QEII) (up 26%)
2,229 .... General Internal Medicine clinic visits (Dartmouth) (up 23%)

PRIORITY 1

DIVISION OF NEPHROLOGY

ACHIEVING EXCELLENCE – IT IS THE ONLY OPTION

Reach for the highest standard of excellence and, once you are there, raise the bar higher. That is how Dr. Kenneth West leads the Division of Nephrology. And, he sees his team rising to the challenge.

"We are growing and cultivating our Division to include the brightest and best nephrologists in the world," said Dr. West. "We owe it to our patients and ourselves to be surrounded by talent that will make the greatest impact every day, whether through inspiring our future physicians, providing exemplary patient care or leading cutting-edge research."

Dr. Amanda Vinson is the Division's most recently recruited top-notch talent. She joined the Division in 2017 shortly after graduating from the Division's residency program. Her research interests include kidney donor allocation protocols as well as matching specific donors and recipients to maximize outcomes. She has a special interest in the effects of sex and gender in kidney transplantation. In the short time she has been with the Department, she has made a name for herself, being invited to share her work at both the National Institutes of Health (Maryland, USA in 2017) and the International Transplant Society (Madrid, Spain in 2018).

Dr. West recognizes **the importance of investing in and mentoring Division members**, seeing it as a way to help individuals grow and achieve personal success while helping to ensure the Division is rich in critical thinkers and future leaders. For example, the Division supported Dr. Vinson in achieving her Master's of Science in Clinical Epidemiology (May 2018) at Harvard University.

"We work in a rapidly evolving discipline, and it is our responsibility to stay on top of modern medicine," said Dr. West. "That is why I believe it is so critical for us to recruit and support individuals who have the skill and aptitude to not only adapt, but to foresee and lead change internationally, right here in Halifax."

2017-18 DIVISION STATISTICS

551..... Dialysis cases (up 7%)
143..... New cases (up 32%)
2,906..... Appointments in the renal clinic

PRIORITY 1

DIVISION OF PALLIATIVE MEDICINE

DIVISION LAUNCHES ACCREDITED RESIDENCY PROGRAM

The Division of Palliative Medicine is now offering a two-year palliative medicine residency program. The program was accredited by the Royal College of Physicians and Surgeons of Canada, effective July 1, 2018.

The Division's Program Director, Dr. Erin Gorman Corsten and Division Head, Dr. David Duperé, were the leaders behind this achievement.

"Our goal is to ensure we are providing the very best palliative medicine training for the Maritime Provinces and beyond," said Dr. Duperé. "This will help us increase our academic focus and keep pace with the rest of the country in the quality of the palliative care we provide."

They also expect the program will help **increase the Division's national competitiveness when it comes to physician recruitment.**

Dr. Caitlin Lees is the Department's inaugural palliative medicine resident. No stranger to the Department, Dr. Lees completed her medical degree at McMaster University in 2013 and her Internal Medicine residency in the Department. A part of Dalhousie's Clinical Investigator Program, Dr. Lees also received her Master's in the Medical Research Graduate Program. Her thesis was entitled: *The Impact of Palliative Care Consultation on Overall Survival and Aggressive Care at End-of-Life in Unresectable Pancreatic Cancer.*

In addition to the new two-year residency program, the Division continues to provide a one-year palliative care program, which is jointly accredited by the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada.

2017-18 DIVISION STATISTICS

1,021 ..... Consults (down 2%)
813..... Physician home visits (down 8%)
784 ..... Families supported through the bereavement program

PRIORITY 2

DIVISION OF PHYSICAL MEDICINE & REHABILITATION

HOME-LIKE SPACE PREPARES PATIENTS FOR INDEPENDENT LIVING

Re-entering the world of independent living after being hospitalized can be daunting, even more so for those patients who are facing mobility and/or cognitive limitations following an injury or illness.

In June 2018, the Nova Scotia Health Authority opened the doors to two new Independent Living Simulation (ILS) suites at the Nova Scotia Rehabilitation and Arthritis Centre. These spacious apartment-style suites **give patients an opportunity to trial assistive technologies and equipment** that they may now need to live more independently.

The Division of Physical Medicine and Rehabilitation was part of the space planning for this project. The project was led by occupational therapist Natalie Thornley and NSHA manager Joanne Comeau, in collaboration with Kim Parker, rehabilitation engineer, patients and staff.

"This new space allows us to help our patients learn new skills in how they can approach their everyday tasks," said Dr. Amra Saric, Division Head for Physical Medicine & Rehabilitation. "It's about helping them move forward to live independently with confidence."

From common technologies, like smartphones and Google Home, to specialized technologies that open doors, adjust cabinet heights and hospital beds by voice commands or eye movements; these suites showcase a variety of options. This allows patients an opportunity to test which technology and equipment best meets their needs and budget, as well as giving them hope that they can still do a number of tasks on their own post hospitalization.

True to its intent to support a smooth transition home, the suites are also designed with a home-like atmosphere. This warm and inviting space helps to prepare a patient for the important milestone of transitioning home. Therapists work with patients in the space throughout the week as part of their therapy. Inpatients can also stay in the suites with their loved ones overnight and on weekends to practise and gain confidence in the skills they have learned.

The new ILS Suites replace an old, on site apartment built back in the 1970's. This was all made possible through QEII Foundation funding.

