



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.

2013/14 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. Simon Jackson, Linda Hutchins, RN, BScN, MHS, Health Services Manager of the 8.2 Medical Teaching Unit at the Halifax Infirmary and Dr. Cindy Hickey, PGY3 Internal Medicine Resident.

*The Medicine Teaching Unit is the primary teaching unit for acute medical in-patient care within the Department of Medicine at Capital Health, and is also a model of interdisciplinary patient care, thanks to the efforts of Ms. Hutchins and her superb team. Dr. Jackson, a cardiologist, has been the Medical Director of the MTU since 2009. He was recognized with the **Department of Medicine's Achievement Award for 2014**. This award recognizes sustained, exceptional commitment to the mission of the Department. During his tenure as MTU Medical Director, Dr. Jackson has worked hard to implement a strategic re-structuring of the MTU, which included placing a medicine team in the Emergency Department on a 24/7 basis to assist with patient care and admissions to various medicine units. This effort has not only significantly improved patient care and through-put in the Emergency Department, but also created a tremendous learning opportunity for residents and medical students. Learner experiences on this rotation result in universally excellent evaluations.*

Message from the Department Head

LEADERSHIP is a highly valued commodity in physicians. As individuals we have the ability to provide exemplary care, teach and do quality research. However, as leaders we have the opportunity to influence systems at a larger level and to implement important changes in our clinical and academic environments. We are fortunate that at Capital Health and Dalhousie University physician leadership is actively sought to co-lead many important clinical and academic programs. I am proud to say that many Department members are taking advantage of these opportunities.

Department members have taken on leadership roles at the local and national levels that will help shape health care and academic medicine now and well into the future. As examples, within this annual report, you can learn more about Dr. Darrell White who will, amongst other activities, direct Dalhousie Medical School's distributed learning activities as its Senior Associate Dean and Dr. Geoff Williams' work to help Dalhousie offer the best residency training programs as its Assistant Dean of Postgraduate Medical Education.

Department members also tell their stories of leading initiatives to ensure the right care is delivered at the right time, as Dr. Nancy Morrison has done through her efforts to establish an intermediate care unit at the QEII Health Sciences Centre; to encourage residents' interests in research, as Dr. David Macdonald is doing with Research Olympics as chair of the department's resident research committee; and to enhance resident training and patient safety through simulation based education, as Dr. Babar Haroon has done with the introduction of the Internal Medicine Resident Boot Camp. These are just a few examples of the leadership featured in this report.

As individuals, we are often reaching beyond what is seen as the traditional role of physicians to direct, guide and influence patient care, education, research and the health system within which we work. Our department's leadership efforts have been recently recognized by the Auditor General of Nova Scotia and Accreditation Canada, with particular notice of our leadership in patient care.

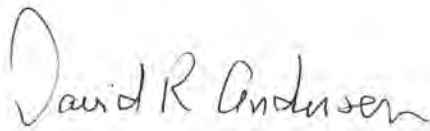
The Department of Medicine and each of its divisions appreciates and cultivates the growing interest among clinicians to be leaders within and beyond their fields; a mentorship program and succession planning are underway to identify future leaders within the department. The health system will be theirs to manage in the near future.

As we continue to advance the Department of Medicine strategic plan, and work toward leadership in academic medicine, providing innovative, collaborative and appropriate care that is sustainable, we will do so according to our renewed mandate, and be guided by leadership, innovation, accountability, effectiveness, scholarship and accessibility.

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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



Leaders in Clinical Care



“It made the journey much easier. The clinic provided the family with a complete understanding of what was happening and what to expect in the future and they liaised with other professionals involved in Dad’s care. This gave everyone the information we needed to make decisions.”

Terry Rudderham, daughter of Ross Rudderham

PATH Model of Care

The Rudderham family knows what it means to lose a loved one to Alzheimer’s disease. Fortunately when their father Ross was diagnosed, he was referred to the PATH (Palliative and Therapeutic Harmonization) clinic, which helps frail older adults and their families make informed decisions about care.

“It made the journey much easier,” says daughter Terry Rudderham. “The clinic provided the family with a complete understanding of what was happening and what to expect in the future and they liaised with other professionals involved in Dad’s care. This gave everyone the information we needed to make decisions.” As a result, the family was prepared and had help from the PATH physicians when Mr. Rudderham’s health crisis occurred.

The PATH clinic was co-founded in 2009 by Dr. Laurie Mallery and Dr. Paige Moorhouse to fill a gap in treating frail elderly patients. “Many of these patients have complex health issues including dementia and are vulnerable to the adverse physical effects of treatments. Nevertheless, frail elderly patients often receive medical or surgical interventions without considering the potential ramifications of treatment on the patient’s overall health or quality of life,” explains Dr. Mallery, professor of medicine and head of the Division of Geriatric Medicine.

Dr. Moorhouse, geriatrician and associate professor of medicine, adds, “The current way we treat frail elderly patients tends to focus on a single illness. Furthermore, despite the high prevalence of cognitive impairment in frailty, the ability of the patient to understand the health issues and treatment options is often not assessed.”

The PATH model considers the complex issues associated with frailty, especially end of life circumstances, and empowers patients and their families to make informed treatment decisions at every stage of the illness. PATH uses a structured, evidence-informed methodology that considers the patient’s health status, mobility, function, cognition, and support systems. “The goal is to provide a single, complete assessment that is accurate and reliable,” says Dr. Mallery.

Clear communication with patients, families and health care providers is another key component. “Our first meeting involved six siblings and was very thorough,” says Terry Rudderham. “By the end of that meeting, we decided our dad’s care would focus on his comfort and happiness.”

Dr. Moorhouse points out that PATH is “never about rationing care – it’s about bringing the best possible understanding of how we can align care with prognosis. It’s about advocating on our patients’ behalf.”

PATH was cited as a leading practice by Accreditation Canada and received the Capital Health District Gold Quality Award, IPAC/Deloitte Gold Award, and 3M Health Care Quality Award. “Our goal is to eventually see a province-wide implementation of the program so the principles of assessment and decision-making are consistent regardless of where patients live,” says Dr. Moorhouse.

Gold-Headed Cane Award Winners 2013 Dr. R.N. (Bob) Anderson and Dr. Geoffrey Turnbull

Congratulations to former Department of Medicine Head, Dr. R.N. (Bob) Anderson, the recipient of Dalhousie Medical School's Archibald Gold-Headed Cane Award in the Humanities for 2013. Dr. Anderson's influence as an exceptional educator and skilled clinician is acknowledged annually with a named lecture in the Department of Medicine in his honour.

With this latest award, Dr. Anderson is recognized for his interest and involvement in the humanities, especially the history of medicine, and for his humanism, professional acumen and generosity as a mentor for his colleagues and trainees, which have been greatly valued throughout his many years of practice.

Congratulations also to Dr. Geoffrey Turnbull, gastroenterologist in the Division of Digestive Care and Endoscopy, who was awarded the 2013 Gold-Headed Cane Award by the

College of Physicians and Surgeons of Nova Scotia. This prestigious award recognizes outstanding professionalism in the practice of medicine in service to patients, profession and community.

Dr. Turnbull is a Professor of Medicine and a prolific researcher whose work has been published in renowned journals such as *The Lancet*, *Gut* and *The American Journal of Gastroenterology*. His extensive research in gastrointestinal motility disorders has made him a world expert in Irritable Bowel Syndrome.



Neurologist, Dr. Timothy Benstead, performs a nerve conduction study.



Leaders in Education

Education – Dr. Darrell White and Dr. Geoff Williams

Medical education is undergoing a major transformation driven by fundamental changes in medical practice and the health care system as well as evolving technologies in teaching and learning. To keep ahead, today's medical education leader must be a big picture thinker and a nimble navigator of this rapidly changing landscape.

These challenges are what drew Dr. Darrell White to the position of Senior Associate Dean with Dalhousie University's Faculty of Medicine. A professor of medicine and hematologist, he has had a career-long interest in medical education, receiving numerous accolades including the Department of Medicine's Excellence in Education Award. "I find the current changes in medical education very interesting and saw an opportunity to help move them forward."

One of his key responsibilities is for the delivery of distributed medical education programs throughout the Maritimes. As former internal medicine program director, Dr. White worked closely with physicians and residents in New Brunswick. In his current portfolio he facilitates the ongoing development of distributed medical education, including the longitudinal integrated clerkship which, he says "is working very well in New Brunswick."

He will also play a leadership role in physician resource planning, AFP renewal and the upcoming undergraduate medical education accreditation review. "The potential to improve and move medical education forward is huge. Dalhousie has been making great strides in this regard and it's wonderful to be involved."

Dr. Geoff Williams is another Department of Medicine physician who recently stepped up to a medical education leadership position as Dalhousie's Assistant Dean of Postgraduate Medical Education. An associate professor of medicine and gastroenterologist, Dr. Williams saw the role as an opportunity to "help turn Dalhousie into the best residency training program in the country."

"Canada is moving to a more competency-based residency training model. No one really knows yet how to implement or evaluate this model but here at Dalhousie we have an opportunity to get in front of the curve," says Dr. Williams. He notes that, for students along the entire learning continuum, self-directed learning is recognized as an effective model for helping learners achieve their potential. "We need to look more and more at new tools and models. For example, e-learning and simulation are major trends that offer tremendous potential for competency-based education and self-directed learning."

For both Drs. White and Williams, medical education is an exciting and impactful field that is engaging and rewarding. The vision and vitality they bring to their current roles will help to ensure that Dalhousie remains a medical education leader long into the future.



The Department of Medicine's Annual Spring Party was held on June 18th at the Prince George Hotel.

