



Departmental 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.

Integrated Academic Vision

To be leaders in academic medicine providing innovative, collaborative and appropriate care that is sustainable.

2012/13 Capital Health/Dalhousie University Department of Medicine

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



Our cover shows Dr. David Clark (left), a second year Core Internal Medicine Resident examining a patient with Dr. David Simpson. Dr. Simpson was awarded the Department of Medicine's 2013 Achievement Award. This prestigious award recognizes Dr. Simpson's sustained, exceptional commitment to the mission of the Department of Medicine.

Dr. Simpson is a general internist and presently the Interim Division Head, General Internal Medicine. He is also the Associate Medical Director of the Medicine Teaching Unit. Dr. Simpson is an exceptionally skilled and devoted clinician, highly regarded for his communication skills and ability to teach communication skills to medical trainees.

Message from the Department Head

As I look back on 2012/13 and look ahead to 2013/14, I am struck by the strength of the Department of Medicine. In the last year, we determined our collective priorities through an extensive, inclusive strategic planning process, recruited well skilled, and academically accomplished clinicians to join our team, and welcomed the most robust first-year class of residents to our Department to date (18 in all).

The Department of Medicine at Capital Health and Dalhousie University has an excellent reputation among similar academic departments in Canada, and it is my goal in the next year and beyond to build on our reputation. We will work toward our vision according to our renewed mandate, and be guided by leadership, innovation, accountability, effectiveness, scholarship and accessibility.

Our vision is to be leaders in academic medicine providing innovative, collaborative and appropriate care that is sustainable. We are already on our way thanks to the efforts of our clinical, education and research working groups, which you can read more about in this report, and input from members across the department. We are committed to leading quality care through innovation, attracting and growing the best, and driving research excellence. We can't do it alone though. When we developed our strategy, we sought input from Capital Health, Dalhousie, the Nova Scotia Department of Health & Wellness and Doctors Nova Scotia. We intend to continue to collaborate to make improvements that start with, but extend beyond, our Department.

This year's annual report highlights a number of excellent accomplishments and the individuals responsible, but I would like to note a few here as well. Dr. Anil Adisesh was named the J.D. Irving Limited Research Chair in Occupational Medicine. This marks the first endowed research chair at the Saint John Regional Hospital and the first endowed occupational medicine research chair in Canada. Dr. Adisesh is an associate professor in the Department of Medicine. His presence and his work will bring great things to New Brunswick, to Dalhousie and to our Department.

Together with Dalhousie Faculty of Medicine's Division of Medical Education, the Department of Medicine hosted the first Fear Memorial Education Conference. The conference, which took place in Halifax and in Saint John, New Brunswick, aimed to answer whether medical students were well prepared to enter clerkship and to enter residency. It marked the Faculty of Medicine's first critical look at how well its curriculum, launched in 2010, is preparing students for important phases in their career and personal development.

I invite you to review the highlights of the last year and appreciate your interest in the Department of Medicine.

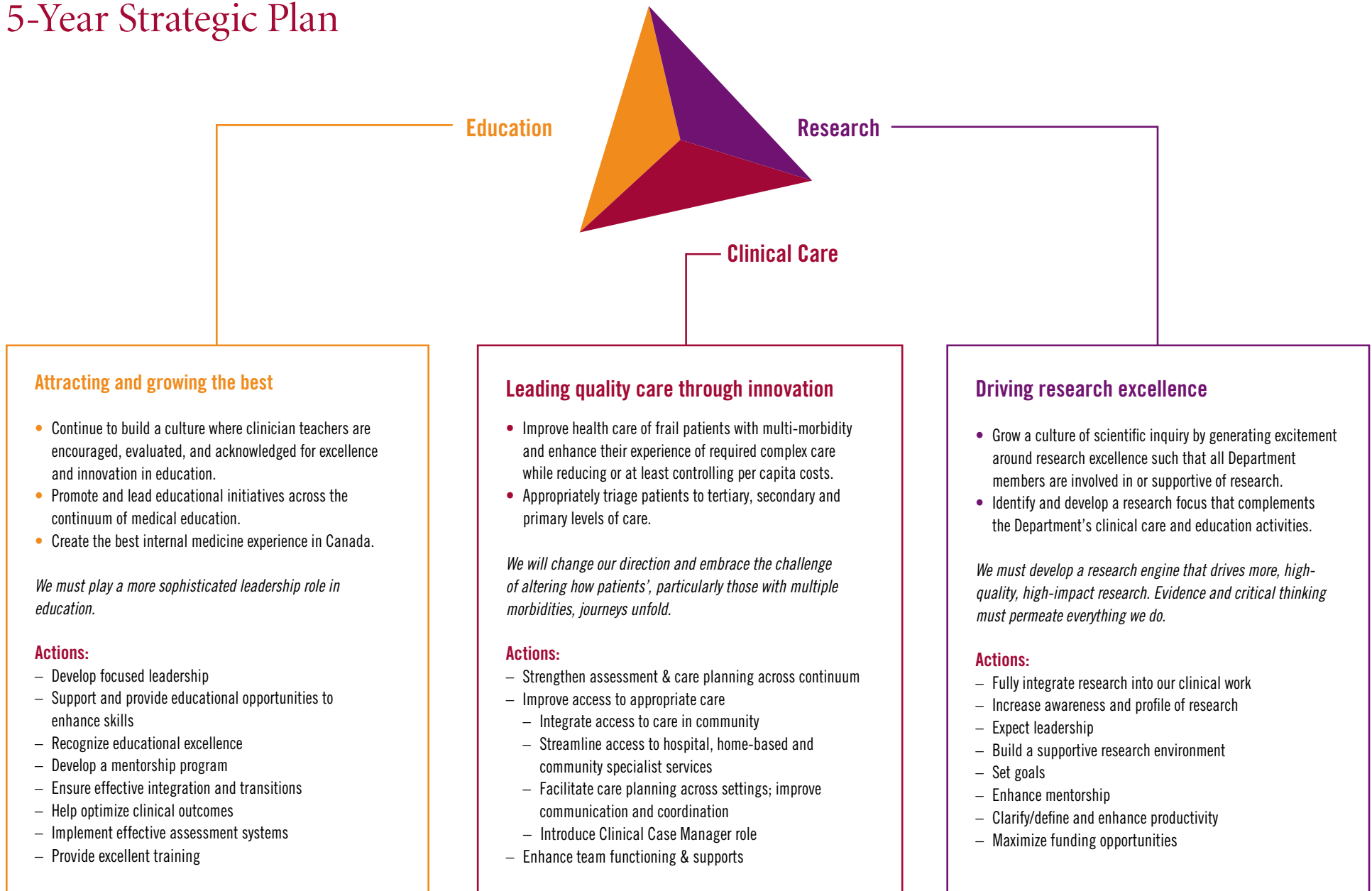
Sincerely yours,



David R. Anderson, MD, FRCPC, FACP
Head, Department of Medicine, Dalhousie University
District Chief, Department of Medicine, Capital Health
Professor of Medicine, Community Health & Epidemiology,
Pathology



5-Year Strategic Plan



Leading Quality Care through Innovation

The current specialized models of care work well for patients with single chronic health issues, but these models don't always provide optimal care for patients who are living longer with multiple, complex chronic conditions (for example, frail elderly patients) and whose care becomes more complex and costlier than necessary.

Providing optimum care for these patients is a priority under the Department of Medicine's strategic initiatives for clinical care. The Department's Quality & Professional Appraisal Committee chaired by cardiologist Dr. Robbie Stewart is taking the lead on appropriate care, while geriatric medicine specialist Dr. Paige Moorhouse is chairing a multi-divisional, multi-departmental committee looking at improving care for frail patients.

"A driving force in our strategic planning for clinical care was the recognition that our resources are not endless. So we have to make the best use of those limited resources to ensure the best possible care," says Dr. Stewart, explaining that this underlying theme cuts across both working groups.

The Appropriateness of Care group is looking at the complex issue of focusing interventions where they have the greatest chance of success. "We are starting by looking at established best practices for each specialty, and then baseline measures (identified by each Division) to evaluate whether we are providing the best care to the patients who need it and whether it made a difference," he explains. Through this process the group will also identify gaps where there aren't guidelines or where guidelines could be improved.

Dr. Stewart adds that at the end of the day an important measure of success will be "that we manage to embed in our day to day clinical care the habit of asking ourselves are we making the best use of resources for the patients who will benefit the most."

The Frailty Working Group chaired by Dr. Moorhouse is examining how to provide better care to frail patients. "Our health care system is not set up to address people with many different chronic issues, such as you see with frail patients. Currently, there is no available means of 'curating' or coordinating their care across the care continuum so we need to look at a new model of care for frail patients," says Dr. Moorhouse.

Early in its tenure, the working group expanded its membership to include primary care and Capital Health representatives. "So many other groups are involved in providing chronic care for frail patients and we wouldn't be able to improve care without the involvement of others across the Capital District," says Dr. Moorhouse.

The group has sought broad input from stakeholders across the Department, Capital Health and the community, developed an inventory of existing services and programs for frail patients, and identified common strengths as well as gaps in programming and services. "We want to build on existing programs and services and establish better links to family medicine, emergency care, and continuing care.

The goal is to provide better care and more appropriate care for frail individuals, which means doing a better job of coordinating and delivering that care for the patient," says Dr. Moorhouse.

Under the umbrella of a Frailty Management Committee that developed out of the Frailty Working Group, sub-committees have been set up to examine four areas within the continuum of care: a frailty patient portal that will provide family physicians with a toolbox for managing care;

a community-based team intervention for severely frail people who are not at end of life but who want to receive care at home; management of frail patients in the emergency department to enhance continuity of care; and continuity of care plans for frail in-patients.

Through the Appropriateness of Care and Frailty groups, the Department is taking a proactive approach to finding solutions. "We want to be in a position where we are guiding a better model of care that provides better outcomes for patients and better use of health care resources," says Dr. Stewart.



Drs. Robbie Stewart and Paige Moorhouse chair the Department of Medicine's Clinical Care Strategic Plan Working Groups.

Creating a Strong Education Culture

As a strong leader in medical education, the Department of Medicine is committed to fostering a culture of excellent, innovative education. Through its five-year strategic plan, the Department has identified directions that align with new paradigm shifts in medical education such as a more evidence-based education model and increasing integration across undergraduate, postgraduate and continuing medical education (CME).

There are three main goals for education under the Department's strategic goal of "attracting and growing the best":

1. Continue to build a culture where clinician teachers are encouraged, evaluated, and acknowledged for excellence and innovation;
2. Promote and lead educational initiatives across the continuum of medical education; and
3. Create the best internal medicine experience in Canada.

As an inaugural step toward achieving these strategic goals, the Department has formed a Working Group on Education, chaired by cardiologist Dr. Chris Gray. The group is charged with developing a plan, tactics, and timelines for implantation of the strategic objectives over five years. With representatives from undergraduate, postgraduate and CME offices, medical residents, Dalhousie Medicine New Brunswick, and other university offices, the group brings a broad perspective to the task. "We've sought input from

all these levels in determining the best way to proceed. As a result of this input we've been able to put together a plan with long and short-term objectives," says Dr. Gray.

The first order of business set forth in the plan is to put in place some underlying tools and processes that will help the Department to achieve its broad strategic goals for education. One is to create a standing committee and perhaps a position to oversee and coordinate the efforts in education at all levels for the Department. "The goal is to ensure that the educational experiences of our trainees are integrated across the continuum of education instead of in silos," says Dr. Gray.

Additional recommendations for the short-term include developing an orientation package for new faculty that focuses on opportunities in the clinician-teacher stream; creating new awards and research opportunities in medical education; and developing a network of faculty strengths in education for the Department.

"We want to create an environment within the Department where education is as valued a part of the culture as clinical care and research. We want to be leaders in education for our trainees, and encourage and acknowledge the role of education," says Dr. Gray.

Over the long term, the working group's plan calls for close collaboration with Divisions and Departments within the Faculty of Medicine to take advantage of existing resources and assist with effective integration and transitions between each stage of learning. The ability to make Department of Medicine learners and faculty more aware of

existing opportunities will help optimize clinical outcomes through interdisciplinary education and continuing medical education.

Dr. Gray says it's also critically important that the Department utilize technical innovation for education. "That means making use of the latest and most effective technology, not just for delivering education but for tracking it too. We need to implement effective assessment systems to measure our progress."

While some of the strategies represent "low-hanging fruit" that can be easily

and quickly implemented, others will require more of a fundamental culture shift over time. "On our side we already have a strong culture of support for education in our Department," says Dr. Gray.

That being said, he adds that it's important that the Department keeps challenging itself to set higher goals when it comes to educational excellence. "Without a high level vision it's easy to become complacent, to fall behind instead of leading the way."



Cardiologist Dr. Chris Gray chairs the Department's Strategic Plan Working Group on Education.

The following awards were presented at the Department's Spring Party in June 2013:

- Dr. David Haase was presented with The Brian M. Chandler Lifetime Achievement Award in Medical Education.
- Drs. Tammy Keough-Ryan, Sudeep Shivakumar, Geoff Williams, William Sheridan and Colm McParland received the Faculty Excellence in Medical Education Awards.
- Drs. Paul Bonnar and Amy Groom received the Resident Excellence in Undergraduate Teaching award.
- Dr. Ahmed Ghaly won the Excellence in Summer Grand Rounds award.
- Outstanding Resident Award PGY1 – Dr. Glenn Patriquin
- Outstanding Resident Award PGY2 – Dr. Andrew Moeller
- Outstanding Resident Award PGY3 – Drs. Brent McGrath and Brian Buchanan
- Excellence in Resident Research Award – Dr. Vanessa Meier-Stephenson
- Resident Research Award of Merit – Dr. Brent McGrath
- Special recognition for work with Resident Journal Club – Dr. Jordan Webber
- Special recognition for work with Resident Interesting Case Rounds – Dr. Lindsey Carter

Department of Medicine Education Chairs

Respirologist, Dr. Nancy Morrison is the Department of Medicine's Chair of Undergraduate Medical Education. In 2012/13 Department of Medicine physicians provided 2,787 hours of lectures, tutorials and clinical skills sessions to medical students in years 1–4. Additionally, 635 medical student “rotations” or clinical practicums (2–4 weeks each) were hosted by DoM divisions for 3rd and 4th year “clinical clerks” from Dalhousie and other medical schools from across Canada.

