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Educational Activities

Program Director: Dr. Nick Valettas

The Cardiology Residency Program has expanded to a total of 12 trainees, 4 of whom are Gulf State Trainees. Presently, all core rotations occur at the Hamilton General Hospital, with the exception of two blocks of Pediatric Cardiology/Adult Congenital Heart Disease at McMaster University Medical Centre and one block of Junior Attending at the Juravinski Hospital. Elective rotations provide the opportunity for trainees to explore off-site, community-based cardiology practice. Unique to the program this year has been an international cardiology elective undertaken by two of our trainees in Uganda with the objective of developing a didactic but interactive, internet-based, educational curriculum for the local cardiology trainees along the lines of our academic half-day.

In addition to providing an excellent clinical experience, the training program has also delivers a strong didactic curriculum. The academic half-day is designed to cover all core topics in cardiology, which are complemented by dedicated didactic teaching sessions during Cardiac Catheterization, Echo, Arrhythmia, and EKG rounds. New this year has been the introduction of Morning Report, a weekly case-based teaching session for all residents on the CCU and CIU rotations. Additionally, monthly Patient Safety Rounds provide important teaching opportunities on quality control and patient safety. Research rounds complete the formal educational activities and provide the trainees with an in-depth exposure to research methodology and critical appraisal. Multiple evaluative tools (OSCE’s, written and oral examinations, and ITE’s), are used to assess a trainee’s progress and prepare him/her for the Royal College Sub-specialty examination in Cardiology.

Research Program

The major research programs in the Division are in clinical trials and epidemiology studies on the major factors affecting cardiovascular health. These are on the following themes in which divisional members play leading roles as Principal/Lead Investigators, working through national and international networks: acute coronary syndromes and myocardial infarction, cardiac arrhythmias (sudden death, implantable defibrillators, rhythm and anti-thrombotic management in atrial fibrillation), heart failure (in-hospital and community management), prevention of cardiovascular disease (primary and secondary prevention, risk factors), and quality of care initiatives. While most of these studies are carried out under the umbrella of the Population Health Research Institute, individual members also collaborate and lead other studies with national and international colleagues in addressing major questions in cardiology and cardiovascular diseases.

All of these studies will have a large impact on the understanding and treatment of almost all aspects of cardiac and cardiovascular risk factors and diseases. Funding for these studies comes from numerous sources, including national granting agencies and industry partners. Members have been successful in obtaining major grants from the CIHR, Heart and Stroke Foundation and other granting authorities. A major strength of the Division continues to be the mentorship, help and support provided to junior colleagues with research programs to help them become established. Reflecting broad involvement by members and the large areas of research, the Division continues to maintain prolific publication productivity with over 100 publications per year. Findings from the research have influenced the prevention and treatment of cardiovascular diseases globally.

Major Achievements

The Cardiology Division continues a very active role in cardiovascular research. It is associated closely with the Population Health Research Institute (PHRI) and many members of the Division of Cardiology are active scientists within this institute.
The Clinical Immunology and Allergy training program is the only integrated Adult/Pediatric program in the country and received full approval in the last Royal College onsite review. Dr. Michael Cyr continues as Training Program Director. There is also a RCPSC-approved combined subspecialty training program in Rheumatology/Clinical Immunology that has previously trained one candidate.

There are six fellows, from both Pediatrics and Internal Medicine (one Clinical Fellow from overseas), currently in full-time training. In addition to medical residents, clinical clerks train in Clinical Immunology and Allergy along with medical students doing electives. Graduating trainees have proceeded to academic and clinical careers in Clinical Immunology and Allergy in Canada and internationally. In addition, a substantial number of postdoctoral PhD and MD research fellows, as well as visiting scientists, regularly join our division.

Undergraduate teaching is well supported by our divisional faculty. Our weekly Allergy and Immunology Rounds, with internationally renowned invited speakers on occasion, are a major success. Other seminars, journal clubs and teaching sessions are a regular feature including the weekly academic half-days.

Dr. Judah A. Denburg
MD, FRCPC
Division Director

Research Programs
Principal research themes are Inflammation and Immunity as they relate to the respiratory tract (allergic rhinitis, nasal polyposis, asthma), but with interests also in other organ systems. Specific themes for which the group has international renown include autoimmune diseases, mechanisms of allergic inflammation and immune regulation, respiratory inflammation, asthma, and reproductive immunology. Peer-reviewed and private sector funding for investigation into allergic airways inflammation, food allergy, immunoregulation, stress and immunity, and new biologics and peptide vaccines in pre-clinical and clinical models continues to grow. Thus, there exist many research opportunities for students, postdoctoral fellows and others pursuing continuing medical education for an investigative career. The presence of AllerGen NCE at McMaster has allowed for major expansion of ongoing research collaborations, especially in food allergy, asthma and the development of atopy.

Major Achievements
Dr. Paul Keith currently is serving as the Vice-President of the Canadian Society of Allergy and Clinical Immunology and is active on the planning committee for their annual scientific meeting. Dr. Susan Waserman is Chair of the Royal College Specialty Committee for Allergy and Clinical Immunology. Dr. Mark Larché, Canada Research Chair in Allergy and Immune Tolerance was the recipient of a large, prestigious grant from the NIH to study mechanisms of peptide-vaccine immunotherapy for allergic diseases. Dr. Judah Denburg led a successful, seven-year renewal bid by AllerGen NCE.

Future Directions
With all the above activity, maintenance of a critical mass of academically committed members of our division is a high priority. The growing outpatient load and the hospital restructuring make it necessary to provide greater service to a larger volume of both adult and pediatric patients over a larger area. Moreover, the international stature of research emanating from our Division at McMaster, with new opportunities of linkage to respiratory health, rheumatology and inflammation provide continued opportunities for academic growth of our Division.
Although the Division is the smallest in the Department, members play a major role in education. This includes year-round supervision of medical students and residents on internal medicine clinical services at St. Joseph’s Healthcare and Hamilton Health Sciences, as well as elective rotations through our specialty service. Faculty members are active supervisors in postgraduate education at the Masters and PhD level in Medical Sciences, Pharmacology, Health Research Methodology and Pharmaceutical Sciences at both McMaster University and the University of Toronto. The Division draws Doctor of Pharmacy students from across the country, as well as undergraduate pharmacy, health sciences and statistics students. We are part of national and provincial training programs in Drug Safety and Effectiveness and Drug Policy.

Clinical Pharmacology and Therapeutics (CPT) participates in a University of Toronto-coordinated clinical pharmacology and toxicology residency training program accredited by the Royal College of Physicians and Surgeons of Canada. We are actively recruiting trainees and graduates. We continue to lobby for joint specialty-clinical pharmacology training.

Research Programs
Despite its small numbers, the Division continues to be highly successful in attracting research funding, largely because of a very wide collaborative network within medicine, pharmacy, nursing, epidemiology, economics and the social sciences. Grants come from a variety of peer-review sources. Our research topics focus on the benefits, harms, economics and evidence for therapies and include projects examining methods of improving prescribing, the impact of electronic medical records and computer-based decision support, the impact of changes in drug policies on health and health care utilization, patient preferences regarding therapies, the development, dissemination and implementation of evidence-based guidelines for therapies, medication assessment and pharmacist intervention in primary care clinics, medication adherence support, patients’ needs for therapeutic information, electronic registries and automated data collection for outcomes research in priority diseases, and mechanisms of drug interactions. As well as scholarly papers and presentations, members of the Division hold multiple copyrights and patents on research products, software, reports and guidances.

Major Achievements
The recent department initiative to quantify and rank academic activities of all faculty has shown that clinical pharmacologists are amongst the top percentile group. One of the unique features of our division is its ability to directly impact professional practice and patient care through drug policy decision-making. Our leadership in evidence-based therapeutics and inter-professional practice leads to multiple major advisory roles with the federal and provincial governments, as well as leadership positions in provincial and national professional societies.