Awards were presented to the following faculty and residents:

- Brian M Chandler Award: Dr. David Hirsch, Nephrologist
- 2014 Achievement Award: Dr. Simon Jackson, Cardiologist
- Faculty Excellence in Medical Education Awards: Dr. Steven Gruchy, Gastroenterologist; Dr. Penelope Poyah, Nephrologist; and Dr. Sarah Ramer, Cardiologist
- Resident Excellence in Undergraduate Teaching Awards: Dr. Paul Morrison & Dr. Stephen Robinson
- Resident Excellence Summer Grand Rounds Presentation: Dr. Paul Morrison
- Outstanding PGY1 Resident Award: Dr. Alison Dixon
- Outstanding PGY2 Resident Award: Dr. Coleman Black
- Outstanding PGY3 Resident Award: Dr. Jordan Webber
- Excellence in Resident Research Award: Dr. Glenn Patriquin
- Recognition for work with Resident Journal Club: Dr. Nicholas Forward
- Recognition for work with Resident Interesting Cases: Dr. Joffe Munro
- Special Recognition for Duty Hour Task Force: Dr. James Michael
- Excellence in Medical Education Award: Dr. Andrew Moeller
- Special Recognition for Academic Half Day Review: Dr. Andrew Moeller
- Special Recognition for Academic Half Day Review: Dr. Paul Morrison

Meegan Dowe Receives Inaugural Canadian Program Administrator Award

Department of Medicine's Education Manager and Postgraduate Education Coordinator, Meegan Dowe, was awarded the 2014 Royal College of Physician and Surgeons of Canada inaugural Program Administrator award for innovation and excellence.

Meegan joined the Department of Medicine in 2001. Her job is a very challenging one in terms of the sheer volume of work associated with a large core Internal Medicine residency training program. However, it is the superb quality of her work and the tremendous positive energy, knowledge and enthusiasm that Meegan brings to the table that makes such a difference for us all. In 2013/14, Meegan and her Education Office team, including Katie Barkhouse and Catriona Talbot, embarked on a program of holding regular seminars for divisional program director assistants and undergraduate education coordinators, which have been very well received.

"It is fitting that Meegan received this very prestigious award which recognizes her as the best of the best administrator in all residency training programs across Canada – we are so very proud of her!", says Dr. Ian Epstein, Department of Medicine's Internal Medicine Program Director, and one of those who nominated Meegan for the award.

Meegan received her award in Toronto at the International Conference on Residency Education.



In July 2013 Dr. Babar Haroon, Assistant Professor, Division of General Internal Medicine, created and coordinated a Simulation Boot Camp as part of our orientation. It provides incoming residents with the unique opportunity to practice procedural and airway management skills as well as exposure to medical cases they will likely see in their first few months on call. Residents are able to practice skills in a safe, simulated environment and not when the stakes are high for patient care.

Leaders in Research

Research Leadership Central to a Culture of Patient-Focused Inquiry

The very premise of the Department of Medicine strategic plan is articulated in our vision: *To be leaders in academic medicine providing innovative, collaborative and appropriate care that is sustainable.* The emphasis here is on leadership. In order for us – as a department and as individuals – to be, or rather continue to be, leaders in academic medicine, we must be leaders in research. This includes conducting leading research, as our department members do in many areas including geriatric medicine, neurology, cardiology and infectious diseases, and also creating and sustaining an environment that encourages and enables research of all types, sizes and outcomes among department members with varied interest in and experience with research.

With this intent top of mind, the Department of Medicine, through its Research Committee, Resident Research Committee and individual champions of research, has implemented a number of initiatives to increase the breadth and depth of research in the department. Examples include the initiation of a research mentorship program for faculty, development of a policy guiding the allocation of protected time for research, launch of resident research Olympics, and implementation of a mandatory research methods course for core medicine residents in their PGY1 year.

“Our goal is to embed research into the Department’s culture and other activities and, as part of that work, to develop leaders in research at all levels,” says Dr. John Hanly, Department of Medicine Research Committee Chair.

The 2014 Department of Medicine Research Day attracted the most enthusiastic participation to date with 140 attendees, demonstrating increased research interest and

productivity; resident research Olympics and the research methods course have been very well received by residents and by researchers with whom residents have chosen to work; and the Department has begun focused recruitment for the Howard Webster Department of Medicine Research Chair with the intent of filling the position within the next six months.

Research gains in the last year also include the recruitment of Dr. Lisa Barrett, a new translational research scientist in the Division of Infectious Diseases; the appointment of Dr. Sultan Darvesh to the Irene MacDonald Sobey Endowed Chair in Curative Approaches to Alzheimer’s Disease; and the launch of IMPACT-AF, a study to determine whether an online tool will help primary care providers and their patients better manage atrial fibrillation, led by Dr. Jafna Cox.

“We need to constantly remind ourselves that research is the way to improve the care we deliver. Doing so will help to keep us focused and moving forward,” says Dr. Hanly. This aligns with CIHR’s Strategy for Patient Oriented Research (SPOR), which Dr. David Anderson and Dr. Adrian Levy (Department of Community Health & Epidemiology) are championing here and across the Maritime Provinces. Its aim is to improve the quality, accountability and accessibility of care by bringing innovative diagnostic and therapeutic approaches to the point of care.

“Our direction is in keeping with SPOR principles, and overall, we are making incremental changes that over time will yield increased research productivity and greater support for research, ensuring a sustainable leadership position in research for the department,” says Dr. Hanly.



Department of Medicine Research Day was held May 1, 2014 at Pier 21 in Halifax.

Award winners were:

Best resident/student oral presentation

- Dr. Nathan Lamond, PGY5 Medical Oncology
- Dr. Lamond went on to win the Faculty of Medicine Resident Research Award for A Senior Resident who has incorporated research into their primary training program, sponsored by the Dalhousie Medical Research Foundation.

Best undergraduate poster presentation

- Mr. Owen Chauhan, Hematology

Best core resident poster presentation

- Dr. Islam (Sam) Eissa, PGY3 IM, Saint John Program

Best sub-specialty poster presentation

- Dr. Natalie Parks, PGY 3 Neurology

Best graduate student/post-doctoral poster presentation (tie)

- Dr. Travis Saunders, Cardiology, and
- Dr. Judah Goldstein, Geriatric Medicine

Residents’ choice award for best faculty oral/poster presentation

- Dr. Stephen Couban, Division of Hematology

Department of Medicine (DoM) Research Funding

April 2004 – March 2014



Christine Elliott, Electroneurophysiology technologist, prepares Tom Henley for his in-patient stay on the Epilepsy Monitoring Unit

Dr. Mike West is the Principal Investigator for the Canadian Fabry Disease Initiative study, which includes 5 regional sites and 5 sub-sites across Canada. Now in the 8th year of a ten year contract involving a number of clinical trials, totaling over \$1M annually, Dr. West's team includes a full time staff of 7 researchers at Capital Health. Fabry disease is an inherited lysosomal storage disease which affects approximately 1 in 8,000 Nova Scotians, compared with 1 in 300,000 people in the rest of the world. Untreated, Fabry disease can cause stroke, kidney failure and heart failure. Treatment is with recombinant enzyme replacement therapy.



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. It has \$12,000,000 funding over 3 years (2012-15) through a Collaborative Research Agreement with GlaxoSmithKline. The community acquired pneumonia (CAP)/invasive pneumococcal disease (IPD) surveillance arm of SOS is also funded by CIHR and an Investigator Initiated Research grant from Pfizer Inc for \$3,688,611 over 3 years.

HIGHLIGHTS

Our Patient Care:

- 2013/14 saw expansion of our new transcatheter aortic valve implantation (TAVI) program. 24 procedures were completed during this year, and it is anticipated the program will expand.
- All invasive diagnostic investigations and interventions provided by the Cardiac Catheterization Laboratory remain within standard wait times.
- The Heart Rhythm Laboratory completed 435 procedures over the last year and wait times for diagnostic and interventional heart rhythm procedures are now within standard.
- We developed and launched a new Cardio-Oncology Clinic run by the Heart Transplant/Heart Function Group in collaboration with Oncology.
- In September 2013, the division began offering monthly public education sessions regarding Atrial Fibrillation. These are presented by a nurse and a pharmacist; sessions have been well attended and highly rated by attendees.

Congratulations to:

- Dr. Gabrielle Horne on being recognized by Accreditation Canada for developing a leading practice with the Maritime Connective Tissue Clinic – Family Screening Program. This designation is awarded to programs that are particularly innovative and effective in improving quality.
- Drs. Hussein Beydoun, Simon Jackson and Ata-ur-Quraishi who were promoted to Professors of Medicine as well as Drs. Miroslaw Rajda and Syed Wajaf Nadeem who were promoted to Associate Professors in July 2013.
- Dr. Brian Clarke who became a fellow of the American College of Cardiology in June 2013.

Welcome Aboard to:

- Dr. Alex MacLean, a community cardiologist, working with the Dartmouth General Hospital team.

A Fond Farewell to:

- Dr. Dongsheng Gao, who worked with the division for one year to assist the Heart Rhythm Group. He completed this locum in June 2014, and has relocated to practice in Cape Breton.

Dr. Catherine Kells, Division Chief



Drs. Jafna Cox and Ratika Parkash, cardiologists

Drs. Jafna Cox and Ratika Parkash, Division of Cardiology, want to make it possible for people living with atrial fibrillation (AF) to better manage the condition on their own and together with their primary care physician. They are part of a multidisciplinary team conducting a research study, IMPACT-AF, to determine whether an online tool will help primary care providers and their patients better manage atrial fibrillation.

Atrial fibrillation affects about 350,000 Canadians. The risk of developing atrial fibrillation increases with age and with other risk factors such as diabetes, high blood pressure, and underlying heart disease – all of which affect adults in the Maritime Provinces at greater rates than in other areas of Canada. People living with atrial fibrillation are at high risk of stroke; their risk is three to five times greater than those without atrial fibrillation.

The IMPACT-AF study, which is led by Dr. Cox, professor of medicine and community health & epidemiology, will provide about 200 primary care physicians across Nova Scotia with an online decision support system and appropriate training. Patients who choose to participate in the study (up to 4,000 Nova Scotians) will also access an online tool that provides education, goal-setting opportunities, motivational support, and alerts for prescription renewal.

Dr. Parkash, who founded the atrial fibrillation clinic at the QEII Health Sciences Centre, is an electrophysiologist (heart rhythm specialist) who focuses her research on improving cardiovascular outcomes. She brings clinical expertise in atrial fibrillation to the IMPACT-AF team. The care of patients via the atrial fibrillation clinic at the QEII serves as a gold standard



of care. As part of her role in the study, Dr. Parkash will provide subspecialty direction in clinical decision support to primary care physicians.

“Our intent is to improve care and management of AF so that patients require emergency care less often and are at lower risk of complications, including stroke,” says Dr. Cox. “We also intend to create more consistency in the care of patients with AF across Nova Scotia.”

