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Future Directions

After having Dr. Sharon Strauss take our group through a workshop on mentorship, we have initiated a Mentorship Program. Drs. Sonia Anand and Madhu Natarajan have taken on the role of Mentorship Facilitators for our Division.

Major Achievements

Several members of our division won educational awards in 2016. Dr. Craig Ainsworth was the recipient of the Division of Cardiology Ernst Fallen Award for Teaching Excellence 2015-2016; Dr. P.J. Devereaux won the Annual Department of Medicine Teaching Award in recognition of dedication and excellence in graduate education; Dr. Alison Montgomery won the Annual Department of Medicine Postgraduate Education Award for excellence in postgraduate education; and Dr. Vikas Tandon won the Department of Medicine Subspecialist Clinical Teaching Award.

This past year many of our colleagues have received research awards. I will mention two of these awards. Dr. Stuart Connolly received the Margolese National Heart Disorders Prize from the University of British Columbia, which is awarded annually to a Canadian who has made an outstanding contribution to the treatment, amelioration, or cure of heart disease. Dr. Salim Yusuf received the Arrigo Recordati Prize for outstanding and innovative contributions in researching secondary prevention and related risk reduction strategies for patients with cardiovascular disease.

We continue to be among the groups with the highest impact in the world.

— Dr. P.J. Devereaux

Publications

PHRI Scientists published 373 papers:

- 15 were in the New England Journal of Medicine (NEJM);
- 10 were in the Lancet;
- 4 were in JAMA.
EDUCATIONAL ACTIVITIES

The McMaster Clinical Immunology and Allergy training program is a highly integrated, accredited Adult/Pediatric program; Dr. Michael Cyr is the Training Program Director and Dr. Jaclyn Quirt is the site supervisor and Deputy Program Director.

There are nine residents, from both Pediatrics and Internal Medicine currently in full-time training. Our division is very active in teaching medical and pediatric residents, and clinical clerks from McMaster as well as from other centres. 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.

RESEARCH PROGRAMS

Principal research themes are Inflammation and Immunity as they relate to the respiratory tract (allergic rhinitis, nasal polypsis, asthma and peptide immunotherapy), food allergy (peanut desensitization, peanut allergy threshold studies, clinical food allergy challenges), autoimmune diseases, hereditary angioedema, and hematopoetic stem cells in the development and maintenance of allergy. Peer-reviewed and private sector funding, including trials of 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.

The Division hosts an NIH-funded T cell Epitope Research and Validation Centre, focusing on understanding the modulation of allergen-specific T cell function and trafficking, following interventions such as bronchial allergen challenge and peptide immunotherapy. Mechanistic studies of peptide immunotherapy are funded by CIHR. Development of a therapeutic vaccine for rheumatoid arthritis continues with CIHR and industry funding, directed by Dr. Mark Larché.

MAJOR ACHIEVEMENTS

Dr. Susan Waserman is President of the Canadian Allergy, Asthma and Immunology Foundation and Dr. Harold Kim holds the position of Vice President, Canadian Society of Allergy and Clinical Immunology. Dr Mark Larché holds the Canada Research Chair in Allergy & Immune Tolerance and the McMaster University/GlaxoSmithKline Chair in Lung Immunology at St. Joseph’s Healthcare. Dr. Denburg continues as CEO/Scientific Director of AllerGen NCE, which is in its second funding cycle (to 2019); see the separate report on AllerGen. Dr. Maggie Larché sits on the Annual Scientific Meeting Committee and the research committee (CIORA) of the Canadian Rheumatology Association.

FUTURE DIRECTIONS

With all of 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.

“Peer-reviewed and private sector funding, including trials of new biologics and peptide vaccines in pre-clinical and clinical models, continues to grow.”
— Dr. Judah Denburg
EDUCATIONAL ACTIVITIES
Although our Division is the smallest in the Department of Medicine, it is a leader in academic contributions overall and for education. This includes year-round supervision of medical students and residents on internal medicine, critical care and emergency department 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 the undergraduate medicine program as well as postgraduate education at the Masters and PhD level in Health Research Methodology, Medical Sciences, e-Health, Global Health, 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 pharmacology, health sciences and statistics students. We play a leading role in national and provincial training programs in Drug Safety and Effectiveness and in Drug Policy.

Clinical Pharmacology and Toxicology (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 management interventions, drug interactions, comparative effectiveness and safety of competing medications, and educational interventions to improve prescribing skills. As well as scholarly papers and presentations, members of the division hold multiple copyrights and patents on research products, software, reports and guidelines.

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 influencing budgets in excess of $10 billion annually, 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 plus epidemiology or quality assurance 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 recent department initiative to quantify and rank academic activities of all faculty has shown that clinical pharmacologists are amongst the top percentile group.

— Dr. Anne Holbrook
EDUCATIONAL ACTIVITIES

The Critical Care Program continues to offer a Royal College accredited two-year Fellowship Program (Program Director: Dr. T. Karachi). We currently have 14 national/international fellows in the program. The Critical Care Program offers formal rotations for residents from a variety of other specialties. There are formal block electives/selective rotations in critical care being offered to medical and elective students, as well as external residents (Organizer: Dr. H. Whittingham). We continue to provide a multidisciplinary Regional Critical Care Journal Club, as well as Regional Critical Care Rounds. We have a national advanced Critical Care Simulator Course (Organizer: Dr. A. Fox-Robichaud) using a state-of-the-art facility. We have organized a formal bedside ultrasound/echocardiography course of faculty/residents and fellows for the last two years (Organizer: Dr. C. Ainsworth). Faculty provide formal educational sessions on a daily basis, as well as once weekly academic half days for Critical Care residents/fellows.

RESEARCH

The Adult Critical Care Fellowship Program mandates all fellows to complete a research program 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 publications. Drs. D. Cook/M. Meade Co-Chair a research mentorship program 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, implementing and publishing 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/weaning, management/mechanisms in septic shock, prophylaxis for thromboembolism, and end of life care, just to name a few.

MAJOR ACHIEVEMENTS

Dr. Deborah Cook is 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 is 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. She is an Officer of the Order of Canada and was recently named Distinguished University Professor, the University’s highest honour, going only to those professors who achieve the highest level of excellence in research, teaching and learning. The Canadian Critical Care Trials group has honoured her in creating The Deborah J. Cook Mentorship Scholarship Award.

Dr. P. Kraus is in LHIN Lead for Critical Care Medicine, which advises government and/or creates policy with regards to future directions in Critical Care utilization, funding and standards of care. There is ongoing financial support for the Critical Care Critical Care Assistants Program sponsored by the Ministry of Health and Long-term Care. Dr. Draga Jichici is the Co-Founder and Co-Chair of the Canadian Neurocritical Care Society. Dr. Jill Rudkowski is the Clinical Clerkship Coordinator. Drs. Mark Soth (St. Joseph’s Healthcare), Tim Karachi (Juravinski), Heather Whittingham (Hamilton General) and Andy Freitag (McMaster) are the Medical Directors and Site Leaders for Critical Care Medicine.