2017-18 DIVISION STATISTICS

22,719.....Inpatient bed days (down 7%)
469 ..... Inpatient consults (steady)
165..... Telehealth visits (up 34%)

PRIORITY 2

DIVISION OF RESPIROLOGY

DR. SIMON HOUSTON BRIDGING RESPIROLOGY AND THORACIC SURGERY

It's a keen eye that spots an opportunity, but it takes skill, experience and effort to bring it to fruition. Enter Dr. Simon Houston, a respirologist with fellowship training in Interventional Thoracic Surgery from the University of Toronto. He says **developing an interventional pulmonology program at Dalhousie's Faculty of Medicine** satisfies his aim to be a clinical teacher, while improving patient care through minimally invasive procedures. Program Director for the Adult Respirology Residency Training Program since July 2018, he's also cross appointed to the Department of Surgery's Division of Thoracic Surgery.

Dr. Houston's excitement focuses on one of his main initiatives: building an EBUS (endobronchial ultrasound) Program with the Division of Thoracic Surgery. Hundreds of these real-time biopsies have been done to assess patients with undiagnosed enlarged intrathoracic lymph nodes as well as staging lung cancer. In only one year, they have largely replaced mediastinoscopy – a surgical procedure requiring general anesthetic.

The Division of Thoracic Surgery had begun the program, and Dr. Houston added his training and experience to further develop it. "It's a very safe, day procedure," he explains. "It's better for the patients and less expensive for the system." Like an athlete making feats look easy, he adds, "Getting the program running while addressing wait times was an accomplishment. Many things are changing in terms of how we evaluate patients with newly diagnosed lung cancer and other diseases of the chest."

Another intervention where there is strong collaboration between thoracic surgery and respirology is the Malignant Pleural Effusion Clinic for patients with advanced cancer. "These patients often have reduced quality of life due to their symptoms and due to the need to travel back and forth to hospital for urgent care. Developing a program to look after them as outpatients using a tunnelled pleural catheter to drain the effusions is really important."

Dr. Houston feels linking respirology with thoracic surgery through cancer care will strengthen an existing connection between these specialities.

2017-18 DIVISION STATISTICS

3,712..... Outpatients (up 5%)
1,853..... Inpatient visits (down 3%)
2,936 ..... Visits to the sleep lab (down 6%)

Dr. R. Mark Sadler, neurologist

DIVISION OF NEUROLOGY

EPILEPSY MONITORING UNIT BECOMES A SAFE HAVEN

"Sometimes people with epilepsy live desperate lives. Until you talk to them and get to know them, you can't understand it. In the middle of any activity, you can lose your vision, your ability to interact with your environment. It's a complete lack of control. You're getting married and have a seizure walking down the aisle. Or you're a guy having a seizure on the first day of high school." – Susan Rahey, Epilepsy Program Coordinator

Enter the newly-equipped Epilepsy Monitoring Unit (EMU). From its grand re-opening in June 2017 until September 2018, there were 89 admissions. Compare that to the largest previous annual admission of 47. That equates to a lot of people getting the epilepsy care they need in a safe place.

Planning for the unit took over six years and was one component of a $2.5 million project — a combined effort of the Divisions of Neurosurgery, Neurology, and Orthopedic Surgery (Spine Program), called Brain. Spine. Spirit.

"It's really quite amazing," says Rahey. "We can now bring in people who might never have been admitted before. It has increased our throughput, definitely. Because beds were added, it also allows us to keep people in a bit longer too, if needed."

The main reason for most patients' admission to the unit is pre-surgical evaluation. "You're there to find out - Is there a way to cure the epilepsy?" Rahey explains. Others are there to determine the type of seizure and possible non-surgical treatment. In the four-bed unit, EEG electrodes are applied to the scalp and record EEG 24 hours a day for as long as it takes to get the answers needed. Medications are adjusted as required to produce and record seizures which help discover the epilepsy's source or focus in the brain. Sometimes this surface recording is not enough, and patients are taken to the operating room to have recording electrodes implanted directly in the brain.

"It's our job to make these seizures happen as safely as possible. The patients are putting their trust in us. Safety trumps everything."

Susan Rahey, neurophysiology program coordinator

PRIORITY 2

The new EMU remedied several safety hazards. "People are here for multiple weeks," Rahey says. "They don't want to be confined to bed, so every surface area possible is padded — the floor, table tops, the back wall behind the bed, window sills, any sharp corners or edges. The bathroom is the most dangerous site for injury if someone were to have a seizure and fall. All edges are padded, there is a plexiglass shield over the sink and taps and padded safety bars surround the toilet. The door can be opened from the outside if needed."

Another improvement allows the nurse to be directly in the room with the patients 24 hours a day, enhancing their safety. Two EEG technologists in the room from 8 a.m. to 4 p.m. handle the equipment that is designed to be close to the patient, and work hand-in-hand with the nurses to keep patients safe. "Previously, the technologist was four floors away communicating with the patient and nursing staff via an intercom," Rahey adds.

"The QEII Foundation supported everything we did," Rahey adds. Key to the evolution and set-up of the EMU were Drs. Mark Sadler and David Clarke, Director Randi Munroe, and a first-class planning and construction team.

Teamwork and careful planning has resulted in a state-of-the-art addition that helps diagnose, investigate and treat more patients in a safe space.