Dr. Cox has a career-long interest in research and currently holds the Heart and Stroke Foundation Endowed Chair in Cardiovascular Outcomes. His accomplishments also include the *Improving Cardiovascular Outcomes in Nova Scotia Study* (ICONS) and *A Novel Approach to Cardiovascular Health by Optimizing Risk Management* (ANCHOR).

“What we learned through those studies, from the scientific aspects to the multi-dimensional partnership development, played a significant part in enabling us to move forward with IMPACT-AF. The study relies on seven partner organizations from the public and private sectors, and on the expertise of a team of investigators from far-ranging disciplines,” explains Dr. Cox. “Leadership and teamwork are critical.”

Division Physicians: 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 • Alex MacLean • 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

HIGHLIGHTS

Our Patient Care:

- In 2013/14 there were 16,341 patient visits to the 4th floor Dickson Dermatology clinics, including day surgery and phototherapy/treatment. There were an additional 1,213 patient visits to the IWK Dermatology clinics.
- Tele-dermatology consultations are available to 48 sites in Nova Scotia.

Our Teaching:

- Our team always includes rotating resident physicians in addition to our own dermatology residents. They come from Internal Medicine, Family Practice, Pediatrics and Plastic Surgery training programs.
- Our dermatology faculty take part in lectures and seminars in the MSK/ Dermatology course in Med II at Dalhousie University.
- Division members provided 51 Continuing Medical Education sessions to family doctors in 2013/14.

Our Team:

- Dermatology has two full time dermatologists and 10 part time dermatologists for a total 3.8 FTEs.
- We have two regular Dermatology RNs 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 an LPN and is also responsible for skin treatments.
- There are two clinic aides.

Congratulations to:

- Dr. Richard Langley, who served a term as President of the Canadian Dermatology Association from June 2013 – June 2014.

Welcome Aboard to:

- Dr. Catherine O'Blenes, who completed her residency at Dalhousie, passed her Royal College Examinations and joined the division in July 2013.



Dr. Laura Finlayson, Division Chief

Residency Training Program in Dermatology and Cutaneous Science

Dalhousie's Dermatology Residency Training Program may be small in size but it is widely regarded as providing an outstanding preparation for future practitioners.

A five-year, direct-entry program, it accepts one resident every two years. The first two years encompass general training in relevant specialties and the last three years focus on dermatology, including pediatric dermatology, dermatologic surgery and dermatopathology. Residents also participate in teaching and in research projects and presentations.

"As a smaller program, we offer a very high staff-to-resident training ratio so residents receive considerable one-on-one training," says Dr. Peter Green, residency program director and associate professor of medicine in the Division of Clinical Dermatology and Cutaneous Sciences. "Having trained in this program myself, I know that teachers are very aware of each trainee's strengths and areas where they need to improve."

Drs. Ariel Burns and Natalie Cunningham, dermatology residents in their fifth and third years respectively, agree. "Trainees get a lot out of the entire learning experience. The teaching staff put considerable effort into each learner because they might only have one or two residents instead of 20," says Dr. Burns. Dr. Cunningham adds that this was particularly evident during her academic half-days. "Often, staff outnumber residents."

The Division of Clinical Dermatology and Cutaneous Science, as a referral centre for the Maritime provinces, offers students, residents in the program and rotating learners significant exposure to a broad range of dermatology patients.



For Dr. Burns this has provided "an unparalleled opportunity to see all kinds of conditions and disorders."

Dr. Green says another key to the program's success is that faculty and staff are deeply committed to education. "Dr. Finlayson, the Head/Chair of the Division, is incredibly committed to a culture of education excellence. This sets the tone. Everyone is very invested in the residents' success."

This success is evidenced by the fact that all residents who have gone through the program have passed their Royal College exams. While Dr. Green says the division is tremendously proud of this achievement, "our real yardstick for success is to ask ourselves: Is this someone we would want a member of our family to see? If the answer is yes, we know we're achieving that high degree of clinical excellence."

Both Drs. Burns and Cunningham have had an enormously positive training experience in the program. "This is a wonderful place to learn about dermatology. We have a very motivated, passionate group of physicians and staff and everyone gets along well – like a family," says Dr. Cunningham.

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

Digestive Care & Endoscopy

HIGHLIGHTS

Our Research:

- To enhance research output in the era of cost control, the division has joined our pediatric colleagues from the IWK Health Centre to put in place a single divisional research committee.

Our Education and Teaching:

- Dr. Steve Gruchy assumed the role as Program Director for the GI Residency Training Program.
- Dr. Des Leddin organized a successful departmental CME event, Medicine Matters, with case-based small group learning on topics that cut across all areas of Internal Medicine in November 2013.

Congratulations to:

- Dr. Geoff Williams, recipient of DoM Excellence in Medical Education award in June 2013.
- Dr. Geoff Turnbull, winner of the College of Physicians and Surgeons of Nova Scotia Gold-headed Cane award in February 2014. This award is presented in partnership with Dalhousie Faculty of Medicine honoring a practicing community-based Nova Scotia physician who exhibits outstanding professionalism in medical practice.

Welcome Aboard to:

- Dr. John Igoe completed gastroenterology residency training in June 2014. He has accepted a part time locum position within our Division at Capital Health for couple of maternity leaves.

A Fond Farewell to:

- Two residents completed training in June 2014; Dr. Abdulaziz Alhasan will pursue an advanced hepatology and liver transplantation fellowship at the Toronto Hospital in Ontario; Dr. Jaclyn Flemming has started a medical practice based at the Dartmouth General Hospital.
- Dr. Colin Struthers completed residency training in June 2013 and an additional year of advanced training in therapeutic endoscopy focusing on ERCP. He has established a practice in Belleville, ON.

Dr. Kevork Peltekian, Division Chief



Dr. Sunil Patel, gastroenterologist

You often have to go outside the box to think outside the box. This is, in part, why Dr. Sunil Patel volunteers his time to participate in national initiatives to provide and continually improve education in his subspecialty. He has plenty of other reasons.

The gastroenterologist and associate professor of medicine volunteers with the Royal College of Physicians and Surgeons as part of its gastroenterology specialty committee and exam board. Through this work, which includes helping to decide what, when and how to teach gastroenterology to residents across Canada and to design and administer their qualifying exams, Dr. Patel has helped the Division of Digestive Care and Endoscopy to build a highly regarded training program in gastroenterology.

“Participating at the national level opens you up to new ideas, new ways of doing things and provides some perspective into your own work and that of your organization”, says Dr. Patel.

Dr. Patel has a long-standing interest in medical education and served as residency program director for gastroenterology from 2005 to 2012, during which time he successfully led the division through two accreditations. He brings his experiences with medical education administration and with teaching to his work with the Royal College.

Dr. Patel joined the Division of Gastroenterology (now Digestive Care & Endoscopy) in 1999 after completing his residency at McMaster University and working with mentor, Dr. Jenny Heathcote, a well-respected hepatologist and clinical



researcher at the University of Toronto, for a year. He has seen a number of changes since that time, not only in education but on the clinical front as well.

“Care of people with digestive issues, particularly inflammatory bowel diseases, has progressed significantly in the last 10 years largely due to use of biological therapy to mitigate symptoms. This, along with a deeper understanding of the diseases and the triggers of inflammation, have resulted in better management and a reduction in the need for emergency and acute care,” explains Dr. Patel.

Much of Dr. Patel’s clinical practice, as with others in his division, includes diagnosis and treatment of patients from across Nova Scotia on an out-patient basis. He and his colleagues also provide inpatient consultation and a consultation service for primary care providers in the province.



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

Endocrinology & Metabolism

HIGHLIGHTS

Our Patient Care:

- In addition to the work our physicians undertake caring for in-patients and seeing ambulatory patients, several of our faculty also play an active role in supporting community-based groups including: the Acromegaly support group (Dr. S. A. Imran); the Cushing's support group (Dr. S. A. Imran); Partners for Healthier Weight (Dr. T. Ransom); and the Osteoporosis Club (Dr. S. Kaiser).
- Dr. Barna Tugwell is on the Diabetes Care Program of Nova Scotia (DCPNS) Advisory Council. She also serves on the Nova Scotia Insulin Pump Program (NSIPP) Evaluation Working Group. The NSIPP is a NS government program to fund insulin pumps for young adults and youth.

Our Education:

- Dr. Shirl Gee assumed the role as Program Director of our Endocrinology Residency Training Program in May 2013. We have three subspecialty residents and one pituitary fellow in the Program for 2013-2014.
- Dr. Ransom continues in the role of Undergraduate Teaching Director for our Division.

Our Team:

- Our team includes three registered nurses, Jenneth Cole, Darlene Miller-Cash and Lisa Tramble as well as a Dietitian, Lisa Galvez, and a Booking Clerk, Heather Beaver.

Congratulations to:

- Dr. Tom Ransom on his promotion to Associate Professor on July 1, 2013.
- Dr. Churn-Ern Yip on his promotion to Assistant Professor on August 1, 2013.
- Dr. Stephanie Kaiser on being appointed President of Canadian Society of Endocrinology & Metabolism. She is currently working with national colleagues to develop Choosing Wisely recommendations for endocrinology specialists.

Dr. Stephanie Kaiser, Division Chief



Dr. Churn-Ern Yip, endocrinologist

Dr. Churn-Ern Yip is one of the newest members of the Department of Medicine. He joined the Division of Endocrinology & Metabolism in 2012 after completing a residency in the subspecialty through the division and Dalhousie's medical school.

The endocrinologist and assistant professor of medicine hails from Calgary. His first visit to Halifax and to Canada's east coast was in 2010 when he began his Dalhousie subspecialty residency program. He and his wife along with two young children are now proud to call Halifax home, and appreciate the lifestyle our small, vibrant city affords them.

As a resident, Dr. Yip identified the need to improve efficiencies in the QEII diabetes clinic while capturing relevant clinical and quality data, and began a project to develop and build a diabetes clinic electronic form.

"Using the electronic form, we input patient and clinical information at each clinic visit. The patient information is then more quickly sent to the referring physician. Also, the information we record can be reported back to us in aggregate which will enable us to quickly determine measures such as the number of patients who have different types of diabetes and the percentage of patients who are meeting disease management targets," says Dr. Yip.

Dr. Yip's current research interests include the natural history and progression of smaller non-functioning pituitary tumours, which are benign tumours formed from pituitary cells that do not produce any active pituitary hormones.

"We want to learn more about how these tumours change over time and what effect they have on patients. There is a lack of data currently on how many grow or shrink in size and how it affects patients' pituitary hormone function.