Dr. Ian Epstein, gastroenterologist, is the Department of Medicine's Chair of Postgraduate Medical Education. He is Program Director for DoM's Core Internal Medicine Residency Training Program, where there were 50 residents in training during 2012/13, including 7 at the Saint John NB campus. In addition to the core IM training, Department of Medicine has 15 fully accredited sub-specialty residency training programs in each of our divisions, for a total of 60 sub-specialty residents and fellows in 2012/13.



Dr. Elizabeth Mann, President of the College of Physicians and Surgeons of Nova Scotia



Dr. Elizabeth Mann began a two year term as President of the College of Physicians and Surgeons of Nova Scotia in May 2012. CPSNS serves the public by regulating the province's medical profession in accordance with the Nova Scotia Medical Act and its regulations. Dr. Mann, a highly regarded general internist and former Head of our Division of General Internal Medicine, was the recipient of the Department of Medicine's Brian Chandler Lifetime Achievement Award in Medical Education in 2009. She was also named Specialist of the Year (Atlantic Region) by the Royal College of Physicians and Surgeons of Canada in 2009.

Research Now and Into the Future

The Department of Medicine is home to grant and industry funded research in all areas of internal medicine. Our members' research efforts are recognized around the world and attract more than \$11 million in funding annually – 15% of Dalhousie Faculty of Medicine's total research funding. As a department, we have research strengths in geriatric medicine, neurology, cardiology and infectious diseases.

"Our focus is now on increasing our research productivity by embedding research into the Department's culture – ensuring research is considered integral to the Department's clinical operations," says Dr. John Hanly, Research Committee Chair.

In the Department's recent strategic planning process to chart its future and determine its goals, the Department's research priorities were defined as: to grow a culture of scientific inquiry by generating excitement around research excellence such that all Department members are involved in or supportive of research; and to identify and develop a research focus that complements the Department's clinical care and education activities.

"We need to constantly remind ourselves that research is the way to improve the care we deliver," says Dr. Hanly. "Ideally all Department members would have a good understanding of research and support its role in improving quality healthcare, if not an interest in doing research."

The Department of Medicine Research Committee is charged with developing and leading the implementation of an action plan to advance the Department's research priorities and its vision;

and to be leaders in academic medicine providing innovative, collaborative and appropriate care that is sustainable.

Input from Department members through its strategic planning process has narrowed the focus to key initiatives: establishing a formal mentorship program, enhancing leadership and administrative support for research, defining and increasing research productivity, and increased communication about the Department's researchers and projects.

Working toward an action plan, the Research Committee has identified benchmarks the Department will use to measure its progress on the way to reaching its research goals. The benchmarks include measures around the number and quality of scientific publications, grant capture from peer-reviewed international, national and local funding agencies and the number of mentors and mentees in the Department.

The next steps are to develop targets and specific actions. Dr. Hanly notes that both will be fluid so that adjustments can be made, which he hopes will help ensure successful implementation.

"We're intending to make incremental changes that over time will yield results in the Department," says Dr. Hanly. "We will also need to work with individuals and groups at Capital Health and Dalhousie to influence positive changes outside of the Department that help us increase our research productivity."

The Department has already begun to make changes. Beginning in the 2012/13 academic year, a research methods course became a mandatory part of the first year internal medicine residency curriculum. The course provides residents with an introduction to research and helps them to develop and complete a research project. Also, the Department has committed to expanding the University Internal Medicine Research Foundation (UIMRF) by 2018, increasing funding opportunities for investigators at all stages of their careers. The commitment is in keeping with the Department's

belief that research is integral to the highest quality patient care. The Department of Medicine is one of few clinical departments to provide research funding through its own Foundation. This funding enables investigators to establish or grow their research efforts and to attract additional grants or industry sponsors.

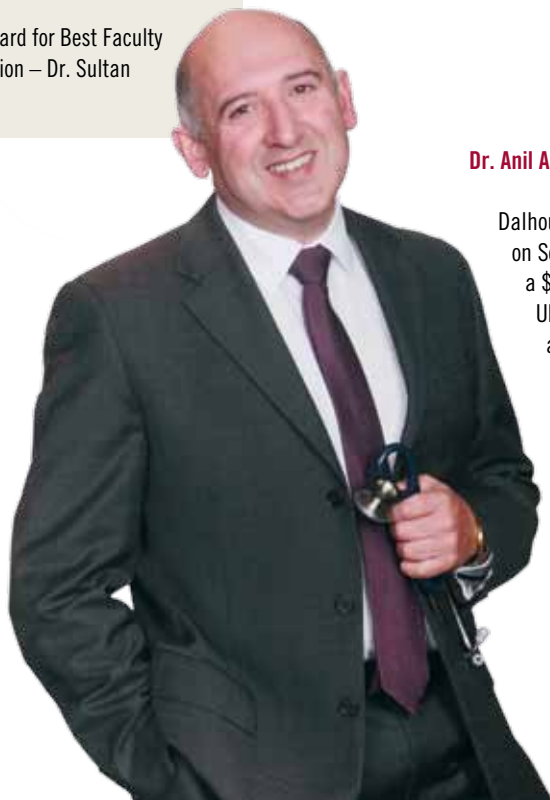
"Both the research methods course and the commitment to expanding the capital funding in UIMRF are changes that will affect our research productivity and the culture of our Department over time," says Dr. Hanly.



Rheumatologist Dr. John Hanly is Chair of the Department of Medicine's Research Committee which is overseeing the departmental Strategic Plan for Research.

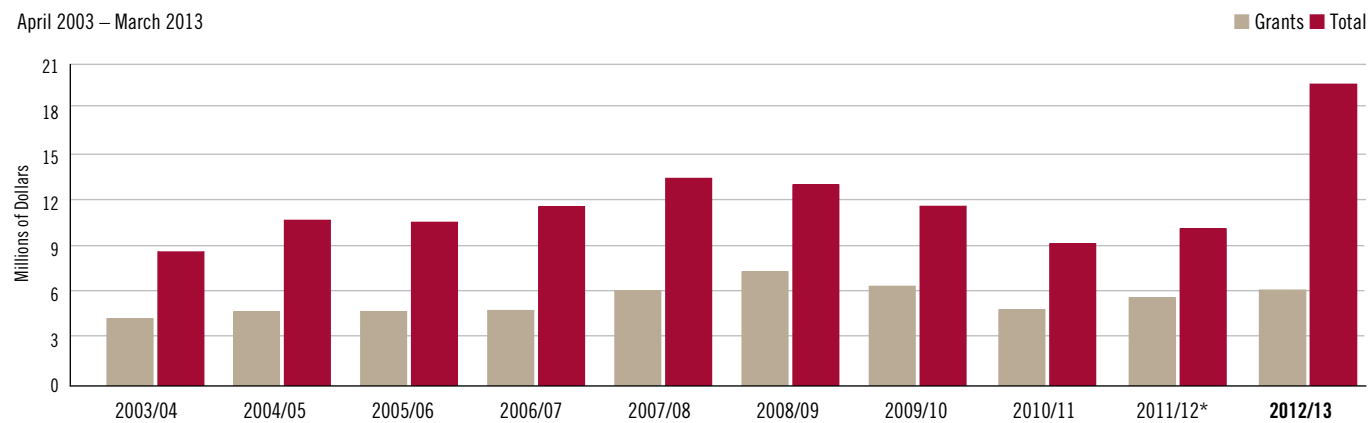
Congratulations are extended to the 2013 DoM Research Day award winners:

- Best Resident/Student Oral Presentation – Dr. Ahmed Ghaly
- Best Student Poster Presentation – Ms. Brenda-Lee Rooney
- Best Core Resident Poster Presentation – Dr. Amanda Miller
- Best Sub-Specialty Poster Presentation – Dr. Rebecca Charbonneau
- Best Graduate Student/Post-Doctoral Poster Presentation – Dr. Olga Theou
- Residents' Choice Award for Best Faculty Oral/Poster Presentation – Dr. Sultan Darvesh



Department of Medicine (DoM) Research Funding

April 2003 – March 2013



* error in 2011/12 Progress & Profiles report

Dr. Anil Adisesh named Irving Research Chair in Occupational Medicine

Dalhousie Medicine New Brunswick announced Dr. Anil Adisesh as the J.D. Irving Limited Research Chair in Occupational Medicine on September 6, 2013. This, Canada's first endowed chair in Occupational Medicine, was established thanks, in part, to a \$2 million contribution by Irving to the DMNB Medical Research Campaign. Dr. Adisesh comes to New Brunswick from the UK, where he practiced at the National Health and Safety Laboratory. His clinical interests include occupational toxicology, allergy and hand/arm vibration. In addition to his research, Dr. Adisesh will help medical trainees to recognize, manage and prevent workplace illness and injuries; and will work with government, industry and labour to establish better workplace safety. Dr. Adisesh, an Associate Professor in the Department of Medicine, noted that he was "inspired by the concerted effort undertaken to establish the Irving Chair, and will work to provide practical tools in an effort to contribute to healthy workplaces in the Maritimes and Canada".

Cardiology



Our Patient Care:

- In 2013, the Electrophysiology Heart Rhythm Group was awarded Capital Health's Gold Quality Award for implementation of its "Changing to Meet Patient Needs" strategy, which documented a decrease in length of stay and excellent outcomes.
- In September 2012 we launched a multi-disciplinary transcatheter aortic valve implantation (TAVI) program. Patients who are in need of an aortic valve replacement but who are at high risk for traditional surgery are now offered a percutaneous option with placement of a transcatheter aortic valve via either a femoral or apical approach, in a minimally invasive procedure. The program involves co-operation of interventional cardiologists under the lead of Dr. Najaf Nadeem; cardiovascular surgeons under the lead of Dr. John Sullivan; interventional radiologists under the lead of Dr. Rob Barry; cardiac radiologists under the lead of Dr. Alan Brydi; and cardiac anesthetists, under the lead of Dr. Blaine Kent. The TAVI Program won an Anesthesia Award for Excellence from the Department of Anesthesia, Pain Management and Peri-operative Medicine in March 2013.
- A reduction in available echocardiography sonographers has increased our wait times for all triage categories of echocardiograms.

Our Research:

- Dr. Parkash is an outcomes and clinical trials researcher in atrial fibrillation and cardiac implantable electrical devices (CIEDs). She is the principle investigator and main author of a CIHR funded, multi-center clinical trial in Canada examining the use of aggressive blood pressure lowering in patients undergoing catheter ablation for atrial fibrillation, a study which is on-going. Dr. Parkash's research team received significant attention at the Heart Rhythm Society Sessions held in Boston in May 2012, and she was subsequently interviewed by the Medical Post and the Wall Street Journal for work published in Heart Rhythm in 2013.

Our Team:

- We were deeply saddened by the passing of Dr. Magdy Basta in July, following a courageous battle with cancer. Dr. Basta was a long-standing member of the division who specialized in electrophysiology. He was a valued colleague and clinician and his dedication to his patients and his positive attitude were very highly regarded by all.
- Welcome to Dr. Helen Curran, who joined the Division as full-time interventional cardiologist after completing a two year interventional fellowship at the University of Calgary.
- The Division of Cardiology was pleased to welcome Dr. Kim Styles, who joined the Division as a locum cardiologist, following completion of an Echocardiography Fellowship. Similarly, Dr. Dongsheng Gao joined the Division's electrophysiology lab in a locum role.

Dr. Sarah Ramer, Cardiologist

More than six per cent of Nova Scotians live with some type of heart disease – the highest percentage of any province in Canada. At Capital Health alone thousands of people seek diagnosis, treatment and management of cardiovascular illnesses each year.

Dr. Sarah Ramer is one of the Department of Medicine's 35 cardiologists who work in the Division of Cardiology at Capital Health. There, she directs the stress echocardiography program. The stress echocardiography test helps physicians to diagnose coronary artery disease.

"Specifically, we use stress echocardiography to diagnose dynamic valvular problems and pulmonary hypertension. Using ultrasound, we capture images of the heart muscle and valves before and after exercise," notes Dr. Ramer. "We're looking to see whether the heart muscle is getting enough blood flow and oxygen when it is under stress."

Of the many tests available to diagnose and treat heart disease, the stress echocardiography test is the only one that does not expose patients to radiation.

"All such tests are safe, but the stress echocardiography test is the only option for people who cannot be and do not want to be exposed to radiation," says Dr. Ramer. On average, 12 patients each week receive the test.

Dr. Ramer established the stress echocardiography program in 2007 after returning from Mount Sinai Hospital in Toronto where she undertook an echocardiography fellowship. Then, Dr. Ramer was the only physician at Capital Health qualified to assess the results of the stress echocardiography test. Now, there are five physicians and 10 sonographers specially trained to administer the test and assess the results.