FUTURE DIRECTIONS

We continue to provide support and leadership in the delivery of Critical Care Services both in Hamilton and in the LHIN. We not only practice evidence-based medicine, but create the evidence within Critical Care, which has and will change clinical practice locally, nationally and internationally.

“We not only practice evidence-based medicine, but create the evidence within Critical Care, which has and will change clinical practice locally, nationally and internationally.” — Dr. Andreas Freitag
EDUCATIONAL ACTIVITIES
The Division of Dermatology at McMaster University promotes a high-quality patient-centered dermatology service to the population of Hamilton, Niagara, and Waterloo metropolitan areas or Southwest of Ontario regions, serving both inpatient and outpatient activity. From its base of operations at the Boris Clinic at McMaster University Medical Centre, the Division of Dermatology is a proud and active division at McMaster University.

The Dermatology division has devoted its activities to education. It provides extensive undergraduate medical dermatology teaching and a broad range of postgraduate elective opportunities in Hamilton for medical students and postgraduate students in the Departments of Internal Medicine, Pathology, Pediatrics, Plastic Surgery, and Ophthalmology. This is an ongoing program to update and educate students, residents, fellows and clinical faculty through patient presentations/discussion which serve both an educational function through discussion of interesting or problematic cases, and to facilitate the exchange of ideas regarding patient care. Our faculty members have national and international recognition in their fields, and in providing front-line care to patients with skin problems ranging from common to unusual. Most dermatologists practice in the community while Dr. Hermenio Lima (Division Director) and Dr. Rosilene Lanzini (Assistant Professor of Dermatology) practice in the medical school clinics.

CLINICAL RECRUITMENT
We are recruiting experienced qualified dermatologists to join our busy and expanding medical dermatology clinics and our GFT faculty at McMaster. Dermatology is part of a changed health care landscape. Recruitment and retention of new faculty are one of the main objectives of the dermatology division.

CLINICAL ACTIVITIES
The Dermatology Division Academic Center provides both secondary dermatology and tertiary health care services to Hamilton and the catchments areas. The creation of the Dermatological Health Care Services follows the Royal College recommendations for Dermatology Division Academic Centers. The provided academic structure allows the opportunity to recognize and treat acute and chronic common and rare skin conditions with the best of evidence-based medicine. The goal of these clinics and units are to provide Hamilton patients with the right care, at the right time, in the right place.

MAJOR ACHIEVEMENTS
- Creation of more academic dermatology clinic services as part of education contributions at McMaster University
- More opportunity for dermatology teaching and training for learners
- Increased number of medical students and residents’ rotations
- The implementation of the first fellowship program in dermatology with one fellow in training
- Organization of new teaching structures: Dermatology Academic Half-Day (2015); General Dermatology Academic Grand Rounds (2015); Dermatology Surgery Academic lectures (2016); and Dermatopathology rounds (2016)

FUTURE DIRECTION
Patient Care: Increase the number of patient services; reduce the waiting list; and improve patient care outcomes.
Academic: Improve academic training and establishment of a McMaster Dermatology Residency Program.
EDUCATIONAL ACTIVITIES

The Royal College residency program is in the process of significant change as training moves closer to implementing Competency-Based Medical Education (CBME) under the leadership of Dr. Alim Pardhan who is supported by Dr. Kelly Van Diepen, assistant PD, and Dr. Teresa Chan, Evaluation Chair. In the upcoming year there will be the introduction of a new curriculum and further refinement of the McMAP evaluation system.

One of the challenges of CBME is the management of the large volume of evaluation data that is required to monitor resident progress. To assist with data management the Masters of eHealth program was approached and for a course project a student team created the software to manage the data from daily evaluations completed for the 180 PGY 1s in their Emergency Medicine (EM) block(s). This software was successful in reducing the time to create the ITER that required repetitive cutting and pasting, from 15 to 20 of minutes per PGY1 to about 2 minutes. The eHealth students did an amazing job considering the short period of three months that they were allotted. The Administrative Assistant now has time for more interesting and higher value work.

With the success of the PGY 1 evaluation software, two eHealth students were hired for an 8-month internship to create the software needed to manage the large amount of data for the EM resident evaluation system, McMAP. This project is nearing completion and will permit the resident, program director, and evaluation chair to know in real time the status of the resident’s evaluations and progress. The plan is to introduce this to other programs at McMaster University who may want to consider its use and to EM programs nationally.

Simulation experience for residents is now integrated into the curriculum. Under the leadership of Dr. Kyla Canners, in collaboration with Dr. Donika Orlich, there is the necessary equipment, junior and senior sessions and cases. Kyla is collaborating with EM colleagues and has created a simulation web site for the development and archiving of peer reviewed simulation cases.

The Hamilton emergency department CTUs continue to operate at full capacity with ~180 PGY1’s under the leadership of Dr. Amna Zaki at SJHH and Dr. Rebecca Mallin at HHS.

The Undergraduate program, under the leadership of Dr. Massoud Jalayer, has introduced an annual research grant for interested medical students with the first one recently awarded. Dr. Serena Sennik is the EM electives coordinator and is working to provide emergency experience for the many applicants interested in EM as a career and McMaster University for their residency.

There have been two successful applications to the Royal College Diploma programs for Areas of Focused Competence (AFC): Point of Care Ultrasound (POCUS) led by Dr. Andrew Healey and Pre-Hospital Care/Emergency Medical Services (PHC/EMS) led by Dr. Michelle Welford.

The 10:EM conference, organized by Dr. Teresa Chan and her team, was held in November and attracted 180 residents, physicians, and allied health professionals. In addition to the one-day conference, there were two days of PALS and PALS re-certification courses.

RESEARCH ACTIVITIES

Research continues to develop with our core of clinician researchers actively publishing and receiving grants. Recently Dr. Kerstin de Wit was awarded the PSI Graham Farquharson Knowledge Translation Fellowship and the HHS Early Researcher Award. Dr. Teresa Chan and collaborators have received a number of awards from the Canadian Association of Emergency Physicians, Continuing Health Science Education Program, and BloodTechNet Competition.

Dr. Shawn Mondoux joined the Division this year and is busy at the clinical and academic level increasing the profile of Quality Improvement and Patient Safety.

MAJOR ACHIEVEMENTS

Emergency Medicine continues to sustain the academic and clinical teaching of hundreds of medical students and residents in the CTUs while increasing the quality and quantity of educational and clinical research and providing CME to regional physicians and allied health professionals.