Understanding this will help guide direct patient care on how often they should be rechecked and followed up," says Dr. Yip.

He also has an area of clinical interest in male hypogonadism. Male hypogonadism is very common. Potentially up to 40% of patients aged 40-75 will develop it; however, it can be commonly misdiagnosed with resulting long-term prescription of testosterone replacement therapy. Hypogonadism is a condition in which the body doesn't produce enough testosterone. Symptoms include decreased libido, erectile dysfunction, decreased muscle strength, and fatigue.

"There is a high degree of public interest in and demand for testosterone replacement therapy in part because of clever marketing. The results, however, may be damaging when we consider the potential side effects of inappropriate testosterone therapy which include risk of stroke, increased prostate size, fertility issues, and the potential cost to the health system" says Dr. Yip.

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

General Internal Medicine

HIGHLIGHTS

Our Patient Care:

- General Internal Medicine physicians were responsible for covering 60% of the Senior Internist rotations in the Emergency Department, 50% of Medicine Teaching Unit rotations on 8.2 HI; and approximately 35% of Intermediate Care Unit rotations in 2013/14.
- Dr. Krueger-Naug became the Director of the GIM Heart Failure clinic in 2013/14.

Our Teaching:

- Dr. Lori Connors was appointed Assistant Clerkship Director for the Department of Medicine.
- Dr. Babar Haroon is the Simulation Teaching Chair for the DoM.
- Three residents completed the General Internal Medicine residency training program in June 2014 – Dr. Barinder Chahal will relocate to work in Yarmouth, NS; Dr. Brian Buchanan will be taking additional training in Critical Care at McMaster University; and Dr. Michelle Caissie will establish a medical practice in Miramichi, New Brunswick.

Congratulations to:

- Dr. Babar Haroon, recipient of the 2013 PARI-MP Excellence in Teaching award.

Welcome Aboard to:

- Drs. David Haase joined the Division as a 0.50 FTE and Colin VanZoost joined the Division as a 0.20 FTE effective July 1, 2013; Dr. Raid Shaarbaf joined the Division as a 0.10 FTE effective September 1, 2013.
- Nurse practitioner Sandra Duke who works in our Heart Failure Clinic.

A Fond Farewell to:

- Ms. Rosalind Benoit, Nurse Practitioner in the GIM Heart Failure clinic retired in December 2013; and Drs. Beth Mann and Rajender Parkash retired in June 2014.

Dr. David Simpson, Division Chief



Dr. Babar Haroon, general internist & critical care specialist

When Dr. Babar Haroon attended an instructor development course at the Mayo Clinic, he was introduced to their simulation-based boot camp offered to interns. Not long after, Dr. Haroon pulled together a group of residents to develop the Internal Medicine Resident Boot Camp targeted toward the needs of first-year residents. The two and a half-day course on common, stressful situations was launched in June 2013 – a first among internal medicine postgraduate programs in Canada.

“It was a patient safety initiative, allowing the trainees to learn in a non-acute, non-threatening environment. It decreases the learners’ anxiety, and the exposure of patients to non-competent trainees, when stakes are high,” says Dr. Haroon.

On day one of the boot camp, participants worked through critical thinking and decision-making. Day two was devoted to simulation-based training in procedures and skills such as airway management, central line insertion, lumbar punctures, thoracentesis and paracentesis, and knee aspirations. All first year residents participated in the optional course.

“The response has been very positive. Residents told us they gained the most from the simulation-based learning on day two. This is where we will direct more of our efforts in the future,” says Dr. Haroon.

This direction fits with Dr. Haroon’s interest in the use of simulation in medical education. He is conducting a national survey to determine the degree of simulation used in internal medicine training programs in Canada, for which he received the Dean’s Medical Education ‘Living Laboratory’ Research award. Preliminary results from the survey were presented



at the International Association for Medical Education meeting in Milan, Italy.

Dr. Haroon also recently completed a study via a CIHR Health Professional Student Research Award, with medical student Stuart McAdam, of simulation at the bedside as a tool to improve communication among healthcare providers.

In addition to his research interests, Dr. Haroon participates in simulation-based curriculum development and teaching at the undergraduate and postgraduate levels. Currently, he is working with Dalhousie Medical School to increase the use of simulation at the undergraduate level.

“At the postgraduate level, simulation training is well structured, but, internationally, simulation technology is also being increasingly used at the undergraduate medical education level, aimed at increasing patient safety, risk reduction, and to foster team based training. This is what we’re working toward,” says Dr. Haroon.

Dr. Haroon recently completed a masters degree in education at Acadia University and is a favourite teacher among residents and students. In 2013, he was awarded the Excellence in Teaching Award from the Professional Association of Residents from the Maritime provinces.

Division Physicians: Paul Charlebois • Lori Connors • Brent Culligan • Stephen Duke • David Haase • Jennifer Hancock • Babar Haroon • Anne Marie Krueger-Naug • Gina Lacuesta • Jorin LindenSmith • Elizabeth Mann • David Manning • Sarah McMullen • Rajender Parkash • Rosario Rebello • Raid Shaarbaf • David Simpson • Colin van Zoost • Stephen Workman • Khawar-Uz Zaman

Geriatric Medicine

HIGHLIGHTS

Our Patient Care:

- In June 2013, Drs. Laurie Mallery and Paige Moorhouse were honoured with a 3M Health Care Quality Award for their work with the PATH Program.
- In 2014, Dr. Mallery was awarded recognition for two leading practice initiatives by Accreditation Canada: 1) The Frailty Assessment for Care Planning Tool (FACT) is an evaluation mechanism that is used to assist with decision making; 2) STEP & CoCGA are acronyms for Standardized Team Education Program & Collaborative Comprehensive Geriatric Assessment.
- Dr. Paige Moorhouse has been leading the Department of Medicine's strategic initiative on appropriateness of care for frail older adults. This has since evolved into a broader Capital Health initiative, co-chaired by Dr. Rick Gibson, Head of the District Department of Family Practice.
- Dr. Glen Ginther provides a regular Geriatric Medicine Outreach Clinic to Soldiers' Memorial Hospital, Middleton, NS.
- Dr. Daniel Carver provides Telehealth clinics to Western Kings Memorial Health Centre, Berwick, NS and Kings Regional Rehabilitation Centre, Waterville, NS.

Congratulations to:

- Dr. Janet Gordon, who received the Canadian Geriatrics Society Physician Innovator in Education Award.
- Dr. Kenneth Rockwood, who received the Queen Elizabeth II Diamond Jubilee Medal. He was nominated by the Minister of State for Seniors for "dedication to the care of older patients and research leadership in the field of gerontology". He also received the Ronald Cape Distinguished Service Award from the Canadian Geriatrics Society and the Delirium Champion Award for "advocacy, leadership and numerous contributions to the advancement of delirium science and care", awarded by the American Delirium Society.
- Dr. Melissa Andrew, was chosen to be a member of the provincial Dementia Strategy Advisory Committee to help develop the province's first comprehensive strategy for people with dementia and their families.



Dr. Laurie Mallery, Division Chief

Dr. Janet Gordon, geriatrician

The Dalhousie Medical School undergraduate curriculum included a single lecture and tutorial on geriatric medicine in 1998. That's the year Dr. Janet Gordon joined the Division of Geriatric Medicine and began teaching medical students and residents.

Since that time, the associate professor of medicine has spearheaded efforts to improve medical students' and residents' knowledge of and skills in geriatric medicine. It started rather simply, a second year medical student commented that there were no older patients in the cases she had studied the previous year. After that discussion, Dr. Gordon's formal efforts to increase medical students' and residents' exposure to geriatric medicine began in earnest. Her rationale is simple.

"Regardless of whether they choose to pursue geriatric medicine as their specialty, students and physicians will undoubtedly encounter growing numbers of older patients. I want to help medical students and residents be confident in their approach and able to deliver optimum care to their older patients," says Dr. Gordon.

Dalhousie Medical School's undergraduate curriculum now includes a two-week pre-clerkship geriatrics course and a mandatory clerkship rotation in geriatric medicine. Dr. Gordon says the progression from a single lecture on geriatrics to the present format has been a gradual, collaborative process, as has the integration of geriatric medicine into the undergraduate curriculum— an integration driven by Dr. Gordon.

The medical school's undergraduate curriculum renewal efforts provided the most recent opportunity to ensure medical students are receiving more complete education in



geriatric medicine. The revised curriculum renewal initiative will be implemented in all four years of undergraduate medicine in 2014-2015.

Dr. Gordon is cross-appointed to the Dalhousie Division of Medical Education and she is a published author of several papers on geriatric medicine education, and an active national committee member, having founded the Canadian Geriatrics Society's education committee in 2005 and serving on the Medical Council of Canada's test committee since 2009. Her current focus in the national arena is on establishing and promoting the core competencies that students and residents need to achieve to successfully care for older persons.

Dr. Gordon has worked enthusiastically to ensure adequate, high quality geriatric medicine education in Canada and she demonstrates a love of teaching. She is a well-respected, highly regarded teacher among medical students and residents, and a two-time recipient of the Department of Medicine's Excellence in Medical Education Award.

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

HIGHLIGHTS

Our Patient Care:

- Collaborative clinics at the IWK-Grace and in Moncton and St. John's continued on a monthly basis.
- A new program for the management of patients with venous thromboembolism who are prescribed novel oral anticoagulants (NOACs) is under development with the Emergency Department

Our Research:

- Dr. White was an author of the FIRST trial examining lenalidomide and decadron in patients with myeloma. This was presented at the Plenary Session of the American Society of Hematology Meeting in 2013.
- Dr. Anderson continues to lead the national CIHR-funded EPCAT II study: Extended Venous Thromboembolism Prophylaxis Comparing Rivaroxaban to Aspirin Following Total Hip and Knee Arthroplasty.
- Dr. Couban continues to lead the Terry Fox Research Institute study looking at the role of novel biomarkers in patients with MDS and AML.
- Division members continue to participate in more than 40 active investigator-initiated and industry-sponsored clinical trials in the management of patients with hematologic cancer and venous thromboembolism.
- The Division of Hematology in Halifax has been cited more than once in the last year as having the highest centre accrual for both national and international studies.
- The Division employs 17 full-time research staff through grant and contract research support.