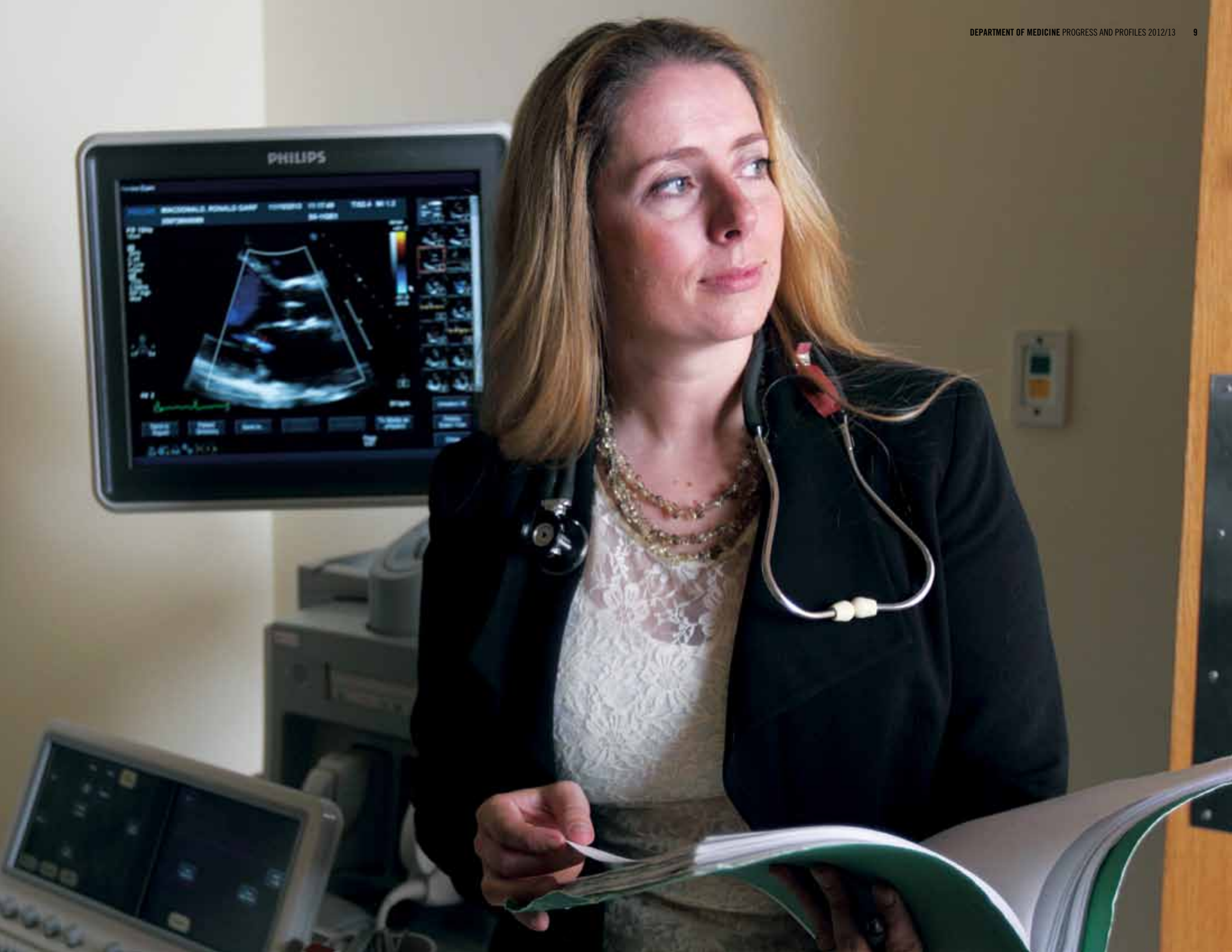
"When we started the program, we spent a fair amount of time educating specialists and family physicians at Capital Health and in the community on who should have a stress echocardiography and why. We also established a quality assurance framework. We presently have acceptable wait times and high assessment accuracy rates," says Dr. Ramer.

The stress echocardiography program is just one part of Dr. Ramer's professional portfolio. As an academic clinician, she balances a full slate of clinical responsibilities with teaching. Dr. Ramer is an assistant professor of medicine and director of the cardiology residency training program. As such, she oversees training of resident cardiologists. Her teaching activities also include one-on-one resident training and mentorship.



Dr. Catherine Kells, Division Chief

Division Physicians: Magda Basta • Iqbal Bata • Hussein Beydoun • Brian Clarke • Jafna Cox • Richard Crowell • Helen Curran • Dongsheng Gao • Martin Gardner • Nicholas Giacomantonio • Chris Gray • Ronald Gregor • Gabrielle Horne • Simon Jackson • Bruce Josephson • Catherine Kells • Bakhtiar Kidwai • Chris Koilpillai • Tony Lee • Richard Lodge • Michael Love • Nancy MacDonald • Paul Mears • Syed Najaf Nadeem • Ratika Parkash • Ata-Ur-Rehman Quraishi • Miroslaw Rajda • Sarah Ramer • John Sapp • William Sheridan • John Stewart • Robert Stewart • Kimberly Styles • Lawrence Title • Jason Yung



Clinical Dermatology & Cutaneous Science



Our Patient Care:

- Dermatology Ambulatory clinics take place at the Victoria General Hospital, the IWK Health Centre and Northwood Manor. There are clinics in General Dermatology, Surgical Dermatology, and Pediatric Dermatology as well as subspecialty clinics: Mycosis Fungoides Clinic, Gynecology/Dermatology Clinic, Interdisciplinary Non-melanoma Skin Cancer Clinic, Geriatric Dermatology clinic and a Vascular Birthmark Clinic.
- The Dermatology Treatment Unit at the Victoria General Hospital operates weekdays and treats high volumes of patients requiring phototherapy and specialized nursing care.
- A Phototherapy Unit operates at the Aberdeen Hospital in New Glasgow and is supervised via telemedicine weekly by a dermatologist who is also available for advice by telephone every weekday.

Our Teaching:

- Our residency training program presently has one resident who will be sitting the Royal College Examination in May/June, 2012, and one PGY4, one PGY3 and one PGY1. The Training Program received Full Approval at the Royal College Survey in 2012, with many comments about the excellent functioning of the program. Our team always includes rotating house staff. Evaluations of our service from learners are excellent, always with comments and thanks for superb teaching.



Dr. Laura Finlayson, Division Chief

Division Physicians: Mary Lou Baxter • Laura Finlayson • Christopher Gallant • Peter Green • Colleen Kelly • Richard Langley • Scott Murray • Kerri Purdy • Michael Reardon • Maria Torok • Robert Tremaine

- Dermatologists take part in lectures and seminars in the MSK/Derm course in Med II at Dalhousie University.

Our Team:

- Dermatology has two full time physicians and nine part time physicians. Total 3.8 FTE.
- We have two Dermatology RNs (1.8 FTE) and two casual RNs to fill in. The two nurses alternate working in the clinic area and the Treatment Unit.
- We have 1.5 FTE phototherapists, one of whom is also an LPN, and two clinic aides (1.8 FTEs).

Congratulations to:

- Dr. Peter Green who was named Professor of the Year by the 2013 graduating class and was Master of ceremonies for Convocation Gala, chosen by class of 2012.
- Drs. Laura Finlayson and Scott Murray received Meritorious Service Awards (25 years).
- Dr. Richard Langley was elected incoming President of the Canadian Dermatology Association.

A Fond Farewell to:

- Dr. Miller completed his association with the Division on June 30, 2012.

Dr. Kerri Purdy, Dermatologist; Dr. Martin LeBlanc, Plastic Surgeon

Healthcare providers are constantly looking to improve patient care and services to best meet the health needs of people in their communities. One of the ways to do that is to provide interdisciplinary care that results in combined services so that patients can get what they need in one appointment rather than two or more.

Dr. Kerri Purdy and her colleague, Dr. Martin LeBlanc, operate a clinic for people who may have non-melanoma skin cancer, are looking for a definitive diagnosis and may need to have a lesion removed. "We offer a 'one stop shop' of sorts. Our clinic makes it possible for people to see a dermatologist and plastic surgeon in one visit rather than having to book two or more appointments," says Dr. Purdy, dermatologist and assistant professor of medicine.

Patients referred to the clinic are most often those who have more advanced non-melanoma skin cancer, have had previous diagnosis and treatment of skin cancer or have larger lesions in sensitive areas of the body, including the face and neck.

At the clinic, Dr. Purdy is first to see patients. Her role is to provide a diagnosis and treatment options. Should her treatment recommendations include removal of a lesion and a plastic surgeon rather than a dermatologist to do the removal, the patient next sees Dr. Martin LeBlanc, plastic surgeon.

"The clinic enables us to easily work together to best meet patient needs. We are able to consult with one another quickly and in person, which improves patient care and often lessens the number of visits a patient must make," says Dr. Purdy.

In addition to the patient care benefits, Dr. Purdy notes clinics such as the non-melanoma skin cancer clinic that provide interdisciplinary care are excellent learning environments for medical students and residents. "I want to help students and residents to learn how interdisciplinary care can be delivered well and encourage them to explore and advocate for interdisciplinary models of care. The delivery of healthcare is changing and though interdisciplinary care has been talked about for some time, it is just now becoming more popular. The trend is most likely to continue," says Dr. Purdy.

At each clinic, which operates every two weeks, Drs. Purdy and LeBlanc see about 10 patients. Of those, an average of six are new referrals.



Digestive Care & Endoscopy



Our Patient Care:

- Over the last 5 years, despite a 31% increase in new patient referrals seen, and a 75% increase in the number of endoscopic procedures performed by Division members, we have not been able to reduce our wait times for consultation to within established standards.
- We are making efforts to create a single waitlist to measure wait times by triage category from date of receipt of referral to date of consultation, and also time from decision to perform endoscopy or colonoscopy to procedure.
- Our Division has been collaborating with Capital Health's District Department of Family Practice, creating a working group aimed at optimizing gastroenterology referrals. This group includes Dr. Robinette Butt (Lead for GI Radiology), Dr. Harris Crooks (Family Physician, Hatchet Lake), Family Medicine and Digestive Care & Endoscopy Resident Representatives, Dr. Cynthia Forbes (Family Physician, Fall River), Dr. Paul Johnson (Lead for Colorectal Surgery), Dr. Rick Gibson (District Chief, Family Practice), Drs. Sunil Patel and Wendy Winsor (Co-Leads for Division of Digestive Care & Endoscopy, and Dr. Kevork Peltekian (Interim Chief, Digestive Care & Endoscopy). The goal is to enhance safe and efficient patient care by developing guidelines for referral and management.
- There is also a high burden of inflammatory bowel disease in Nova Scotia with complex therapeutics.

Our Research:

- Quality improvement and outcomes research dominates our research output with all of our trainees presenting at local and national meetings.

Congratulations to:

- Dr. Ian Epstein who was appointed the new program director for Dalhousie's Faculty of Medicine Core Internal Medicine Residency Training Program.
- GI Fellow Dr. Colin Stewart accepted an advanced endoscopy fellowship at Capital Health in July.

Welcome Aboard to:

- Dr. Marie Laryea, a hepatologist, who transferred from Department of Surgery to Department of Medicine.
- Dr. Colin Struthers completed gastroenterology residency training in June 2013. He has accepted a part time locum position at Capital Health, and additionally is doing advanced training in therapeutic endoscopy.

A Fond Farewell to:

- Dr. Michael Stewart completed his Gastroenterology residency in June, 2013. He has accepted an advanced IBD fellowship at Cedar-Sinai Medical Centre, Los Angeles, CA.
- Dr. Rob Martin also completed his Gastroenterology residency training in June, 2013. He has since started a gastroenterology practice in Fredericton, NB.

Dr. Geoffrey Turnbull, Gastroenterologist

Irritable Bowel Syndrome (IBS) is a perplexing and poorly understood condition for which there is no known cure. It shares symptoms with other diseases, and furthermore, symptoms may disappear and reappear for reasons that are obscure to patients.

For Dr. Geoffrey Turnbull, IBS is a compelling puzzle to which he has devoted a significant part of his practice as a gastroenterologist. In fact, he wrote the book on the disease. *IBS Relief: A Complete Approach to Managing Irritable Bowel Syndrome*, which he co-authored in 1998, is still considered the definitive patient guide to the disorder. (A second edition came out in 2006.)

"Fifteen to 20% of people have IBS problems at one time or another and yet there was very little available to address patients' concerns or help them manage their symptoms. We set out to make a 'work book' for patients, to help them identify the triggers that may be causing their symptoms," Dr. Turnbull explains. The book continues to be in demand. "It's great that people are still finding it useful. It fills a niche," he adds.

In his 30 years as a gastroenterologist, Dr. Turnbull says that the major advance in IBS is in diagnosis. "IBS is still not well understood by primary care physicians. It wasn't until 1978 that we had a good way of agreeing on

a diagnosis. That's when a study came out showing that a symptom-based approach versus a test-based approach worked best. Prior to that, patients were put through a barrage of tests. The approach now is to look at the symptoms and identify any red flags indicative of more serious illnesses."

As a GI motility expert, Dr. Turnbull sees patients with a wide variety of gastrointestinal disorders in addition to IBS. His research focuses on lower bowel disorders and in particular, fecal incontinence.

