Taking it to the core

Landmark McMaster building opens in downtown Hamilton

Battling the war on superbugs

Alumna improves nursing care for cancer patients
Message from the Dean and Vice-President

Through making scientific discoveries and by providing leadership in many diverse areas of health care, McMaster’s Faculty of Health Sciences continues to have a remarkable impact on health nationally and all over the world. However, one only needs to look locally to see firsthand the power of creativity and how doing things differently can affect great change.

In this issue of *Network*, we highlight the design of our new David Braley Health Sciences Centre (DBHSC) at the McMaster Health Campus, and the people and programs who are now calling it home. Since its official opening in May, over 500 events have been booked for the DBHSC and in short order, the beautiful building has become a showpiece for downtown Hamilton.

Getting this project to fruition was a momentous task that involved the hard work of hundreds of people, and I want to once again thank everyone involved with the design, construction and office moves. I’m very grateful for the generosity and vision of the building’s namesake, businessman David Braley, as well as additional funding from the University, City of Hamilton, and Province of Ontario, which made all of this possible.

The multipurpose DBHSC is unique in Canada and I know it will set a strong example for cities across the country looking to combine health care, research and education to spark innovative collaborations between scientific researchers, public health officials, medical and academic staff, and members of the community.

Also in this edition, you will find a story on professor Deborah Cook’s Three Wishes Project, which involves eliciting three wishes to best honour a dying person and then finding a way to fulfill them. It was found to personalize the dying process for patients and their families.

You will also read about how McMaster, led by researchers Gerry Wright, Eric Brown and Lori Burrows, is at the forefront of the fight against antibiotic resistance, an escalating global threat.

In addition, Mick Bhatia and his team discovered how to make adult sensory neurons from human blood. This major breakthrough will improve researchers’ understanding and treatment of neurological diseases, particularly neuropathic pain.

We also profile alumna and nursing professor Denise Bryant-Lukosius, whose research is improving nursing care for cancer patients.

As well, these pages detail many reasons we have had to celebrate over the past few months.

John Lavis and Gerry Wright were awarded Tier 1 Canada Research Chairs (CRC) for their research on better health systems and on infectious disease, respectively. Lavis now holds the CRC in Evidence-Informed Health Systems, while Wright had his CRC in Molecular Studies of Antibiotics renewed.

Mohit Bhandari, Gregory Steinberg and P.J. Devereaux were named University Scholars, the University’s new title that honours faculty members in mid-career who have already distinguished themselves as international scholars.

Peter Rosenbaum was awarded the inaugural Medal of Excellence in Childhood Disability from the Holland Bloorview Kids Rehabilitation Hospital, recognizing his lifetime commitment to improving the lives of children with disabilities and their families.

And, the Canadian Longitudinal Study on Aging (CLSA), the most comprehensive study of aging ever undertaken in Canada, received $41.6 million in CIHR funding to continue its work for the next five years. It also reached its ambitious recruitment goal of 50,000 participants.

I’m sure you will find it interesting to read about these and other recent accomplishments of the faculty, staff and alumni of the Faculty of Health Sciences.

To stay up to date on all the latest news from our Faculty, visit us on the web at fhs.mcmaster.ca.

John G. Kelton, MD
Dean and Vice-President
Faculty of Health Sciences
The figures are startling. By 2050, an estimated 10 million people will die each year from antibiotic-resistant infections. That’s more than cancer and road traffic accidents combined. Experts warn the economic toll associated with this potential crisis will be immense, resulting in a global gross domestic product (GDP) loss of more than $100 trillion by the same year.

“Without antibiotics there is no modern medicine,” says Gerry Wright, scientific director of the Michael G. DeGroote Institute for Infectious Disease Research (IIDR) at McMaster University. “It’s as simple as that.”

McMaster is leading the global crusade against this growing crisis. With a cross-disciplinary group of more than 40 principal investigators targeting the complex problems of antimicrobial drug resistance, its researchers are speeding the discovery of new drugs and tracking and characterizing resistance before it emerges in the clinic.

“Our researchers have dedicated more than two decades to the escalating global challenge of infectious disease, and now, with antibiotic resistance at the world’s doorstep, our world-class researchers are providing breakthrough impact on a world scale,” says Wright.

This past spring, Wright was awarded a $3.5-million grant from the Ontario government to allow him and his team to explore innovative ways to address the need for new drugs. The grant was among $15 million in research funding awarded to McMaster this past June under the Ontario Research Fund program.

Wright’s grant will build on an already well-established research program. For example, in 2011, his group found that antibiotic resistance is ancient, by identifying resistance genes in 30,000-year-old permafrost samples. With additional funding from his Canada Research Chair in Molecular Studies of Antibiotics, Wright and his team are applying this fundamental information in the development of innovative strategies to identify new drugs and preserve the activities of existing ones.