Future Directions
Since therapies are a prevalent and increasingly costly sector of health care, clinical pharmacologists with training in medicine, pharmacology and epidemiology are in high demand but critically short supply. Thus, a major immediate goal of the Division is the recruitment of new members to allow us to address the significant needs for therapeutics and toxicology consultation, for education to improve prescribing practices and medication safety, and to expand our involvement in health policy and research.
The Critical Care Program continues to offer a Royal College accredited two-year Fellowship Program (Program Director: Dr. T. Karachi). We currently have 15 national or international fellows in the Program. The Critical Care Program offers formal rotations for residents from a variety of other specialties. There is a formal selective rotation in critical care being offered to medical students in their clerkship (Organizer: Dr. H. Whittingham), as well as formal electives to medical students and residents. We continue to provide a multidisciplinary regional critical care journal club. There continues to be Regional Critical Care Rounds hosted by the faculty. We offer a national advanced Critical Care Simulator Course (Organizer: Dr. A. Fox-Robichaud) using a state-of-the-art laboratory. Faculty provide formal educational sessions on a daily basis, as well as a once weekly academic half days for Critical Care residents.

Research
The Adult Critical Care Fellowship Program mandates all fellows to complete a research project under the supervision of faculty. There is an Annual Fellows Research Day in conjunction with the Fellowship Program at the University of Western Ontario. Many of the abstracts/projects are also presented at a variety of international conferences with subsequent peer-reviewed publication. Drs. D. Cook and M. Meade co-chair a research mentorship group dedicated to formal training in research methodology and stewardship. Members of the Division are active participants in the Canadian Critical Care Trials Group dedicated to designing and implementing multi-centre, multi-national trials in Critical Care Medicine. Several members of the Division are either principal or co-investigators in a variety of trials including studies involving modes of mechanical ventilation best suited for patients with ARDS; management/mechanisms in septic shock; and sedation protocols in ICU, just to name a few.

Major Achievements
Dr. D. Cook remains the Co-chair of the evidence-based practice centre at McMaster University as well as the Director of ICU Clinical Effectiveness and Outcomes Research at St. Joseph’s Healthcare, Hamilton. She remains the Academic Chair of Critical Care Medicine at McMaster University and holds the McMaster University/St. Joseph’s Healthcare Regional Academic Chair in Critical Care Medicine, as well as the Canadian Research Chair of Research Transfer in Intensive Care.

Through the Ministry of Health there has been the establishment of Critical Care Response Teams (RACE) from which are hospitals. Dr. P. Kraus sits on a provincial-wide Critical Care Committee, which advises government and/or creates policy with "We have expanded Critical Care beds both at the Hamilton General and St. Joseph’s Hospital (Medical Director: Dr. M. Soth) sites in order to accommodate our regional mandates in Trauma, Neurosurgery, Respiratory and Nephrology. We have consolidated ICU beds/resources at the Juravinski site to further accommodate our regional mandates in Oncology, Orthopaedics and tertiary care level services (Medical Director: Dr. T. Karachi). We have created the Women’s Reproductive Health ICU based at McMaster (first of its kind in the region) dedicated to high risk Obstetrics/Gynecology (Medical Director: Dr. A. Freitag).

Future Directions
We will continue to provide support and leadership in the delivery of Critical Care Services in Hamilton as well as the LHIN. We are working with the LHIN to establish a regional chronic ventilator assessment unit/program based at St. Joseph’s Hospital. We will endeavor to create a Critical Care Response Team based at the Juravinski Hospital."
The combined McMaster University/University of Toronto postgraduate residency program is now in its second year and has had a very successful beginning. The medical staff at McMaster and Brampton has most kindly agreed to support the training of one resident per year. PGY1 and 2 years are completed in Hamilton and region in addition to subsequent elective time in upper years. The rotations include GIM, subspecialties, CTU, emergency, adult and pediatric dermatology, and plastic surgery rotations. Half days are spent on Fridays at the University of Toronto. This year’s new PGY1 resident is Dr. Michael Corbo, a former graduate of BSc Health Sciences and MD programs at McMaster. In addition to core rotations, Michael attends dermatology clinical rounds and journal club in Hamilton.

Undergraduate teaching continues to be offered through tutorial based dermatologic problems and E-learning modules. Days in Dermatology continue to be offered at the McMaster, St. Catharine’s, and Waterloo campuses with combined lecture, patient viewing and clinical teaching.

Clinical rotations are organized for undergraduate medical students; Family Medicine, Internal Medicine and Plastic Surgery residents. Drs. Muhn, Edstrom, O’Malley, Rosen, Murphy, Vender, Vignjevic, Wismer, Saveriano and Lima offer block and horizontal electives.

Clinical Recruitment

The Division will be welcoming a new GFT faculty member, Dr. Rosilene Lanzini, MD, MSc, PhD. Dr. Lanzini is a dermatologist board certified in Brazil. She completed her masters in Medical Sciences with a major in Dermatology in 2001, and PhD Internal Medicine with major in Dermatology in 2010 in Curitá, Brazil. She was head of Dermatology Surgery at the Faculdade Evangélica do Paraná (Brazil). There she helped establish a new model of dermatology residency training. Her interests include surgical dermatology, skin cancer, population education, teledermatology and image processing. Rosilene speaks four languages and is fluent in three. She will be attending the Waterloo campus out-patient facility with two days per month at McMaster. She has been actively organizing surgical skills teaching for family physicians and medical students.

Also new to the Dermatology community is Dr. Rahul Shukla. Dr. Shukla is a board certified dermatologist both in Canada and in the United States. He is an active member of many professional associations including the Canadian Dermatology Association, American Academy of Dermatology, and the American Academy of Dermatology Residents and Fellow Committee. Dr. Shukla received his Bachelor of Health Sciences degree from Brock University where he also received the Governor General Silver Medal awarded to the graduate with the highest academic standing. Afterwards, he completed his undergraduate medical education at McMaster University and subsequently completed dermatology residency at the University of Toronto where he served as chief resident in his final year.

The training, recruitment and retention of excellent academic clinicians continue to be a priority within the Division of Dermatology

He has served as a reviewer for the Journal of the European Academy of Dermatology & Venereology, published several peer-reviewed manuscripts and has had abstracts presented on a national as well as international level.

Currently, Dr. Shukla serves as a dermatologist at the Dermatology Centre in Hamilton and also works as a sub-investigator at Dermatrials research centre. He is interested in a variety of aspects of dermatology including medical, surgical and cosmetic dermatology.

Clinical Activities

Members of the Division continue to participate in subspecialty clinics outside of their individual practices. This includes Dr. Hermenio Lima (Waterloo campus and MUMC out-patient clinics), Drs. Nathan Rosen and Channy Muhn (JCC skin cancer clinic) Dr. Maureen O’Malley (Vascular Anomalies Clinic, MUMC), Dr. Ron Vender (Stoney Creek Clinic, international lecturer and expert in biologic therapies for psoriasis), Dr. Nellina Saveriano (St. Joseph’s Out-patient Clinic), Dr. Judy Wismer (MUMC Out-patient, Residency Director).

Future Direction

The training, recruitment and retention of excellent academic clinicians continue to be a priority within the Division of Dermatology. Wait times and access to care continue to be challenges that may ease as the first McMaster dermatology residents graduate and new recruitments are added. The Dermatologists of this community continue to fully participate within the Department of Medicine as leaders and innovators within the multi-disciplined team.
Resident education continues to be a major focus of the division with Dr. Ian Preyra as the Program Director. The CTU has been reorganized with a single CTU director for both training sites, HHS and SJHH, under the leadership of Dr. Alim Pardhan. We hope with using a combined model there will be more consistency between the organization of clinical responsibilities of the residents. In addition to EM residents, the Division provides one to two block rotations to over 180 off-service residents. The Emergency Departments and the Division would like to thank the former CTU Directors, Drs. Rebecca Mallin and Joe Cherian, for their capable management and diligence in ensuring smooth functioning CTUs.

Dr. Jonathan Sherbino was the recipient of the Canadian Association of Medical Educators 2011 Educator Award.

June saw a very successful Division Awards Dinner. The most important award is for the faculty member who is recognized for their Excellence in Teaching. The nominees are involved in many facets of Emergency Medicine education that include clinical supervision, research mentorship, academic half day activities, undergraduate teaching, and program development to name a few. There were five nominees: Dashminder Sedehve, Kris Hawley, Jonathan Sherbino, Alim Pardhan, and Rebecca Mallin. This year’s recipient was Jonathan Sherbino for his outstanding contributions in 2011-2012.

Dr. Teresa Chan, PGY 4 was recognized as the Outstanding Resident for 2011-2012 and special mention should be made of Teresa’s achievements. In the past 12 months, she has won the 2012 DMA Resident Achievement Award, 2011 CAEP Resident Research Award, PAIRU Teaching Award for McMaster University, and Royal College Fellowship Award for Research in Education.