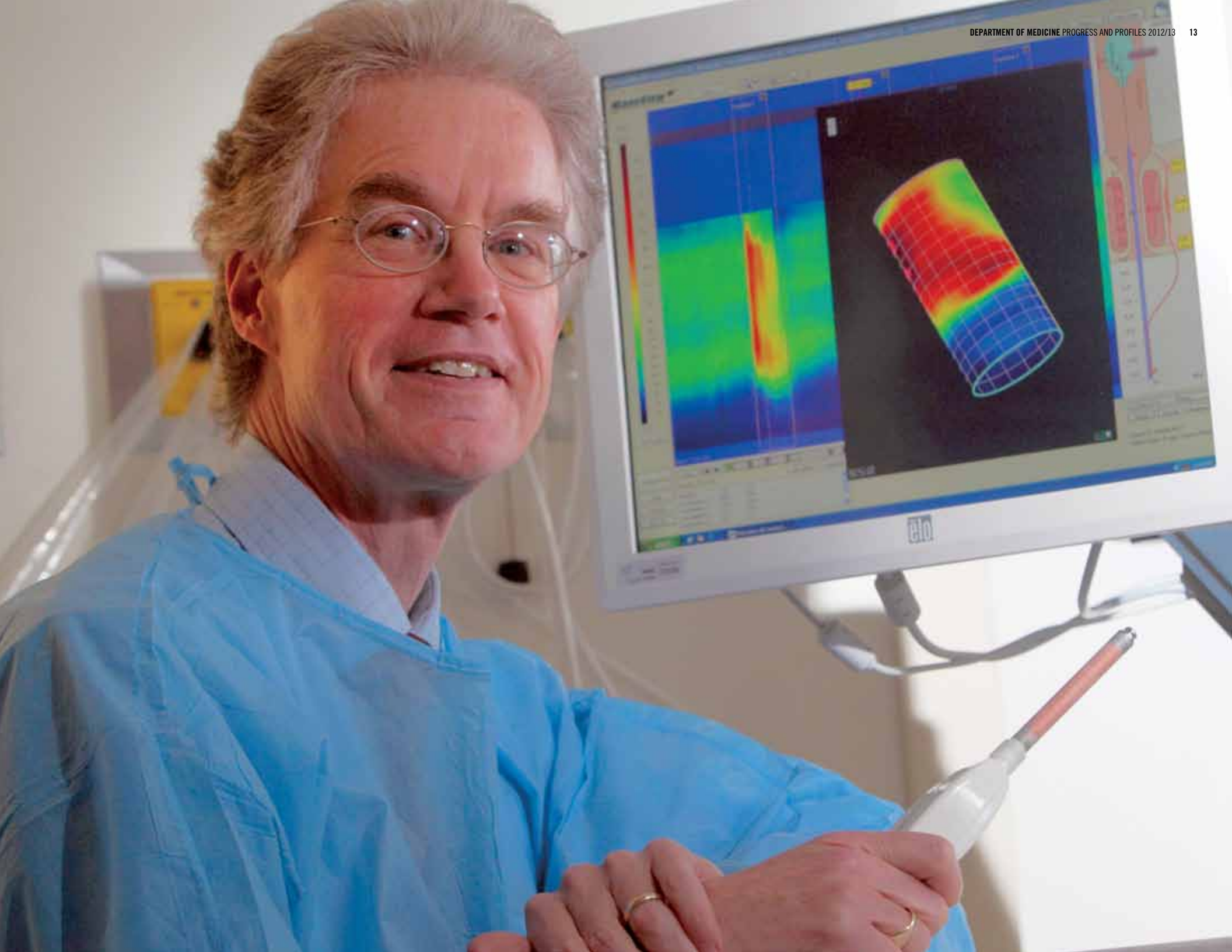
A professor in the Dalhousie Division of Digestive Care & Endoscopy, Dr. Turnbull is actively involved in teaching medical students and residents and was Program Director for the Gastroenterology Fellowship Program from 1998 to 2003. He also was involved in helping to implement the cases in Med 1 from GI for the new undergraduate medical education curriculum in 2011.

When asked about the most satisfying aspects of his work, Dr. Turnbull says three things stand out. "I enjoy the group of physicians I work with. I enjoy my patients because it is so gratifying to help them better understand and manage their disease. I also enjoy helping to train the next generation of doctors."



Dr. Kevork Peltekian, Interim Division Chief

Division Physicians: Michael Curley • Ian Epstein • Dana Farina • Steven Gruchy • Marie Laryea • Desmond Leddin • Donald MacIntosh • Sunil Patel • Kevork Peltekian • Duane Sheppard • Geoffrey Turnbull • Geoffrey Williams • Stacey Williams • Wendy Winsor



Endocrinology & Metabolism



Our Patient Care:

- Division members continue to undertake all aspects of our mandate including clinical activities, on-call consultation service, clinical research, clinical trials, basic research and teaching at all levels, including outreach to general practitioners.
- Dr. Stephanie Kaiser works in the Osteoporosis clinic, and Drs. Tom Ransom and Kaiser run a Lipid Clinic, supported by a dietitian.
- Drs. Ransom and Shirl Gee operate the Diabetes in Pregnancy Clinic at the IWK and Dr. Gee has also started a Preconception Clinic at the IWK.
- Dr. Ali Imran and neurosurgeon Dr. David Clarke continue their work in a multi-disciplinary Neuro-Pituitary Clinic. Dr. Imran continues to operate a Thyroid Biopsy Clinic with support from the Department of Pathology and a Thyroid Oncology Clinic together with radiation oncologist, Dr. M. Rajaraman.
- Drs. Kaiser and Ransom continue to provide an Endocrinology/Surgical Clinic in collaboration with Drs. Lucy Helyer (Surgery) and J. Nasser (ENT).
- Drs. Barna Tugwell and Churn-Ern Yip primarily focus their clinical work in diabetes care, an area of significant demand in Nova Scotia.

Our Research:

- The Endocrine Research group participates in a number of important peer-reviewed funded clinical trials and contract research activity.



Dr. Stephanie Kaiser, Division Chief

Division Physicians: Shirl Gee • Ali Imran • Stephanie Kaiser • Thomas Ransom • Barna Tugwell • Churn-Ern Yip

Dr. Kaiser has been actively involved in osteoporosis research, participating in the Canadian Multicentre Osteoporosis Study (CaMos).

Our Education:

- We have three subspecialty residents in the Program for 2012/13.
- Drs. Ransom, Yip and Tugwell provide MTU/ED/ Senior Internist coverage on behalf of the Division of Endocrinology.
- Division physicians are involved in various public education activities on an on-going basis, including: Dr. Ali Imran participates in an acromegaly support group and has delivered a thyroid cancer public awareness lecture; Dr. Tom Ransom participates in Partners for Healthier Weight; and Drs. Stephanie Kaiser and Barna Tugwell are involved in Osteoporosis Club.

Our Team:

- Welcome aboard to Dr. Churn-Ern Yip, who joined the division as a full time member in August, 2012. Dr. Yip did his Internal Medicine Residency at the University of Alberta and completed his Endocrinology Residency Training at Dalhousie in June 2012.
- In addition to endocrinologists, our clinical team consists of the following valued members: registered nurses Lisa Tramble, Jenneth Cole and Shawna Boudreau; dietitians Bernice Pancura and Lisa Galvez and booking clerk Heather Beaver.

Dr. Barna Tugwell, Endocrinologist

Diabetes is considered a worldwide epidemic. According to the International Diabetes Federation, the number of people living with diabetes is increasing in every country. In Canada, more than 6% of residents live with diabetes, and Nova Scotia has among the highest rates of diabetes of all Canadian regions.

Dr. Barna Tugwell is an endocrinologist and assistant professor of medicine who helps people manage their diabetes. She is the Medical Director of the Capital Health Diabetes Management Centres. She sees patients at the hospital-based endocrinology clinic, and also sees patients with the diabetes care team in the community at the Bayers Road Diabetes Management Centre.

"We take a team-based approach. Ideally we try to empower patients to self-manage their disease, with the close partnership of their primary care physicians. Comprehensive management involves an entire team, with the patients at the centre, and includes family doctors, nurses, dietitians, pharmacists, mental health specialists, eye care specialists, diabetes specialists, other specialists, as well as the patients' own families and friends," says Dr. Tugwell. Patients have access to diabetes management centres across the province through the Diabetes Care Program of Nova Scotia.

"Diabetes is a chronic and severe illness that, when poorly controlled, is a significant risk factor for eye disease, renal disease, neuropathy, cardiovascular disease, and amputations but when it is well managed, people can be in very good health," says Dr. Tugwell.

A number of advances in diabetes care and management have been made in the last several years, which include the availability of new drugs for type 2 diabetes, additional insulin options, and improvements in insulin prescribing through the initiation of a preprinted subcutaneous insulin order set in the hospital. In Nova Scotia, a decision was recently made to fund insulin pumps for children and adolescents with type 1 diabetes.

"We are making slight progress on the management front, but we need to make significant gains in preventing the disease, which continues to rise," says Dr. Tugwell. From 1998/99 to 2008/09, the prevalence of diagnosed diabetes among Canadians increased by an overwhelming 70%.



General Internal Medicine



Our Patient Care:

- Physicians from the Division of General Internal Medicine provide a significant proportion of attending physician coverage for senior internist rotations in the Emergency Department, the Medicine Teaching In-patient Unit and the Medical Surgical Intermediate Care Unit. We also operate numerous ambulatory clinics.

Our Education:

- Five residents completed the General Internal Medicine residency training program in June 2013. There are five residents in training for the upcoming academic year. This increase in resident complement is in keeping with Nova Scotia's new Physician Resources Planning strategy aimed at training more generalists to serve the current and future needs of Nova Scotians.

Our Teaching:

- Undergraduate education continues to be a strength in our division. Drs. Simpson and Rebello participated in the Med I Clinical Skills; Drs. Krueger-Naug, Mann, and Workman were involved in the Consolidated Med II Clinical Skills; and Drs. Culligan and Krueger-Naug were involved in the Med I Case Based Learning Sessions.

Our Team:

- There are 16 General Internists (8.455 FTE). Of these, 5 are full-time and 11 are part-time.

Congratulations to:

- Dr. O. Elizabeth Mann became President, College of Physicians and Surgeons of Nova Scotia on May 31, 2012.
- Drs. Rosario Rebello and Stephen Workman who each received an Excellence in Medical Education Award from the Department of Medicine in June, 2012.
- Dr. Babar Haroon, who received a Professional Kudos Award from the Professionalism Committee, Faculty of Medicine in May, 2013.
- Dr. C. David Simpson, who received the Department of Medicine Achievement Award in June, 2013.

Welcome Aboard to:

- Dr. Anne Marie Krueger-Naug, who joined the division as a 0.85 FTE effective August 1, 2012.
- Dr. Babar Haroon, who joined the division as a 0.5 FTE effective September 1, 2012.

A Fond Farewell to:

- Dr. Brian O'Brien, who retired from the Division on September 30, 2012.

Dr. Rosario Rebello, General Internist

As director of Capital Health's Hypertension clinic, Dr. Rosario Rebello has been helping patients manage their high blood pressure for more than 10 years. "Hypertension is an important risk factor for cardiovascular disease, and the single most important modifiable risk factor for stroke. Of course, knowledge of one's blood pressure is the essential first step," says Dr. Rebello.

He notes that we have come a long way since the early 1990s when only two thirds of patients were aware of what their blood pressure was, and in 2009 that number had increased to over 80 percent. Even more impressive, within the same time frame, was the improvement in the percentage of Canadians whose hypertension was controlled while on treatment, from a dismal 13%, to 65%.

Through Capital Health's Hypertension clinic, Dr. Rebello and his colleagues see patients with "difficult to control" blood pressure, and where appropriate, investigate patients for secondary hypertension. The clinic also provides an education service that emphasizes a healthy lifestyle through diet, exercise and cutting back on salt intake, measures which help to lower blood pressure. He also reminds patients to "read food labels" so that they can appreciate the shocking amounts of sodium that the food industry throws at us.

As with any disease, correct diagnosis is important, and Dr. Rebello emphasizes that using the technique to measure blood pressure as described in the Canadian Hypertension Education Program (CHEP) is most important. For this reason, he eschews casual blood pressure readings taken in pharmacies, which tend to engender anxiety in patients and can lead to a misdiagnosis of hypertension.

The clinic also arranges for 24-hour ambulatory blood pressure monitoring (ABPM). There are many patients whose elevated office blood pressure turns out to be perfectly normal on ABPM. In the Hypertension clinic, the BPTu apparatus is used for measuring blood pressure, and is a reliable method for diagnosing "white coat hypertension". Dr. Rebello encourages patients to measure their blood pressure at home, and makes sure that they leave with a brochure explaining the correct technique for blood pressure measurement.

In all, the Hypertension Clinic sees about 1,400 patients annually.

Dr. Rebello is also a General Internist and Assistant Professor of Medicine at Dalhousie University. He enjoys teaching clinical skills to medical students, and supervises and mentors residents on the medical teaching unit. In doing so, he stresses that taking a careful history and examining your patient, and keeping an open mind, more often than not leads to the correct diagnosis. He believes that Medicine is still an art. And, he also enjoys cooking, and reads food labels!



Dr. David Simpson, Interim Division Chief

Division Physicians: Paul Charlebois • Lori Connors • Benedict Cooley • Brent Culligan • Stephen Duke • Jennifer Hancock • Babar Haroon • Anne Marie Krueger-Naug • Gina Lacuesta • Jorin LindenSmith • Elizabeth Mann • David Manning • Sarah McMullen • Brian O'Brien • Rajender Parkash • Rosario Rebello • David Simpson • Stephen Workman • Khawar-Uz Zaman



Geriatric Medicine



Our Patient Care:

- The outcomes of the first 150 Palliative and Therapeutic Harmonization program (PATH) patients were published in the Journal of the American Geriatrics Society and show that those with more advanced frailty or dementia are less likely to choose aggressive treatments. This reduction is patient and family led and is associated with high satisfaction.
- Renal PATH was developed to address frailty in the nephrology clinic, where nurse practitioner, David Landry, uses the PATH algorithm to review the pros and cons of dialysis when individuals are frail.
- The PATH program was recognized with the 2012 Deloitte/Institute of Public Administration of Canada Gold Award, which acknowledges leadership in health care at a national level.
- The HABAM (Hierarchical Assessment of Balance and Mobility) has finally been implemented on the Geriatric Assessment Unit. This daily assessment, developed by Ken Rockwood and Chris MacKnight, uses mobility as a vital sign to show whether health is improving or deteriorating.
- Outreach clinics continue at Fisherman's Memorial Hospital in Lunenburg and the Valley Regional Hospital in Kentville. Clinics are also held at the Cobequid Community Health Centre clinic in Sackville. The Dartmouth General Hospital consultation service is now well established.

Our Research:

- In collaboration with the Canadian Centre for Vaccinology and Dr. Shelly McNeil (Division of Infectious Diseases), we are investigating frailty with respect to vaccine effectiveness and clinical outcomes of influenza infection in older adults. Our focus on frailty is a unique aspect of this work, and is attracting international interest, for example from the World Health Organization.

Our Education:

- Dr. K. Koller is the new clerkship educational coordinator/director of clerkship for Med III and is working with Dr. C. Clarkson to revise the clerkship curriculum for the new Med III internal medicine based rotation.