Other members of the IIDR have achieved similar success, including Eric Brown, a professor of biochemistry and biomedical sciences, who was awarded a Canadian Institutes for Health Research Foundation Grant valued at $2.8 million over seven years to focus on understanding survival strategies of bacteria.

Marie Elliot, a professor in the Department of Biology, was awarded a prestigious Discovery Accelerator Grant from the Natural Sciences and Engineering Research Council to focus on *Streptomyces* – a soil-dwelling bacterium, which produces the majority of the world’s antibiotics.

Also, a group of international researchers, led by Nathan Magarvey, a professor in the Department of Biochemistry and Biomedical Sciences, received $1.5 million from the Canadian government to discover and develop natural antibiotics for treating drug-resistant bacteria.

The importance of McMaster’s work in this area was recognized this year when Wright, Brown and Lori Burrows, a professor in the Department of Biochemistry and Biomedical Sciences, were among the featured speakers at the 2015 Keystone Symposia on Molecular and Cellular Biology – an annual meeting attended by an international consortium of leading experts on antibiotic resistance.

The Keystone Symposia offered attendees an essential forum to discuss the critical issue of resistance, Burrows says. “It’s the best way to exchange ideas, and it’s where new collaborations are born.”

Adds Wright: “The world is finally waking up to the worst public health threat of our times. The antibiotics that we have come to take for granted are quickly losing their power to stop deadly diseases and infections. The end of antibiotics is right on our doorstep, and everyone is at risk.”
This past spring the Canadian Longitudinal Study on Aging (CLSA), the most comprehensive study of aging ever undertaken in Canada, received a massive funding boost and reached a big milestone.

In March, the CLSA received $41.6 million from the Canadian Institutes of Health Research (CIHR) to continue its work for the next five years. The CLSA headquarters are hosted at McMaster. Launched in 2010, the study is led by researchers at McMaster, McGill and Dalhousie universities, and has data collection sites across the country. A total of 50,000 Canadians are being followed over 20 years to provide information which can be used to improve understanding on biological, medical, psychological, social, lifestyle and economic aspects of people’s lives.

“This funding is a strong vote of confidence in the importance of improving Canadians’ health through a better understanding of the aging process.”

– Parminder Raina

In June, the CLSA’s milestone of reaching its ambitious recruitment goal of 50,000 participants was formally recognized by the Government of Canada. Minister of Labour Kellie Leitch and local Member of Parliament David Sweet visited McMaster to congratulate leaders from the CLSA and McMaster University, and learn more about the national, long-term study. They also thanked the Canadians from coast to coast who are taking part in the initiative. The government officials also took a tour of the CLSA’s Biorepository and Bioanalysis Centre, based at McMaster.

All participants have now completed baseline assessments through telephone interviews, or face-to-face interviews followed by visits to specially designed data collection sites. Participants will be revisited once every three years to carry out complete data collection, and contacted at regular intervals to touch base and maintain engagement with the study.

The CLSA was launched through $50 million in grants from CIHR, the Canada Foundation for Innovation, several provinces and universities, as well as other partners to set up the research platform, recruit participants and collect data from participants.
**Blood to feeling — Scientists turn blood into neural cells**

**McMaster scientist Mick Bhatia** and his team have discovered how to make adult sensory neurons from human patients simply by having them roll up their sleeve and providing a blood sample.

Specifically, they can now directly convert adult human blood cells to both central nervous system (i.e. brain and spinal cord) neurons, as well as neurons in the peripheral nervous system (i.e. the rest of the body) that are responsible for pain, temperature and itch perception. This means that how a person’s nervous system cells react and respond to stimuli, can be determined from his or her blood.

The breakthrough was featured on the cover of the journal *Cell Reports* and was led by Bhatia, director of the McMaster Stem Cell and Cancer Research Institute and a professor of biochemistry and biomedical sciences. Also playing a key role was co-author Karun Singh, holder of the David Braley Chair in Human Stem Cell Research.

Currently, scientists and physicians have a limited understanding of the complex issue of pain and how to treat it. The peripheral nervous system is made up of different types of nerves – some are mechanical (i.e. feel pressure) and others detect temperature. In extreme conditions, pain or numbness is perceived by the brain using signals sent by these peripheral nerves.

“Now we can take easy-to-obtain blood samples, and make the main cell types of neurological systems – the central nervous system and the peripheral nervous system – in a dish that is specialized for each patient,” said Bhatia. “Nobody has ever done this with adult blood. Ever.”

His team’s revolutionary, patented approach paves the way for the discovery of new pain drugs that don’t just numb the perception of pain.

---

**Mastering public health**

**As an arts and science student** at McMaster, Joyce Chan became involved in interviewing older Hamilton adults as part of the Tapestry research project of the Department of Family Medicine.

She was fascinated by how many different aspects of lifestyle and health contributed to an individual’s quality of life. Then, working at a Toronto hospital, she was translating academic research results into interventions to be used by both older adult patients and their physicians.