FUTURE DIRECTIONS

The members of the Division are increasing their commitment to excellence in research, mentorship of medical students and residents, enhancing resident education with a robust simulation program, and developing and implementing clinical and academic teaching and research in quality improvement.
Highly productive, creative and effective researchers and educators underlie the Division’s local, and international reputation for excellence. The divisional faculty members are involved in all aspects of the undergraduate and postgraduate curriculum and their research productivity is reflected in an extensive list of publications.

EDUCATION
Medical undergraduates have opportunities to interact with divisional faculty in large group sessions, during horizontal electives, as part of the LMIC review series, during tutorials and clinical skills preceptorships, and during self-initiated research projects. Postgraduate medical residents extensively interact with divisional members on the clinical teaching unit, in academic half days, during a variety of rounds and presentations, and during rotations in in-patient and out-patient endocrine environments. Divisional faculty are also Internal Medicine examiners for the Royal College.

The Division also supports a full subspecialty residency program in Endocrinology and Metabolism which has now been operating for six years and accommodates up to two fourth-year residents and up to two fifth-year residents at any one time.

Divisional faculty are extensively involved in non-clinical education as well. They participate as PhD comprehensive and defense examiners and graduate thesis committees; train undergraduates, Master’s level, and PhD students every year (up to 15); and currently accommodate 10 postdoctoral fellows.

Outside of McMaster, divisional members are engaged in writing clinical practice guidelines, developing quality assurance initiatives with the Ontario CPGO, leading Canadian Medical Education initiatives in diabetes, parathyroid disease and general endocrinology, speaking internationally on topics related to diabetes, and educating the public about diabetes, osteoporosis and other endocrine disorders. The Division also provides departmental leadership in global health education and training, and successfully fundraises for this cause every year.

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. This research spans the spectrum from genetics, biochemistry and physiology to epidemiology and large international clinical trials comprising thousands of individuals. Specific topics currently being researched include prevention of cardiovascular outcomes in diabetes, diabetes remission and pathophysiology; obesity, muscle metabolism, AMP-activated protein kinase, inflammation, and fatty liver disease; the relationship between dysglycemia and serious health outcomes; imaging modalities and therapies for osteonecrosis of the jaw, osteoporosis, hypoparathyroidism and metabolic bone disease; and identification of novel biomarkers pertaining to diabetes care.

During the 2015-2016 academic year alone these research activities have led to the awarding of four new grants from peer-reviewed and industry sources, two patents, and the publication of more than 30 peer-reviewed articles or book chapters.

MAJOR ACHIEVEMENTS
The last academic year saw the initiation of two important trials of diabetes remission (Drs. McInnes and Gerstein). Dr. Prebtani assumed the role of Chair of the Department’s Global Health Program and Chair of the Endocrine Hypertension Section of Hypertension Canada. Recognitions included Dr. Gerstein (Jack Hirsh Award for Outstanding Academic Achievement), Dr. Ally Prebtani (McMaster Alumni Global Impact Award), and Dr. Braga (Internal Medicine Residency Program Award for Teaching Excellence).

FUTURE DIRECTIONS
The current focus of research in the Division is on identifying an effective and robust means of achieving type 2 diabetes remission using medical approaches and to understand the pathophysiology behind diabetes remission. Members are continuing to research ways of characterizing and preventing obesity in children and adults, reducing the metabolic consequences of obesity, and identify therapies that may mitigate both obesity and diabetes. Members are also involved in understanding the treatment and prevention of atypical femoral fractures and metabolic bone disease.
EDUCATIONAL ACTIVITIES
The popularity of the Division of Gastroenterology’s national endoscopy training programs continues to grow. The tenth annual McMaster Residents’ Endoscopy Training Course organized by Dr. David Armstrong, Dr. Frances Tse and Dr. Eric Greenwald is a national course teaching GI residents from Vancouver to Halifax. This continues to be very popular. We also have a regular “Train the Trainers” course and are one of only two sites in Canada to run such programs. These are important in ensuring that endoscopy teaching remains of the highest standard. We also run endoscopy Master Classes to ensure gastroenterologists maintain their endoscopy skills and learn new techniques. This has been particularly important in Ontario with the proliferation of colonoscopy screening facilities.

RESEARCH PROGRAMS
The Division has been at the forefront of GI research for over 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. 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, 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. Grigorios Leontiadis. This produces systematic reviews published in the Cochrane Library that informs clinicians and patients worldwide on evidence-based medicine. We are the top GI research group in Canada and GI division members have produced over 4,000 peer-reviewed publications that have been cited over 112,000 times.

MAJOR ACHIEVEMENTS
Dr. David Armstrong will be the President of the Canadian Association of Gastroenterology for 2016-17. Dr. Paul Moayyedi is the Nominated Principal Investigator for a CIHR-funded Strategy for Patient-Oriented Research (SPOR) chronic disease network. This is a Canadian-wide multidisciplinary team termed the Inflammation, Microbiome and Alimentation: Gastro-intestinal and Neuropsychiatric Effects (IMAGINE) network. The network has attracted $35 million in funding and will evaluate the role the gut microbiome and diet have in GI and associated psychiatric diseases.

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.

research impact
Two studies led by Drs. Elena Verdu and Paul Moayyedi showed that transplantation of fecal matter may be a useful tool in the fight against ulcerative colitis.
The Division of General Internal Medicine at McMaster continues to thrive in all domains.

We have vibrant Clinical Teaching Units at the three academic health sciences centres (Hamilton General Hospital, St. Joseph’s Healthcare, and Juravinski Hospital) and we also have an extremely successful Clinical Teaching Unit and General Internal Medicine Rapid Assessment Clinic (GIMRAC) at McMaster Site. We have learners from the Department of Medicine and Department of Family Medicine going through rotations on the Clinical Teaching Unit and at the Ambulatory Clinical Teaching Unit (Boris Clinic at McMaster Site).

We have continued to recruit a number of high caliber academic general internists. Our need for clinical activities have now been stabilized and we are concentrating on our academic and scholarly activities. We have internists in our division who are concentrating on global health and we have internists concentrating on quality improvement and patient safety.

Dr. Christian Kraeker and the group have developed an internal medicine program in Namibia, Africa. He and his group have also started the Hamilton Social Medicine Response Team (HAMSMaRT) and this program is an outreach service that fulfills the need for providing care to individuals who have difficulty accessing care in the traditional medical system. This initiative specializes in patients who are affected by poverty, homelessness, addiction, as well as the frail elderly. This is an extremely useful and successful program. Dr. Zara Khalid and colleagues have started an internal medicine program in Guyana and she has put a lot of work into developing a curriculum for that program. Dr. Ally Prebtani and colleagues continue to maintain a vibrant program in Makerere in Uganda, and on an annual basis faculty from the Department of Medicine at McMaster and three members of the Internal Medicine Residency Program visit Uganda on a 4-week rotation. This has been an extremely successful exchange program.