Congratulations to:

- Dr. C. MacKnight for receiving a Service Award from the Alzheimer Society of Nova Scotia.
- Dr. K. Rockwood for the:
 - Irma Parhad Award for Excellence in Research;
 - Consortium of Canadian Centres for Clinical Cognitive Research Award;
 - The renewed Kathryn Allen Weldon Chair for Alzheimer Research.
- Olga Theou on receiving a Banting Award, the premier award for post-doctoral research in Canada.

Dr. Melissa Andrew, Geriatrician

Dr. Melissa Andrew is improving our knowledge of frailty and, more specifically, the extent to which social circumstances affect frailty in older adults.

"Existing studies show individual social circumstances, such as living alone, affect one's health, but our understanding of the health impact of accumulation of multiple social problems, which we might think of as social vulnerability, is very limited," says Dr. Andrew.

She and her colleagues in Geriatric Medicine Research at Dalhousie University and Capital Health have published groundbreaking work in social vulnerability and frailty that Dr. Andrew intends to build upon. Their study, *Social Vulnerability, Frailty and Mortality in Elderly People*, found that greater social vulnerability is associated with mortality in older adults, and that social vulnerability increases with age. The team also found that while social vulnerability and frailty are related they are distinct.

"To illustrate that social vulnerability and frailty are distinct, we can consider that some very frail people have strong social supports while some very fit people are socially vulnerable. Perhaps most importantly though, they both contribute to one's health and further study is needed," says Dr. Andrew.

While social vulnerability is of keen interest to Dr. Andrew; she also works with researchers in other areas of study and with organizations to improve understanding of frailty and care of older adults. Her collaborative research efforts include work with the Dalhousie Department of Family Medicine on an examination of models of care in long term care facilities and with Dr. Shelly McNeil, Division of Infectious Diseases, on a Public Health Agency of Canada/Canadian Institutes of Health Research study of influenza in older adults.

Dr. Andrew is also working with the Centre for Aging at Mount Saint Vincent University on a study of staffing models and physical environments in long term care facilities, and on a project funded by Northwood Care studying technological aids for independent living such as monitors that detect falls, remind users to turn off a stove or take their medications on time.

Research has been part of Dr. Andrew's career from the start of her undergraduate studies at Dalhousie. Her education includes degrees in science (biochemistry and philosophy) and medicine, and graduate studies in public health and geriatric medicine. She participated in the Royal College of Canada's Clinical Investigator Program and graduated with a PhD in Interdisciplinary Studies from Dalhousie in 2011.



Dr. Laurie Mallery, Division Chief

Division Physicians: Melissa Andrew • Costa Apostolides • Daniel Carver • Susan Freter • Glen Ginther • Janet Gordon • Katalin Koller • Chris MacKnight • Laurie Mallery • Paige Moorhouse • Kenneth Rockwood



Hematology



Our Patient Care:

- Division members provide secondary, tertiary and quaternary care for patients with benign and malignant hematological disorders. This includes the administration of chemotherapy and stem cell transplantation procedures for patients with leukemia, lymphoma and multiple myeloma, along with diagnostic and therapeutic services for patients with thromboembolic and major bleeding disorders.

Our Research:

- Division physicians continue to maintain positions of prominence within the National Cancer Institute of Canada Clinical Trials Group (NCIC CTG):
 - Dr. Stephen Couban co-chairs the Hematology Site Group at the NCIC CTG;
 - Dr. Darrell White is a member of the NCIC CTG Myeloma Committee;
 - Dr. David Macdonald is a member of the NCIC CTG Lymphoma Committee and the NCIC CTG Audit and Monitoring Committee;
 - Dr. Wanda Hasegawa is a member of the NCIC CTG Audit and Monitoring Committee.
- Division physicians are also leaders in clinical research in thromboembolic and major bleeding disorders.
- The Division employs 15 full-time research staff through grant and contract research support.

Our Education:

- Dr. Jacqueline Costello completed her Hematology Fellowship Training Program with Dalhousie University in May 2013.
- Drs. Ismail Sharif, Natasha Pardy and Elizabeth Zed continue in the Hematology Fellowship Training Program.
- Dr. Chris Gallivan started training in the Hematology Fellowship Training Program in July 2013.

Congratulations to:

- Dr. Sudeep Shivakumar - Dalhousie University Faculty of Medicine Professor of the Year Award – October, 2012, and for receiving Capital Health's Angels in Action Award in September 2012.
- Dr. Stephen Couban, Dr. Sudeep Shivakumar and Ms. Joanna Slusar – Capital Health Quality of Care Bronze Medal Award Winner for their work, *Patient Specific Responses to Requests for Consultation: A Hematology Ambulatory Care Quality Improvement Initiative* – April, 2013

A Warm Welcome Back to:

- Dr. Ormille Hayne who re-joined the Division of Hematology in October, 2012. Dr. Hayne is based in Halifax (0.2 FTE).

Dr. Sue Robinson, Hematologist

Almost all Nova Scotians with von Willebrand disease, hemophilia and other hereditary bleeding disorders are referred to the Provincial Adult Hereditary Bleeding Disorder Clinic run by hematologist Dr. Sue Robinson. "Having a comprehensive care clinic means that all patients in the province have access to the best treatment and management of their disease, and the quality of that treatment and care is consistent," she says.

In addition to treating patients directly, the clinic monitors new treatments and ensures they meet the latest guidelines. "We make sure that all products are being used appropriately and that the patient is getting the right dosage."

As a general hematologist with specialized training in thrombosis and homeostasis, Dr. Robinson's clinical practice includes the broad range of blood-related disorders including patients with both benign and malignant diseases.

Dr. Robinson is actively involved in research, both in national and international clinical trials. Currently she is the local principal investigator for studies in chronic lymphocytic leukemia and bleeding disorders, and recently she carried out her own study on the medication cyklokapron which is used to reduce severe menstrual and other bleeding. "We found that the CPS (Compendium of Pharmaceuticals and Specialties) dosage guidelines for this medication were higher than the most effective dose used in our study and as a result we hope this medication will be used by more women," she says.

Dr. Robinson is enthusiastic about the recent "explosion in new treatments" for blood disorders, citing recombinant proteins used to treat bleeding disorders, new anti-coagulants for treating thrombosis, and monoclonal antibodies and enzyme inhibitors for treating blood cancers. "The products we have now are so much better." She adds that genetic testing is another recent step forward. "We can now follow genetic markers in a hemophiliac family to identify the women who carry the hemophilia gene."

In addition to her clinical and research work, Dr. Robinson is a passionate educator. She has been both a Program Director of the Residency Program and Unit Head of the Undergraduate program for Hematology at Dalhousie for many years. Currently and in the past she has served on the RCPSC Specialty Committee in Hematology. (The sub-committee is responsible for setting exams for residents who complete the two-year Hematology Residency Program.) She has also taken on many electives students, a role of which she is particularly proud. "I hope I've inspired them!" she says.

A strong believer in work-life balance, Dr. Robinson loves to spend time with her family – skiing or just hanging out at the family cottage. She is an avid gardener, runner, and ski instructor and coach. Born and raised in Halifax, she completed her MD and residency training at Dalhousie and recently celebrated 25 years of service at Dalhousie and Capital Health.



Dr. Stephen Couban, Division Chief

Division Physicians: David Anderson • Stephen Couban • Wanda Hasegawa • Ormille Hayne • Mary Margaret Keating • Andrea Kew • David Macdonald • Sue Robinson • Sudeep Shivakumar • Darrell White



Infectious Diseases



Our Patient Care:

- A large part of our ambulatory practice continues to be management of patients on home intravenous therapy for chronic infections. There is no organized outpatient antibiotic therapy program in Nova Scotia, so this work tends to be labor intensive.
- In March 2013, Dr. Johnston joined with a team of surgeons and a wound care nurse specialist to form the Multidisciplinary Leg Ulcer Clinic (MDLUC), based at the Halifax Infirmary's Vascular Clinic.
- Each year ID physicians field hundreds of telephone calls from physicians throughout the Maritimes, giving patient management advice.

Our Research:

- Dr. Rafael Garduño's 10 year term as a Canada Research Chair (Tier II) Scientist came to an end in 2013. His research interests continue to be the molecular pathogenesis of human legionellosis and listeriosis.
- Dr. Shelly McNeil continued as Principal Investigator of the Public Health Agency of Canada/Canadian Institutes of Health Research Influenza Research Network (PCIRN) Serious Outcomes Surveillance (SOS) Network, the largest adult acute care network of its kind in Canada. In 2012, the Network was awarded \$12,000,000 over 3 yrs through a Collaborative Research Agreement with GlaxoSmithKline.



Dr. Lynn Johnston, Division Chief

Division Physicians/Faculty: Ian Davis • Rafael Garduño • David Haase • Lynn Johnston • Shelly McNeil • W.F. Schlech • Nikhil Thomas

- Dr. Nik Thomas' lab was awarded a NSHRF grant to support translational research projects to look at the microbiome that is associated with inflammatory bowel disease (IBD) and/or Crohn's and Colitis in partnership with researchers at the IWK Pediatric Gastroenterology Division.

Congratulations to:

- Dr. Lynn Johnston completed terms as President of the Association of Medical Microbiology and Infectious Disease Canada and Chair of the Royal College Specialty Committee in Infectious Diseases and was elected to a 3-year term as a Board member of Doctors Nova Scotia.
- Dr. Jason LeBlanc became a Fellow of the Canadian College of Microbiologists in May 2012.
- Dr. Shelly McNeil was promoted to Professor on July 1, 2012.
- Dr. Kathy Slayter received the following awards: The National Canadian Society of Hospital Pharmacists (CSHP) Award for Clinical Benefits and Economic Impact of Surgical Pharmacists; The Capital Health Quality Award for Vaccination of Splenectomized Adult Patients; and the Pharmacy Association of Nova Scotia Appreciation of Service Award. She was awarded Distinguished Alumnus of the Year, Dalhousie College of Pharmacy 2013 and highlighted as an Outstanding Researcher of the Year, Canadian Centre for Vaccinology, 2013.
- Dr. Duncan Webster received the Dalhousie Medical Alumni Association Young Alumnus of the Year Award and the Asclepius Torch Award for Excellence in Clinical Teaching-Atlantic Health Sciences Centre (AHSC) in 2012.

Dr. Ian Davis, Infectious Disease Specialist

Since the 2003 outbreak of SARS at Mount Sinai Hospital in Toronto and reinforced by hospital outbreaks of *Clostridium* infection, the problem of hospital-acquired infections has been put under the microscope in hospitals across Canada. Questions such as "What more can we do to prevent the spread of infection? Do we have the right policies in place? Do health care workers know and follow the policies? And when should we alert patients, families and the public to hospital outbreaks?" have been asked and re-asked. Changes have been made at virtually all health centres and Capital Health is no exception.

"Continued diligence is absolutely necessary," says Dr. Ian Davis, Infectious Disease specialist and assistant professor of medicine. Dr. Davis is Capital Health's medical lead for Infection Prevention and Control (IPAC). As part of the IPAC program, he provides input into policies and procedures, management of outbreaks, interpretation of surveillance data, advises colleagues on best practice, and acts as an overall resource for healthcare providers both within Capital Health and its healthcare partners.

"Infection prevention and control touches all aspects of a hospital's operations and permeates much of healthcare. We address everything from pets in hospitals to best

practices for sterilizing the many different types of equipment used all day long, every day in every part of our health care facility. As another illustration of our work, we recently audited the surgical suites at the Halifax Infirmary site of the QEII to help determine how to reduce the risk of infection even further," explains Dr. Davis.

He's quick to point out that Capital Health's rates of infection are well within national standards. Capital Health, like most health centres in Canada, is doing a good job of infection control and prevention. Canada has made it a national priority and embedded infection control and prevention in systems such as accreditation. Healthcare centres have a clear mandate and standards to meet.

All hospitals in Canada have infection control and prevention policies and an oversight committee, but not all have a dedicated physician resource in place with the appropriate training and experience in Infectious Diseases. One of the earliest studies demonstrating the value of infection prevention and control as a patient safety initiative showed that having a physician with expertise in hospital infections was associated with fewer hospital-acquired infections. At Capital Health, Dr. Lynn Johnston, Head, Division of Infectious Diseases, ably acted as medical lead for IPAC before Dr. Davis took on the role in 2013.



Medical Oncology



Our Education:

- Dr. Alwin Jeyakumar has succeeded Dr. Bruce Colwell as Director for the Medical Oncology Training Program.
- The division continues to provide strong commitments to the teaching of undergraduate and postgraduate residents at all levels of training. Individually and as a whole, consistently excellent feedback is received from learners.

Our Team:

- Drs. Davis, MacNeil, Snow and Morzycki co-hosted the fourth, highly successful Atlantic Canada conference on lung cancer. Guest speaker at this event was Dr. T. Jock Murray, Professor Emeritus, Dalhousie University, Halifax, NS.
- Drs. MacNeil and Morzycki hosted the Atlantic Canada Lung Cancer Molecular Testing Forum. Keynote speaker was Dr. Alice Shaw, MD, PhD from Massachusetts General Hospital.
- Dr. Wood co-chaired the 16th Annual Atlantic Canada Oncology Group (ACOG) Symposium in Halifax with guest speakers Dr. Paul Bunn from University of Colorado and Dr. Mark Vincent from University of Western Ontario.
- Dr. Wood co-hosted the 6th Annual Atlantic Canada Uro-oncology Meeting with keynote speakers Dr. Bernard Bochner from Memorial Sloan-Kettering Cancer Center (MSKCC) and Dr. Timothy Wilt from University of Minnesota.

Congratulations to:

- Dr. Nathan Lamond and Dr. Hatim Karachiwala on the successful completion of their Royal College Internal Medicine exam in May 2013.
- Dr. Snow received the Medical Oncology Teacher of the year award for 2012.
- Dr. Snow was promoted to Assistant Professor July 2012.