2017-18 DIVISION STATISTICS

2,154..... Inpatient consults (up 5%)
730..... Inpatient admissions (down 6%)

PRIORITY 3

DIVISION OF RHEUMATOLOGY

SIGHTS SET ON ENDOWED RESEARCH CHAIR

The Division of Rheumatology has partnered with the QEII Foundation to embark on a fundraising campaign to establish Atlantic Canada's first endowed Chair in Clinical Outcomes for Rheumatology. They are $2.6 million into their $4 million goal.

The effort is led by rheumatologist Dr. John Hanly, who is also the Research Director for both the Division of Rheumatology and the Department of Medicine.

"We see research as a major factor in providing the best possible care for our patients," said Dr. Hanly. **"With 173,000 Nova Scotians diagnosed with arthritis alone, we know research into the causes, impact and best therapies is an essential part of dealing with what some have called the 'arthritis epidemic' ".**

Once secured, the Research Chair is expected to enhance the Division's knowledge of treatment, prognosis and clinical outcomes for patients with all types of rheumatologic conditions. It will also help translate that knowledge into improving patient care.

Overall, the Department of Medicine is home to six endowed chairs. As the Department's Director of Research, Dr. Hanly sees how the dedicated resources and focused expertise of these chairs contributes significantly to the Department's growing research impact.

To learn more about the campaign or to donate visit: https://qe2foundation.ca/donate. To donate to this endowed chair campaign select "other" and type "rheumatology".

2017-18 DIVISION STATISTICS

10,152 .... Visits to rheumatology clinics (steady)
190 ..... Visits at the injection clinic (up 7%)
650 ..... Inpatient consults (down 8%)

PRIORITY 1/2

SAINT JOHN NEW BRUNSWICK CAMPUS

RESHAPING HOW RESIDENTS ARE TRAINED

Growing its team, reshaping how it trains residents and broadening its service to patients from across the province are just three examples of the Department's Saint John New Brunswick campus activity.

This year residents reported an improved learning experience which contributed to the quality of care they provided to patients. That was in direct response to a restructure in how residents are organized and trained on the Medical Teaching Unit (MTU).

"We reorganized our learners into a new medical teaching service where we have now a larger pool and a better mix of senior residents, junior residents and medical student clerks," said Dr. Paul Sohi, Saint John Department of Medicine Head. "The changes have enriched the learning experience for each type of learner and also brought us stability in providing a consistent level of service."

The Department also capably responded to a spike in referrals to the provincial acute stroke program. The influx of referrals is in response to recent literature that confirms the value of clot extraction following an acute stroke. The Saint John Regional Hospital's interventional radiology team runs the provincial program, while the Department of Medicine has stepped up to provide necessary follow-up care.

"We were also pleased to welcome four new physicians," said Dr. Sohi. "Each year we continue to recruit new talent, which helps grow and complement our teams' skills and expertise. **In particular, it was very rewarding to have one of our former Saint John based residents, Dr. Brent McGrath, now an interventional cardiologist, choose Saint John as his home to practice medicine."**

This year we would also like to give our sincere thanks to long-time colleague Dr. Eric Grant, as he steps down from the Saint John Site Director role with the Dalhousie Internal Medicine Residency Training Program. Dr. Grant built the residency program and has been leading it for the past decade. Dr. Alexa Smith is currently the Associate Site Director, alongside Dr. Grant, and will become site director on January 1, 2019.

WELCOME

Dr. Stephanie Carpentier, gastroenterologist
Dr. Alison Rodger, geriatrician
Dr. Caroline Barry, rheumatologist
Dr. Brent McGrath, interventional cardiologist

Research Day, April 2018

EXCELLENCE IN

RESEARCH

PRIORITY 3

Department of Medicine researchers demonstrated their national competitiveness with recent Canadian Institutes of Health Research (CIHR) awards, released ground-breaking research, and continued to grow their reputations as international leaders in their various areas of expertise.

In 2017-18 the Department received $16.3 million in research funding, which was up 27 per cent from the previous year.

This success is not by chance. The Department takes its **research mandate seriously and has been intentionally investing in and expanding the research mandate over the past five years.** This is demonstrated by its formal organization structure where the research efforts are led by the Department's Research Director Dr. John Hanly, the Research Committee, as well as the Resident Research Committee led by Dr. Lisa Barrett.

The combination of dedicated leadership, support and high-caliber research talent has cultivated a strong and productive Department-wide research culture.

MAXIMIZING ACCESS TO GRANTS

Securing funding is the foundation of any researchers' success. With that in mind, the Department has dedicated funds to invest in its researchers with a large part of that funding provided by the University Internal Medicine Research Foundation (UIMRF).

"We want to ensure our funding has the greatest impact for our researchers," said Dr. Hanly, Research Director. "This means we must be strategic and responsive to our researchers' needs, giving them the greatest competitive advantage possible."

Examples of how the Department supports its members includes offering matching funds (up to $50,000) through the NSHA Research Funds Category 1 competitions, Strategic Research Incentive Grants, providing additional support to the highest ranked NSHA Research Funds Category 2 grant award(s), funding internal and external research fellowships including the Dalhousie Clinical Investigator Program (CIP) for residents, and investing in junior investigators.

New this year, the Department is offering matching funds to help secure national and international grants. The $50,000 budget is designed to help researchers access national and international grants that require mandatory matching funds. The application process is open-ended and designed to be accessible, providing timely access to the funds.

RESEARCH DAY HOST RENOWNED RESEARCHER AUTHOR, TIMOTHY CAULFIELD

In April 2018, more than 150 people participated in the Department's annual Research Day where there were ten featured podium presentations and 100 posters by Department members, undergraduate students, residents, research fellows, graduate students, and research associates.