Our congratulations to all of the nominees and winners, and our thanks to all faculty who strive for excellence in their teaching, clinical supervision and research activities.

The second annual Clinical Epidemiology Blitz, a one day review course directed at residents and fellows writing their fellowship exams, was held. Enrolment increased with 45 attendees from three Universities and plans are being made for a third course. The course evaluations were very positive so planning is underway for 2013.

After leading the Undergrad EM program for the past three years, Dr. Sarah McClennan has decided to consolidate her practice closer to her home and will be leaving McMaster University and the HHS. A search is underway for a new Undergraduate EM Coordinator. The Undergraduate Teacher of 2011-2012 was Dr. Rebecca Mallin.

The BEEM (Best Evidence in Emergency Medicine) course was again held in two venues, SABEEM at Silver Star in BC for the skiers and SteelBEEM in Hamilton. The recent annual EBEM course was well attended with 100 participants from the region and included nurses, paramedics, and physicians. EBEM 2012 will see a new format with many more topics of 10 minutes each.

Research Activities

Building a more robust research profile continues. Dr. Wendy Bhanich Supapol has settled into the division working with the residents to increase the quality of their research projects and taking the lead on the LHNH research project “Measuring and improving quality of care in the Emergency Departments of the HNHB LHNH: Knowledge Generation and Transfer.” Dr. Andrew Worster, Research Director, continues to be involved in collaborative research projects. Dr. Michelle Welsford, Medical Director, HHS Centre for Paramedic Education and Research is very active in research and supervises an EMS project for each resident during their residency.

This year saw an increase in resident research activity and at the Resident Research Day, Michelle Liebregts and Jonathan Smith received the Study Design Award, and Teresa Chan had the best Original Research Design.

Major Achievements

Dr. Jonathan Sherbino was again honored for his educational activities and was the recipient of the Canadian Association of Medical Educators 2011 Educator Award.

Dr. Andrew Worster was the invited International Speaker to the Austral-Asian College of Emergency Medicine Winter Symposium and a tutor at the Oxford University Centre for Evidence Based Medicine Workshop.

The recent annual EBEM course was well attended with 100 participants from the region and included nurses, paramedics, and physicians.

Future Directions

Members of the Division will continue to provide quality emergency care in three hospital Emergency Departments and two Urgent Care centres, treating over 200,000 patients annually and training medical students and residents. Strategic recruitment will be important to continue to build the academic profile.

Dr. Bandar Baw has joined the Division and is the first member who has completed training in Clinical Pharmacology and Toxicology. He will be an excellent resource person for teaching in toxicology to Medical Students and Residents and in providing patient care.
**Educational Activities**

1. **Undergraduate Medicine**
   a. Planning and leading large group sessions
   b. Tutoring in MF2, MF3 and clerkship, and clinical skills preceptorships
   c. Advising for the McMaster University Medical Journal
d. OSCE examinations
e. Co-editor Toronto Notes, University of Toronto

2. **Postgraduate Medicine**
   a. Teaching on the CTU
   b. Co-chairing the McMaster University Internal Medicine Review Course
c. Clinical electives in Endocrinology and Metabolism
   d. Monthly city-wide Endocrine/Metabolic Grand Rounds and Journal Club
e. Directing the International Health Program for Internal Medicine
f. Program Director of Medical Biochemistry Residency
g. Member Specialty Committee CCFP

3. **Postgraduate Health Research Methodology and Other Programs**
   a. Several postdoctoral & MSc students
   b. Several thesis committees and chairs
c. Examiners for 3 PhD comprehensives and dissertations

4. **Other Education Including CME, and General Public Education**
   a. Organization of one diabetes and one endocrinology CME Program
   b. Faculty for CME events for family physicians, specialists, and allied health professionals in more than 100 local, national and international forums
c. Editorial consultant for American College of Physicians – PIER (Physicians Information and Education Resource) module on hypercalcemia
d. Editorial board membership for several journals
e. Canadian Hypertension Education Program (CHEP) Tools Implementation Task Force
f. Editor of Handbook of Parathyroid Diseases
g. Chair/Co-chair/Committee for:
   i. Canadian Diabetes Association Clinical Practice Guidelines
   ii. Doctors for Humanity Public Forum (an international organization dedicated to improving wellbeing by providing access to advances in Medicine);
   iii. Scientific program of an international diabetes symposium
   iv. International Consensus on Osteonecrosis of the Jaw

**Collaborative research across disciplines is the key distinguishing characteristic of the division.**

**Research Programs**

**Collaborative research across disciplines is the key distinguishing characteristic of the division.**
All members of the Division are directly or indirectly involved in research. Several members are pursuing an extensive program of basic and clinical research related to obesity, diabetes, dysglycemia, cancer and cardiovascular disease, bone diseases, and osteoporosis. These are done in close collaboration with the Population Health Research Institute, members of other divisions, the Department of Clinical Epidemiology and Biostatistics, the Centre for Evaluative Medicines, and other universities around the world. They include:

1. Receipt of 10 new operating grants from peer-review agencies or industry;
2. Designing and running international trials of CV prevention in diabetes
3. Piloting therapies to induce Type 2 diabetes remission;
4. Publication of more than 40 peer-reviewed articles or chapters in the 2011-2012 academic year in leading journals;
5. Causes of obesity and adiposity in South Asian and European origin children;
6. Metabolic causes of inactivity, obesity and dysglycemia and the role of AMP kinase;
7. Basic and clinical research related to the causes and consequences of dysglycemia;
8. Studies of the inpatient therapy of thyrotoxicosis and clinical trials pertaining to the therapy of goitre
9. International leadership of, and participation in, several international clinical trials of various approaches to prevent serious health outcomes in dysglycemic individuals;
10. International leadership in osteonecrosis, bisphosphonate therapy, and metabolic bone diseases;
11. Service on two international DSmBs

**Major Achievements**

1. The postgraduate training program successfully graduated its 1st subspecialty Endocrine fellow in June 2012.
2. The Division organized and conducted the 1st annual Canadian Endocrine Review Course
3. Dr. Will Harper received the Department of Medicine Teaching Award, Undergraduate Studies and the Dr. An Shali Teaching Award
4. Dr. Meera Luthra was named Consultant of the Year by Family Medicine.
5. Dr. Ally Prebtani received the MD Undergraduate Medicine Clerkship Teaching Excellence Award
6. Dr. Natalia Yakubovich was awarded the ICAO-Lilly Research Award for a presentation, and the McMaster Internal Medicine Career Award
7. Dr. Aliya Khan was awarded the International Clinician Instructor of the Year by the International Society of Clinical Densitometry and the Queen Elizabeth Diamond Jubilee Award for Excellence in Clinical Care and Research

**Future Directions**

1. Developing/assessing innovative educational approaches for patients and physicians
2. Ongoing research assessing:
   a) Molecular mechanisms by which obesity causes insulin resistance/Type 2 diabetes
   b) Role of fats and inflammation as major contributing factors causing metabolic disturbances observed with obesity
   c) How and why exercise prevents/reverses Type 2 diabetes
   d) Causes and consequences of dysglycemia and obesity
   e) Mechanisms for the development of osteonecrosis of the jaw
   f) Advances in the medical management of primary hyperparathyroidism
   g) Improving health care delivery during transition from pediatric to adult services.
The popularity of the Division of Gastroenterology’s national endoscopy training programs continues to grow. This includes a “Train the Trainers” course and the sixth annual McMaster Residents’ Endoscopy Training Course. Dr. David Armstrong, Dr. Frances Tse and Dr. John Marshall organize this course, with invaluable support from the English NHS National Endoscopy Training Lead, Dr. John Anderson. The course has increased in popularity annually with GI residents from Vancouver to Halifax attending. The Gastroenterology Resident Training Program is one of the most highly regarded in Canada, under the leadership of Dr. Frances Tse as program director. Dr. Eric Greenwald has been appointed as Medical Foundations 2 Director.

Research Programs
The Division has been at the forefront of GI research for almost 30 years, culminating in the creation of the Farncombe Family Digestive Health Research Institute (FFDHRI) thanks to a generous gift of $15 million from the Farncombe family. Dr. Paul Moayyedi is the Acting Director of the FFDHRI and many of the GI Division faculty are also members of the Institute. The close proximity between clinicians and scientists with diverse disciplines such as immunology, physiology and microbiology has provided an environment for truly innovative bench-to-bedside research. The FFDHRI houses the Farncombe Family Gnotobiotic Facility, the only germ-free facility in Canada. Together with the metagenomic lab and the 454 sequencer, this will allow us to understand how gut flora interact with the host to cause disease in the GI tract and beyond.