Welcome Aboard to:

- Dr. Sepideh ArabZadeh will be joining our Division on July 1st, as a Clinical Associate.
- Dr. Param Bains from Memorial University, Newfoundland will be joining our Residency Training Program in July.

A Fond Farewell to:

- Dr. Nabeel Baseer Samad, Clinical Associate, will be leaving the division in May. Dr. Samad has been accepted into the General Internal Medicine Training Program in Saskatoon.
- Dr. Aneitra Head accepted a Clinical Associate position at the Queen Elizabeth Hospital in Prince Edward Island in January 2013.
- Dr. Sarah Kirby retired from the Division of Medical Oncology this summer.

Dr. Wojciech Morzycki, Medical Oncologist

Treatment options for people diagnosed with lung cancer have increased significantly over the last 10 years. So too have patient outcomes. The advances stem mainly from sophisticated genetic testing and identification of gene mutations that help physicians choose which drug therapies are most effective.

Scientists have identified three clinically relevant gene mutations, that is those for which treatment exists. "We now know that when one of three genetic mutations (driving mutations) shows up in a patient's tissue sample, the most effective treatments are oral chemotherapy drugs (targeted therapies). And, in cases where targeted drug therapies are used, they make a tremendous difference. It is now reasonable to expect people who receive targeted drug therapies to live three to five years following treatment as opposed to seven to nine months," says Dr. Wojciech Morzycki, medical oncologist and assistant professor of medicine.

As a result, mutational testing is currently recommended for all patients with a type of lung cancer called adenocarcinoma. It is only in this type of cancer that the three driving mutations have the potential to be present. Adenocarcinoma makes up about 45 per cent of lung cancers. Of people diagnosed with adenocarcinoma, one of the three driving mutations is present in 20 per cent of cases, enabling them to receive targeted drug therapies.

In 2012 Capital Health opened the first and only laboratory for mutational testing in Atlantic Canada. Dr. Morzycki and his colleagues, Dr. Drew Bethune, Head of the Capital Health Cancer Program, and Dr. Zhaolin Xu, Department of Pathology and Laboratory Medicine, championed the availability of mutational testing and led the development of the Atlantic Canada Molecular Oncology Centre.

The Centre provides mutational testing for the four Atlantic provinces, and is the only Canadian centre to offer multiplex mutation screening (the evaluation of multiple mutations simultaneously). The state of the art facility is the result of a unique collaboration among Capital Health, the National Research Council, and pharmaceutical partners, principally sponsored by Pfizer, Boehringer-Ingelheim and Roche.

Patients here are now able to find out if they have a genetic mutation that is receptive to treatment sooner and thus start treatment sooner. Before the opening of the centre, samples were sent to Montreal or to the United States for testing.

By September 2013, the Atlantic Canada Molecular Oncology Centre received 500 samples for mutational testing. The annual volume is expected to be over 800.



Dr. Mark Dorreen, Division Chief

Division Physicians: Bruce Colwell • Mary Davis • Mark Dorreen • Arik Drucker • Bahram Forouzesh • Alwin Jeyakumar • Sarah Kirby • Ronald McCormick • Robyn Macfarlane • Mary MacNeil • Julia Merryweather • Wojciech Morzycki • Rajbir Pahil • Daniel Rayson • Stephanie Snow • Lori Wood • Tallal Younis



Nephrology



Our Patient Care:

- The Renal Program strives for quality, and as such, has many different quality teams that each focus on improving the safety and quality that is delivered. The Renal Program is also committed to improving the quality of renal care and is actively involved in the research community.
- We look towards the future with the creation of the Renal Palliation and Therapeutic Harmonization (PATH) clinic, the promotion of home therapies, and the transitioning of satellite dialysis units to the local health authorities in which they are located.
- The Renal Program received approval to build a new dialysis unit at the Halifax Infirmary site. Work on the initial planning stages has commenced and an architect has been brought in to develop detailed plans.
- A new 10-station satellite hemodialysis unit opened in Colchester East Hants Health Center in December, 2012. This replaced the existing 3-station unit.
- In the fall of 2012, the Department of Health and Wellness announced funding for the design phase of a new 12-station satellite dialysis unit at Valley Regional Hospital that will replace the existing 6-station unit in the Western King's Memorial Health Centre.

Our Research:

- Drs. Soroka, M. West, and Kiberd have ongoing peer-reviewed and industry funded research in the

areas of Fabry disease, transplantation, kidney disease and treatment, and dialysis.

Our Team:

- Dr. Karthik Tennankore is finishing a Home Therapies Fellowship in Toronto, and has also completed the first half of a Masters in Public Health (Clinical Epidemiology) at the Harvard School of Public Health. Dr. Tennankore will join the Division of Nephrology in August 2013.

Congratulations to:

- Dr. Steven Soroka on his appointment to Capital Health Vice President of Medicine effective January 1, 2013.
Dr. Ken West assumed the day-to-day running of the Renal Program.
- Dr. Tammy Keough-Ryan on her promotion to full Professor effective July 1, 2012.
- Dr. Penelope Poyah on her promotion to Assistant Professor effective July 1, 2012.
- The Renal Quality and Patient Safety Team on being awarded the Capital Health Patient Safety Team Award on December 6, 2012.

Welcome Aboard to:

- Dr. Scaria George, who joined the Nephrology team in November 2012 as a hospital-based fellow for a two year term.

A Fond Farewell to:

- Dr. Meteb Al Bugami who completed his year of Transplant training with us.

Dr. Neil Finkle, Nephrologist

While transplantation is considered the gold standard treatment for people with severe chronic kidney disease, there is a shortage of organs available for donation. For most patients, including those awaiting kidney transplants, the more immediate option is dialysis.

Dialysis is a process that filters the blood to get rid of harmful wastes and extra salt and water. Traditionally, it is a time-consuming and often inconvenient process, involving travel to a clinic several times a week. Now, thanks to an innovative program run by nephrologist Dr. Neil Finkle, patients with severe kidney disease have more flexible and convenient dialysis therapy choices.

Dr. Finkle, associate professor of medicine, is Medical Director of the Nova Scotia-Prince Edward Island Peritoneal Dialysis Program at Capital Health. His responsibility includes renal home therapies, an important, cost-effective area for the delivery of dialysis care. "Home treatment fosters autonomy, flexibility and improved quality of life, and travel is minimized over in-centre hemodialysis," says Dr. Finkle.

There are two types of renal home therapies. Peritoneal Dialysis (PD) cleans the blood using a specialty fluid instilled into and drained from the abdomen through a permanently implanted tube. In addition, patients can now opt for Nocturnal Home Hemodialysis, a treatment developed in the last five years. Hemodialysis

(HD) cleans the blood using a machine that has direct access to the blood. In conventional HD, patients are required to undergo treatment several times a week along with travel to the dialysis clinic, but Nocturnal Home Hemodialysis can be done at home, while the patient sleeps.

"Both therapies offer advantages," says Dr. Finkle. "PD preserves residual renal function (the remainder of the patient's own kidney function), which in turn improves clinical outcomes. Nocturnal Home Hemodialysis improves control of blood pressure and allows for relaxing of the usual dietary restrictions."

Dr. Finkle is proud that people who live in Nova Scotia have access to the most effective and innovative renal treatments. "We have one of the largest home dialysis programs in the region. We have very robust dialysis and renal transplantation programs and we do excellent clinical research in these areas," he says.

Beyond his clinical work, Dr. Finkle is actively engaged in medical education. He has served as the Gastrointestinal-Genitourinary-Musculoskeletal Unit Head and Internal Medicine Clerkship Director for the Dalhousie undergraduate medical program. He is also a gifted amateur wine-maker who has won an impressive number of provincial and national awards.



Dr. Kenneth West, Division Chief

Division Physicians: Christine Dipchand • Neil Finkle • David Hirsch • Tammy Keough-Ryan • Bryce Kiberd • Romuald Panek • Penny Poyah • Steven Soroka • Kenneth West • Michael West



Neurology



Our Patient Care:

- The Dalhousie MS Research Unit, led by Dr. Virender Bhan, is now fully integrated at the NS Rehabilitation Centre. Overall, the move has been a success for MS Clinic staff and most importantly, our patients like it.
- An Acute Stroke Protocol was implemented on April 1, 2012, aimed at treating patients sooner by coordinating EHS, Emergency Medicine, Diagnostic Imaging and Neurology. Since then, the average time from arrival in the Emergency Department to the administration of thrombolytic therapy dropped from 93 to 74 minutes.

Our Research:

- The Neurovascular Research Group (Drs. Stephen Phillips, Gordon Gubitz, Gwynedd Pickett, Neurosurgery, and Jai Shankar, Neuroradiology) is participating in investigator-led acute treatment trials of ischemic and hemorrhagic stroke funded by the Canadian Institutes of Health Research and National Institutes of Health.
- Dr. Donald Weaver leads an active program focused on the design and development of new drugs for the treatment of Alzheimer's dementia (AD). Dr. Weaver is both a neurologist and a medicinal chemist, a unique combination of skills ideally suited for the task of drug discovery. Dr. Weaver is the co-discoverer of tramiprosate, the first curative drug for AD to have reached human clinical trials worldwide, being studied in more than 2,000 people in both the USA and Europe.



Dr. Charles Maxner, Division Chief

Division Physicians: Timothy Benstead • Virender Bhan • Sultan Darvesh • Ian Grant • Gordon Gubitz • David King • Sarah Kirby • Richard Leckey • Alexander MacDougall • Charles Maxner • Roger McKelvey • Jeremy Moeller • Stephen Phillips • Bernd Pohlmann-Eden • R. Allan Purdy • Mark Sadler • Kerrie Schoffer • Donald Weaver

Our Education:

- Dr. Bernd Pohlmann-Eden organized the 2nd Halifax International Epilepsy Conference which took place at Oak Island, September 2012. World-class faculty from Europe, USA, Canada and Brazil attended. The journal *EPILEPSIA* published the conference transactions.

Congratulations to:

- Dr. Sultan Darvesh was Appointed Assistant Dean of Research – Clinical Departments, Faculty of Medicine, Dalhousie University. December 2012.
- Dr. Colin Josephson was the recipient of the Canadian Society of Clinical Neurophysiologists national clinical fellowship in epilepsy and electroencephalography and The Canadian League Against Epilepsy Mary Anne Lee Award for best Canadian resident research.
- Dr. Jock Murray was the recipient of an Honorary Doctor of Fine Arts by the Nova Scotia College of Art and Design in May, 2012.
- Dr. Mark Sadler won an award from the International League Against Epilepsy (North American Commission) for design and implementation of the first Halifax-Jeddah, Saudi Arabia temporal lobe epilepsy surgery course.
- Dr. Heather Rigby graduated with a Masters degree in Medical Education Studies in conjunction with her ongoing Neurology Residency Program. She was the recipient of the Samuel R. McLaughlin Fellowship Award which enabled her to pursue further training in movement disorders at the Mayo Clinic in Scottsdale, Arizona.

Dr. Stephen Phillips and Dr. Gordon Gubitz, Neurologists

"Until relatively recently, stroke was known as 'the most neglected disease' because so little could be done for patients," says Dr. Stephen Phillips, a neurologist at Capital Health and Professor of Medicine at Dalhousie University. "With the advent of clot-busting drugs (tissue plasminogen activators) and new surgical and non-surgical procedures, emergency treatment for stroke has progressed dramatically."

These new treatments are reflected in the Canadian Best Practice Recommendations (BPRs) for Stroke Care (www.strokebestpractices.ca), a joint initiative of the Heart and Stroke Foundation of Canada and the Canadian Stroke Network. Both Dr. Phillips and Dr. Gord Gubitz, a stroke neurologist at Capital Health and Assistant Professor of Medicine at Dalhousie, are members of the BPR National Steering Committee. The BPRs are being implemented across Canada, and are endorsed by the World Stroke Organization. "One of the greatest achievements was to transition the BPRs to an easily accessible electronic format, which allows us to keep the information up to date in real time," says Dr. Gubitz.

Together, Drs. Gubitz and Phillips were also instrumental in setting up the Capital District Stroke Program. "The role of the Program is to provide an organizational framework for stroke prevention, treatment, and rehabilitation, mainly through implementing the Canadian BPRs for Stroke Care," explains Dr. Phillips.

Established in 2005, the CDHA Stroke Program is one of a network of seven district stroke programs in the province, overseen by Cardiovascular Health Nova Scotia. "The stroke

programs have improved stroke prevention, treatment and rehabilitation across the province because now everyone has access to similar levels of care, provided closer to home," says Dr. Phillips. Continuing professional education is facilitated through provincial forums and video teleconferencing.

In addition to providing emergency, inpatient and outpatient care, the Capital District Stroke Program acts as a tertiary referral centre for more complicated cases of stroke from across Nova Scotia and the Maritimes. The Program also works closely with the Nova Scotia Rehabilitation Centre. "We are trying to bring together the acute phase and rehabilitation management in a more seamless fashion," says Dr. Phillips. "One of our goals is to one day have all stroke care housed in the same place."

The Capital District Stroke Program has a long history of clinical research. Dr. Gubitz's research focuses on stroke outcomes and he is currently co-Principal Investigator of a study looking at the role of diet and exercise following stroke. Dr. Phillips' work has concerned the evaluation of treatments to help prevent and treat stroke. Stable infrastructure support, including a Stroke Fellowship position, would enhance research capacity in the Program.

"The stroke research community in Canada is rather small. As a result, we tend to be collaborative and share information and resources with colleagues across the country. Ultimately, this drives research and treatments options forward and benefits patient care," says Dr. Gubitz.



Palliative Medicine



Our Patient Care:

- Division members, as part of the Capital Health Integrated Palliative Care Service, assess over 1,000 referrals per year.
- Patients and families are cared for across care settings – at home and in hospitals throughout the District, including a 13 bed inpatient unit at the VG Site, QEII.
- The Nova Scotia Department of Health and Wellness initiated a program for funding essential medication for palliative patients registered with the district service.
- Palliative Medicine physicians provide daily home consult service to patients/families in the home setting.