The highlight was the keynote speaker Professor Timothy Caulfield, CRC Research Chair in Health Law & Policy at the University of Alberta. He entertained the audience with his talk on *"Scienceploitation: How Research Is Twisted to Sell Bunk (and How to Fight Back!)"*.

INVESTING IN OUR RESEARCHERS

UIMRF MATCHING NSHA CATEGORY 1 AWARD

Leah Cahill (Howard Webster DoM Research Chair)
$50,000 NSHA and $50,000 UIMRF

Co-investigators: **Allie Carew**, Kerry Ivey, **Susan Kirkland**, Kenneth Mukamal, **Ratika Parkash**, Eric Rimm, **Ferhan Siddiqi**, and Robin Urquhart

———

Eating Frequency and Timing as a Predictor of Incident Coronary Heart Disease in Multiple Independent Prospective Cohort Studies

DOM STRATEGIC PLAN INCENTIVE GRANTS

Dr. Ferhan Siddiqi
$24,969 NSHA and $10,000 DoM

———

Assessing the Clinical Prevalence and Epigenetic Signatures of Early Progressive Renal Decline in Type 1 Diabetes: A Preliminary Study

Dr. John Hanly
$25,000 NSHA and $10,000 DoM

———

Blood Brain Barrier and Cognitive Dysfunction in SLE

UIMRF INTERNAL FELLOWSHIP AWARDS

Dr. Scott Kehler | $10,000
Dr. Kenneth Rockwood's lab

Dr. Caitlin Lees | second year CIP sponsorship
PGY3/CIP

UIMRF JUNIOR DEPARTMENT MEMBER AWARD

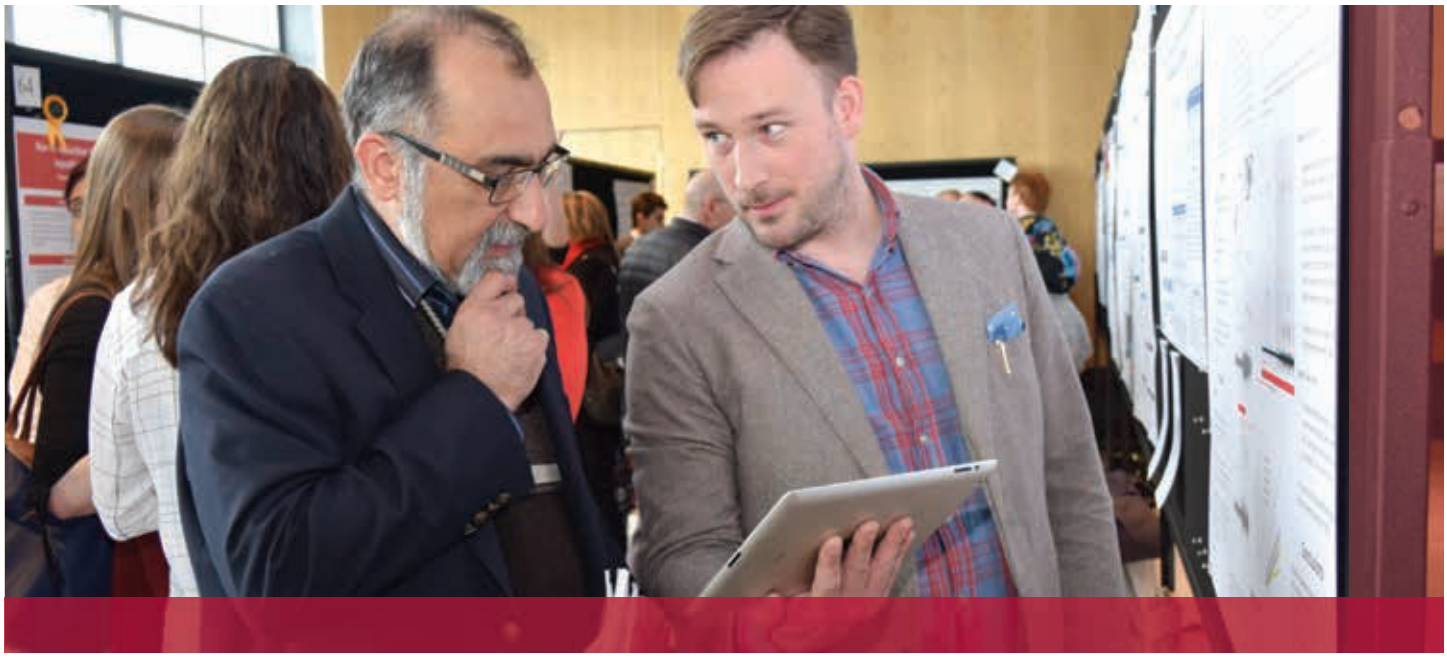
Dr. Gabrielle Horne | $48,981.81

———

Cardio-Aortic Mechanics in Genetically Triggered Aortopathy

DOM RESEARCH COMMITTEE

Dr. John Hanly (Chair)
Dr. Amir AbdelWahab
Dr. Lisa Barrett (Chair, Resident Research Committee)
Dr. Chris Blanchard
Dr. Leah Cahill (Howard Webster Department of Medicine Research Chair)
Dr. Jennifer Jones
Dr. John Sapp
Dr. Ferhan Siddiqi
Dr. Karthik Tennankore
Dr. Anil Adisesh (New Brunswick rep)
Dr. Peter Hull
Dr. Tallal Younis
Dr. Olga Theou
Dr. Christine Short, Department Head (Ex-officio)
Kathryn Nelson, Administrative Coordinator



DOM Research Day, April 2018

EXCELLENCE IN RESEARCH | FEATURE

DEPARTMENT RESEARCHERS SECURE $3.76 MILLION IN CIHR PROJECT GRANTS

Four Department research teams walked away with much coveted and highly competitive Canadian Institutes of Health Research (CIHR) project research grants this past year. This impressive success confirms the Department's exceptional research talent.