The Upper Gastrointestinal and Pancreatic Diseases (UGPD) Cochrane Review Group also has its base within the FFDHRI under the leadership of Dr. Paul Moayyedi and Dr. Grigoris Leontiadis. This produces high quality systematic review published in the Cochrane Library that informs clinicians and patients worldwide on evidence-based medicine. We are one of the top two GI research groups in Canada and one of the top ten worldwide. GI division members have published over 2,500 papers that have been cited over 72,000 times. Six members (Drs. Wallace, Collins, Hunt, Huizinga, Surette and Moayyedi) have an h-index over 40 (“outstanding scientist”). In 2011-2012 work from the GI division was cited over 8,000 times.

Major Achievements
Dr. David Morgan was the President of the Canadian Association of Gastroenterology in 2011-2012. Dr. Paul Moayyedi is the joint Editor-in-Chief of the American Journal of Gastroenterology and his appointment was renewed for another 3-year term. Dr. Elena Verdú received the Masters Award in Gastroenterology at the 2011 American Gastroenterology Association meeting for her outstanding contributions to research. She was also awarded a Canada Research Chair. Dr. Richard Hunt gave the prestigious Richard D. McKenna Memorial Lecture at the Canadian Association of Gastroenterology 2012 meeting and was also awarded the highly esteemed Marshall and Warren Medal by the European Helicobacter pylori Study Group in 2012 for his services to research. Drs. John Wallace and Steve Collins were elected to the Canadian Academy of Health Sciences in 2011. Dr. David Armstrong was awarded the Canadian Association of Gastroenterology Clinical Visiting Professorship for 2012.

Future Directions
The Farncombe Family Digestive Health Research Institute will provide an innovative environment with the collaboration of clinical and basic science researchers. Our challenge is to maintain this integrated approach of bench-to-bedside research with the reorganization of health care in Hamilton. Our goal is to unravel how nutrition and gut flora interact with the intestinal mucosa to produce health and disease. This applies not only to disorders of the digestive tract, but has implications for diseases in all organ systems.

We are one of the top two GI research groups in Canada and one of the top ten worldwide.
The Division of General Internal Medicine (GIM) continues to maintain its academic mandate in education and research, and in addition maintains a vibrant clinical service at the three academic sites in Hamilton.

The Division has 38 members comprising of 30 full-time GFT members, 6 part-time (non-GFT) members and 2 Clinical Scholars. In addition, there are members from other divisions who have a secondary appointment in GIM and participate in GIM activities. The Division continues to have regular divisional meetings which are well-attended and all issues pertaining to GIM activities are discussed during these meetings.

In the last 12 months, we have recruited two new academic General Internal Medicine specialists and these are Dr. Juan Guzman and Dr. Mohamed Panju.

The Division continues to provide exemplary clinical service and education at the three academic sites in Hamilton. The three Clinical Teaching Units are robust, active and vibrant and feedback from the housestaff has been extremely positive.

In the last year, along with Dr. John You, Assistant Professor of Medicine and Clinical Epidemiology & Biostatistics and a General Internal Medicine physician at Hamilton Health Sciences, we have focused on developing a research program for GIM which is intended to be initiated by investigators from the Division where they undergo a competitive process and submit a proposal for funding. In the last 12 months we used our academic Alternate Funding Plan resources to fund four research projects and are continuing to do that for the coming 12 months.

In response to our document “Academic Internal Medicine – A Sustainable Future” we were fortunate in having Hamilton Health Sciences and St. Joseph’s Healthcare help us in our clinical activities by providing Nurse Practitioners and Physician Assistants at the three academic sites in Hamilton. In addition to our Clinical Teaching Units, we maintain non-CTU activities and these are supported by NPs and PAs.

We held our 4th McMaster University Review Course in Internal Medicine in March 2012 and this was attended by over 600 registrants from across the country. The feedback we received was outstanding and we are in the process of planning for the 5th Review Course in April 2013.

With the help of Dr. Zahirah Khalid, we also held an Ultrasound Course for General Internists to increase their competence in using ultrasound at bedside, particularly for central venous lines.

We were fortunate this year to receive funding from a grateful patient (Dr. Panju’s patient) to donate a cardiac simulator “Harvey”. “Harvey” is now housed at the Simulation Lab and under the guidance and leadership of Dr. Khalid Azzam, we are planning multiple activities to improve clinical skills in cardiac examination for our junior and senior learners and prepare them for their fellowship exam.

Our academic GIM Fellowship Program continues to thrive well. Under the leadership of Dr. Rajendar Hanmain, we were able to attract three outstanding residents who will pursue a career in academic internal medicine. This year we have already received multiple applications for our GIM Fellowship Program.

We are in the finishing stages to tender the construction of McMaster Adult Academic Clinic (MAAC) which will be based at McMaster Site. This clinic will have, what we believe, to be the first clinical out-patient Clinical Teaching Unit in the country and Dr. Shariq Haider and Dr. Mohamed Panju are leading the Division and helping to devise a structure for the ambulatory CTU. Multiple off-site visits have taken place to learn what has been done in the past, and Dr. Mohamed Panju has been awarded an AFP education grant where the focus will be the development of the academic adult GIM CTU.

In the past 12 months a number of education awards were given. Dr. Marianne Talman received the Department of Medicine Education Award. Dr. Zahirah Khalid received the Junior Education Award and Dr. Akbar Panju received the Senior Education Award from the Division of GIM. Dr. Ameen Patel was nominated to the Council Member for the Canadian Society of Internal Medicine. Dr. Jill Rudkowski has been named as the Clinical Clerkship Coordinator. Dr. John Neary was awarded the Resident Clinical Teaching Award and appointed Chair of Evidence Based Medicine Curriculum for the Internal Medicine Residency Training Program.

Overall, the last 12 months have been extremely productive for the Division and we have already started looking at potential recruits for the next academic year. We believe our academic GIM Division at McMaster is well poised to fulfill its academic and educational mandate.
The Division of Geriatric Medicine has been privileged to have the opportunity to work collaboratively with so many individuals and organizations that are passionate and dedicated to excellence in geriatric care. During the past year, division members have continued to be key leaders in inter-professional education with over 170 postgraduate and undergraduate medicine and multidisciplinary learners who have rotated through our geriatric medicine training programs. Our faculty members have been recognized as leaders locally, nationally and internationally in their successful pursuit to ensure that capacity building within the health care and community sectors meets the needs of our growing and aging population.

Other highlights included our new community based faculty member, Dr. Andrew Baker; and new geriatric medicine residents, Drs. Sultan Alamzi and Essam Al Jalali, and divisional grand rounds which featured many of our geriatric colleagues such as Dr. Parminder Raina, from McMaster University and Dr. Paige Moorhouse, Visiting Professor from Dalhousie University. Each of the monthly geriatric grand rounds was video-conferenced to multiple community locations throughout Ontario. This past year the postgraduate residency Geriatric Interest Group (GIG) was established at McMaster University under the leadership and support from our division members and internal medicine resident, Dr. Amanda Garthouse. With the undergraduate Inter-professional GIG gaining momentum across Canada, the GIG again hosted its annual inter-professional workshop at multiple campus sites with Dr. Tricia Wos as their faculty advisor and Alexandra Peel, Class of 2012 student, organizing committee chair. Over 100 healthcare students (i.e. MD, RN, OT, Pharmacy) attended this year’s workshop. Dr. George Heckman chaired this year’s annual geriatric resident research day and this event allowed residents and students to showcase their geriatric research to their peers and supervisors from McMaster University, University of Toronto, Waterloo University and the University of Western Ontario.

This past year the postgraduate residency Geriatric Interest Group (GIG) was established at McMaster University.

The Division with the Regional Geriatric Program, Central, and conference planning committee organized a successful continuing medical education day, “Update in Geriatrics – Drugs and the Elderly: Too few or too many?” Participants at the education day were honored to have Dr. Patrick Deane, President and Vice-Chancellor of McMaster University give the opening remarks and to have Dr. Paul O’Byrne present Mr. Ron Joyce, the “Life Long Achievement Award”. Mr. Joyce, Founder of the Joyce Foundation, was recognized for his leadership, integrity, forward-thinking, inspirational philanthropic work and commitment to building caring communities for children, youth, and other individuals in need. With the success of our first conference day, a second update in geriatrics is scheduled for the fall of 2012.