Our Education:

- Dr. Horton created and implemented a palliative medicine case for the undergraduate medicine case-based learning Integration Unit.
- The Division continues a strong commitment to the medical teaching of undergraduates and postgraduates and the continued medical education of allied health professionals in a variety of settings. From July 1, 2012 - June 30, 2013 a total of 49 learners rotated through the Palliative Medicine service.
- Jointly accredited by the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada and led by Residency Program Director, Dr. David Dupere,

the Dalhousie Faculty of Medicine postgraduate Year of Added Competence in Palliative Medicine received full approval from the survey team during the accreditation process in 2012.

- Dr. Keith Short completed postgraduate training in Palliative Medicine in June 2012. Dr. Danielle Kain and Dr. Erin Gorman-Corsten were enrolled as postgraduate trainees in Year of Added Competence in Palliative Medicine.

Our Research:

- Dr. Paul McIntyre was the lead author on a proposal for an Endowed Research Chair in Palliative Care; The QEII Foundation Board has approved this as a fundraising priority.

Our Team:

- Dr. Jeff Dempster has assumed a lead role on quality initiatives for the Division and also sits on the residency program committee.
- Dr. Robert Horton, is leading a major initiative in developing a public-private partnership for the creation of an inpatient Hospice and Center of Excellence in Capital Health.
- Dr. Kenneth Johnson is a Co-Chair of Capital Health's Research Ethics Board.
- Dr. Anne Marie Krueger-Naug completed Year of Added Competence in Palliative Medicine in 2012; cross appointed from the Division of General Internal Medicine
- Noma White: Team Lead
- Jennifer Clarke: Administrative Support

A Fond Farewell to:

- Dr. Liana Aires: effective March 31, 2013

Dr. Stephanie Connidis, Palliative Medicine Fellow

Capital Health is the largest health authority in Canada without a residential hospice option for people who need palliative care and cannot remain at home. Dr. Stephanie Connidis is working to help change that.

Dr. Connidis is an experienced family physician with certification in Health Care of the Elderly and a recent graduate of the Executive Training for Research Application Program. She has practiced in the community and hospital settings and was the Service Chief on the Community Health Unit at Capital Health when she decided to pursue a Palliative Care Fellowship beginning July 2013. To be better able to provide care that relieves patients' suffering – the crux of palliative care – led her to pursue additional training in Palliative Care.

As co-chair of the Hospice Society of Greater Halifax, Dr. Connidis, together with fellow volunteers and many colleagues, helped produce a proposal for a Residential Hospice Centre of Excellence in Halifax, which has received the support of many community groups and the Rotary Club of Halifax, which has committed to fundraise for the first of three 10-bed residential hospices proposed. Earlier this year, Capital Health committed to funding 50% of the annual operational costs.

"We all recognize and are made acutely aware on a regular basis that a gap in palliative care services exists. Overwhelmingly, people want to stay in their homes for as long as possible, but when staying at home is no longer an option, there is only one remaining, which is hospital-based care" says Dr. Connidis. "The time is right to make big changes to the delivery of palliative care. Many great resources are available in the community and at Capital Health, but we're missing a critical element and we all know it."

Based on the recent developments, Dr. Connidis is hopeful the first residential hospice will open as early as 2016. For her part, she will spend six weeks at hospices in British Columbia as part of an added year of competence in palliative medicine. There, she will study best practices in hospice/palliative care.

But Dr. Connidis is also looking at the system as a whole; "Working together to move the provincial palliative care strategy forward and ensuring the first residential hospice is an academic centre of excellence affiliated with Dalhousie University is essential if we want to provide the highest quality of end of life care to all Nova Scotians."



Dr. Paul McIntyre, Division Chief

Division Physicians: Liana Aires • Jeffrey Dempster • David Dupere • Robert Horton • Kenneth Johnson • Anne Marie Krueger-Naug • Paul McIntyre



Physical Medicine & Rehabilitation



Our Patient Care:

- We continue to provide inpatient, outpatient and outreach services to the province of Nova Scotia, extending our expertise to PEI, NB and NL as required. We provide service to patients with stroke, traumatic brain injury, neurodegenerative disorders, neuromuscular disorders, multiple sclerosis, cerebral palsy, traumatic and non-traumatic spinal cord injury, arthritis, poly-trauma, de-conditioning, chronic pain and amputation.
- Our 60 bed inpatient rehabilitation centre received permanent funding from Capital Health to open 6 additional beds due to patient demand for our services and patient flow needs from the acute sites. We provided more than 500 inpatient consults to the acute sites at Capital Health and transferred in 508 patients from Capital Health (approx. 50% of total admissions), other regional hospitals and the community. We provided 21,765 inpatient care days to our patients.
- We provide interdisciplinary, combined clinics with neurology in management of amyotrophic lateral sclerosis (ALS) and spina bifida (with urology and neurosurgery). This year pediatric transition clinics were established with the IWK. We continue to partner with neurology in the management of people with multiple sclerosis and with digestive care & endoscopy in the management of people with neurogenic bowel. We have started an interdisciplinary orthotic (bracing) clinic to address unmet needs for patients with complex

bracing requirements in the community.

We provided 76 telehealth visits to our patients who cannot travel to Halifax for assessment and follow up care. We operate a clinic at the Cobequid Community Health Centre and we recently piloted nursing home and home visits for our most mobility-challenged patients.

Our Research:

- Twenty-two students and residents were mentored through our division for a variety of research projects.

Our Education:

- Two of our trainees successfully completed their physiatry residency training and Royal College exams this year, Dr. Rebecca Charbonneau has accepted an appointment with the University of Calgary and Dr. Sussan Askari has accepted a position at Queens University in Kingston, Ont.

Our Team:

- In the rehabilitation program, our team of 6.13 FTE physiatrists collaborate with two hospitalists and a clinical associate, who work on the inpatient units; a nurse practitioner affiliated with our acquired brain injury program (stroke and brain injury); and two rehabilitation assessors who work on the consult services for rehabilitation. We work daily with allied health professionals and nurses in the rehabilitation programs in order to provide state of the art care for our patients.

Dr. Amra Saric, Physiatrist

While Botulium toxin (e.g. Botox®) injections are well known for their use in fighting facial wrinkles, neurotoxins like Botulium toxin (e.g. Botox®) also have an important medical use in treating various neurological conditions. Dr. Amra Saric, and three other Physical Medicine and Rehabilitation Specialists employ a treatment called chemodenervation. The neurotoxin is injected into the muscles for the treatment of focal spasticity by temporarily weakening the overactive muscles that are causing the muscle contraction in the limbs. This type of treatment can be used for patients who have suffered a stroke, traumatic brain injury, spinal cord injury or who have multiple sclerosis or cerebral palsy to prevent a condition known as spasticity.

Spasticity can affect a large number of areas that have impacts on the quality of life, Dr. Saric explains. Spasticity may reduce patients' ability to care for themselves or to perform basic hygiene functions. It can decrease mobility and cause pain, contracture, and pressure sores. These issues can, in turn, lead to changes in affect, mood and self-esteem.

"Possible treatment goals include improved mobility, increased range of motion, positioning, orthotic fitting, increased ease of hygiene, decreased pain, and improved gait" says Dr. Saric.

Currently, Dr. Saric, Dr. Short and Dr. Mountain are part of two international, multi-centre interventional studies to evaluate the safety and efficacy of Botulium toxin

(e.g. Botox®) in treating adult post-stroke lower limb spasticity. "We're monitoring and evaluating its effectiveness in spasticity management," she says.

In treating spasticity, Dr. Saric believes that a coordinated effort of physiotherapists, occupational therapists, orthotists, and other health care professionals is critical. "An interdisciplinary approach is the most effective way and coordinated interdisciplinary spasticity services are becoming the standard of care across Canada."

Dr. Saric is working to develop an interdisciplinary spasticity management clinic, which would provide clinical services, training and education as well as engage in research in spasticity. She explains that this approach would increase the number of patients treated with spasticity and capture the patient population not treated at the present time. It would also reduce wait times and the costs to the patient, family and health care system. "While other clinics exist in Canada, we have an opportunity to become a leader and a centre of excellence here in Atlantic Canada," Dr. Saric says.

When not wearing her clinical or research hats, Dr. Saric is Residency Program Director for Postgraduate Residency Training in Physical Medicine and Rehabilitation. She is also an avid gardener and enjoys travel with her family.



Dr. Christine Short, Division Chief

Division Physicians: Edwin Hanada • Brenda Joyce • Lee Kirby • George Majaess • Sonja McVeigh • Anita Mountain • Amra Saric • Christine Short



Respirology



Our Patient Care:

- We continue to work on our waiting lists: wait times for patients with sleep disordered breathing improved with the addition of a part time sleep specialist. We also operate an effective “rapid” Respirology Clinic for urgent consults.
- Under the leadership of Dr. Graeme Rocker, the INSPIRED COPD Outreach Program continues to garner support and accolades. INSPIRED consistently achieves a 75% reduction in ED visits, reduced admissions and shorter lengths of stay for patients enrolled in that program compared with their previous experiences.
- The Cystic Fibrosis Clinic continues to follow more patients each year. We welcome Dr. Meredith Chiasson as a new division member with fellowship training in Cystic Fibrosis. The Cystic Fibrosis Program was evaluated by Cystic Fibrosis Canada in January 2013 to positive reviews.

Our Research:

- Grant funded research studies, predominately focusing on COPD and Asthma, include: epidemiological studies to assess burden of COPD and Asthma in Canada (Dr. P. Hernandez, Site PI); studies of small airway function in asthma and in obesity using a novel forced oscillation device (Drs. P. Hernandez and C. McParland in collaboration with Dr. G. Maksym, Biomedical Engineering); and studies of determinants of daily physical activity and function in COPD



Dr. Graeme Rocker, Division Chief

Division Physicians: D.M. Bowie • Meredith Chiasson • Paul Hernandez • Colm McParland • Roger Michael • Debra Morrison • Nancy Morrison • Gosia Phillips • Scott Rappard • Graeme Rocker

(Dr. P. Hernandez in collaboration with Drs. Gail Dechman and Chris Blanchard).

- A number of clinical trials for new medications for Cystic Fibrosis were undertaken (Dr. Roger Michael and Dr. Nancy Morrison, Site PI's). These trials include medications to correct the underlying defect causing Cystic Fibrosis.

Our Education/Our Teaching:

- Dr. Debra Morrison continues as the Respirology Component Director in the Metabolism II Course and as well has assumed the role as Unit Head.
- Dr. Nancy Morrison revised the Med II Respirology Clinical Skills course this year and continues as Director of Undergraduate Education for the Department of Medicine.

Congratulations to:

- Dr. Nancy Morrison for receiving the Department of Medicine Achievement Award in June 2012.
- Dr. Meredith Chiasson for receiving the Department of Medicine Award of Merit for Grand Rounds 2012/13.
- Congratulations to the INSPIRED Program (Dr. Rocker) which was commended at Province House in April 2012. The program was also awarded the Silver Prize in Capital Health's Quality Competition in June.
- Dr. Dennis Bowie who has decreased from 1.0 FTE to 0.2 FTE and is enjoying semi-retirement.

Welcome Aboard to:

- Dr. Meredith Chiasson who joined the division as a full time member of the division in July 2012.

Dr. Roger Michael, Respirologist

In his nearly 40 years as a practicing respirologist, Dr. Roger Michael has witnessed some major advances in treatments for patients with chronic respiratory diseases, including patients with cystic fibrosis (CF). “The use of aggressive antibiotics, physiotherapy treatments and good support for GI deficiencies have combined to help people live much longer. In 1983 the average life expectancy of CF patients was 22 years of age and today it's 49 years of age,” he says.

Dr. Michael founded the Adult Cystic Fibrosis Clinic at Capital Health in 1983 to provide a continuum of care for young patients. He served as its Medical Director until July 2013 and remains a staff physician at the clinic.

“When we first started the clinic, most of the patients were resigned to trying to get through their early 20s. As time went on and the life expectancy rate improved, we encouraged patients to think longer term. Today we see CF patients going to community college, getting their university degrees, getting jobs and getting married.” He adds that thanks to in vitro fertilization, it is now also possible for males with CF (who are generally sterile because thick mucous blocks their spermatic cord) to conceive children – another recent advancement that is making it possible for people with CF to lead longer, healthier and more normal lives.

As a clinical investigator in many research studies and clinical trials, Dr. Michael was part of the Halifax team involved in testing a breakthrough CF treatment that proved to be

a cure for CF patients with a genetic abnormality called the G551D mutation. “They represent only 5-10% of patients, and new research is looking at other abnormalities,” he says, adding that “CF is a highly complex disorder and we aren't going to be able to correct everything right away. But we're getting there and I'm confident there will be a cure for the majority of patients.”

As a long-time educator who has taught medical students, interns and residents, Dr. Michael enjoys sharing his passion for a complex field which spans chest diseases, critical care, immunology, allergies, and physiology. As a physician also renowned for his compassionate bedside manner, Dr. Michael continues to teach bedside assessments for first and second year medical students. “Communications with patients is the most satisfying and most important part of my work.”

Looking back on his career, Dr. Michael is quick to point out one outstanding highlight from 1989 that still gives him goose bumps: the discovery of the CF gene. He attended the American CF conference that year when the scientists who discovered the gene were honored. “It was the highlight of my career,” he says, adding that the gene discovery was a turning point in CF research. “From then on, people became hopeful, and interest in CF blossomed.”



Rheumatology



Our Patient Care:

- There were 9,765 ambulatory care visits from April 1, 2012 – March 30, 2013, an increase of 4.9% compared to the year prior, representing a consistent upward trend over the past decade.
- Our referrals remain restricted to those patients with inflammatory arthritis, systemic vasculitis or those for whom there is diagnostic uncertainty due to physician manpower restriction.