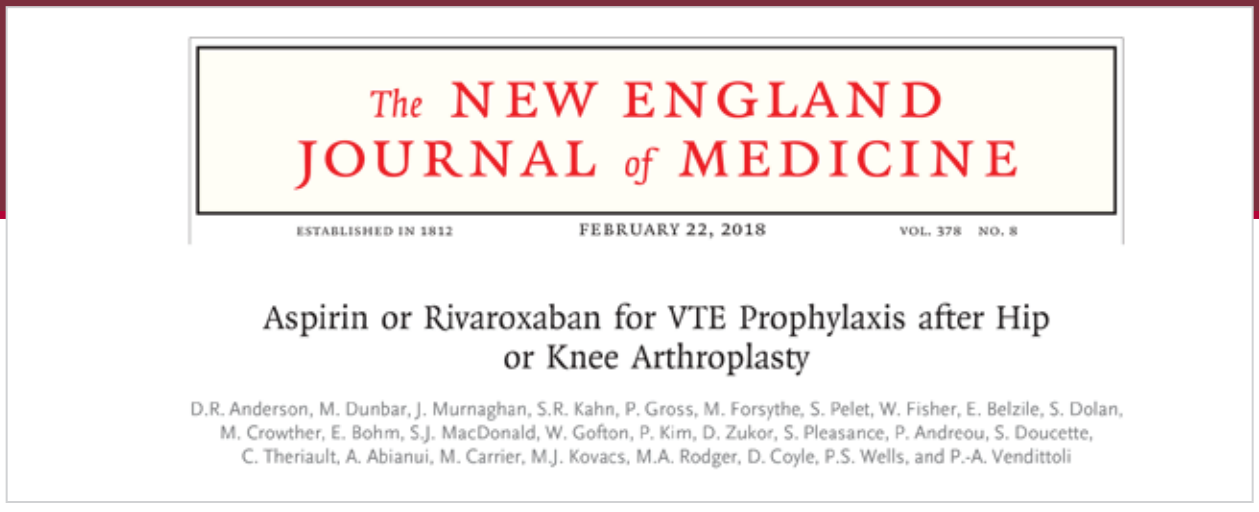
This year, Nova Scotian researchers surpassed the national success rate of 14 per cent, with 17 per cent receiving funding from their CIHR applications.

Principal Investigator: **Ratika Parkash** | $1,705,952
Co-investigators: **John Sapp**, Léna Rivard, Robert Reid, Jennifer Reed, George Wells, Jeff Healey, Anthony Tang, Stephen Wilton, Vidal Essebag, Anne Gillis, Paul Dorian, **Chris Blanchard**, and David Birnie
Project Title: **Reversal of Atrial Substrate to Prevent Atrial Fibrillation**

Principal Investigator: **John Sapp** | $979,200
Co-investigators: Paul Angaran; Douglas Coyle; Marc Deyell; Vidal Essebag; Lorne Gula; Andrew Ha; Jeff Healey; Girish Nair; Pablo Nery; **Ratika Parkash**; Léna Rivard; Jean-François; Sarrazin; William Stevenson; Anthony Tang; and George Wells
Project Title: **The VANISH2 Trial: Ventricular Tachycardia Antiarrhythmics or Ablation in Structural Heart Disease 2**

Principal Investigator: **John Hanly** | $615,826
Co-investigators: Steven Beyea, **John Fisk**, Javeria Hashmi, and Alon Friedman
Project Title: **Characterization of Brain Dysfunction with Multi-Modal Functional Neuroimaging in Patients with SLE and Cognitive Impairment**

Principal Investigator: **Kenneth Rockwood** | $466,652
Project Title: **How Does Frailty Influence the Risk and Expression of Dementia in Alzheimer Disease?**



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 FEBRUARY 22, 2018 VOL. 378 NO. 8

Aspirin or Rivaroxaban for VTE Prophylaxis after Hip or Knee Arthroplasty

D.R. Anderson, M. Dunbar, J. Murnaghan, S.R. Kahn, P. Gross, M. Forsythe, S. Pelet, W. Fisher, E. Belzile, S. Dolan, M. Crowther, E. Bohm, S.J. MacDonald, W. Gofton, P. Kim, D. Zukor, S. Pleasance, P. Andreou, S. Doucette, C. Theriault, A. Abianui, M. Carrier, M.J. Kovacs, M.A. Rodger, D. Coyle, P.S. Wells, and P.-A. Vendittoli

SPOTLIGHT

DR. DAVID ANDERSON

Department Hematologist, and Dean of Dalhousie's Faculty of Medicine, Dr. David Anderson released findings this year that proves aspirin is as effective as rivaroxaban in preventing blood clots after hip and knee replacement surgery.