The Division continues to have quarterly meetings which are well attended by all members of GIM. At those meetings we discuss issues, challenges and innovation that we incorporate in our delivery of healthcare and we have presentations on our research activities. We also have a quarterly newsletter edited by Dr. John You and Dr. Daniel Brandt Vegas.

Therefore, the last 12 months have been extremely successful in our clinical and scholarly activities.
This past year has been one of change and growth within our division and our success as a division has been due to faculty such as Drs. Irene Turpie and Christopher Patterson. Each of those geriatricians retired from the Faculty of Health Sciences (FHS) at McMaster University after 35 years. Yet despite their retirement, they have continued to support our division in countless ways through their clinical service and ongoing academic activities. We would also like to thank Dr. Michelle Gagnon who stepped down as the Geriatric Chief of Service at St. Joseph’s Healthcare after 23 years in this role. Her passion, dedication, leadership and mentorship of countless trainees, faculty and other health professionals has been outstanding. Our division would like to take this opportunity to express our deepest gratitude to Drs. Turpie, Patterson, and Gagnon for all they have done to advance and promote our division.

With the support of the Department of Medicine, members of the division have continued to sustain excellence and recognition in education, clinical care and research. Highlights from this past year include the following:

**EDUCATIONAL ACTIVITIES:**

The division has continued to collaborate with the Geriatric Education and Research in Aging Sciences (GERAS) Centre, Regional Geriatric Program Central (RGPc), and inter-professional planning committee to host the highly successful 5th Annual Geriatric Education Day on “Frailty, Falls and Fractures”. Our Life Long Achievement Award Recipient for 2015 was Ms. Suzanne Labarge, Chancellor at McMaster University. Her generous contributions to McMaster University and our health care communities have been exemplary. She has emulated the qualities of leadership, commitment to lifelong learning, and given selflessly to the building of caring communities.

The National Geriatric Interest Group (NGIG) has continued to flourish nationally under the faculty leadership of Dr. Tricia Woo. The NGIG with Dr. Woo have developed an Annual Geriatric Clinical Skills workshop for health care students. During the past several years over 500 health care students within the FHS have completed this course. In addition, they are collaborating nationally and internationally with health care educators to promote this model of interprofessional education. Division members, with key educational leaders, have also continued to support the Geriatric Certificate Program (GCP) and have developed a greater variety of courses to accommodate a wide variety of clinicians across Canada and internationally.

**RESEARCH PROGRAM HIGHLIGHTS:**

The GERAS Centre, which focuses on research and education to improve the quality of life for older adults, has had many achievements over the last year such as the “GERAS to Go” initiative which brings research on healthy aging to older adults in the community through evidence-informed, expert-developed and immediately practical workshops. Dr. Papaioannou has also launched the Ontario Osteoporosis Strategy for Long-Term Care (LTMC) “Recommendations for Preventing Fracture in LTMC” and led the development of the guidelines to prevent fractures amongst frail older adults in LTMC to reduce immobility, pain, hospital transfers and to improve the quality of life for its residents.

Other achievements included: Dr. Olga Gajic-Veljanoski’s (GERAS Post Doc) received the CaMeds Fellowship Award; Dr. Eric Wong (PGY2 McMaster Int Med) with supervisor Dr. Christopher Patterson received the Rejan Hebert CIHR Institute Aging Prize; Dr. Courtney Kennedy (GERAS Research Associate) and Dr. Olga Gajic-Veljanoski received the ASBMR Young Investigator Award recipient. 

**MAJOR ACHIEVEMENTS:**

We want to congratulate the following students/residents and division members for their outstanding accomplishments: Dr. Sadhana Prasad recipient of the Ontario College of Physicians and Surgeons Council Award; Dr. Nicole DiDyk recipient of the Sisters of St. Joseph of Hamilton Mission Legacy Award; Mr. Eric Sigmund (MD Class 2016) recipient of the “Dr. Irene Turpie Award” for his outstanding clinical performance during his Geriatric Subspecialty Selective Clerkship; Drs. Eric Wong and Anasuiyya Suredaran (supervisor Dr. Christopher Patterson) for their Gold Medal at the Annual Resident Research Day Oral Presentations; Dr. Katrina Piggott received honorable mention for her poster – Annual Resident Research day supervisor Dr. Papaioannou); Dr. Sandra de Freitas (PGY2 McMaster Int Med) received the Dr. Christopher Patterson Award for Excellence in Geriatric Research; Dr. Alexandra Papaioannou received the RGPc Service Award for Geriatric Excellence Executive of the Year; Dr. Alya Khan received the International Osteoporosis Foundation Award; Dr. Justin Lee (Clinical Scholar) received the MOH McMaster University Clinical Investigator Program Trainee Award, Ontario Drug Policy Research Network Student Training Program Award and Research Institute at St. Joseph’s Hamilton Studehtship Award.

Special thank you to: Dr. Paul O’Byrne, Dr. Akbar Panju, Ms. Annette Rosati and their administrative staff, Dr. John Kelton, Ms. Rebecca Repa, Mr. Kevin Sulevski, Dr. Barry Lamb, Dr. Akhtar Ingrum, Dr. Alexandra Papaioannou, Dr. Michelle Gagnon, Dr. Brian Mesiasson, Dr. Joyce St. Onge, Dr. Tricia Woo, Ms. Lynn Pacheco, Ms. Lily Consoli, RGPc and all of our division members and their administrative staff for their incredible support and dedication.
HEMATOLOGY AND THROMBOEMBOLISM

The Division of Hematology and Thromboembolism is internationally recognized for its excellence in research, education and patient care. Our members are derived from the Departments of Pathology and Molecular Medicine, Oncology, as well as Medicine. Several division members also hold cross-appointments in Biochemistry & Clinical Epidemiology and Biostatistics.

“...we are facing rapidly increasing service demands regionally, as well as locally, and our challenge as a group will be to ensure that we continue to deliver exemplary clinical care while building on our educational and research successes.” — Dr. Shannon Bates

EDUCATIONAL ACTIVITIES
Division members continued to make important educational contributions at all levels, including clinical mentorship of medical students, internal medicine residents, residents from other specialty programs, and clinical fellows; as well as supervision at the Masters and PhD level in Health Research Methodology, Biochemistry and Biomedical Sciences. The Adult Hematology Residency Program, led by Dr. Wendy Lim, remains one of the centerpieces of our Division and this year Dr. Clement Okello, our third Ugandan fellow, joined our four Royal College stream trainees. After eight very successful years, Dr. Donnie Arnold stepped down as Director of the Transfusion Medicine Area of Focused Competence Diploma Program (which is housed in the Department of Pathology and Molecular Medicine) and was succeeded by Dr. Michelle Zeller, who brings with her a wealth of expertise in competency-based medical education. Fellowship programs in Thromboembolism, Malignant Hematology and Red Cell Disorders continued to attract trainees. The Adult Thrombosis Medicine Area of Focused Competence Diploma Program received Royal College approval in June 2016 and work to develop our local training program is ongoing.