Research Programs

The Division continues to have a number of outstanding and successful research endeavors and projects. Examples are as follows: the international consensus paper on the diagnosis and management of osteoporosis of the jaw (PI Dr. Aliya Khan); consensus recommendations and research priorities for osteoporosis management & fracture prevention in long-term care (PI Dr. Alexandra Papaioannou); Canadian consensus conference on the diagnosis and treatment of dementia 2012 (Co-Chair Dr. Christopher Patterson); a primary care-based model of complex chronic disease management for seniors (PI Dr. George Heckman); multi-center randomized controlled trial of exercise in females with vertebral fractures (OI Dr. Anne Braun); and multicenter, international RCT parallel-group study to assess the efficacy and safety of AMG 78 treatment in postmenopausal women with osteoporosis (OI Dr. Aliya Khan); and Council of Academic Hospitals (CAHO) Mobilization of Vulnerable Elders in Ontario (MOVE ON) Adopting Research to Improve Care (ARTIC) project (Local PI Dr. Sharon Marr).

Major Achievements

We want to acknowledge and congratulate the following division members for their accomplishments this academic year: Dr. Alexandra Papaioannou was awarded the Department of Medicine “Graduate Teaching Award of Year”; Dr. Aliya Khan was awarded the “Queens Diamond Jubilee Medal for excellence in clinical care and research”; Dr. Tricia Wos was awarded the Canadian Geriatric Society (CGS) “Innovation in Medical Education Award” for her mentorship of the McMaster inter-professional geriatric interest group (GIG); National GIG, and for her role as the CGS education committee chair; Dr. Joye St. Onge for her promotion to Associate Professor, and Dr. Michelle Gagnon for her promotion to Professor. Under the supervision of Dr. Alexandra Papaioannou, Dr. Humaid Al Shamsi earned first place at the McMaster University, Department of Medicine Residents Research Day 2012 Sub-subspecialty Resident award for his project, “The current practice of screening, prevention, and treatment of androgen-deprivation therapy induced osteoporosis in patients with prostate cancer”.

The Advanced Gerontological Education (AGE) program was recognized at the Regional Geriatric Program, Central/St. Peter’s Hospital Service Awards for Geriatric Excellence this past year for its “Gentle Persuasive Approaches” (GPA) education curriculum. Dr. David Cowan, a Board Member of AGE, and the AGE staff are to be congratulated on their GPA curriculum, which has now educated over 80,000 front line staff in acute and long-term care campuses. Dr. Irene Turpje’s McMaster University Undergraduate Medicine Award for outstanding academic achievement in geriatrics was awarded to Ms. Alexandra Peel, MD Class 2012. Ms. Peel has been the chair of the McMaster University GIG and has been a strong advocate for geriatrics throughout her medical school career.

Future Directions

The success of the division in its educational, clinical, and research pursuits has been in large part due to the immeasurable support we have received from many individuals and organizations for our goal to promote a system of health care education and clinical services that enhances the health, independence and quality of life of frail seniors based on evidence-informed practices. Our division will continue to excel under the direction of its educational, clinical, and research experts and will foster collaborative partnerships with each of its academic health science centre partners and community stakeholders in its pursuit to become leaders in geriatric research, clinical service and education. Given the enormous demand for geriatric services locally and within our Hamilton, Niagara, Haldimand, and Brant LHIN, the division must strive further to expand its capacity building programs with novel approaches to education and patient care to reduce the gap between the best evidence available and quality care deserving of our frail senior population.

Special thank you to: Dr. Paul O’Byrne, Ms. Annette Rosati and their Department of Medicine administrative staff; Dr. John Kelton; Ms. Rebecca Repa; Ms. Donna Cripps; Mr. Kevin Sulewski; Dr. Barry Lomb; Dr. David Russell; Ms. Winnie Boyle; Ms. Lynn Pacheco; Ms. Lily Consoli; Dr. Brian Misiaszek; Dr. Michelle Gagnon; Dr. Joye St. Onge; and all of our division members and administrative staff for their ongoing support to the Division of Geriatric Medicine.
The Division of Hematology and Thromboembolism is one of the largest such Divisions in North America and is internationally recognized for its excellence in research, education and patient care. Our members are derived from the Departments of Pathology and Molecular Medicine, Pediatrics, and Oncology, as well as Medicine. Several division members also hold cross-appointments in Biochemistry and Clinical Epidemiology and Biostatistics.

Educational Activities
Members of the Division continue to make important educational contributions at the undergraduate, postgraduate and graduate levels. Our Residency Training Program continues to occupy a central role in the Division. Curriculum enhancements this year include the addition of a Hematopathology rotation and reconfiguring of the Cell Diagnostics rotation. In May of 2012, Dr. Wendy Lim assumed the role of Program Director. Her dedication and experience in resident education will ensure the ongoing success of the Program. The Divisional Rounds, coordinated by Dr. Graeme Fraser, are also a major success and are webcast to all four sites, as well as to our colleagues in the community.

Research Program
The Division has an active research program and has achieved world-wide recognition for its work in thrombosis and hemostasis, platelet physiology and function, blood transfusion therapy, the molecular biology of red cell disorders and clinical trials in malignant hematologic diseases. Division members published prolifically during the 2011-2012 academic year with over 250 publications, including manuscripts in JAMA, New England Journal of Medicine, Cell, Annals of Internal Medicine, and Circulation. All but three of the 24 articles in most recent version of the highly influential ACCP Guidelines on Antithrombotic Therapy published in February of 2012 included at least one member of the Division in the list of authors. Despite the constrained peer-reviewed funding environment, members have been successful at obtaining grants from a variety of sources including CIHR, Heart and Stroke Foundation, Physicians Services, Inc., Pediatric Oncology Group of Ontario, and the Public Health Agency of Canada, as well as from industry partners.

Major Achievements
In January 2012, Dr. Mark Crowther completed six years as Division Director. He has been an outstanding ambassador for the Division and his leadership and commitment ensured that we retained and extended our international reputation for excellence.

In July of 2011, Dr. Donnie Arnold was named Research Director for the Internal Medicine Residency Program. A new endowed research chair (McMaster Children’s Hospital/HHS Foundation Chair in Pediatric Thrombosis and Hemostasis) was awarded to Dr. Anthony Chan. Dr. Menaka Pai received the EJ Moran Campbell AFP Internal Career Research Award, while the HHS Foundation W.E. Noonan Fellowship Career Award was given to Dr. Shirya Rashid, PhD. In the spring of 2012, the Division held its first AFP-funded- Student Research competition and awards were given to Dr. Arnold, Dr. Howard Chan, and Dr. Patricia Liaw, PhD/Dr. Clive Kearon.

Future Directions
The Division intends to continue building on its research, educational and clinical successes. The recent addition of Dr. Pai, Dr. Madeleine Verhovsek, and Dr. Ishac Naati, PhD will allow us to expand our capacity for research into knowledge translation, the laboratory investigation and clinical management of hemoglobinopathies, as well as the immunology and molecular biology of platelet disorders. Under the leadership of Dr. Verhovsek, we anticipate establishing a multidisciplinary adult hemoglobinopathy clinic, as well as an innovative hemoglobinopathy teaching curriculum. The anticipated recruitment of Dr. Kylie Lepic will enhance the care of our stem cell transplant patients, as well as trainee education in this area. Drs. Crowther and Pai will pool their training in Leadership and Healthcare Management to create a unique and exciting seminar series for our Hematology Residents and teaching faculty. Finally, the Division will continue to work (in conjunction with the Thrombosis Service in Ottawa) on the creation of an Area of Focused Competence Diploma Program in Thrombosis and Vascular Medicine.

Division members published prolifically during the 2011-2012 academic year with over 250 publications, including manuscripts in JAMA, New England Journal of Medicine, Cell, Annals of Internal Medicine, and Circulation.
Under the leadership of Residency Program Director Dr. Philip El-Helou, the Division participates actively in undergraduate MD teaching and in the training of residents from Infectious Diseases, Internal Medicine, Anesthesia, Family Medicine, Neurology and Critical/Intensive Care. The Division shares trances with Medical Microbiology in the program headed by Dr. Cheryl Main. Our residents presented their research at various national meetings including the Association of Medical Microbiology and Infectious Disease Canada. Dr. Dominic Mertz supervised Dr. Jocelyn Srigley, a medical microbiology/infectious disease fellow, who was awarded a Faculty of Health Sciences Postgraduate Quality Assurance award for her research. Dr. Srigley was also awarded an AMMI Canada fellowship. Drs. Main and Yamamura were re-appointed to the Mycology Advisory Committee, and as OMP-L Team Leaders for Newfoundland Laboratory Site Accreditation, through the Ontario Laboratory Association. Dr. Haider received an award from the Hamilton Saudi Social Club for his role in medical education. Dr. Mertz was an invited speaker to the CHICA-HANDIC Infection Control Annual Education Day.