FINDINGS FROM THEIR STUDY

Aspirin or Rivaroxaban for VTE Prophylaxis after Hip or Knee Arthroplasty was published in the February 22, 2018 issue of the *New England Journal of Medicine,* along with an editorial.

This four-year clinical trial, EPCAT II, funded by over $3 million in a Canadian Institutes of Health Research grant, was carried out at 15 university-affiliated health centres across Canada with more than 3,400 patients. Susan Pleasance, associate director of hematology research, led the team that organized and executed the study.

The study showed that after 90 days there was little difference in the number of blood clots or bleeding complications when either rivaroxaban or aspirin was used.

The study's findings are expected to define a new standard of care for the prevention of blood clots following these surgeries.

LIST OF ENDOWED RESEARCH CHAIRS

In 2017-18, the Department of Medicine had six endowed research chairs:

ANIL ADISESH, PHD
J.D. Irving Limited Research Chair in Occupational Medicine, Saint John, New Brunswick

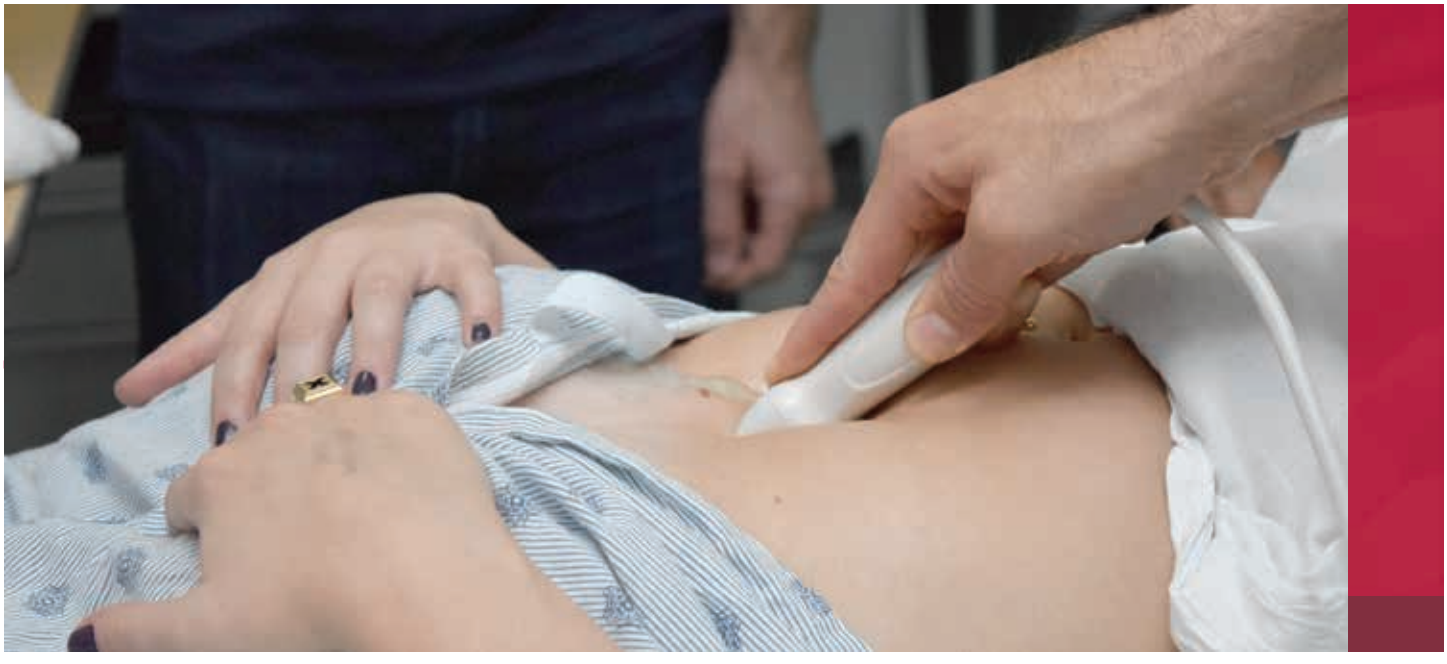
LEAH CAHILL, PHD
Howard Webster Department of Medicine Research Chair

DR. JAFNA COX
Heart and Stroke Foundation Endowed Chair in Cardiovascular Outcomes

DR. SULTAN DARVESH
DMRF Irene MacDonald Sobey Endowed Chair in Curative Approaches to Alzheimer's Disease

LOUISE PARKER, PHD
Endowed Chair in Population Cancer Research for the Canadian Cancer Society, Nova Scotia Division

DR. KENNETH ROCKWOOD
DMRF Kathryn Allen Weldon Endowed Chair in Alzheimer's Research



Point of Care Ultrasound (POCUS) program led by Dr. Sharon Mulvagh

EXCELLENCE IN

EDUCATION

PRIORITY 1/2

From first-year medical students to veteran physicians, the Department offers a rich suite of education programs to cultivate continued learning and inspire the most modern approach to patient care, teaching and leadership.

2017-18 proved to be an exceptional year. Dr. Chris Gray, the Department's Education Director, and a dedicated team of education leads and administrators adopted a new Canadian accreditation platform, expanded its programs in simulation and point of care ultrasound, introduced a new residency program in Palliative Medicine, launched new national standards for Competence By Design in medical oncology and nephrology, and rejuvenated its continuing professional development programs.