RESEARCH PROGRAM
The Division has achieved world-wide recognition for its research 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. We house two research organizations, the Thrombosis and Atherosclerosis Research Institute (TaARI, directed by Dr. Jeffrey Weitz) and the McMaster Centre for Transfusion Research. Funding for our research comes from a variety of sources, including CIHR, the Heart and Stroke Foundation, Canadian Blood Services, and the Hamilton Academic Health Sciences Organization. Division members were responsible for well over 150 publications during the 2015-2016 year, including manuscripts in New England Journal of Medicine, Lancet, Circulation, and Blood.

MAJOR ACHIEVEMENTS
Dr. Irwin Walker was named the inaugural holder of the Joseph E. DesRoches Chair in Bone Marrow Transplantation and Dr. Parveen Wasi was appointed Assistant Dean of the Postgraduate Medical Education Program.

Other faculty receiving academic recognition this year included Drs. John Kelton and Ted Warkentin (Prix Galien Canada Award), Dr. Lori Links (2015 Department of Medicine Undergraduate Teaching Award), Dr. Michelle Zeller (Department of Medicine Quality and Patient Safety Internal Career Award), Dr. Cathy Hayward (Macfarlane- Biggs Lecturer, British Society for Haemostasis and Thrombosis), Ms. Karen Moffat (named chair of the Institute of Quality Management’s Hematology Section), and Dr. Patricia Law (promotion to Professor). Hematology Teaching Awards were presented to Dr. Michael Trus (Dr. Irwin Walker Teaching Award) and Dr. Michelle Zeller (Professor Nancy Hodde Teaching Award). Drs. Peter Gross, Sam Schueman, and Jim Douketis received this year’s Hematology & Thromboembolism AFP-funded Student Research Awards. The 11th McMaster Update in Thromboembolism and Hemostasis (co-chaired by Drs. Mark Crowther and Wendy Lim), Juravinski Hospital and Cancer Center Hematology Education Day (chaired by Dr. Tom Kouroukis) and 3rd Annual Division of Hematology and Thromboembolism Winter Gala (planned by Drs. Madeleine Verhovsek, Chris Hills, Cathy Ross, Christopher Patriniq and Shannon Bates) were also great successes.

FUTURE DIRECTIONS
Professor Nancy Hodde, an accomplished researcher and educator, in addition to exemplary collaborator, mentor, and role model will be retiring and transitioning to Professor Emeritus. Although she will be stepping down from many of her leadership roles we are fortunate that she has elected to continue part-time with the McMaster Centre for Transfusion Research. As a specialty, we are facing rapidly increasing service demands regionally, as well as locally, and our challenge as a group will be to ensure that we continue to deliver exemplary clinical care while building on our educational and research successes. New faculty as of July 2016 will include Dr. Vini Bhagirath, a graduate of our Adult Hematology Residency Training and Thrombosis Fellowship Programs with a MSc in Medical Sciences; Dr. Christopher Hills, another graduate of our Adult Hematology Residency Program who completed an additional Malignant Hematology Fellowship and received a MSc in Quality Improvement and Patient Safety; and Dr. Colin Kretz, a basic scientist with expertise in the biochemistry and enzymology of blood coagulation, as well as a broad array of genetic and genomic techniques.

Number of publications during the 2015-2016 year, including manuscripts in New England Journal of Medicine, Lancet, Circulation, and Blood.

150

Dr. Shannon Bates
MDCM, MSc, FRCP(C)
Division Director
EDUCATIONAL ACTIVITIES
Under the leadership of Residency Program Director Dr. Kevin Woodward and Deputy Director Dr. Eva Piessens, the residency program in Infectious Diseases was successful in accepting three new trainees into the program. The division shared trainees with Medical Microbiology in the program headed by Dr. Cheryl Main. Dr. Haider was a co-author on two Canadian guidelines, the use of Early ARV Therapy in HIV-infected persons and the 2016 Updated Canadian HIV/Hepatitis C Adult Guidelines for Management and Treatment. He also served on the Board of Directors (Clinical) CAHR and as an AMMI Central Planning Committee Member. Dr. Haider was an external member for Royal College mandated Internal Review of the NOSM Internal Med Program 2016. He also developed a new HIV 1-year fellowship program for externally funded Saudi Fellows. Dr. Cheryl Main won the “excellence in teaching” award for the Department of Pathology and Molecular Medicine. Dr. Eva Piessens served as the deputy director for the ID program and the joint SSTI/wound care/vascular clinic. Dr. Loeb was invited to conduct Master Classes on herd immunity of influenza and vaccines for senior public health physicians in Nanjing, China.

RESEARCH PROGRAMS
Dr. Dominik Mertz received research funding from the PSI Foundation for the Prevention of Infections in Cardiac Surgery and published, along with Dr. Marek Smieja, a study in CMAJ on Clinical Severity of Pediatric Respiratory Illness (Clinical Severity of Pediatric Respiratory Illness with Enterovirus D68 as Compared to Rhinovirus or Other Enterovirus Genotypes). Drs. Mertz and Loeb completed a report for the WHO on antibiotics for the Essential List of Medicines. Dr. Loeb began a randomized controlled trial in the Hutterite community to compare adjuvanted vaccine to inactivated vaccine. Findings from his previous trial of live attenuated vaccine versus inactivated vaccine were presented internationally and published. They received substantial media attention, including articles in the Wall Street Journal and on National Public Radio in the U.S. He continues to conduct a trial funded by Joint Global Health Trials competition of UK MRC Wellcome Trust to assess whether inactivated vaccine can reduce adverse vascular events. A randomized trial of 1,300 children in Vietnam comparing vitamin D to placebo to reduce respiratory tract infections was completed and is awaiting publication. Dr. Loeb continues in his role as Chair of the Data Safety and Monitoring Board of an important NIH vaccine trial on influenza H7N9 which was first reported to infect humans in March 2013.

MAJOR ACHIEVEMENTS
Dr. Marek Smieja was named Microbiology Discipline Director. Dr. Shariq Haider was promoted to Full Professor. Dr. Cheryl Main took over as chair of the ID Specialty Committee for the Royal College on July. Dr. Loeb was awarded an $8 million Foundation grant from CIHR to continue investigations into the effect of repeat influenza vaccination in the Hutterite community, using prospective data collection and banked specimens. Dr. Loeb served as committee Member, WHO Task Force to Evaluate Influenza Data to Inform Vaccine Impact and Economic Modelling.