Now the 22-year-old is interested in developing a career of building a healthy community, and she is one of the inaugural class of 30 who have begun the new Master of Public Health Program of McMaster University’s Michael G. DeGroote School of Medicine, led by its Department of Clinical Epidemiology and Biostatistics (CE&B).

The program builds on the department’s renowned expertise in health policy analysis and health methodology research, and uses McMaster’s educational approach of small group, self-directed learning. The program is scheduled to take up to two years full-time or four years if taken part-time.

There are 25 students taking the program full-time and five taking it part-time. They have a mix of backgrounds, with some already in health professions such as medicine and nursing, while others have a recent first degree in health sciences. The program offers either a thesis or practicum stream.
Not all fats created equal

**Trans fats are** associated with greater risk of death and coronary heart disease but saturated fats, not so much, says a study in the *British Medical Journal* led by McMaster researchers.

“For years everyone has been advised to cut out fats. Trans fats have no health benefits and pose a significant risk for heart disease, but the case for saturated fats is less clear,” said lead author Russell de Souza, an assistant professor of clinical epidemiology and biostatistics.

“That said, we aren’t advocating an increase of the allowance for saturated fats in dietary guidelines, as we don’t see evidence that higher limits would be specifically beneficial to health.”

Current guidelines recommend that saturated fats are limited to less than 10 per cent, and trans fats to less than one per cent of energy, to reduce risk of heart disease and stroke.

De Souza and his colleagues analyzed the results of 50 observational studies assessing the association between saturated and/or trans fats and health outcomes in adults. The team found no clear association between higher intake of saturated fats and death for any reason, coronary heart disease (CHD), cardiovascular disease, ischemic stroke or Type 2 diabetes.

However, consumption of industrial trans fats was associated with a 34 per cent increase in death for any reason.

Fighting pneumonia with steroids

**McMaster research**, published by the *Annals of Internal Medicine*, has demonstrated the benefits of corticosteroid therapy for one of the most common serious medical conditions.

“Our study should lead to an important change in treatment for pneumonia,” said lead author Reed Siemieniuk, a physician and a graduate student at McMaster. “Corticosteroids are inexpensive and readily available around the world. Millions of patients will benefit from this new evidence.”

Lower respiratory infections are the second most common cause of premature death globally. In developed countries, hospitalization for community-acquired pneumonia is common and is often associated with acute respiratory distress syndrome requiring mechanical ventilation and with significant mortality.

The research, led by investigators from the Michael G. DeGroote School of Medicine, summarized the evidence from 13 randomized trials involving more than 2,000 patients.

Evidence showed patients with community-acquired pneumonia who received corticosteroids were discharged from hospital one day sooner. Results also suggested that corticosteroid treatment reduces the need for mechanical ventilation from nine per cent to five per cent of patients; and the likelihood of a life-threatening complication called acute respiratory distress syndrome from eight to two per cent of patients. The results also raised the possibility of a significant reduction in death rates.
A potential cure for ulcerative colitis

Two studies out of McMaster’s Farncombe Family Digestive Health Research Institute show that transplantation of fecal matter may be useful in the fight against ulcerative colitis.

Ulcerative colitis (UC) is a chronic, debilitating inflammatory bowel condition that causes bloody stools, diarrhea, abdominal pain, weight loss and malnutrition. It results from the development of abnormal immune responses to the normal bacteria in the digestive tract. It is difficult to treat and standard therapy doesn’t always work.

There is currently great interest in treating UC with fecal microbiota transplantation (FMT), which involves transplanting gut fecal bacteria from healthy people into patients with UC.

“FMT induces remission in a significantly greater percentage of patients with active UC than placebo.”

– Paul Moayyedi and his research team

A study published in Inflammatory Bowel Diseases and led by Elena Verdu, an associate professor of medicine, found that UC can be controlled by the type of bacteria that inhabits the gut. “Our animal research provides insight that selected bacterial groups, involved in gut health, are important for protecting the colon against injury and inflammation,” said Verdu.

Along the same theme, in research published in Gastroenterology, professor of medicine Paul Moayyedi and his team explored the safety and efficacy of FMT by conducting a placebo-controlled, randomized trial. They found that “FMT induces remission in a significantly greater percentage of patients with active UC than placebo,” the authors wrote.

“Our study in patients with ulcerative colitis is the first randomized trial of fecal microbiota transplantation in adults with ulcerative colitis and shows that this therapy may work,” said Moayyedi. “The effect of fecal transplant seems to be dependent on the sort of bacteria that is in the donor stool, which fits with the observations of Dr. Verdu’s animal study.”

A hearty handshake is healthy

The firmness of your hand grip is better than your blood pressure at assessing your health, says research out of the Population Health Research Institute, a joint institute of McMaster University and Hamilton Health Sciences.

The study, published in The Lancet and led by Darryl Leong, assistant professor of medicine, also found that reduced muscular strength, measured by your grip, is consistently linked with early death, disability and illness.