Research Programs
Dr. Mertz was awarded a grant from Hamilton Health Science to study antibiotic use in patients with Clostridium difficile. Drs. Johnstone and Loeb conducted a CIHR study examining immune phenotypes related to influenza infection in nursing home residents. Dr. Smieja was awarded as co-PI a CIHR study on smoking cessation among HIV patients. Dr. Loeb was awarded a new CIHR clinical trial grant to study herd immunity of live influenza vaccine in the Hutterite community. Dr. Loeb is PI on an NIH contract to study genetic associations that predispose to severe dengue in seven countries in South America and South East Asia. Drs. Mertz, Johnson, and Loeb completed a WHO funded meta-analysis on risk factors for outcomes of influenza. Drs. Loeb and Johnstone are conducting a study to assess immune response and genetic determinants of zoster vaccine in nursing home residents. Dr. Smieja is conducting a study in university students to assess predictors of influenza infection. Dr. Smiall is continuing to conduct a vaccine trial for tuberculosis.

Major Accomplishments
Dr. Jennie Johnstone began her CIHR fellowship doing research on the immunological risk factors for influenza. Dr. Jennie Johnstone and Dr. Loeb published a paper in Circulation on influenza vaccination and adverse vascular events. Dr. Johnstone won an oral presentation award at the Faculty of Health Sciences Research Day. Dr. Loeb was a panel member for an NIH clinical trials U01 grant review, served as Chair, CDC Special Emphasis Panel on influenza, Member, National Center for Occupational Health and Infection Control (CDOHC) and John Hopkins University Scientific Oversight Board on the Respiratory Protection Effectiveness Clinical Trial (ResPECT), and was an invited speaker at Yale University’s Human Translational Immunology Seminar Series.

Future Directions:
We will be recruiting another clinician-educator to the Infectious Diseases Division. We will continue to expand studies using biomarkers, such as genetic and immunologic studies, and continue to work closely with colleagues doing bench research. Division members will continue to engage in various aspects of vaccination research.
The Division of Nephrology continues to be very active in both undergraduate and postgraduate medical education. All members of the Division contribute substantially. In terms of undergraduate medical education, all members of the Division continue to serve as tutors in M1, M2, and M3 as well as clerkship. The Division offers a clerkship rotation on the inpatient services and continues to be in high demand. Dr. Robert Yang is the Renal Unit Planner for the undergraduate program. Dr. Azaa Gangi is the clerkship coordinator for the Nephrology inpatient rotation and the Undergraduate Medicine Subspecialty Selectives Coordinator.

There are currently three fellows pursuing subspecialty training in Nephrology through the training program under the directorship of Dr. Darrin Treleaven. The Division offers post-subspecialty training for those pursuing careers in Academic Nephrology. Dr. Christine Ribic is currently completing her post-subspecialty training under the supervision of Drs. Deborah Cook (McMaster) and Ulf Meier-Kreuze (Florida) and will join the Division as an Assistant Professor in January 2013.

The Division plays a major role in the Internal Medicine training program, with upwards of 20 trainees rotating through for two-month blocks throughout the year. Training is provided in inpatient nephrology and transplantation, as well as outpatient clinics. Very popular initiatives in simulated procedures, such as central line insertion, and evaluation exercises, such as the Nephrology ROSCE, continue to garner acclamation under the direction of Drs. Gangi and Yang.

Research Programs

The research mission of the Division continues to grow. The Hamilton Centre for Kidney Research (HCKR), led by the Amgen Chair of Nephrology research, Dr. Richard Austin, is highly successful and continues to hold more than $2 million in yearly operating and salary support funding. More than 20 students at master’s and PhD levels work in HCKR labs, as well as numerous technicians and post-doctoral fellows. A focus in developing links with the division of urology and fostering growth of research in prostate and renal cancers has developed, underpinned by Dr. Dan Tang’s published work in Nature Communications and JCI. Dr. Austin’s work focuses on novel cellular mechanisms leading to atherogenesis and vascular calcification, with recent data from his lab appearing in JBC and FASEB J. Clinician-scientist, Dr. Joan Krepsinsky’s work in both diabetic and hypertensive renal disease continues to appear in the highest impact nephrology journals, and she and Dr. Austin are pursuing CHIR supported work examining endoplasmic reticulum (ER) stress in the pathogenesis of uremic vasculopathy. Dr. Krepsinsky also received a 5-year CHIR operating award to study metalloprotease activity in the pathogenesis of diabetic glomerular disease in 2012. Dr. Peter Margetts has extended his long-term interest in angiogenesis and peritoneal membrane injury into the kidney itself, where similar processes may underlie scarring, and has secured CHIR operating funding for a second major line of work examining circulating fibrocyte involvement in progressive renal disease. Drs. Walsh and Ribic are also involved in this work. Dr. Jeff Dickhout secured CHIR operating funding for studies on the role of ER stress in progressive renal injury and started as a full Assistant Professor in 2012 and is funded by a generous award from SJHH Research. HCKR researchers all continue to hold CHIR and other substantial peer-reviewed operating funding, despite the current environment. This speaks to the Division’s longstanding focus on the central importance of such awards.

Major Achievements

- Recruitment of Dr. Christine Ribic, with a focus in renal transplantation. She leads the histocompatibility laboratory and will spearhead transplantation research.
- Continued success in both funding and publication in HCKR, new successes in CHIR operating competitions in 2012 by Drs. Krepsinsky and Margetics.
- Ongoing remarkable activity in the clinical renal transplant program under the Directorship of Dr. David Russell with approximately 90 transplants being routinely performed on a yearly basis and over 1000 successfully transplanted patients now followed in the program. Halving of the wait-times for unsensitized patients in the last five years.
- Leading edge innovations in educational initiatives, particularly for residents in the internal medicine program rotating through nephrology.
- Remarkable growth of clinical research.

In clinical research, Dr. Michael Walsh has already been a remarkable success. His large study of plasmapheresis in severe vasculitis is actively and successfully recruiting ahead of schedule, funded by several million dollars in peer-reviewed funding from agencies in Canada, the UK and the US. The Remote-IMPACT study of ischemic preconditioning to prevent acute kidney injury perioperatively in non-cardiac surgery has been fully recruited. The 18,000 patient Re-VISION study of troponin and mortality in non-cardiac surgery has also been completed with Dr. Walsh leading the acute kidney injury component of this work. Studies of eplerenone in dialysis patients and liberalization of phosphate control have also been funded and are led by Dr. Walsh. He also holds salary support award from the KRESIENT program of the Kidney Foundation of Canada. Drs. Brimble and Walsh are conducting the HOST Study of symptoms assessment and recovery time after dialysis. Dr. Brimble received Kidney Foundation funding for studies of the impact of Vitamin D supplementation on left ventricular mass in peritoneal dialysis patients, while Drs. Clamp and Gangi renewed their Kidney Foundation award for the study of bioimpedance as a measure of fluid overload in dialysis patients. Currently five Kidney Foundation operating awards are held primarily by division members.