FUTURE DIRECTIONS
We will continue to conduct clinical trials and 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 antibiotic stewardship, vaccination research and hospital epidemiology.
EDUCATIONAL ACTIVITIES

The Division of Nephrology continues to be very influential in shaping undergraduate and postgraduate medical education in the Department of Medicine. The inpatient nephrology clerkship rotation continues to be a popular elective amongst the students. Dr. Margetts is in his second term as the director of the McMaster MD/PhD program.

Dr. Gangji continues as the Director of the Residency Training Program and was a recent recipient of the prestigious PARO Lois H. Ross Resident Advocate Award. Due to the strength and popularity of this program, there will be 10 fellows pursuing subspecialty training in nephrology in 2016-17. Additionally, the division has 3 fellows pursuing post-subspecialty training in transplantation and is one of 2 centres in the country to receive RCPSC/AFC accreditation for Solid Organ Transplantation. The program is also one of the few in the country that is accredited by the American Society of Transplantation.

The division plays a major role in the Internal Medicine training program. A perennial favorite rotation amongst the residents, training is provided in inpatient nephrology, transplantation and outpatient clinics. Initiatives in simulated procedures and evaluation exercises, such as the Renal OSCE, continue to be well-received. The city-wide consult service is now offered to subspecialties from other disciplines that are likely to encounter patients with acute kidney injury during their clinical work.

FUTURE DIRECTIONS

The division will continue to lead the way in educational innovation at an undergraduate and postgraduate level. Several divisional members are leading important clinical trials in nephrology; leadership in the nephrology research community is expected to grow. Increasing research collaborations between divisional members has begun to yield exciting findings in translational research that may lead to novel therapies and tools in the management of patients with kidney disease.

Clinical research continues to flourish in the division. Dr. Walsh’s study of plasma-pheresis in severe vasculitis (PEXVAS) was recently completed and is the largest RCT in vasculitis ever conducted. He is also the recipient of a CIHR New Investigator’s award, and has received CIHR funding to initiate one of the world’s largest RCTs of dialysis patients evaluating the role of aldosterone antagonism in reducing cardiovascular events.

Dr. Ribic has recently completed an RCT examining extracorporeal anticoagulation in dialysis patients and has also taken over the role of Director of Internal Medicine Residency Research. Dr. Amber Molnar is the recipient of a KRESCEINvestigator Award and is a newly appointed Scientist with the Institute for Clinical Evaluative Sciences (ICES). Her research focuses on the use of the ICES databases to study hemorrhagic, thrombotic and cardiovascular complications in patients with CKD.

Biomedical research in the division has been very successful, led by the Amgen Chair of Nephrology research, Dr. Austin, who holds multiple CIHR and HSFC operating grants. Dr. Austin’s work focuses on novel cellular mechanisms leading to arteriogenesis and vascular calcification, an important contributor to premature morbidity and mortality in patients with CKD. Clinician-scientist, Dr. Krepsinsky, funded by both CIHR and KFOC, studies the pathogenesis and potential therapies of diabetic and hypertensive kidney disease.

Dr. Margetts, also a clinician-scientist, continues his research into basic mechanisms of peritoneal and renal injury. New projects include the role of epigenetic modification of fibroblasts and fibrocytes in leading to ongoing tissue injury. Dr. Dickhout holds two CIHR operating grants for his studies on the role of ER stress and sodium in progressive renal injury, and holds a Krescent salary award from KFOC.

MAJOR ACHIEVEMENTS

The remarkable educational and research achievements over the past year would not be possible without the ongoing substantial clinical and administrative support provided by many division members, including Dr. Ingram (Chief of Medicine at SJHH), Dr. Treleaven (Head of Nephrology Service/Director of Renal Transplant Program), and Dr. Rabbat (Medical Director of the Integrated Renal Program at SJHH and Niagara Health Services).

Remarkable growth in peritoneal dialysis, a home-based dialysis therapy, has led to the program becoming one of the largest in Canada. The renal transplant program continues to be an innovative leader in Canada. Participation in the National Living Donor Paired Exchange registry has provided the opportunity for many patients, including those at high immunological risk, to receive a kidney transplant.

The strong leadership from Dr. Gangji has led to the development of what is now a large and diverse training program.

Dr. Walsh has rapidly become a leading clinical trialist in nephrology, helping to narrow a longstanding evidence gap in the clinical care of patients with kidney disease.

Drs. To and Yang developed and are co-directors of the McMaster Peritoneal Dialysis Access Center by SJHH (MPACS), a center of excellence for peritoneal dialysis access. Since 2015, they have provided a well-attended, hands-on high-fidelity simulation course to train physicians and nurses to perform peritoneal dialysis catheter insertions.

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NEUROLOGY

division report

“The Stroke group continues to be very active in research and is involved in many clinical trials including leading one of the largest clinical trials in stroke ever to come from Canada: NAVIGATE-ESUS.”

— Dr. Wies Oczkowski

FACULTY
The Division of Neurology continues to grow into one of the largest divisions in the Department of Medicine with 30 members of whom 26 are full time. The division has been further rejuvenated by the recruitment of younger colleagues; Dr. Catanese in stroke and Dr. Nayar in stroke and general neurology. Drs. Baker and Tarnopolsky are cross-appointed to Neurology (from PM&R and pediatrics respectively) and collaborate closely with the program, as does Dr. Jichici in critical care neurology. Adjunct neurology faculty are active in teaching at our regional campuses in Niagara and Waterloo.

EDUCATIONAL ACTIVITIES
Dr. Van Adel is the MFS neurology clinical skills coordinator. Faculty participate in the training of clinical skills, and are tutors for undergraduate medical students. Dr. Sahlas is the neurology residency program director and continues to lead 15 residents in one of the most sought after training programs in neurology. Drs. B. Connolly (HGHH), Torres-Trejo (Juravinski), and Goodwin (SJH) are site education coordinators. The postgraduate program is very education focused, with not only a problem based academic half day, but weekly clinical neurology rounds; subspecialty rounds in EEG, EMG, and movement disorders; stroke journal club; neuroradiology rounds; stroke rounds; and neuroscience rounds. This was the first year for an annual Half Day in Epilepsy, to add to our annual Neuromuscular Day, Half Day in Neurosciences, and the Neuroscience Research Day (in collaboration with Neurosurgery and Pediatric Neurology). Drs. Rathbone, Mazurek, Turnbull and Tarnopolsky are all involved in graduate education. The division has one of the largest fellowship programs and offers formal fellowships in Stroke, Neuromuscular Disorders, and Epilepsy. The stroke fellowship has received ongoing support through the Marta and Owen Boris Foundation.