“Grip strength could be an easy and inexpensive test to assess an individual’s risk of death and cardiovascular disease,” said Leong. “Doctors or other health care professionals can measure grip strength to identify patients with major illnesses such as heart failure or stroke who are at particularly high risk of dying from their illness.”

The study followed almost 140,000 adults aged 35 to 70 over four years in 17 countries. Their muscle strength was measured using a handgrip dynamometer. They were taking part in the institute’s Prospective Urban-Rural Epidemiology (PURE) study.

The researchers found that for every five-kilogram decline in grip strength, there was a one in six increased risk of death from any cause. There was the same 17 per cent higher risk of death from either heart disease or stroke, or non-cardiovascular conditions.

These associations with grip strength were not accounted for by differences in age, sex, education level, employment status, physical activity, tobacco and alcohol use, diet, BMI, waist-to-hip ratio or other conditions such as diabetes, hypertension, cancer, coronary artery disease, chronic obstructive pulmonary disease, stroke or heart failure, or their country’s wealth.

A handgrip dynamometer measures grip strength.
Additional radiation reduces breast cancer recurrence

A McMaster study found no increase in overall survival, but a reduction in breast cancer recurrence when additional radiation is given to the lymph nodes as well as the standard treatment of whole-breast irradiation after breast-conserving surgery.

The research examined the addition of regional nodal irradiation to whole-breast irradiation compared with whole-breast irradiation alone, and was published in the New England Journal of Medicine. It was led by Tim Whelan, professor of oncology and a radiation oncologist at Hamilton Health Sciences, Juravinski Cancer Centre, and involved a team of investigators from Canada, the United States and Australia.

The study involved more than 1,800 women with axillary node-positive breast cancer (cancer in the lymph glands under the arm) or high-risk node-negative breast cancer (no cancer in under arm nodes, but cancer with bad prognostic features).

Currently, most women with breast cancer are treated with breast-conserving surgery followed by radiation to the whole breast. An important unanswered question was whether the addition of regional nodal irradiation to the usual radiation of the breast would improve outcomes.

“Additional radiation to the surrounding lymph nodes reduced the risk of subsequent recurrence of breast cancer both locally, such as under the arm, and at sites distant from the breast, such as the bone, liver and lung,” said Whelan. “The treatment did not increase survival, but follow-up is still relatively early.”

Research briefs

Saving lives one tool at a time

A new, inexpensive diagnostic tool that can be used to save the lives of children around the world is the result of research from the Department of Pediatrics. A flocked rectal swab was specially designed to collect samples from infants and children with severe diarrhoeal disease. Resembling a large Q-tip, the swab facilitates sample collection, eliminating the wait time required to gather stool samples as well as the biohazard that comes with transporting them. The study was published in the Journal of the Pediatric Infectious Diseases Society.

Fertility drug fights superbugs

The popular fertility drug clomiphene repels invasion by major infections such as methicillin-resistant staphylococcus aureus (MRSA), McMaster researchers have found. The finding sheds light on the ways biological systems interact, and is a promising new lead in the fight against multidrug resistant bacteria infection, a growing global issue. The discovery came as a result of the team of biochemists of the Michael G. DeGroote Infectious Disease Research Institute looking for drug combinations that worked against, or antagonistic towards, each other. The paper was published by the Proceedings of the National Academy of Sciences.

Insight into neurodegenerative diseases

Research from the Michael G. DeGroote Institute for Infectious Disease Research and Department of Biochemistry and Biomedical Sciences shows that the protein senataxin, associated with neurodegenerative diseases like ALS (amyotrophic lateral sclerosis), also plays an important role in the body’s natural antiviral response. The study, published in Nature Immunology, offers new insight into the link between neurodegenerative disorders and inflammation, and provides a framework to explore more fully the possibility that viral infection may lead to the onset of these diseases.

Treating triggers of alcoholism

Research from the Department of Psychiatry and Behavioural Neurosciences found that D-Cycloserine, a drug typically used to treat tuberculosis, accelerates reductions in cravings for people with alcohol dependency and has promise for improving the treatment of alcoholism. The drug is thought to enhance learning processes and when patients were being taught that the triggers in their environment do not have to be acted upon, their learning can be improved with the medication and cravings reduced as a result. The study was published in Translational Psychiatry.
Over the past several months, researchers from the Faculty of Health Sciences (FHS) have been successful in attracting major funding to advance important research in a number of key areas. Some of these grants include:

- **$37,200,000** from the Canadian Institutes of Health Research (CIHR) to 22 FHS researchers to support research ranging from a better understanding of how to combat bacteria to improving critical care, and from studying cardiovascular issues around the world to examining the relationship between the gut and the brain.

- **$1,800,000** from the Ontario SPOR SUPPORT Unit to McMaster researcher P.J. Devereaux to study the impact of accelerated surgical care for hip fractures.