Future Directions

The Division intends to continue the successes in basic science and clinical research, maintaining a focus on the securing of peer-reviewed funding. The clinical research program is growing rapidly with the efforts of Dr. Walsh, and the recruitment of Dr. Ribic in January 2013 will provide transplantation research with a leader. We expect to continue to lead the Department in education innovation, particularly under the aegis of Dr. Gangi. The Division continues to be recognized for the excellence of its clinical and research programs, both dialysis and transplantation; this remains our guiding and driving principle.
Dr. Rathbone continues to offer his popular neurology ‘boot camp’ for medical students, and nearly all members participate in the training of clinical skills in neurology. At the postgraduate level, Dr. Yegappan continues as program director of the neurology residency program. The program had a successful RCPC accreditation recently, and indeed is now one of the very few in Canada without major deficiencies. Drs. Sahlas, Rathbone, and Goodwin continue as site coordinators. The committee has representation from adult neurosurgery (Dr. Reddy), pediatric neurology (Dr. Cowan) and community practice (Dr. Tara Lad - on leave). Our first graduating resident, Dr. Picard, has joined the group, based at the Juravinski hospital. Our second resident, Dr. Brian Van Adel, has also joined us, as one of the first Canadian interventional neurologists, based at the HGH. Drs. Goodwin and Giammarco have taken over from Dr. Silva in coordinating the neuroscience rounds at the HGH, and Dr. Goodwin again coordinated the annual regional CME program in neuromuscular diseases. Dr. Michael Kronby has been instrumental in raising funds for the residency program. Drs. Rathbone, Mazurek, Turnbull and Tarnopolsky are all involved in graduate education. The Division has accepted several clinical fellows for training, and of notice, the Division has begun accepting fellows into the vascular neurology program, with two fellows starting this year.

Continuing Education
Nearly all members have been active in continuing education for community neurologists and family physicians.

Research Activities
There are several funded studies in stroke ongoing, involving Drs. Hart, Oczkowski, Sahlas and Silva. Dr. Rathbone leads the CIHR-funded neuro-restorative group, with particular interest in the trophic role of purinergic compounds. Dr. Tarnopolsky remains prolific in neuromuscular research, as does Dr. Baker. Dr. Mazurek continues his research in neuropsychiatry, and Dr. Turnbull continues with clinical and basic research in motor neuron disease. Dr. Upton remains near to realizing his dream of commercializing the smart pacemaker and the responsive brain stimulator, as well as a portable magnetic stimulation device for the self-treatment of migraine, and continues his collaboration with Dr. Robert Fischell of Baltimore, and his son Dr. David Fischell. Dr. McComas continues his research in neuromuscular mechanisms and the use of transcranial stimulation in migraine. Dr. Brown continues with international research in rate-dependent block in ALS patients. Dr. Morillo and Dr. Jichici are collaborating with other Canadian groups, particularly with Dr. Bryan Young in London, developing a research program to assess the effectiveness of continuous EEG monitoring in ICU patients. Dr. Shapiro is under-taking trials in epilepsy, drug trials and trials into sudden unexpected death in epilepsy. Dr. Paulsoth will be starting a research trial in MS this fall.

Clinical Activities
Drs. Oczkowski, Silva, Sahlas, Yegappan, Jichici, and Hart are involved in the acute stroke program at the Hamilton General, which is now the most active in the province in terms of numbers. Dr. Mike Sharma from Ottawa is set to join the vascular group in the new year. Dr. Yegappan also works in stroke at St. Joseph’s Healthcare. Dr. Giammarco continues her complex headache clinic. Neuromuscular activities and ALS have been greatly expanded, and Drs. Tarnopolsky, Baker, Brown, Goodwin and Turnbull are involved. Dr. Jichici continues to provide neurocritical care expertise, and graduates from our neurology residency will now have the option of applying to a two-year fellowship in neurocritical care. Drs. Morillo and Shapiro collaborate to provide adult care in epilepsy. Dr. Torres-Trejo, with full training in epilepsy and neuro-oncology, has joined us from the University of West Virginia.

Future Directions
We continue to recruit to our strengths and also our areas of need, and plan on recruiting further to stroke and in movement disorders and MS, so that patients in south-central Ontario and those beyond served by McMaster receive excellent care, and benefit from educational activities and research recognized at the national and international levels in all areas of neuroscience.
The Department welcomed

Drs. Anna Labuda, Ryan Williams, Hossein Hosseini and Adriano Persi. Dr. Labuda will be an attending physician on stroke rehabilitation unit. Dr. Williams will be serving as an attending physician on the spinal cord unit. He will also be supporting the prosthetics and orthotics program. Dr. Hosseini will be serving as an attending on the acquired brain injury unit. Dr. Adriano Persi will be supporting the Department’s undergraduate educational activities as well as participating in research.

Dr. David Harvey, a senior member of the Division, retired from University service this year, however, he continues to maintain an active clinical practice. In the past, Dr. Harvey served with distinction as division director as well as chief of physical medicine and rehabilitation at the Hamilton Health Sciences.

Education

Dr. Peter Varey continues as our Residency Program Director. As in previous years, the Department was successful in recruiting outstanding residents via the CaRMS match. The McMaster program is the second largest PM&R Residency Program in Canada. Dr. Hossein Hosseini and Dr. Ryan Williams graduated from the residency program in 2012. Dr. David Lipson completed a fellowship in acquired brain injury. Dr. Leo Farrutca serves as the liaison between the Division and the medical school.

Research

Dr. Mark Tarnopolsky and Dr. Steve Baker continue to be the leading researchers in neuromuscular rehabilitation in the country, with tremendous innovation and groundbreaking research in peripheral nerve and neuromuscular disorders. Dr. Dinesh Kumbhare continues to be active in MSK research at St. Joseph’s Healthcare. The main theme of research is the development of measurement methods for musculoskeletal injuries.

Drs. Vinjamuri Chari, David Harvey, and Jesse Ennis completed an N-of-1 study that evaluated the benefit of dopaminergic agonists in improving function in a patient with a brain tumor. Dr. Chari, working with two learners, has also completed a research project related to outcomes subsequent to stroke.

Drs. Nesathurai and Graham continue with their research in spinal cord injury.

Future Directions

The Department continues to actively recruit new faculty to support inpatient and outpatient programs. Although the Department is one of the largest academic programs in North America, there are still many unmet clinical needs in the medical schools catchment area.

Clinical Programs

The Division provides the full spectrum of rehabilitation services for patients with general and specialized rehabilitation needs. Of particular note, the Division, working closely with Hamilton Health Sciences, launched the comprehensive spasticity management program. This goal of this program is to improve the quality of life and functional ability of patients with spasticity.
The Respirology Residency Training Program, under the leadership of Dr. Lori Whitehead, continues to be very successful. During her tenure the program has become highly sought after by trainees interested in Respiratory Medicine. In July 2012 the program will welcome three new trainees.

Our capacity to accommodate trainees from Internal Medicine, Anesthesia, Radiation Oncology, Head and Neck Surgery, and other postgraduate programs has been considerably enhanced by the addition of the Hamilton General site. Dr. Natya Raghavan has joined the faculty as a Clinician-Educator who will contribute in both Respirology and Internal Medicine and will serve a site director for the increasing number of trainees at the Hamilton General site.

Members of the Division are involved in graduate and non-MD postgraduate education. Several members supervise both MSc and PhD graduate students. Two very successful graduate courses are organized, Pulmonary Physiology by Dr. Mark Inman, and Pathophysiology of Lung Diseases by Drs. Gail Gauvreau and Roma Sehmi. One feature that graduate students find very attractive is the contribution to these courses by clinical faculty, which provides context to the basic science and mechanisms of disease that they learn. Members of the Division frequently contribute to Continuing Medical Education programs. Dr. Mark Soth is chair of the Ontario Thoracic Society committee responsible for organizing the annual Better Breathing Conference.

Research Programs

Some of the major research interests of faculty are the epidemiology, pathophysiology and treatment of asthma; the physiology and pathophysiology of airway and vascular smooth muscle; the cellular and molecular biology of pulmonary inflammation; controlled trials of therapy in respiratory disorders, and the impact of the environment on respiratory health. Professor Malcolm Sears and colleagues direct the CHILD Study – a longitudinal evaluation of a cohort of children at four centers across Canada – with major funding from the AllerGen. Dr. Martin Stämpfli examines the early cellular and molecular events relevant to the pathogenesis of asthma and other disorders of the airways. Dr. David Higgins has followed on his PhD studies of the contribution to these courses by clinical faculty, which provides context to the basic science and mechanisms of disease that they learn. Members of the Division frequently contribute to Continuing Medical Education programs. Dr. Mark Soth is chair of the Ontario Thoracic Society committee responsible for organizing the annual Better Breathing Conference.

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Milestones and Awards

Dr. Anthony Kerigan has retired after many years of stellar service in a number of areas. He was based at the Hamilton General site for most of his professional career and was a stalwart member of both the Internal Medicine and the Respirology groups. Later, he developed a major interest in the Geriatric aspects of respiratory disease and in Palliative Care. Dr. David Todd moved from the FIRH to the community but will retain his appointment and continue to make valued contributions in education. Dr. Allan McAllan is currently on leave. Dr. David Higgins has taken on the role of President of St Joseph’s Healthcare Hamilton.