Our Education:

- Welcome to Dr. Mary-Margaret Keating in her new role as Undergraduate Education Director and to Dr. Sudeep Shivakumar in his new role as Postgraduate Program Director.

Dr. Stephen Couban, Division Chief



Dr. David Macdonald, hematologist

Dr. David Macdonald's enthusiasm for health research has helped turn internal medicine residents into Olympians. The hematologist and assistant professor of medicine founded the Department of Medicine's Research Olympics, a novel program that encourages all residents to get involved in research and some to develop a career-long interest as a result.

Now approaching its third year, Research Olympics employs a team/peer mentorship model, wherein each team of residents includes a senior resident with experience and interest in research who serves as captain and a senior faculty researcher who serves as coach. The research teams compete to carry out four research related activities or projects throughout the academic year. It's an approach no other Dalhousie department has taken.

"We have seen increased interest and activity in research among residents, and productivity among faculty members is also on the rise, partly as a result of residents who have sought to work with senior researchers on projects," says Dr. Macdonald. "We are also seeing excellent quality in the research work residents are doing. This bodes well for the Department of Medicine given its commitment to strengthen the quantity and quality of its research as articulated in the department's strategic plan."

Dr. Macdonald acknowledges the positive results stem also from a mandatory research methods course for first-year residents and a move to secure more time for residents to undertake research activities.

The department is on the right track with its multi-faceted efforts to spark residents' interest in research and to grow and



strengthen research overall; this year's Department of Medicine Research Day solicited more abstracts, presenters and attendees than in any other year.

As a member and now chair of the Department of Medicine resident research committee, Dr. Macdonald has overseen the changes to improve residents' experience with research. He says it's a natural fit. His interest and involvement in health research were sparked as a second-year resident when he began presenting and publishing his work, which earned him national and international attention along with resident research awards — a rarity for junior residents.

"I had an excellent experience with clinical research as a resident and it inspired my continued involvement. Through my work, I hope others will have similar experiences and make research an integral part of their career as academic physicians," says Dr. Macdonald.

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

HIGHLIGHTS

Our Patient Care:

- We see patients with a variety of infectious diseases in our out-patient clinics. A large part of our practice continues to be management of patients on home intravenous antimicrobial therapy for chronic infections. There is no organized outpatient antibiotic therapy program in Nova Scotia for this work, making it labour intensive and inefficient from the physician perspective.

Our Research:

- Dr. Lisa Barrett was recruited back to the Department in September 2013, after spending two years at the National Institutes of Health in Bethesda, Maryland, where she was a CIHR Clinician Scientist Trainee and visiting postdoctoral fellow. She is establishing her research laboratory in study of the immunology of chronic viral infections, specifically HIV, hepatitis C, and cytomegalovirus (CMV). She has obtained new investigator funding through CDHA and NSHRF to study relationships between chronic viral infection, aging, and vaccine responses.
- Dr. Rafael Garduño's research interests continued to be the molecular pathogenesis of human legionellosis and listeriosis, including collaboration with Dr. Mauricio Terebiznik (University of Toronto) to characterize the mechanism by which *Legionellae* filaments invade lung epithelial cells.
- Dr. Nik Thomas' lab continued to look at the microbiome that is associated with inflammatory bowel disease (IBD) and/or Crohn's colitis in partnership with researchers at the IWK Pediatric Gastroenterology Division, supported by an NSHRF grant. As well, his lab continued study on pathogenic *E. coli* and *Vibrio* species through an NSERC Discovery Grant.

Our Education:

- Our Infectious Diseases Resident Training Program remains active, and closely linked with the Medical Microbiology Resident Training Program, both with Dr. Todd Hatchette as Program Director. There were three residents in Medical Microbiology and one in Infectious Diseases in 2013/14, with one fellow in Infectious Diseases.

Dr. Lynn Johnston, Division Chief



Dr. Walter Schlech III, infectious diseases specialist

While this profile was in production, Dr. Walter Schlech left Halifax for the Republic of Malawi in Africa. The professor of medicine and infectious diseases specialist has made two to three trips to Africa each year since 2003, but this marks his first time in Malawi. While there, he will be continuing his multi-faceted work to improve the care of children and adults living with HIV and AIDS.

Dr. Schlech's work with HIV and AIDS started long before 2003. He actually diagnosed the first case of AIDS in Nova Scotia in 1982, after relocating to Halifax from Atlanta where he worked with the Centers for Disease Control and Prevention (CDC). His contributions to the world's knowledge and understanding of infectious diseases, including HIV and AIDS, are extensive and far-reaching. He has provided input into many infectious disease issues in Canada, from HIV to listeria, and serves as a mentor to residents and colleagues here and around the globe.

During his visits to Africa, many of which extend for months, Dr. Schlech teaches residents and physicians, provides patient care in a public AIDS clinic established by a close colleague, and advocates for changes in public policy.

In 2013, Dr. Schlech was awarded a Grand Challenges Canada grant, which has helped establish a small private AIDS clinic he and his colleagues run in conjunction with the much larger public clinic. The private clinic caters to Ugandans who can afford to pay for some of their healthcare. It is open in the evenings, allowing for patients to attend appointments outside of regular work hours. Part of the



rationale for establishing the private clinic is as a revenue stream for the public clinic.

"The funding model holds promise, but the private clinic has to reach a point of growth before the model would be feasible, which is where we are directing our energies at present," says Dr. Schlech.

Dr. Schlech also carries out clinical and operational research in Africa and other research focusing on prevention of HIV and AIDS. The initiative of which he is most proud though is Uganda Venture (www.ugandaventure.com), a project he and his wife helped start in 2006 to assist communities of people in Uganda to break the cycle of poverty. "Uganda Venture was inspired by a young girl and her family who touched our lives in a period of tremendous sadness and challenge for them," says Dr. Schlech. The not-for-profit organization has so far helped three Ugandan communities to provide shelter to more than 100 orphans, increase school enrollment three-fold, empower women to achieve financial independence and has enabled 46 citizens to start their own businesses.

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

Medical Oncology

HIGHLIGHTS

Our Patient Care:

- We continue to see large volumes of new patients, exceeding the Canadian standard of 150 patient consults and the accepted guidelines of the DHW of 160 consults per year.

Our Research:

- Dr. Nathan Lamond was awarded the best student or resident oral presentation at the Department of Medicine's Resident Research Day in May 2014. His topic was: Adjuvant osteoclast inhibition in patients with endocrine sensitive breast cancer and low estrogen levels – an updated cost utility analysis.
- Dr. Hatim Karachiwala submitted a poster presentation: A systemic review of oral targeted therapies in non-small cell lung cancer, at the Canadian Association of Medical Oncologist (CAMO) conference, Toronto, ON, May 2014.

Our Education:

- Drs. Nathan Lamond and Hatim Karachiwala completed their Medical Oncology residency training in June 2014. Dr. Lamond will join our division and Dr. Karachiwala has relocated to Calgary, Alberta where he will establish a Medical Oncology practice.
- Welcome to Drs. James Michael and Amy Groom our two new residents, who began their training in July 2014.

Welcome Aboard to:

- Dr. Cory Jubenville joined the Division in January 2014 to offer service to the neuro-oncology patient population along with Dr. Mary MacNeil.

A Fond Farewell to:

- Dr. Mary Davis retired April 30, 2014, having devoted the last twenty years to serving the cancer patient population in Nova Scotia.

Dr. Mark Dorreen, Division Chief



Medical Oncology residency training program

For Dr. Alwin Jeyakumar, a good medical oncologist must have two key qualities: "You have to be a good clinician and you have to be a good person."

Dr. Jeyakumar is program director of the Medical Oncology Residency Training Program and an associate professor of medicine. He says the first step in developing good oncology physicians is to carefully select trainees. "I encourage all internal medicine trainees interested in our program to do an elective with us so that we can get to know each other. We want to observe their skills as doctors and see how they interact with patients and other health care professionals in our team."

Dalhousie's medical oncology residency training program is small but highly regarded. The program was established in 2002 and underwent review with full accreditation in 2012.

The program's primary aim is to train future medical oncologists to practice in Atlantic Canada and most of the graduates have achieved this. "Our residents are predominantly Maritimers simply because it makes sense for them to join a good training program that's close to home."

With on average three residents rotating through the two-year program, learners benefit from a high staff-to-resident ratio. "Compared to larger programs, residents are not lost in the crowd here. They get considerable one-on-one training plus a high level of scrutiny. We continually assess what they're doing well and where they need more help."

Dr. Jeyakumar says that residents appreciate the program's "good service-to-teaching ratio". "Our program exposes residents to a typical medical oncology practice. Over ninety percent of our clinical work is on an out-patient



l-r: Dr. Alwin Jeyakumar, Program Director; Dr. James Michael PGY4 resident; Dr. Paramjot Bains PGY5 resident; Amanda MacKay, Admin Assistant; Dr. Amy Groom, PGY4 resident

basis. Today the availability of complex but more effective treatment options is turning cancer into a chronic disease – so many of our patients are productive and doing well in the community."

Dr. Jeyakumar notes that medical oncology training programs are "early adopters" of the competency-based medical education (CBME) model, which is being championed by the Royal College of Physicians and Surgeons. "Our program is working hard to adopt this more flexible learning model recognizing different resident needs."

For all learners going through the program, Dr. Jeyakumar offers some advice to maximize learning. "I encourage learners to always be prepared when they come to clinics. They review the patients' electronic chart because this way, learners can ask better questions, understand individual patient management and hence get more out of each patient encounter."

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

Nephrology

HIGHLIGHTS

Our Patient Care:

- We opened a new dialysis unit in Colchester Regional Hospital in Truro. This unit is a full-service dialysis unit, with capacity for 36 patients, and can manage patients with more complex medical problems.
- Funding has been approved and planning has begun to build a new dialysis unit at the Valley Regional Hospital in Kentville and for a new unit at the Halifax Infirmary.
- The Division has used telemedicine for the management of dialysis patients in rural dialysis units. We recently expanded our use of telemedicine to bloodwork rounds and some clinic visits at the other seven satellite dialysis units in mainland Nova Scotia covered by the Division of Nephrology.

Our Research:

- In August 2013, the Division welcomed Dr. Karthik Tennankore, who trained in Toronto and at the Harvard School of Public Health.

Our Education:

- Dr. Tammy Keough-Ryan was awarded a Dalhousie University of Medicine Award for Excellence in Medical Education in June 2013.