- **$1,200,000** for a project to provide instant diagnosis of infectious disease, deadly pathogens and environmental contaminants. The ORF also supported a $140,000 Early Researcher Award for Jonathan Schertzer, an assistant professor in the Department of Biochemistry and Biomedical Sciences, to study how bacteria in the gut links obesity, diabetes and fighting infections. Nearly $80,000 was awarded under its Small Research Infrastructure category to support human colon function assessment, led by Jan Huizinga, a professor in the Department of Medicine.

- **$4.1 million** from the Ontario Research Fund (ORF), including more than $3.5 million for research into antimicrobial resistance undertaken by the Michael G. DeGroote Institute for Infectious Disease Research and more than $3.5 million to McMaster’s Biointerfaces Institute for a project to study better ways to support victims of family violence. The study is being co-led by McMaster professor Harriet MacMillan.

- **$5.3 million** in ongoing funding through to March 2020 from the Public Health Agency of Canada for the National Collaborating Centre for Methods and Tools, hosted by McMaster.

- **$3,500,000** from the Movember Foundation and Prostate Cancer Canada to McMaster researcher Jehonathan Pinthus to address the potential link between androgen deprivation therapy – an important and common treatment for prostate cancer – and an increased risk of cardiovascular disease.

- **$1,200,000** from the Public Health Agency of Canada and Health Canada to study better ways to support victims of family violence. The study is being co-led by McMaster professor Harriet MacMillan.

- **$37,200,000** from the CIHR to 22 FHS researchers to support research ranging from a better understanding of how to combat bacteria to improving critical care, and from studying cardiovascular issues around the world to examining the relationship between the gut and the brain.

- **$1,800,000** from the Ontario SPOR SUPPORT Unit to McMaster researcher P.J. Devereaux to study the impact of accelerated surgical care for hip fractures.

- **$1,200,000** for a project to provide instant diagnosis of infectious disease, deadly pathogens and environmental contaminants. The ORF also supported a $140,000 Early Researcher Award for Jonathan Schertzer, an assistant professor in the Department of Biochemistry and Biomedical Sciences, to study how bacteria in the gut links obesity, diabetes and fighting infections. Nearly $80,000 was awarded under its Small Research Infrastructure category to support human colon function assessment, led by Jan Huizinga, a professor in the Department of Medicine.

- **$4.1 million** from the ORF, including more than $3.5 million for research into antimicrobial resistance undertaken by the Michael G. DeGroote Institute for Infectious Disease Research and more than $3.5 million to McMaster’s Biointerfaces Institute for a project to study better ways to support victims of family violence. The study is being co-led by McMaster professor Harriet MacMillan.

- **$5.3 million** in ongoing funding through to March 2020 from the Public Health Agency of Canada for the National Collaborating Centre for Methods and Tools, hosted by McMaster.

- **$3,500,000** from the Movember Foundation and Prostate Cancer Canada to McMaster researcher Jehonathan Pinthus to address the potential link between androgen deprivation therapy – an important and common treatment for prostate cancer – and an increased risk of cardiovascular disease.

- **$1,200,000** from the Public Health Agency of Canada and Health Canada to study better ways to support victims of family violence. The study is being co-led by McMaster professor Harriet MacMillan.

- **$37,200,000** from the CIHR to 22 FHS researchers to support research ranging from a better understanding of how to combat bacteria to improving critical care, and from studying cardiovascular issues around the world to examining the relationship between the gut and the brain.

- **$1,800,000** from the Ontario SPOR SUPPORT Unit to McMaster researcher P.J. Devereaux to study the impact of accelerated surgical care for hip fractures.

- **$1,200,000** for a project to provide instant diagnosis of infectious disease, deadly pathogens and environmental contaminants. The ORF also supported a $140,000 Early Researcher Award for Jonathan Schertzer, an assistant professor in the Department of Biochemistry and Biomedical Sciences, to study how bacteria in the gut links obesity, diabetes and fighting infections. Nearly $80,000 was awarded under its Small Research Infrastructure category to support human colon function assessment, led by Jan Huizinga, a professor in the Department of Medicine.
Collaboration is at the heart of the new David Braley Health Sciences Centre at the McMaster Health Campus in downtown Hamilton. The six-storey building, which officially opened on May 15th, is purpose-built with co-location and shared space to enhance the growing partnership between the Department of Family Medicine and Public Health Services for the City of Hamilton. Other Faculty of Health Sciences researchers, educators, students and clinicians are co-located at the centre, including the faculty development and continuing health sciences education programs.

The $84.6-million project was funded by McMaster University, the City of Hamilton, the Province of Ontario and well-known Hamilton businessman David Braley. “From the beginning, David Braley has shared our drive to expand the impact of McMaster and the city on innovation in health sciences research, education and care across Canada while, at the same time, increasing health services to the people of Hamilton,” said John Kelton, dean and vice-president of the Faculty of Health Sciences at McMaster.