"I am continually impressed by the quality and quantity of work the Department's faculty produce each year," said Dr. Chris Gray. **"Our Faculty is fiercely committed to academic excellence. A great deal of the work to achieve that happens behind the scenes."**

A large portion of that behind-the-scenes work included leading the Department in preparing for Canada's new accreditation process. Dalhousie is the first university in Canada to be accredited under the new Canadian Excellence in Residency Accreditation (CanERA) general standards, and the first to use the Accreditation Management System, a new online accreditation management portal.

"While it is an immense amount of work, accreditation is a way for us to pause and critically review our programs and challenge ourselves to look for ways to do better," said Dr. Ian Epstein, Internal Medicine Program Director and Chair of Department Postgraduate Education. "Next year, for example, Resident Wellness will be a new accreditation standard. As a result, we have created a new Resident Wellness policy, but more importantly, it fast-tracked our discussions about the role the Department will play in creating a workspace that promotes physician wellness and puts the wellbeing of our residents and all physicians to the forefront of how we do our work".

The Divisions of Medical Oncology and Nephrology also launched the new Royal College of Physicians and Surgeons of Canada initiative, Competence by Design (CBD) on July 1, 2018. DOM's fourteen remaining residency programs will launch CBD by 2021.

SIMULATION EDUCATION PROGRAM OFFERINGS SPIKE

"We are not perfect, we err," said Dr. Meredith Chiasson, Director of Simulation for the Postgraduate Internal Medicine Residents. "It is being able to admit we err and learn from this that will ultimately make us better doctors. Simulation makes it safe to begin those discussions."

Creating that safety to learn is one outcome Dr. Meredith Chiasson aspires to create as the Department's simulation education lead.

Simulation in medical education uses high fidelity equipment, simulated patients and cadavers to best replicate real scenarios. Under Dr. Chiasson's leadership the simulation program's offerings nearly tripled this year. The comprehensive program now offers a boot camp to prepare incoming residents for on call and code blue situations; two two-day procedure days to review the indications, contraindications and complications of the common and a few of uncommon procedures performed by internal medicine physicians, and weekly half-day simulation sessions to grow crisis management skills. Plans are also in place to add a 'Breaking Bad News and Goals of Care' session.

"Through simulation, we can turn up the heat and get the trainee to feel challenged and frustrated in a safe environment," said Dr. Chiasson. "Ultimately this is about creating better outcomes for the patients and healthier physicians who feel better able to manage the stress of caring for their patients."

SIMULATION EDUCATION INSTRUCTORS

Dr. Meredith Chiasson (Program Lead) – Respirology
Dr. Paul Charlebois – General Internal Medicine
Dr. Allen Tran – General Internal Medicine
Dr. Simon Houston – Respirology
Dr. Brent Culligan – General Internal Medicine
Dr. Chris Gray – Cardiology
Dr. Ciorsti MacIntyre – Cardiology
Dr. Helen Bishop – Cardiology
Dr. Magnus McLeod – General Internal Medicine
Dr. Kyle McCoy – General Internal Medicine

POCUS INGRAINED IN TEACHING AND PRACTICE

The Department also expanded its Point of Care Ultrasound (POCUS) program, following the introduction of new teaching curriculum and purchasing new machines last year.

"We recognized the valuable role POCUS plays in educating our residents," said Dr. Ian Epstein, Internal Medicine Residency Traning Program Director. "While it is not a Royal College standard, we see it improves how we educate our residents and how we provide care to our patients."

POCUS INSTRUCTORS

The following Department members showed leadership and initiative by becoming our trained POCUS instructors. In 2017-18 they offered 30 education sessions for residents and their peers.

Dr. Sharon Mulvagh (Faculty Lead) – Cardiology
Dr. Alex Nelson – Respirology
Dr. Simon Houston – Respirology
Dr. Allen Tran – General Internal Medicine
Dr. Brent Culligan – General Internal Medicine
Dr. Ciorsti MacIntyre – Cardiology
Dr. Sarah Ramer – Cardiology
Dr. Ashley Miller – General Internal Medicine

REVITALIZING CONTINUING PROFESSIONAL DEVELOPMENT

Under the leadership of Dr. Trudy Taylor, Chair of the Continuing Professional Development (CPD) Committee, the Department is breathing fresh air into its CPD programs. The committee, restructured from three to one, oversees all the CPD sessions, including Grand Rounds and hosts two key education conferences, Medicine Matters and Teach the Teacher.

Beyond the obvious benefits of enhancing the faculty's skills and expertise, Dr. Taylor sees a broader role of CPD.

"While our core objective is to offer continuing professional development on important internal medicine topics, we also provide a platform to showcase the exceptional talent and expertise we have right here in our Department," said Dr. Taylor. "It also presents an opportunity for us to interact with colleagues who we don't get a chance to meet when focused on our clinical responsibilities."