Congratulations to:

- Dr. Tennankore and Cynthia Stockman, Manager of the Dialysis Unit, on receiving a Transforming Research Into Care (TRIC) grant in January 2013 for their work on the effectiveness of an online portal for delivery of care to home dialysis patients.
- The Renal Quality Teams and the Nephrology Quality Team Leader, Matt Phillips, on an official acknowledgement by Health Canada regarding the reporting of medical device issues which had the potential to negatively impact patients across Canada.

A Fond Farewell to:

- Dr. Meteb Al Bugami, who completed his Transplant fellowship in June 2013.



Dr. Kenneth West, Division Chief

Dr. Karthik Tennankore, nephrologist

A groundbreaking study led by Dalhousie nephrologist Dr. Karthik Tennankore has shown that despite the short-term risks, kidney transplant patients have better patient and treatment survival compared to patients who were undergoing at least 16 hours of in-home hemodialysis each week.

Dr. Tennankore and his team analyzed 173 intensive home dialysis patients and 1,517 transplant recipients over an eleven-year period. They found that all types of transplanted kidneys resulted in better patient outcomes than did intensive home dialysis. Kidney transplant patients had a 55 to 61 percent (depending on organ type) reduced hazard of treatment failure or death during the study compared with patients on long and frequent home hemodialysis.

"The research shows that for patients with end-stage kidney disease, a kidney transplant is still the best option. This gives us more positive evidence to promote transplantation as the gold standard for eligible patients who are receiving intensive home hemodialysis," says Dr. Tennankore, assistant professor of medicine.

At the same time, Dr. Tennankore notes, "the study found that there are also good outcomes for patients receiving intensive home dialysis, which is still the next-best treatment option." He says this is an important point because the demand for available kidneys still exceeds the availability. In Canada, for example, the average wait time for a donor kidney is three and one-half years, with Nova Scotia having the shortest wait time of two years. "Bridging strategies are still very important for kidney patients," he says.



Intensive home dialysis is an attractive option for many patients because it offers the flexibility of receiving treatment in their home environment. Like any type of dialysis, it replaces many of the kidney's functions by removing waste and excess water from the blood while helping to replace important minerals the body needs.

Dialysis cannot fully replace kidney function nor cure kidney diseases, however, and kidney transplants still offer most patients the best chance of returning to a normal life.

There are inherent risks associated with transplants, however, mainly short-term. One of these risks, according to Dr. Tennankore's study, is that transplant patients were more likely to be hospitalized within the first year after transplantation. "This is likely due to surgical complications, infections, acute rejection, and other issues," he notes. He adds that the risk of hospitalization is still lower in the long term for transplant patients compared to dialysis patients.

According to the Kidney Foundation of Canada, an estimated 2.6 million Canadians have kidney disease or are at risk for kidney disease. The two leading causes of kidney diseases are diabetes and vascular disease.

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

HIGHLIGHTS

Our Patient Care:

- An Acute Stroke Protocol (ASP) was implemented in April 2012, aimed at treating stroke patients sooner by coordinating expertise of Emergency Health Services, the Departments of Emergency Medicine and Diagnostic Imaging, and the Division of Neurology. Following implementation, the average time from arrival in the Emergency Department to administration of thrombolytic therapy reduced from 93 minutes (pre-ASP) to 58 minutes in the last quarter of 2013.

Congratulations to:

- Dr. Jock Murray who was inducted into the Canadian Medical Hall of fame in April 2014. Dr. Murray also received a Doctor of Laws honorary degree, at Dalhousie's Medical School Convocation in May 2013.
- Dr. Gordon Gubitz on receiving a Nova Scotia Heart and Stroke Outstanding Volunteer Award.
- Drs. Sandy MacDougall and Virender Bhan and the Dalhousie MS Research Unit team on receiving a special Angel in Action award and donation from a grateful patient.

Welcome Aboard to:

- Dr. Cory Jubenville, our former Neurology resident, completed his RCPS examinations in July 2013 and joined the division. He will primarily work as a community-based neurologist in Dartmouth.
- Dr. Victor Rafuse, Director of the Brain Repair Centre, was approved for a cross appointment as Professor in the Department of Medicine (Neurology) in March 2013.

A Fond Farewell to:

- Dr. Jeremy Moeller has accepted a position at Yale University as Assistant Professor of Neurology and Co-Director of the Epilepsy Fellowship Program.
- Dr. Don Weaver left the Division on June 30, 2013, to work as the Director of the Toronto Western Research Institute, within the University Health Network of academic teaching hospitals associated with the University of Toronto.



Dr. Charles Maxner, Division Chief

Dr. Sultan Darvesh, neurologist

After Dr. Sultan Darvesh completed graduate studies, his mentor advised him to choose a research focus that would pose the greatest challenges. That's when he decided to devote his career to uncovering the secrets of Alzheimer's Disease.

The neurologist and professor of medicine was recently chosen to hold the Irene MacDonald Sobey Endowed Chair in Curative Approaches to Alzheimer's Disease. His immediate goal is early and definitive diagnosis.

"Currently, a confirmed diagnosis requires post-mortem examination of the brain tissue under a microscope. This is the greatest hurdle to developing treatments. The drugs available now treat the symptoms of Alzheimer's and not the actual disease," says Dr. Darvesh.

Dr. Darvesh and his research team have so far identified a single enzyme in the brain, butyrylcholinesterase, that is vital to early diagnosis and treatment of Alzheimer's. He and his colleagues have mapped out areas of the brain that contain this enzyme, particularly the areas that are affected in dementias, such as Alzheimer's disease. The immediate focus is the continued synthesis and further development of compounds that target butyrylcholinesterase and that will open the door to clinical trials for early diagnosis of Alzheimer's disease.

"We intend to get to the point of clinical trials within three years and to curative approaches in 10 years. We have made incredible progress in the last five years and I'm fully committed to this timeline. Failure is not an option," says Dr. Darvesh.

Common among researchers, Dr. Darvesh has so far relied on grants and other per-study funding to support his research.



The Irene MacDonald Sobey Endowed Chair in Curative Approaches to Alzheimer's Disease, made possible through the Dalhousie Medical Research Foundation, will help provide Dr. Darvesh with stable, long-term funding for his research program. He can now better plan for and focus on the operational needs of his research, including his lab and research employees, enabling him to reach the milestones he has set.

Recognized internationally as a leading expert in research on brain tissue and dementia, Dr. Darvesh co-founded the Maritime Brain Tissue Bank in 1993. He is director of the facility, which has proven pivotal to his research. The Bank collects brain tissues for examination and experimentation crucial to Dr. Darvesh's work and that of other neuroscience researchers around the world. He is also founder and director of the Behavioural Neurology Program and clinic at the QEII Health Sciences Centre, unique in Atlantic Canada. His focus there is on assessment and management of patients with cognitive impairment.

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

Palliative Medicine

HIGHLIGHTS

Our Patient Care:

- The Division of Palliative Medicine has partnered with The Hospice Society of Greater Halifax and Metro Rotary Clubs to support the planned establishment of Rotary House Hospice, Nova Scotia's first free-standing residential Hospice and Centre of Excellence.
- Continuing Care has devolved to the district, designating community coordinators for palliative care. In conjunction, the QEII-based Palliative Care consult teams have committed to a service model aimed at enhancing continuity and integration in the community. This will create the ground for building capacity for palliation beyond the current geographic and clinical referral bases, contingent on resources.
- The Nova Scotia Department of Health and Wellness initiated a program for funding essential medications for palliative patients registered with the district service.

Our Research:

- The Division of Palliative Medicine is collaborating with Emergency Health Services (EHS), and the Department of Health & Wellness on a 3 year, Canadian Partnership Against Cancer (CPAC) \$1 million inter-provincial pilot project that will evaluate outcomes related to integrating emergency health services and palliative care with the aim of improving the end of life experiences for community dwelling cancer patients in PEI and NS.
- The QEII Foundation has approved a fundraising initiative for an Endowed Chair in Palliative Care Research.

Congratulations to:

- Dr. Robert Horton, who was promoted to Associate Professor in July 2013.

Welcome Aboard to:

- Drs. Erin Gorman Corsten and Danielle Kain, who joined the Division as faculty.

A Fond Farewell to:

- Dr. Kenneth Johnson, who retired in June 2013.



Dr. Paul McIntyre, Division Chief

Drs. Danielle Kain and Erin Gorman Corsten, palliative medicine physicians

When patients are facing a life-limiting or life-threatening illness, the physician's most important role can be to provide comfort and improve quality of life.

"Like the old aphorism that doctors are meant 'to cure sometimes, to relieve often, to comfort always', palliative medicine is about the relief of suffering – physical, psychosocial and spiritual – and about bringing comfort to those nearing end of life," says

Dr. Danielle Kain, a family physician who recently joined Capital Health's Integrated Palliative Care Service.

Dr. Erin Gorman Corsten, another new member of the palliative care team, agrees. "Palliative care is essentially about good care at a vulnerable time in a person's life. I can't necessarily help my patients live longer but I can help give them quality of life for the remaining time they have."

Drs. Kain and Gorman Corsten, assistant professors of medicine, are among seven full and part-time palliative care physicians who provide a consult service and staff an inpatient unit and a robust community outreach program. "Our population is rapidly aging and we're already seeing an increase in the number and complexity of our consults – especially elderly patients with co-morbidities," says Dr. Gorman Corsten.

Both physicians are recent graduates of Dalhousie's Family Medicine Residency Program, which they followed up with a year of added competency in palliative care.

Dr. Kain became interested in palliative medicine through her graduate studies in medical anthropology at the University of Western Ontario, examining "the immigrant experience of death and dying in Canada." For Dr. Gorman Corsten, palliative care electives during her medical studies and



residency training combined with the experience of losing her own father to cancer during her final year of medical school "anchored my interest and commitment to this field."

"Most of us are going to die of life-limiting diseases and everyone has a right to die well, to have medical care that relieves suffering, focuses on quality of life and strives to maintain dignity at the end of life" says Dr. Kain.

Both Drs. Kain and Gorman Corsten point to a growing body of evidence that suggests early integration of palliative care in the trajectory of a life-limiting illness improves quality of life, and in some cases, even lengthens lives.