A generous crowd attended the grand opening of the David Braley Health Sciences Centre at the McMaster Health Campus on May 15th, 2015.
The David Braley Health Sciences Centre (DBHSC) is home to the Department of Family Medicine of the Michael G. DeGroote School of Medicine, as well as a number of other programs. Major research in primary care is also housed here. The following list includes a sampling of some of the innovative offerings that are or will be housed at the DBHSC:

- The McMaster Family Practice, a clinic for 15,000 Hamiltonians, has integrated primary health care provided by family doctors, nurse practitioners, physician assistants, occupational therapists and physiotherapists, and McMaster students of those professions.

- The Maternity Centre of Hamilton, an interdisciplinary team of family doctors, nurses, a lactation consultant and social worker, provides prenatal and postpartum care to over 600 women annually. The McMaster Family Practice and Maternity Centre facilities are also used by Hamilton Public Health Services, which holds clinics for sexual health, breastfeeding, immunization and tobacco cessation.

- Hamilton Public Health Services has program staff from its surveillance unit, which monitors reportable diseases in the community; tobacco control; injury prevention; chronic disease prevention; and sexual health. The public health library and public health’s applied research and evaluation team are also housed here.

- Several health sciences programs that further McMaster’s renowned and continuing innovation in how health professionals are taught and learn are located here, including the Program for Educational Research and Development; the Program for Faculty Development; the Foundation for Medical Practice Education; and the University’s Continuing Health Sciences Education Program, which offers upgrade training to local health care professionals.

- One of the first projects headquartered here is a national study on how to improve the quality of life of older adults and at-risk people living at home. The TAPESTRY (Teams Advancing Patient Experience: Strengthening Quality) project is sending community volunteers into the homes of older adults to help identify issues and intervene before a health crisis occurs.

- The Ontario Pharmacy REsearch CollaboratioN (OPEN) study, which looks at the effectiveness of pharmacist-led medication management programs.

- The Cardiovascular Health Awareness Program (CHAP), which researches prevention of heart disease through free, risk assessment sessions offered to the public.

- The Infant and Child Health (INCH) laboratory, which looks to expand knowledge of child development.

- Development of McMaster’s OSCAR/PHR electronic health record system. The program originated in the Department of Family Medicine in 2001 and has evolved into a state-of-the-art web-based program to support personal health records.

Programs and research projects housed at the David Braley Health Sciences Centre
The David Braley Health Sciences Centre was designed to welcome the community, set the stage for engaging collaborations, and to enhance the growing partnership between Public Health Services for the City of Hamilton and the Department of Family Medicine of McMaster’s Michael G. DeGroote School of Medicine.

The building is partly a community space open to the public with a café, public meeting and lounge space as well as family health, maternity and public health clinics. It is also the home for major research and education initiatives of McMaster’s Faculty of Health Sciences.

The building was designed by architect David Clusiau, senior principal, architectural design, of NORR Limited of Toronto. It was constructed by Ball Construction of Kitchener, Ont.

“There was a focus on creating a healthy working environment that encourages stair use and features daylight and views for all.”

Clusiau added: “We wanted to create a building that connects with Hamilton, a city that resides between the lake and the escarpment with its layered stone, forest and waterfalls – a building that supports and reinforces both the unique combination of health care programs it houses, as well the cultural and civic centre of the city.”

To link the building back to the University tradition, noble materials like stone, copper and glass were used, but assembled in a contemporary manner, said Clusiau.

The architect also sought to create an engaging and lively street frontage along Main Street. To this end, they incorporated an architectural massing that links the building to surrounding public institutions like City Hall, which is located across the street, and the Art Gallery of Hamilton, which is expected to be connected in the future via a bridge from the second floor.

This will form a new western edge to Commonwealth Square; and contribute to the revitalization of the downtown core.

The designer wanted to solve the challenge of the building’s relatively compact site, which drives public functions up high in the building, away from the ground floor entry and natural environment. To accomplish this, he created a cascading series of interlinked multi-story public spaces and exterior terraces with plants, fountains, green walls and views that extend from the ground floor entrance all the way up to the sixth floor.

At the north side of the building is a patients’ drop-off entrance with a protective portico. The lower floor parking is reserved for patients of the clinics.

The 192,000-square-foot (17,600-square-metre) building has an impressive Main Street entrance that opens into a large (approximately 3,500-square-foot) lobby washed in light from floor to ceiling windows. The large room has abundant greenery and a cascading water feature. Also located on
the main floor will be a pharmacy and a cafe called La Prep, an upscale bistro-style quick-service restaurant specializing in freshly prepared sandwiches, salads, baked goods and specialty coffees.

There are also plans for a diagnostic imaging clinic for the main floor and several other health-related services.

In addition, a large, elaborate model train set will be moved into a space off the main lobby area, a donation from Hamilton lawyer David Lee who spent more than 50 years building the elaborate tiny village in the basement of his Dundas home. The set will be dismantled and reassembled at the health campus.

A large, wide staircase, with space to seat an audience of 120 to 150 people, ascends from the lobby to a second floor corridor lit by skylights and east windows. A large, multi-purpose room with 30-foot-high windows, which is the location of many public events, overlooks City Hall. Among the room’s features is seating that can be retracted into the wall.