Our members also serve organizations outside Hamilton. Dr. Lori Whitehead is vice-chair of the National Respirology Specialty Committee of the Royal College, a member of the Canadian Respirology Training Program Directors Committee, an organizer of the National Respirology Fellows Symposium, and a member of two provincial committees for Respirology resident education – ORREP and OTS. Dr. Helen Ramsdale serves in the important role of Chair of the Respirology Section of the OMA. Dr. Gerard Cox continues as a member of the Steering Committee and of the Executive Committee of the Lung Health Framework, which is a national organization with a broad mandate to advance respiratory health in Canada.

Future Developments

A major area of change is the development of collaborative clinical programs. The most ambitious initiative is the Diagnostic Assessment Program for Lung Cancer – a joint undertaking with Cancer Care Ontario and St. Joseph’s Healthcare Hamilton that involves nursing, Thoracic Surgery, Respirology, Diagnostic Imaging and Pathology. This program is intended to reduce the time and stress for patients undergoing investigation of suspicious lung lesions. Dr. Param Nair and Dr. Michael Trus have established a clinic for the assessment and management of patients with eosinophilic disorders. This is truly collaborative effort as it also involves Drs Nader Khalidi (Rheumatology), Susan Wasserman (Allergy and Immunology) and Elizabeth Jeney (ENT). We believe that developing such patient-centred, multi-disciplinary clinics will be an important element of our efforts to provide best care to our patients.
The Division of Rheumatology is active in the undergraduate educational program. Dr. Raj Carmona, in the role of sub-unit planner, has made significant improvements in the musculoskeletal teaching tools with online videos and a comprehensive guide for physical examination. This resource has already garnered accolades from other medical schools. Dr. Carmona’s activities in the undergraduate program have been outstanding. He also continues to develop a focused interest in spondyloarthropathies.

Dr. Mark Mattos continues to oversee the Residents’ Academic Half-Day while pursuing his clinical research interests in SLE. He now serves as medical advisor to Lupus Ontario.

Under Dr. Nader Khalidi, the rheumatology training program has flourished. The division was awarded the ‘Best Sub-Specialty Rotation Award’ this year. This is a tribute to Dr. Khalidi’s energy and to the commitment of the entire division to providing an exemplary teaching experience.

Our most recent trainees, Drs. Famorca, Mulgund and Clements-Baker have all received their sub-specialty designation from the Royal College.

All of our clinical faculty have energetically participated in teaching activities, with special thanks to Drs. Tula Scocchia, Pauline Boulos, Victoria Pavlova, Sanjay Dixit and Elzbieta Kaminska. Dr. Scocchia has been essential in teaching professional skills to all our learners. Dr. Boulos’ contributions were recognized with a teaching award. Our part-time faculty have been dedicated to the teaching of undergraduate and postgraduate learners and the division has been enhanced by the richness of their contributions.

Dr. Raja Bobba has been a tutor in Medical Foundations 2 to 5 as well as organizing clinical skill in MF5.

Dr. Walter Kean has been actively supervising undergraduate student projects.

Dr. Hart continues in his longstanding role as Editor of the Journal of Sports Medicine and Associate Editor of the ADP Journal club.

Dr. Elzieta Kaminska is moving to join the Faculty of Medicine in Calgary this fall. Dr. Kaminska has spearheaded and advocated for the advanced care of Scleroderma patients from the time of her arrival in Hamilton. She was instrumental in introducing progastroglandin infusions for those with ischemic digits. This has led to improved care and outcomes for these patients and is now a recognized standard of care. Dr. Kaminska has been active in teaching at both the undergraduate level and postgraduate level, as well as participating in patient education, lecturing, providing clinical skills and clinic time for students. She has consistently received excellent reviews from the students and residents alike. Dr. Kaminska has been an outstanding contributor to the division for twenty years. We will miss her.

Research Programs
We have received major peer-reviewed and corporate funding in our areas of research.

- Dr. Famorca has completed a clinical scholarly year focussing on a fellowship in Vasculitis. She has joined the division on a part-time basis based in Cambridge with ongoing clinics at the Juvenilek Hospital.
- Dr. Kim Legault has joined the Division as a Clinical Scholar. Dr. Legault will focus on receiving additional training with Dr. Danburg pursuing her interest in SLE while also completing a Master’s in Health Research Methodology.
- Dr. Bill Benson continues to develop Bone Destiny, a program that helps physicians determine osteoporosis treatment. He is also moving forward with his novel clinician-friendly clinical evaluation of patients with RA.
- Non-invasive imaging remains a cornerstone of our research and utilizes pQCT ultrasound and pMRI for the measurement of bone mass, joint and cartilage structure. Drs. Webber, Inglis and Gordon have advanced our imaging capabilities.
- Dr. Khalidi is working with two major research groups, the Canadian Scleroderma Research Group and the Vasculitis Clinical Research Consortium. As a result of his efforts, Hamilton is now recognized as a major center in Vasculitis care and research.
- Dr. Maggie Larché has been active in assessing various imaging modalities in joint diseases. She is active in several cohort studies in RA and Scleroderma. Dr. Larché has been promoted to Associate Professor.
- Dr. Kean continues his research interest in anti-rheumatic drug pharmacology and pain mechanisms in osteoarthritis.
- Dr. Cividino and Dr. Karen Beattie have continued their work with GaLS and have moved forward with their CiQRA grant evaluating GaLS. This work has validated the screening exam for diagnosing Rheumatoid Arthritis in the hands of physiotherapists, nurses and primary care physicians. This work is now published.
- Dr. Beattie has recently received a CiQRA grant for her work ‘Bone Health Implementing FRAX in primary care’. Her collaboration with the Osteoarthritis Initiative in the US has lead her to analyze the effects of muscle on knee osteoarthritis and she has been part of a research team headed by Dr. Monica Maly examining the clinical outcomes and tissue changes in knee osteoarthritis that has received major funding from CIHR.
- Dr. George Ioannidis has continued his work with CaMoS, GLOW, Quality Circles and VidoS (Witamn D and Osteoporosis in long-term care) projects. In the past year, he has been part of a team, led by Dr. Alexandra Papaianou, that has examined osteoporosis care in the long-term care setting.
- Dr. Rick Adachi, with members of the Division of Rheumatology, has been measuring the impact of MRI in RA with his CiQRA grant.

Major Achievements

- Dr. Cividino is the inaugural Abbott Chair in Education in Rheumatology. He continues to develop innovative educational opportunities with his colleagues.
- Dr. Beattie has received a Department of Medicine Career Award for her work in osteoporosis and osteoarthritis. This has led to obtaining a $89,491 CIHR grant. In addition, Dr. Beattie is the recipient of the Arthritis Society/Canadian Arthritis Network Scholar Award as well as a Personal Career Award.
- Dr. Khalidi continues with his Clinician-Teacher Award from the Arthritis Society based on his excellence in transforming the Rheumatology Residency Training Program into the premier rheumatology training program in Canada. This is echoed by being awarded The Best Sub-Specialty Rotation Award for Internal Medicine residents.
- Dr. Larché received a Department of Medicine career award. She helped to set up the multi-disciplinary systemic sclerosis research group which she Chairs. Dr. Larché has been instrumental in setting up a ‘Centre of Imaging Excellence’ funded by Abbott.
- Dr. Carmona has completed an excellent video series on musculoskeletal examination with accompanying handbook. This will be a valuable resource for the undergraduate and postgraduate programs.
- Dr. Mattos is the medical advisor for Lupus Ontario.

Future Directions

The Division has collectively developed a consensus document in the form of a strategic plan to lay out the current and proposed activities for the next three to five years. A recent Day in Innovation supported by Abbv Canada has confirmed our direction with immediate goals to address. Our vision is to be recognized for leadership and innovation in education, research and inter-disciplinary patient-centered care.

To facilitate realization of the plan, Dr. Lynne Lofsted has been hired to work together with Dr. Cividino and our trainee, Dr. Ranjapali Bavshar, to develop a review of the McMaster Rheumatology experience. The aims of the project are to gather information about the program from the viewpoint of program founders and planners, administrators, staff, residents and fellows and use this information as a reflective exercise that will form part of a research proposal.

As director of the Division of Rheumatology, I am excited by our strategic plan. Together with my esteemed colleagues and excellent trainees, I anticipate execution of several objectives to meet our main goals of exemplary patient care, education and ongoing research.