CPD COMMITTEE MEMBERS

Trudy Taylor, Chair
Chris Gray, Director of Education (ex officio)
Christine Short, Head/Chief (ex officio)
Ian Epstein, Core Internal Medicine Program Director
Lori Connors, Rep.
Simon Jackson, Rep.
Lori Wood, Rep.
Ellen MacDonald, Core Internal Medicine Resident
Kyle Murnaghan, Core Internal Medicine Resident
Helen Parsons, Administrative Assistant (ex officio)

CELEBRATING

OUR PEOPLE

CELEBRATING

OUR PEOPLE









Medicine

CELEBRATING

OUR PEOPLE

SERVICE

25 YEAR SERVICE

Dr. Iqbal Bata,
Division of Cardiology

Dr. George Majaess,
Division of Physical Medicine & Rehabilitation

Dr. Graeme Rocker,
Division of Respirology

Dr. Paul Sohi,
Nephrology (Saint John Campus)

30 YEAR SERVICE

Dr. Stephen Phillips,
Division of Neurology

Dr. Mark Sadler,
Division of Neurology

35 YEAR SERVICE

Dr. Michael Reardon,
Division of Clinical Dermatology & Cutaneous Science

40 YEAR SERVICE

Dr. Philip Reid,
Division of Physical Medicine & Rehabilitation (Rothesay, NB)

RETIREMENTS

Dr. Desmond Leddin,
Division of Digestive Care & Endoscopy

Dr. David Haase,
Division of General Internal Medicine

Dr. Virender Bhan,
Division of Neurology

Dr. Charles Maxner,
Division of Neurology

PROMOTIONS

(as of July 1, 2018)

TO ASSOCIATE PROFESSOR

Dr. Karthik Tennankore,
Division of Nephrology

AWARDS

2018 Department of Medicine Spring Party

Brian M. Chandler Lifetime Achievement Award in Medical Education
Dr. Eric Grant,
Division of Rheumatology
(Saint John Campus)

2018 DoM Achievement Award
Dr. Catherine Kells,
Division of Cardiology

Clinical Excellence Award
Dr. Lori Wood,
Division of Medical Oncology

Faculty Excellence in Medical Education
Dr. Katalin Koller,
Division of Geriatric Medicine

Dr. Ravi Ramjeesingh,
Division of Medical Oncology

Dr. Nabha Shetty,
Division of General Internal Medicine

Outstanding Faculty – Residents' Choice Award
Dr. David Haase,
Internist and Infectious Disease Specialist

Research Lifetime Achievement Award
Dr. R. Lee Kirby,
Physical Medicine & Rehabilitation

Chief Medicine Resident Award, Internal Medicine Residency Training Program
Dr. Rachelle Blackman, Halifax
Dr. Harrison Petropolis, Halifax
Dr. Heather Chambers, Saint John
Dr. Chris Green, MTU Halifax

Award for Excellence in Undergraduate Education
Dr. Mark Robbins, PGY3

Award for Excellence in Summer Grand Rounds
Dr. Chris Green, PGY3

Outstanding Resident Awards
PGY1 – Dr. Alexandra Saunders
PGY2 – Dr. Eric Pond
PGY3* – Dr. Jennie Parker

*(*This year the award was renamed the Angie McGibbon Outstanding PGY3 in honour of Dr. Angela McGibbon who passed away in 2018.)*

Outstanding Academic Performance
PGY1 – Dr. Curtis Marcoux
PGY2 – Dr. Eric Pond
PGY3 – Dr. Mark Robbins

OTHER NOTABLE FACULTY OF MEDICINE AWARDS

Award of Excellence in Leadership
Dr. Simon Jackson,
Division of Cardiology

Award of Excellence in Education
Dr. Trudy Taylor,
Division of Rheumatology

Community Teacher of the Year
Dr. Daniel Smyth,
Division of Infectious Diseases (Moncton)

Excellence in Patient-Oriented Research
Dr. John Sapp

Dr. Robert C. Dickson Prize
Laura Kerr

Dr. W. H. Hattie Prize
Amye Harrigan

2018 FACULTY OF MEDICINE RESIDENT RESEARCH AWARDS

Best Research Award for Senior Resident
Dr. Opeyemi Fadahunsi,
PGY5 Cardiology

Best Work in Clinical Research
Dr. Keigan More,
PGY4 Nephrology

2018 DEPARTMENT OF MEDICINE RESEARCH DAY AWARDS

Best Overall Poster
Claire Slavin-Stewart,
Undergraduate Student
Supervisor:
Dr. Rob Horton,
Division of Palliative Medicine

Best Undergraduate Presentation
John Bartolacci,
Undergraduate Student
Supervisor:
Dr. Amanda Vinson,
Division of Nephrology

Best Core Presentation
Dr. Alex Legge, PGY3/CIP
Supervisor:
Dr. John Hanly,
Division of Rheumatology

Best Sub-Specialty Presentation
Dr. Keigan More,
PGY4 Nephrology
Supervisor:
Dr. Karthik Tennankore,
Division of Nephrology

Best Research Fellow/Graduate Student Presentation
Clarissa Brisseau,
Graduate Student
Supervisor:
Dr. Lisa Barrett,
Division of Infectious Diseases

2017-18 DEPARTMENT OF MEDICINE GRAND ROUNDS AWARDS

Overall Excellence
Dr. Sudeep Shivakumar,
Division of Hematology

"Lytics, Filters and Clots, Oh My!"

Award of Merit
Dr. Heather Rigby,
Division of Neurology

"Diagnostic Challenges in Parkinson's Disease and the Problem of Combined Pathologies"

Dr. Paul Bonnar and
Valerie Murphy,
Division of Infectious Diseases

"Changing Antimicrobial Prescribing Through Stewardship"

Guest Speaker
Dr. Manish Sood,
Presented by the Division of Nephrology

"Should We Anticoagulate Kidney Disease Patients with Atrial Fibrillation to Prevent Strokes? A Nephrologist's Perspective."

DoM

DEPARTMENT *of* MEDICINE

Improving Lives

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