On the second floor, a health sciences learning centre has 11 classrooms designed for McMaster’s innovative small-group, problem-based learning, as well as two meeting rooms with a room divider and flexibility to become one larger room. A bridge is planned to connect the second floor to the Irving Zucker Sculpture Garden of the Art Gallery of Hamilton.

The third floor is home to the McMaster Family Practice and the Maternity Centre of Hamilton which have a combined 48 exam rooms, and offices and collaborative space for physicians, nurses and other health care professionals. The Hamilton Maternity Centre is also integrated into the clinic space. The waiting room features windows overlooking Main Street, an aquarium, and an outdoor garden.

The fourth, fifth and sixth floors are designed to provide opportunities for collaboration between the leaders, educators, researchers and staff of Public Health Services and the Department of Family Medicine, as well as other health sciences programs.

A sixth floor multi-purpose space provides outdoor garden areas and large views of the city to the north, west and south, encompassing surrounding landmarks, Lake Ontario and the escarpment.

About 450 McMaster and 110 Public Health Services employees will have moved in to the building by the end of this year.

John Kelton, dean and vice-president of the Faculty of Health Sciences, said: “This is a beautiful landmark reflecting Hamilton’s growing importance in the provincial and national health sectors. We’re known for our excellence and innovation in health sciences education and research, and this building is designed to support those initiatives.”
Asking for and honouring last wishes helps to create meaning, memories and closure at death, and personalizes the dying process for patients and their families, says a recent study led by Deborah Cook, a professor of medicine and clinical epidemiology and biostatistics. The research, published in the Annals of Internal Medicine, is about the Three Wishes Project initiated by Cook, who is lead author and also a staff physician in the Intensive Care Unit (ICU) at St. Joseph’s Healthcare Hamilton.

The ongoing project involves the patient’s clinician or a researcher sensitively eliciting three wishes to best honour the dying person from the patient, the family or other clinicians caring for the patient, and then finding a way to fulfill them.

“We developed this project to try to bring peace to the final days of critically ill patients and to ease the grieving process. For the patients we wanted to dignify their deaths and celebrate their lives; for family members, to humanize the dying experience and create positive memories; and for clinicians, to foster patient and family-centred care.”

– Deborah Cook

Melanie Wolfe’s father, Bill Morrell, went into hypoxic arrest at St. Joseph’s in April and was placed on life support. Knowing the outcome wouldn’t be good, her family’s three wishes were that he be kept alive long enough for his brother and sister to arrive from Australia; that the family have a private room of their own to meet in; and that one last photo of her father with his family be taken.

Morrell was in the ICU for four days and his siblings arrived on the fourth day. Wolfe says her aunt and uncle being able to say their goodbyes “meant the world to them because they didn’t have that closure before when my uncle passed away” about 10 years earlier.

As part of the project, staff also helped the family create a word cloud describing Morrell and had copies framed for Wolfe and her brother. To have that, along with the photo of the whole family surrounding him by his bed, is invaluable, Wolfe said.

“When you’re in the ICU and all you are doing is worrying, the staff are amazing at explaining everything to you and being there for you and answering all your questions, but we knew we were leaving without him and so Dr. Cook’s project just meant everything to us because we left with something,” said Wolfe. “I know that sounds so crazy, but all of those words encompassed his spirit and his livelihood and everything about him. We feel proud to display it on our mantel and it’s just…

for not wanting to be in that situation, it made you feel better about how everything went and helped with the grieving process.”

Cook’s study took place at the St. Joseph’s ICU. Participants included 40 dying patients, at least one family member per patient, and three clinicians per patient.

The wishes were summarized in five areas including humanizing the environment (such as bringing favourite flowers or cherished mementoes into the room); personal tributes (such as having a tea party or planting a tree in the patient’s name); family reconnections (such as locating a lost relative); rituals and observances (having blessings or renewal of wedding vows); and paying it forward (such as organ donation or charitable giving).

Cook’s research team interviewed families and clinicians to assess the program and found that 98 per cent of the requested wishes were implemented, at a cost ranging from nothing to $200 per patient.

End-of-life care was rated high by family members and post-mortem interviews with 160 family members and clinicians provided overwhelmingly positive feedback.

As one medical resident said: “It did make the experience seem dignified and peaceful. It didn’t necessarily feel like we were letting someone go; it felt more like we were wishing someone well.”
After battling anorexia, valedictorian inspires others

Marina Abdel Malak overcame an eating disorder that nearly killed her and published a book about her ordeal to inspire others. Then she became valedictorian for her nursing class this past June.

The Mississauga native, 22, was one of 466 students who graduated from the McMaster Mohawk Conestoga Bachelor of Science in Nursing (BScN) program. Abdel Malak’s book, *Recipe for Recovery*, details her battle with anorexia. She said having it published last year is her biggest accomplishment.