"Most specialties have patients who are frail, with life limiting illnesses. Many patients without complex symptoms should be able to receive quality end of life care by their primary care provider without necessarily needing specialist palliative care. There are gaps in training that persist and ideally we would like to be a resource and to help add to the palliative care skill set and training of fellow physicians," says Dr. Gorman Corsten.



Division Physicians: Erin Gorman Corsten • Jeffrey Dempster • David Dupere • Robert Horton • Danielle Kain • Anne-Marie Kneuger Naug • Paul McIntyre

Physical Medicine and Rehabilitation

HIGHLIGHTS

Our Patient Care:

- Since the approval of 6 new beds at the Nova Scotia Rehabilitation Centre last year we have been operating a 66 bed in-patient rehabilitation hospital.
- In October 2013, we became the first rehabilitation centre in Canada to be accredited in the management of persons with spinal cord injury.
- In partnership with the QEII Foundation, we launched Revitalizing Rehabilitation, a major fundraising campaign which has raised almost all of the \$2.2 M needed to restore our therapeutic pool and activity of daily living apartment at the rehabilitation centre.

Our Education:

- Congratulations to two recent resident graduates on completing their Royal College exams: Dr. Rebecca Charbonneau has relocated to work in Edmonton, Alberta and Dr. Sussan Askari has taken a position in Kingston, Ontario.

Our Team:

- In the rehabilitation program we collaborate with 2 hospitalist physicians, Drs. Peter Aikman and Kirk Poulos; and a Clinical Assistant Dr. Janusz Kubow who work on the inpatient units; and a Nurse Practitioner, Paula Taylor who is affiliated with our acquired brain injury program (stroke and brain injury). We also have 2 rehabilitation assessors, Suzanne Taylor and Lisa Morris, who work with our subspecialty consult services for rehabilitation.

Welcome Aboard to:

- Drs. Islam Elnagar and Zainab Al-Lawati our PGY1 residents for the 2013-14 year.

A Fond Farewell to:

- Dr. Arthur Shears (July 27, 1924 - May 22, 2013). With great sadness we said goodbye to one of Canada's pioneering specialists in physical medicine and rehabilitation. Our rehabilitation programs are indebted to him for his vision and leadership in team based patient centered care.



Dr. Christine Short, Division Chief

Telehealth Service, physical medicine & rehabilitation

For many, a trip to the QEII Health Sciences Centre for a clinic appointment involves a long drive, navigating unfamiliar streets, circling parking lots, eating cafeteria food, paying for parking and a long drive home. The alternative is telehealth, which makes it possible for patients to meet with their physician and, as in the case with rehabilitation services at Capital Health, clinical team through videoconference.

The Division of Physical Medicine and Rehabilitation in partnership with Capital Health's rehabilitation services has been delivering telehealth services for more than 10 years. Don MacLeod coordinates Rehab Telehealth Services, which enables more than 150 rehab patients per year to be seen. Through the use of technology, patients can receive care from their clinical team members in Halifax while they remain in their home community. Their appointments are for a variety of reasons, but most commonly for follow up, prescription renewals and assessment of prosthetic needs.

Most hospitals and health centres across the province have videoconferencing capabilities through Nova Scotia's telehealth network. Rather than venture to Halifax, patients visit their local health facility for a telehealth appointment, which is set up in advance with the facility and the clinical team in Halifax. Aside from the benefit of convenience and cost-savings to the patient, by attending appointments at the local health care facility, there is an increased opportunity for caregivers and local clinical team members to attend the appointment, which is not easily facilitated for appointments in Halifax. There are many direct as well as indirect benefits to this, including real-time communication with local healthcare providers.



For some, telehealth eliminates the need for clinic appointments at the QEII. For most, however, it reduces the number of on-site clinic visits. As an example, the clinical team supporting the amputee clinic is able to use telehealth to assess patients' readiness for a prosthesis. The preparatory consultations can be done in advance of when patients visit the QEII, reducing the frequency of travel to Halifax.

The number of patients seen via the telehealth service has grown slowly and steadily since its beginning. Though the service is well liked by patients for its convenience, few patients request appointments via telehealth, mainly because it isn't top of mind.

"The growth we have seen over time has been driven primarily by clinicians who recognize when it is appropriate and more convenient for their patients. Telemedicine is not suitable for all types of clinic appointments and may not be a preferred option for some patients – the clinical team and patients decide when and how often to use telemedicine," explains Mr. MacLeod. He does expect continued growth, however, especially as opportunities arise with advances in technology options.

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

Respirology

HIGHLIGHTS

Our Patient Care:

- We continue to work on our waiting lists; wait times for patients with sleep disordered breathing issues continue to improve with the addition of a part time sleep specialist working within our team.
- Under the leadership of Dr. Graeme Rocker, the INSPIRED COPD Outreach Program continues to garner support and accolades. The INSPIRED Program has been recognized by Accreditation Canada as a leading practice example for service delivery in COPD care.

Our Research:

- The division has significant research activities that involve two research coordinators, Scott Fulton and Andrea Dale, and two research assistants, Denise Wigerius and Kristin Osterling.

Congratulations to:

- Dr. Graeme Rocker on his appointment as Clinical Improvement Advisor to the Canadian Foundation for Healthcare Improvement (CFHI). Through CFHI, Dr. Rocker will lead a pan-Canadian initiative to adapt and implement innovative approaches to COPD care.

Welcome Aboard to:

- Dr. Ali AlMusawi. Originally from Kuwait, Dr. AlMusawi, recently completed his respirology residency at McMaster University and is now undertaking a 2-year fellowship with our division in pulmonary rehabilitation and sleep medicine.

A Fond Farewell to:

- Dr. Roger Michael, who retired from clinical practice in June 2014, after a long career providing exceptional care to respirology patients in Halifax and Atlantic Canada. Among his many notable achievements was establishing and leading the provincial Cystic Fibrosis and Home Oxygen programs for Nova Scotia.



Dr. Paul Hernandez, Acting Division Chief

Dr. Nancy Morrison, respirologist

Part of delivering high quality health care responsibly is ensuring patients receive the “right” care at the right time. Following this premise, Dr. Nancy Morrison co-led an initiative to develop a new Intermediate Care Unit (IMCU) at the Halifax Infirmary Site of the QEII Health Sciences Centre. The unit was designed by physicians and health care providers from the internal medicine and surgery specialties to best support people with a variety of health problems who require a high level of care but not quite one-on-one intensive care.

The 12-bed unit is larger and brighter than its two-room, eight-bed predecessor, but there is much more to it than what first meets the eye. Its development included new equipment, policies, and procedures to support delivery of the best possible care; a location that facilitates patient transitions; three private rooms, which allow for admission of patients who require isolation; a family room; and more space that makes it easier to teach residents and medical students.

“The joint initiative has resulted in enhanced patient care, better learning opportunities and fewer patients requiring a bed in an intensive care unit,” says Dr. Morrison, who took on the project, with co-lead Dr. Harry Henteleff, as medical director of the Medical Intermediate Care Unit – a position she held between 2006 and 2013.

In July 2013, the respirologist and professor of medicine was appointed medical director of the adult cystic fibrosis clinic at the QEII. The clinic supports about 140 people living with cystic fibrosis in the Maritime provinces.

Dr. Morrison’s willingness to openly question the status quo and routinely ask if there is a better way was critical to



the development of the intermediate care unit and is making an impact at the cystic fibrosis clinic as well. She has so far led efforts to reduce the number of appointment no shows and cancellations, and to make it easier for physicians and patients to reorder medications. Work to encourage patients to connect with their primary care provider for issues not directly related to cystic fibrosis; and to formalize clinic policies and procedures is also underway.

“Our focus is on quality improvement. Care of patients with cystic fibrosis is in a period of change with increased quality assurance not only at Capital Health but across Canada,” says Dr. Morrison. “For our part, we are reviewing our operations and making changes in keeping with national guidelines and other, well respected clinics across Canada.”

In addition to her clinical and administrative responsibilities, Dr. Morrison is currently chair of the Undergraduate Medical Education Committee in the Department of Medicine and is a well-respected educator whose teaching has been recognized by students, residents and peers.

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

Rheumatology

HIGHLIGHTS

Our Patient Care:

- There were 9,307 ambulatory care visits from April 1, 2013 – March 31, 2014, up from 9,060 visits the year prior. This represents a consistent upward trend over the past decade due to physician manpower restrictions. Our referrals remain preferentially biased to those patients with inflammatory arthritis and autoimmune rheumatic diseases or those for whom there is diagnostic uncertainty.

Our Teaching:

- Dr. Jill Wong is a Case Based Learning tutor. Dr. Volodko Bakowsky is the Unit Head for the MSK/Dermatology block. All members 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 full-time and four part-time community based rheumatologists and one family practitioner who has advanced training in Rheumatology.
- One part time medication resource specialist assists patients with obtaining pharmaceutical coverage for Rituximab. This is part of a larger project involving private infusion clinics, co-pay assistance and compassionate coverage from industry.
- Three full-time research staff who support our clinical research program.

Congratulations to:

- Dr. John Hanly on receiving a 5-year operating grant from CIHR. Dr. Hanly remains the only physician with protected research time. He continues to be lead investigator in a CIHR funded international study in CNS Lupus.

Welcome Aboard to:

- Dr. Elana Murphy who has accepted a 0.25 FTE position in our Division starting in July 2014.

A Fond Farewell to:

- Dr. Markus Klaus closed his practice in Tantallon and relocated to British Columbia in June 2014.

Dr. Evelyn Sutton, Division Chief



Dr. Trudy Taylor, rheumatologist

Grasping the ever-advancing world of medicine is difficult; ensuring medical students and residents have the knowledge, skills and competencies to be excellent physicians and leaders in their fields may prove a greater challenge. It is, in fact, a science in and of itself.

When Dalhousie Medical School embarked on revamping its undergraduate curriculum from start to finish, Dr. Trudy Taylor got involved early on, helping to shape what, when and how students would learn about the musculoskeletal system. Through the process, she took on overall responsibility for the musculoskeletal/dermatology unit, part of the second-year medical school curriculum. Dr. Taylor, associate professor of medicine, is now postgraduate program director for the rheumatology residency training program. As such, she oversees resident education in the Division of Rheumatology.