RESEARCH ACTIVITIES
The Stroke group continues to be very active in research and is involved in many clinical trials including leading one of the largest clinical trials in stroke ever to come from Canada: NAVIGATE-ESUS. Dr. Attar is investigating the prognosis of generalized epileptiform discharges, marijuana use in epilepsy, and a new agent in Status Epilepticus. Drs. Morillo and Shapiro are undertaking trials into sudden unexpected death in epilepsy. Dr Perumpillichira is active in research collaborations in the Netherlands and Belgium, and developing automated methods of EEG analysis. Drs. Torres-Trejo and C. Connolly are actively recruiting and running trials in treatments for patients with Glioblastoma Multiforme. Dr. Van Adel is recruiting patients into interventional neuroradiology trials.

“This was the first year for an annual Half Day in Epilepsy, to add to our annual Neuromuscular Day, Half Day in Neurosciences, and the Neuroscience Research Day.”

— Dr. Wies Oczkowski

Dr. Rathbune leads the CIHR-funded neu-re-en help group and continues to focus on research in concussion. The MS group (Drs. Paulseth, Menon, Lo, and Silva) are participating in a treatment trial in patients with MS. Dr. Tarnopolsky remains prolific in neuromuscular research in new genes for neurological disorders, muscle and aging, and mitochondrial disease. Dr. Baker continues successfully in research on CIDP, CMT, and statin sympath. Dr. Mazurek continues his research in neuropsychiatry, and Dr. Turnbull continues with clinical and basic research in ALS.

CLINICAL ACTIVITIES
The Stroke program is the largest in the province both in clinical volumes and numbers of stroke trained neurologists (Drs. Hart, Sharma, Oczkowski, Sahlas, Vagappan, Shomanesh, Perera, Ng, Catanese, Nayar). The program achieved Stroke Distinction through Accreditation Canada in acute and rehabilitation stroke care, and developed an Interventional Neuroradiology program for clot retrieval for large vessel occlusion in ischemic stroke (Dr. Van Adel). The regional epilepsy program and the Epilepsy Monitoring Unit are situated at HGHH (Drs. Morillo, Shapiro, Attar, Perumpillichira). The MS program is one of the largest in the province (Drs. Paulseth, Menon, Lo, and Silva). Dr. Giammarco continues her complex headache clinic. Neuromuscular activities and ALS are active programs (Drs. Goodwin, Attar, Glani, Tarnopolsky, Baker, and Turnbull). Dr. Jichici continues to provide neurocritical care expertise, and coordinates the neuro step-down unit at the HGHH. Movement disorders is led by Drs. B. Connolly, Paulseth and Attar. Drs. Torres-Trejo and C. Connolly are looking to expand the neuro-oncology presence at the Regional Cancer Centre. Dr. Mazurek runs a Neuropsychiatry clinic, and Dr. Sahlas runs a Neurocognitive and Dementia clinic.

FUTURE DIRECTIONS
The Division of Neurology is a regional program supporting 2.3 million people. Further growth will continue to provide clinical excellence in all areas of neurology, maintain the best education for all learners, and further develop our successful research programs.

Residents in one of the most sought after training programs in neurology
The division welcomed Drs. Simran Basi, Gihan Perera, and Tatjana Zdravkovic this year. Dr. Basi earned an undergraduate degree in biology from the University of Western Ontario. Subsequently, he completed his undergraduate and postgraduate training at McMaster University. Simran serves as a faculty physician on the stroke program. His outpatient practice will encompass stroke, musculoskeletal disorders and electrodiagnostic practice.

Dr. Perera completed his undergraduate degree in Health Sciences from McMaster University. Subsequently, he completed his undergraduate and postgraduate training at McMaster University. Gihan serves as a faculty physician on the acquired brain injury program. His outpatient practice will encompass acquired brain injury, musculoskeletal disorders and electrodiagnostic practice.

Dr. Tatjana Zdravkovic completed her medical degree at the University of Belgrade and served her residency at the University of Saskatchewan. Tatjana serves as a faculty physician in the cancer rehabilitation service as well as orthopedic rehabilitation program. Her outpatient practice will focus on people with cancer as well as electrodiagnostic practice.

Dr. Steve Baker continues to be the leading researcher in neuromuscular rehabilitation in the country with tremendous innovation and groundbreaking research in peripheral nerve and neuromuscular disorders.

The division provides the full spectrum of rehabilitation services for patients with general and specialized rehabilitation needs. Of particular note, the division has worked closely with community partners to facilitate clinical services. Of particular importance, Dr. Paul Stacey has initiated a pediatric rehabilitation service at the Hotel Dieu Shaver Hospital.

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

The Division of Respiratory is the primary provider for tertiary care service for Southern Ontario. We offer many specialty clinics that attract patients from our region and far beyond. Amongst the “flagships” are our severe airway disease and interstitial lung disease clinics. Our group has been successful in a variety of educational and research activities and continues to be. Below are some of the important highlights.

NEW FACULTY
Dr. Taryn Simms completed her Clinical Scholar year in Sleep Medicine on June 30th, 2015 and has joined our faculty. Her clinical role is focused on Sleep Medicine at the Firestone Institute for Respiratory Health and General Respiratory at the Juravinski Hospital. She has quickly become a valuable member to our team.

Dr. Nathan Hambly joined the faculty on January 1, 2016. He used an opportunity for additional fellowship training at the Royal Brompton Hospital in London, England, as well as at the Clinics for Pulmonary Hypertension (PH) in Toronto and at Western University in London, Ontario. Dr. Hambly has a special interest in the care of patients suffering from interstitial lung disease (ILD) and pulmonary hypertension (PH) and his clinical and research activities will focus on these important issues. With his recruitment, the division is moving major parts of the regional expertise in PH from the Hamilton General Hospital to St. Joseph’s Healthcare.

EDUCATIONAL ACTIVITIES
Under the leadership of our Program Director, Dr. Rebecca Amer, the Respiratory Residency Training Program received full accreditation from the Royal College of Physicians and Surgeons early 2015. In July 2015 the program welcomed four new trainees; Rahmah Alshim, Maya DeZyza, Terence Ho and Julie Huang.

Our capacity to provide a Respiratory training experience for rotating residents from other postgraduate programs such as Internal Medicine, Anesthesia, Radiation Oncology, and Head and Neck Surgery has been considerably enhanced by offering electives at the Hamilton General and Juravinski Hospital.

Three new clinical scholars have joined the Division: Dr. Marina Lerner, Dr. Muntasir Safiff, and Dr. Salman Chaudhry started July 2015. Dr. Lerner and Dr. Chaudhry have an academic interest in sleep medicine. Dr. Muntasir Safiff has a special interest in bronchiectasis and tuberculosis. He is using his scholarship to obtain a Masters in Health Policy through the University of Toronto.

In September 2015 we held the 2nd Firestone Institute Respiratory Health Day. This educational event is organized together with the Department of Family Medicine and is focused on the management of patients with respiratory disorders in the Primary Care Practice. With over 100 attendees, the event was a major success that will be repeated every other year.