Our Research:

- Dr. Hanly remains the only physician member in the division with protected research time. He continues to be lead investigator in a CIHR funded international study in CNS Lupus.
- Drs. Sutton, Bakowsky and Taylor participate in national research groups in scleroderma, vasculitis and spondyloarthropathies respectively.

Our Teaching:

- Drs. Taylor and Wong are case-based tutors and Dr. Taylor is the Unit Head for the MSK/ Dermatology block, a position she will be stepping down from July 1, 2013, when she will be assuming the role as Rheumatology Residency Training Program Director.
- All division physicians contribute to the MSK clinical skills block, undergraduate and postgraduate OSCEs and academic half days for

clinical clerks, family medicine residents and for internal medicine residents.

Our Team:

- We have four university and five community based rheumatologists and one family practitioner who has advanced training in Rheumatology. One ward aide, two licensed practical nurses and two 0.8 RNs work cooperatively with the rheumatologists in the clinics. Multidisciplinary clinics run on Tuesday and Friday mornings with nursing, physiotherapy and the GP specialist supervised by Dr. Sutton.
- A medication resource specialist has been hired to assist with patients obtaining pharmaceutical coverage for Rituximab. This is part of a larger project involving private infusion clinics, co-pay assistance and compassionate coverage from industry.

Congratulations to:

- Drs. Markus Klaus and Alexa Smith for completing their rheumatology residency training.
- Dr. Elana Murphy on successful completion of the internal medicine exams.

Welcome Aboard to:

- Dr. Klaus as he assumes a community-based practice in Tantallon with a minor appointment to the Division.
- Dr. Smith, who has accepted a one year term appointment (0.5 FTE) with the Division. She will also do locums in the community.

Dr. Markus Klaus, Rheumatologist

More than 17,000 kilometers separate Cape Town, South Africa and Fort Saint John, Canada. The two are countries, oceans and cultures apart and that, for Dr. Markus Klaus, was part of the reason to venture from Cape Town where he grew up and did much of his medical training to remote Fort Saint John, British Columbia to start practicing medicine in Canada.

Since that time, Dr. Klaus returned to South Africa for a residency in internal medicine and then came back to Canada, to Dalhousie, to do a residency in rheumatology, for which he completed his exams in October 2013. Dr. Klaus is the newest member of the Division of Rheumatology and the first rheumatologist to set up a community practice in Tantallon.

"I feel like I've been doing some type of medical training for more than 30 years, since age eight actually, when I learned first aid as a Cub Scout and fell in love with medicine. I hail from a family of artists so by virtue of pursuing a career in medicine, I'm the odd one out," says Dr. Klaus.

His journey wasn't straight forward, but he says he, his wife and daughters are where they want to be. "We love Nova Scotia because of its beautiful ocean-side landscape and we've met wonderful people," says Dr. Klaus. He also notes that rheumatologists, especially community based rheumatologists, are needed here. By setting up his practice in Nova Scotia, he's hoping to ease the demand for services and help reduce wait times for rheumatology.

As a member of the Division of Rheumatology, Dr. Klaus works on-site and on-call at Capital Health, and teaches medical students and residents as a lecturer at Dalhousie. He also works alternate weekends at the Cumberland Regional Healthcare Centre in Amherst.

"I have benefitted greatly from excellent mentors in South Africa and in Canada. Being part of the Division of Rheumatology and the Department of Medicine gives me the opportunity to teach, to develop as a mentor and emulate those who have meant so much to me. I also value being part of a larger group of colleagues," says Dr. Klaus.



Dr. Evelyn Sutton, Division Chief

Division Physicians: Volodko Bakowsky • John Hanly • Markus Klaus • Juris Lazovskis • Souad Shatshat • Emily Shaw • Alexa Smith • Evelyn Sutton • Trudy Taylor • Jill Wong



Saint John Campus



Highlights:

- It is with tremendous gratitude and well wishes that we see Dr. Peter West and his family move to “greener pastures” in Bridgewater, Nova Scotia. Dr. West has been a principal figure in the development of generalism as both a clinical practice and teaching focus in the Department of Medicine in Saint John. Having been mentored by Dr. Mahesh Raju, Dr. West followed in his footsteps and went on to become a specialist in ICU and General Internal Medicine. Dr. West constantly sought and found “zebras” and was known amongst his colleagues, the physician community and the hospital community as one of our most compassionate, knowledgeable and skillful physicians. Peter’s zest for a greener world and outdoor activities is notorious in our department, as we passed him biking to work on the coldest days of the year! As Peter ripens, he and his family go greener with the acquisition of a functional farm in Bridgewater, where he will complement a group of internists/educators in that community. We are hopeful that Peter and his family will continue to avail themselves of the ties that they have with both Halifax and Saint John, as his “wellies” will be hard to fill at the Saint John Regional Hospital.

- Dr. Samantha Gray joined the Department of Oncology at the Saint John Regional Hospital in October 2012, and became cross appointed with the Department of Medicine in January, 2013. She completed her Internal Medicine and Medical Oncology training at Dalhousie University in Halifax. She is originally from the Saint John area, and was excited to move back to New Brunswick to start her career. Dr. Gray has been in practice for just over a year, and has an interest in GI and GU oncology. Dr. Gray has also become involved in medical education and various teaching activities at Dalhousie Medicine New Brunswick. She recently joined the DOM Strategic Plan: Education Working Group. She has plans to complete a M.Ed. in Adult Education for Health Professions, but first will take some time off for upcoming baby #2, expected to arrive at Christmas.
- Dr. Tania Chandler became an associate staff member in the Department of Internal Medicine – Division of Neurology in August 2013. She also has a teaching appointment with Dalhousie University and is involved in medical education. Dr. Chandler attended medical school at Dalhousie University in Halifax and completed Neurology residency training at Memorial University in St. John’s, Newfoundland. She is originally from Nova Scotia and is very excited to be back in the Maritimes. She has a General Neurology practice and does EMG.

Dr. Duncan Webster, Infectious Disease Specialist

Dr. Duncan Webster is proving that old is new again when it comes to fighting tuberculosis (TB). The infectious disease consultant at the Saint John Regional Hospital and medical director of the hospital’s level 3 laboratory is actively involved in research relating to TB and novel anti-TB treatments. Working with scientists at the University of New Brunswick, Dr. Webster is looking into the benefits of traditional medicinal plants used by First Nations, including cow parsnip, which Aboriginal people concocted into a tea to treat TB and other respiratory conditions.

“When it comes to medicine, traditional cultures usually had it right. Cow parsnip and other plants used to treat conditions like TB were effective. We’re trying to figure out why and how they work,” says Dr. Webster.

While TB rates are low in many parts of the developed world, it still affects one-third of the world’s population and has been declared a “global emergency” by the World Health Organization. “Often, the incidence of TB coincides with the incidence of HIV which suppresses the immune system’s ability to fight off TB. The global strategy for combatting TB includes development of new drug treatments,” he explains.

Dr. Webster and his colleagues have isolated molecules in the cow parsnip extract that make

it active against TB. “Next we need to look within the cell to see exactly how it’s doing what it’s doing, screen for toxicity to make sure it’s safe, and set up disease models.”

In 2006 Dr. Webster received the Association of Medical Microbiology and Infectious Diseases Canada Dr. Juan A. Embil Award for Excellence in Infectious Diseases Research. In addition to his research and consulting work at the Saint John Regional Hospital, Dr. Webster is medical director of one of the country’s only dedicated ambulatory MRSA clinics (which received a Leading Practice Award through Accreditation Canada in 2010). He worked to establish Saint John’s Uptown Clinic (which received the 2010 Catholic Health Association of New Brunswick Performance Citation Award), serving a marginalized population with addiction-related medical illnesses. He is also actively involved in teaching at Dalhousie Medical School, providing microbiology lectures and assisting with clinical teaching skills at Dalhousie Medicine New Brunswick.

“I love the variety of teaching, research and clinical work. It’s also variety that I find so interesting about infectious diseases. There are so many facets to the field, and unlike many diseases, you actually get to cure many people. I find that really satisfying,” says Dr. Webster.



Dr. Paul Sohi, Clinical Head Department of Medicine, Saint John Regional Hospital

Division Physicians: Oriano Andreani • Colin Barry • Kathy Baxter • Ricardo Bessoudo • David Bewick • Graham Bishop • Margot Burnell • Tania Chandler • Alan Cockram • Terrance Comeau • Gary Costain • Sean Dolan • John Dornan • Geoffrey Douglas • Peter Fong • Patricia Forgeron • Cory Gillis • Nessa Gogan • Eric Grant • Samantha Gray • Robert Hayes • Cynthia Hobbs • Jaroslav Hubacek • Stephen Hull • Pamela Jarrett • Douglas Keeling • Renju Kuriakose • Sohrab Lutchmedial • Elizabeth MacDonald • Martin MacKinnon • Gregg MacLean • Donna MacNeil • David Marr • Lisa McKnight • Vernon Paddock • Christine Pippy • Mahesh Raju • Phillip Reid • Anthony Reiman • Elizabeth Rhynold • Ewa Sadowska • Joanne Salmon • Greg Searles • Paul Sohi • Robert Stevenson • Robert Teskey • Satish Toal • Duncan Webster • Peter West • Chadwick Williams



2012/13 Stats

In 2012/13 there are **142.9** FTE physicians in Department of Medicine's **15** divisions, including 10.5 nephrologists and medical oncologists in Sydney and Kentville. All are faculty members with Dalhousie University's Faculty of Medicine.

Clinical Care

- DoM physicians provided in-patient care for a total of 110,867 bed days at the QEII.
- 15,985 in-patient consultations were provided.
- 149,111 ambulatory patient visits to clinics, including 36,843 new patient visits.
- 20,344 registered chart checks and phone consultations provided by DoM physicians.
- Geriatricians and Palliative Medicine physicians provided and/or supervised 2,081 home visits.
- 2,720 cardiac catheterizations performed and an additional 1,812 PCIs performed by interventional cardiologists.
- 85,276 ECGs performed.
- 7,234 Stress Tests and 3,729 holter monitors and loops.
- 548 pacemakers, AICDs and BIVs inserted.
- 437 cardiac electrophysiology studies and ablations performed.
- 11,652 cardiac echos performed.
- 9,139 patients were treated in Dermatology Phototherapy Unit.
- 6,974 endoscopies performed by Gastroenterologists.
- 11,629 hematology procedures performed in Medical Day Unit.
- 98 bone marrow transplants performed.
- 38,979 hemodialysis procedures performed at Capital Health only.
- 804 acute hemodialysis procedures performed on in-patients.
- 12,882 chemotherapy treatments provided at Capital Health and Cape Breton.
- 2,820 EMGs performed.
- 1,485 EEGs performed.
- 2,517 telemedicine consultations by dermatologists and physiatrists.
- Satellite clinics are provided by Geriatric Medicine, Hematology, Medical Oncology & Nephrology.

Education & Research

- DoM has a total of 110 residents and fellows – 50 Core Internal Medicine trainees including 7 at the Saint John NB campus; 60 subspecialty residents and fellows.
- DoM faculty provided 522 hours teaching Clinical Skills & 212 hours teaching Rotating Electives for Med 1 students.
- DoM faculty provided 550 tutor hours for Med 1 & 2 Case Base Learning.
- Med 2 Teaching for Cardiology, Musculoskeletal, Neuro, Respiriology and Consolidated Clinical Skills totaled 1,167 hours provided by DoM faculty.
- DoM faculty provided 339 hours acting as examiners for Med 2 & 3 student's clinical exams (OSCE's).
- A total of 635 undergraduate electives were provided by DoM faculty in a variety of divisions in 2012/13.
- A total of 752 four-week clinical rotations were supervised by DoM faculty for postgraduate trainees (residents) in 2011/12, including 250 rotations for non-medicine residents.
- A total of 82 students were mentored for various research projects in 2012/13.
- DoM faculty received a total of \$19,388,418 in research funding in 2012/13, including Industry/Contract funding of \$13,223,294 and grants totaling \$6,165,124.
- DoM faculty presented 189 abstracts or research presentations at national and international medical conferences and presented 60 papers at local medical conferences.
- DoM hosted 87 visiting professors from other universities who spoke at departmental and divisional rounds.
- 14 Peer reviewed and 5 non peer reviewed book chapters and review articles were published by DoM faculty in 2012/13.
- 4 non peer reviewed and 4 peer reviewed letters to the editor or Editorials were published.
- 173 peer reviewed papers were published and 6 non-peer reviewed papers were published.
- 2 patent applications were filed.
- Department of Medicine physicians presented 427 continuing medical education lectures, seminars or events outside the department.



- For more detailed information regarding the academic and administrative deliverables provided by Department of Medicine, please see the **Faculty, Academic and Administrative Monograph 2012/13** on our website:
<http://dom.medicine.dal.ca/publications/annualreports.htm>
- For detailed information related to specific clinical activities provided by Department of Medicine Divisions, please see the **Compendium of Divisional Activity 2012/13** on our website:
<http://dom.medicine.dal.ca/publications/annualreports.htm>
- For up-to-date guidelines and processes for referring patients to Department of Medicine specialists in all Divisions, please see the Department of Medicine Triage Process and Wait Time Standards for Ambulatory Care on our website:
http://dom.medicine.dal.ca/waittimes/AccessToSpecialists_WaitTimes.pdf
or <http://waittimes.novascotia.ca/>
- To review current wait times for ambulatory care (updated quarterly on Jan 31, Apr 30, July 31 and Oct 31), please see our website:
<http://dom.medicine.dal.ca/waittimes/currentwaittimes.htm>
or <http://waittimes.novascotia.ca/>



Department of Medicine

Capital Health & Dalhousie University
QEII Health Sciences Centre, VG Site
Suite 442 Bethune Building
1276 South Park Street
PO Box 9000
Halifax, Nova Scotia B3K 6A3
Canada

Phone: 902.473.2379
Fax: 902.473.4067
Email: David.Anderson@cdha.nshealth.ca
Website: <http://dom.medicine.dal.ca>



Capital Health



DALHOUSIE
UNIVERSITY
Inspiring Minds