Having identified a love of teaching and of medical education early in her career, Dr. Taylor is cross-appointed to the Dalhousie Division of Medical Education. As a member of that division, she instructs and advises residents on how to teach clinical skills as part of the elective in medical education for senior residents, and is helping to launch a certificate of medical education research at Dalhousie Medical School. Dr. Taylor is also working to help the medical school establish a self-assessment program for students, along-side one of her mentors, Joan Sergeant, PhD, who has nurtured Dr. Taylor's interest in medical education. Dalhousie is among the only universities in Canada pursuing self-assessment for medical students. Appropriate application of the skill has been shown to improve medical judgment and performance.



When Dr. Taylor first joined the Division of Rheumatology in 2006, Dr. Evelyn Sutton recognized her enthusiasm for medical education and encouraged her to take on responsibility for undergraduate education in rheumatology and, later, to increase her involvement in the Division of Medical Education.

"Dr. Sutton and Dr. Sergeant are among Dalhousie's strongest advocates of medical education. They have served as my mentors, identifying many opportunities and encouraging me along the way. The commitment to medical education within the Department of Medicine also deserves notice as well. The department has had a long history of excellence and innovation in medical education," says Dr. Taylor.

Dr. Taylor's involvement in medical education now extends beyond Dalhousie to the national stage. She is co-chair of the Canadian Rheumatology Association resident pre-course, helping to lead the design and implementation of the annual course, and serves as the Atlantic Canadian representative of the rheumatology specialty committee to the Royal College of Physicians & Surgeons.

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

Saint John NB Campus

HIGHLIGHTS

Our Patient Care:

- In stroke therapy, time is brain; that is, rapid access to therapy such as thrombolysis can improve outcomes. In smaller centres without rapid access to neurologists with expertise in stroke, the opportunity to treat otherwise eligible patients is lost. One way to address this is by using telehealth services – **TELESTROKE** – to provide real-time assessment of patients by a stroke neurologist, regardless of where they are. Even in a smaller hospital without an in-house stroke specialist, a neurologist can discuss the case, view the CT scan, examine the patient, and help decide whether thrombolysis is warranted. The program launched in Saint John, Fredericton and Moncton in September 2014; more sites will come online throughout the fall with a province-wide launch expected by December 2014. Patients with stroke symptoms are brought to hospitals with CT access. The emergency room physician arranges for a CT of the head, and contacts the neurologist on call. Using a dedicated laptop with secure internet, the neurologist reviews the scan and patient history. They then link using a webcam to a remote camera in the patient's room, where they can assess, interview and examine the patient with the help of local nursing. The neurologist then helps decide if the patient is a candidate for thrombolysis, and offers the emergency room physician further support as needed. It's an idea suited to New Brunswick's population, and will hopefully bring this therapy to more and more people in all regions of the province.

Our Team:

- We are very pleased to welcome three new physicians to the Saint John campus: Dr. Elizabeth Zed, a hematologist, whose practice will include benign and malignant hematology and clinical research; Dr. Amelia Barry, a physiatrist, has interests in electrodiagnostics, MSK, concussion, and stroke rehab; Dr. Dylan Blacquiére a neurologist, and the Telestroke lead whose academic interests include acute stroke and secondary stroke prevention as well as developing systems of care; and Dr. Markus Tutschka who will be doing ICU and GIM, and has expertise in bedside ultrasonography.
- Our resident complement in 2013/14 included 9 core Internal Medicine residents.

Dr. Paul Sohi, Acting Department Head



Dr. Stephen Hull, endocrinologist

Dr. Stephen Hull is leading quality improvement and patient safety efforts in the Department of Internal Medicine, Saint John Regional Hospital. He chairs the Medical Quality Improvement Committee, bringing with him his interest in quality improvement and experiences as an endocrinologist and internist in Northern Ireland. The native of Belfast joined the Saint John Regional Hospital and Dalhousie Department of Medicine, as assistant professor of medicine, in 2011.

During his time at the Mater Hospital (Belfast) there was a big push to improve quality of care and patient safety. Mater Hospital was one of 20 hospitals chosen in 2006 to take part in the safer patients initiative, which focused on data collection and using the Institute for Healthcare Improvement's model for improvement to test and introduce changes to frontline care.

"The work was challenging but rewarding and revolutionised how I think about healthcare. The project was a springboard to many other initiatives in the UK because of its success which included a greater than 50% reduction in MRSA, MSSA bacteraemia and C difficile infection in all four countries of the UK between 2006 and 2011," says Dr. Hull.

In his current role as chair of the Medical Quality Improvement Committee, Dr. Hull's aim and that of the committee is to focus on reducing preventable deaths, adverse events (including adverse drug events) and venous thromboembolism (a blood clot that occurs in a deep vein of the body and then breaks free and enters the arteries of the lungs).

He also hopes to further improve infection prevention at



the Saint John Regional Hospital through initiatives such as use of "bare below the elbows" principles wherein healthcare providers employ preventative measures which include refraining from wearing jewelry on their arms and hands and wearing short sleeves or keeping sleeves rolled above the elbows to enable better washing before and after patient contact, better management of IV lines and foley catheters, and antibiotic stewardship.

One of the key factors in quality improvement is the analysis of appropriate data. "We need to know how we are doing and whether the changes we implement are making a difference," says Dr. Hull. He notes that a lot of information is collected in the health system but not always shared with or considered by front line clinicians.

"We have already made some progress on this front, simply by asking for information. Quality improvement is a shared responsibility and requires working together with clinical colleagues and administrators to achieve sustainable results. Our bottom line should be the best possible outcomes for our patients with the least possible harm occurring as a result of our management and treatment," says Dr. Hull.

Division Physicians: Anil Adisesh • Oriano Andreani • Amelia Barry • Colin Barry • Kathy Baxter • Ricardo Bessoudo • David Bewick • Graham Bishop • Dylan Blacquiére • Margot Burnell • Tania Chandler • Alan Cockeram • 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 • Glen Sullivan • Robert Teskey • Satish Toal • Mark Tutschka • Duncan Webster • Chadwick Williams • Elizabeth Zed

In 2013/14 there were **143.4** FTE physicians in Department of Medicine's **15** divisions, including 11 nephrologists and medical oncologists in Sydney and Kentville. All are faculty members with Dalhousie University's Faculty of Medicine.

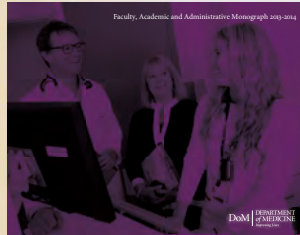
Clinical Care

- DoM physicians provided in-patient care for a total of 110,404 bed days at the QEII.
- 16,632 in-patient consultations were provided.
- 152,140 ambulatory patient visits to clinics.
- 20,802 registered chart checks and phone consultations provided by DoM physicians.
- Geriatricians and Palliative Medicine physicians provided and/or supervised 2,233 home visits.
- 2,647 cardiac catheterizations performed and an additional 1,778 PCIs performed by interventional cardiologists.
- 89,501 ECGs performed.
- 6,966 Stress Tests and 1,488 holter monitors and loops.
- 627 pacemakers, AICDs and BIVs inserted.
- 435 cardiac electrophysiology studies and ablations performed.
- 12,239 cardiac echos performed.
- 9,304 patients were treated in Dermatology Phototherapy Unit.
- 6,659 endoscopies performed by Gastroenterologists.
- 10,918 hematology procedures performed in Medical Day Unit.
- 107 bone marrow transplants performed.
- 38,995 hemodialysis procedures performed at Capital Health only.
- 726 acute hemodialysis procedures performed on in-patients.
- 13,302 chemotherapy treatments provided at Capital Health and Cape Breton.
- 2,150 EMGs performed.
- 1,267 EEGs performed.
- 2,498 telemedicine consultations by dermatologists and physiatrists.
- Satellite clinics are provided by Geriatric Medicine, Hematology and Medical Oncology.

Education & Research

- DoM has a total of 110 residents; 54 core Internal Medicine; 56 sub specialty residents.
- DoM faculty provided 900 hours teaching the Skilled Clinician series and 88 hours teaching Rotating Electives for Med 1 students.
- DoM faculty provided 742 tutor hours for Med 1, 2 & 3 Case Base Learning, and 112 hours teaching Med 3 Wednesday seminars. 15 hours were spent by DoM faculty teaching the Med 2 to 3 IMU link.
- Med 2 Teaching for Cardiology, Musculoskeletal, Neuro, Respiriology and Consolidated Clinical Skills totaled 1,150.5 hours provided by DoM faculty.
- DoM faculty provided 129.5 hours acting as examiners for Med 2 & 3 student's clinical exams (OSCE's).
- A total of 627 two and four-week undergraduate electives were provided by DoM faculty in a variety of divisions in 2013/14.
- DoM Faculty taught for a total of 96 hours at Academic Half-Day in 2013/14.
- A total of 823 four-week clinical rotations were supervised by DoM faculty for postgraduate trainees (residents) in 2013/14, including 285 rotations for non-medicine Dalhousie residents.
- DoM faculty received a total of \$18,357,054 in research funding in 2013/14, including Industry/Contract funding of \$ 12,402,783 and grants totaling \$6,404,721.
- 133 DoM faculty were involved in 90 abstracts/research presentations at international medical conferences; 87 faculty were involved in 47 abstracts/research presentations at national conferences, and 75 faculty were involved in 43 abstracts/research presentations at local conferences.
- 8 peer reviewed and 5 non-peer reviewed book chapters and review articles were published by DoM faculty in 2013/14.
- 2 peer reviewed book/monographs were published in 2013/14.
- 3 patents were issued.
- 5 non-peer reviewed letters to the editor or editorials were published.
- 179 peer reviewed papers were published and 9 non-peer reviewed papers were published.
- 19 PGY1 residents completed a mandatory research methodology course in 2013/14.





- For more detailed information regarding the academic and administrative deliverables provided by Department of Medicine, please see the **Faculty, Academic and Administrative Monograph 2013/14** on our website: <http://www.medicine.dal.ca/departments/department-sites/medicine/about/annual-reports.html>
- For detailed information related to specific clinical activities provided by Department of Medicine Divisions, please see the **Compendium of Divisional Activity 2013/14** on our website: <http://www.medicine.dal.ca/departments/department-sites/medicine/about/annual-reports.html>
- 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://www.medicine.dal.ca/departments/department-sites/medicine/patient-care/for-referring-physicians.html>
- 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://www.medicine.dal.ca/departments/department-sites/medicine/patient-care/for-referring-physicians.html> or <http://waittimes.novascotia.ca/>



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Capital Health



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