RESEARCH PROGRAMS
The research within the Division of Respiratory continues to be very diverse. Dr. Malcolm Sears is the Director of the Canadian Healthy Infant Longitudinal Development study (CHILD) which has enrolled an impressive number of infants, almost 3,000, from across Canada. The first series of publications have come out by now, and it is expected that this activity will be thriving for the next 10-15 years at least. One of the many questions that will be addressed in this study are to identify and better understand early determinants of factors that lead to asthma in children, adolescents and young adults. Our sputum lab at the Firestone Institute for Respiratory Health, under the leadership of Dr. Param Nair as Medical Director and Dr. Helen Leahy as Deputy Director, is world renowned and attracts many clinical trials that aim at personalized medicine to treat severe asthma and COPD. Peptide immunotherapy for allergic diseases, and asthma is another major research area, led by Dr. Mark Larche. Further, our faculty members continue to investigate the basic mechanisms of airway and vascular smooth muscle cells in airway disease. The labs of Drs. Ask, Janssen and Kolb explore the cellular and molecular biology of pulmonary fibrosis with a substantial translational research.

The numbers of pre-clinical and early clinical trials that are conducted in this field are increasing every year. With the recruitment of Dr. Hambly, our division will be even better positioned to do this research and solidify its national leadership status in pulmonary fibrosis. Funding for these research programs is provided by CIHR, CF, the GTS, the NHR and other public agencies. Substantial support is also obtained through collaborative research with the pharmaceutical industry.

AWARDS
Our residents vote each year for the best faculty member in clinical education and research mentorship. The winners for the 2015/16 academic year were Dr. Jacob Gelberg and Dr. Helen Neighbour respectively. Dr. Pierre-Simon Belleay, supervised by Dr. Kolb, received the St. Joseph’s Research Institute post-doctoral fellowship.

FUTURE DIRECTIONS
The development of collaborative clinical programs across the city of Hamilton and within the larger region is a major challenge and goal for our division. Dr. Gerard Cox is coordinating these activities. The most ambitious initiative is the Diagnostic Assessment Program for Lung Cancer, a joint undertaking with Cancer Care Ontario (CCO) and St. Joseph’s Healthcare, Hamilton that involves Nursing, Thoracic Surgery, Respiratory, Diagnostic Imaging and Pathology. This successful program has been developed to reduce wait times for patients undergoing investigation of suspicious lung lesions. Since its initiation in 2010, it has grown to be one of the largest programs in the country. Another innovative program is the combined Respiratory/Rheumatology/Renal clinic that cares for patients with complex multi-system and lung disorders (Drs. Cox, Kolb, Khalidi, and Watsh). This clinical activity has become a major attractant for trainees, not only from our own area but from many other training programs across Ontario and Canada, as well as worldwide. Our Sleep Medicine Program, led by Drs. Povles, Gottschalk, and Li, continues its expansion, which was highlighted by recruitment of Dr. Simms. In the next years we will slowly restructure our division and expect a smooth transition between some colleagues who are preparing for retirement and young colleagues who are eager to join us. The next couple of years will bring many new challenges that are not different between the divisions of the Department of Medicine. The major ones are on the research side, the changing funding environment and new peer review system of the CIHR, and on the educational side, the new competency-based training of residents and fellows. However, the Division of Respiratory has an enthusiastic faculty who are all committed to move into the future.

research
learning

Dr. Martin Kolb
MD, PhD
Director, Division of Respiratory
Research Director, Firestone Institute for Respiratory Health
Associate Professor, Department of Medicine, Pathology & Molecular Medicine
EDUCATIONAL ACTIVITIES

The Postgraduate training program has flourished. The Royal College External Review in April 2015 found the Rheumatology Residency Program to have a well-respected Program Director, superior academic program administrator and an excellent, nationally recognized teaching facility with no weaknesses. The applicant pool for training continues to of the highest caliber.

The program offers sub-specialty clinics in Lupus, Scleroderma, Vasculitis, Metabolic Bone Disease as well as multi-disciplinary clinics with Respiratory, Nephrology and Immunology. The division also provides educational support for Neurology, Physiatry, Internal Medicine and Ophthalmology.

The faculty has strong representation across the undergraduate program in tutoring, professional skills, MSK Boot camp, clerkship selective and supervising Medical Foundation 5.

Outreach and community learning experiences are provided by the many associated clinical faculty in Hamilton, Burlington, St. Catharines, Cambridge and Kitchener-Waterloo.

In November, the division held the first annual “Clinical Day in Rheumatology” held at the Hamilton Convention Centre. The sold out event was attended by over 200 participants.

RESEARCH

Research activity and funding support has been broadly based in the areas of Metabolic Bone Disease, Lupus, Scleroderma, Inflammatory Arthritis, and Vasculitis.

Multiple grants have been supported by CIHR, HAHSO Innovation Fund, NIH, The Arthritis Society, The Canadian Rheumatology Association as well as industry partners.

Collaboration with Radiology, Geriatrics, Engineering and Rehabilitation Sciences have continued.

MAJOR ACHIEVEMENTS

- Dr. Rick Adachi was awarded the Consultant of the Year by the Department of Family Medicine at SJH for 2016
- Dr. Maggie Larché has received a $90,000 grant to study the use of ultrasonography for imaging in the feet of patients with newly diagnosed rheumatoid arthritis
- Dr. Khalid’s publication on the role of MRI of temporal arteries versus temporal artery biopsy in Giant Cell Arteritis as a potentially treatment altering intervention.
- Dr. Kim Legault has chaired an international guideline panel to develop a Clinical Practice Guideline in Catastrophic Antiphospholipid Syndrome. In addition, she developed an iPad App “Clinical Case Challenge”, a series of rheumatology cases with focus on radiological aspects for trainees as part of the Essential Imaging in Rheumatology series
- Dr. Mark Matsos has been recognized for his teaching by a department merit award. He is an investigator in the LuCIN (Lupus clinical investigator network)
- Dr. Arthur Lau has been active in developing a collaborative research program between the divisions of rheumatology and nephrology, assessing frailty in patients after renal transplantation. He also continues to collaborate with the Ontario Best Practice Research Initiative (OBRI) through the University of Toronto as an active investigator
- Dr. Carmona has garnered further success with his Clinical Skills Video Series and MSK Injection Techniques Video Series with 15,000 views per month in over 146 countries. Adopted by staff at universities across Canada and internationally, including University of Western Australia and recently Maryville University (Missouri)
- Our first annual “Clinical Day in Rheumatology” was extremely successful
- New role of Research Coordinator to be established to increase productivity, scholarship and collaboration within the university

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.

Our vision is to be recognized for leadership and innovation in education, research and inter-disciplinary patient-centered care.

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.