“I wanted to use my experiences in battling an eating disorder to help others, to break the stigma associated with illness, and to inspire others to achieve their dreams,” says Abdel Malak. The illness began when she was in Grade 9, and involved weeks spent in hospital when her organs began to fail from the self-starvation. She has been recovered for the past four years.

Abdel Malak says her mother, father and sister are her greatest inspirations. Her parents immigrated to Canada from Egypt and both had to retake their degrees here in order to work in their respective professions. At the same time they were paying off their student debts and raising their two girls. Abdel Malak says her parents raised them “to be grateful for the simplicities of life, to persevere despite obstacles and to remain true to ourselves.”

Her older sister, Nansy, has also helped her during rough times.

“There are days when I feel like giving up, but Nansy’s courage and passion remind me how rewarding it is to fight for my goals,” says Abdel Malak.

While at McMaster, Abdel Malak received the Dr. Harry Lyman Hooker Scholarship, the Edwin Marvin Dalley Memorial Scholarship and the Yates Scholarship. She believes that giving back to McMaster is important.

“I have tremendous respect and appreciation for individuals who give back to the McMaster community in any way, and I would love to be able to do the same,” said Abdel Malak.

She has now started the medical school program at the University of Toronto.

Team takes prizes in Canadian University Life Sciences Challenge

A group of four second-year Bachelor of Health Sciences students who hadn’t yet finished their anatomy and physiology course took the top prize in those categories at the Canadian University Life Sciences Challenge. The team of Jake Hong, Dave Nidumolu, Michael Xie and Victor Kang finished first for those categories out of 18 teams in the annual competition in March.

“We felt extremely surprised that our knowledge as a second-year team could compete and surpass that of fourth-year students,” said Xie, speaking on behalf of his team. “I think this speaks to how effective McMaster’s anatomy and physiology program actually is.”

“It is a credit to these students that they were able to compete and win against senior students from Canada’s top universities,” said their instructor Alexander Ball, a professor of pathology and molecular medicine.

Ball added: “The highlight of my day is to be in the anatomy lab for questions and answers with students of this calibre. We only provide the information and experience. It is the students who deserve the credit for taking themselves to this high level of achievement.”
Maxwell Tran, a third-year Bachelor of Health Sciences (B.H.Sc.) student, was recently named to Plan Canada’s Top 20 Under 20 for his efforts to grow and promote Ink Movement – a non-profit organization that was conceived to empower youth through the arts.

“I was an avid writer in high school, and I noticed right away there aren’t the same kind of networking opportunities for youth working in the arts as there are in business and health sciences,” said Tran. “Ink Movement was launched to address that gap.”

Founded in 2012, it currently boasts more than 80 active volunteers across Mississauga, Hamilton and Montreal. Tran has an ambitious plan to “scale up” with new chapters on the west coast, beginning in Vancouver.

 Volunteer team members regularly host arts education events for local youth. To date, Ink Movement has provided experiential programming for more than 600 young people in Ontario and Quebec.

In May, the organization collaborated with regional partners Big Brothers Big Sisters, Seva Food Bank and Our Place Peel (a youth shelter in Mississauga) to host Art & Soul Initiative – a one-day event that saw youth join forces to develop creative materials for non-profit community organizations.

“Art can often be a solitary pursuit,” said Tran. “It’s nice to be around like-minded people, and help facilitate connections between young artists, mentors and community partners. Our end goal is to encourage youth to express themselves and apply the arts as tools for social change.”

Tran aspires to become a clinician-scientist upon graduation. He wants to do more writing about pressing health challenges, and explore the potential of art to improve health care. He’s also committed to growing Ink Movement, and hopes to do a lot more creative writing in the future.
Sarah Glen and Margaret Secord, both instructors with the Bachelor of Health Sciences program, have spent the last seven years helping students make a lasting impact on the Hamilton community.

“We talk to community partners, or they come to us, tell us their needs, and then we say ‘great we know which students can assist you.’”

– Sarah Glen

Now they’ve been recognized for their work as the first-ever recipients of the McMaster Students Union Community Engagement Teaching Award.

Since 2008, Glen and Secord have taken a unique approach to community-engaged learning, matching fourth- or fifth-year students from all Faculties with community organizations in need of research expertise.

“In many courses students say, ‘I want to do a thesis,’ then they go to a community partner and say ‘we want to research your population.’ So really that’s all about the student’s needs, but we do it the other way around,” said Secord, who is also an assistant clinical professor of psychiatry and behavioural neurosciences. “We talk to community partners, or they come to us, tell us their needs, and then we say ‘great we know which students can assist you.’”

Before students can begin working with community partners, they have to complete 3DD3 “Engaging the City: An Introduction to Community-based Research,” to familiarize students with the principles and theory of community-based participatory research.

Once they’ve completed the course, students have the option of working on a senior research project or on a community-based thesis in partnership with a community organization.

Glen and Secord work closely with community partners to determine their research needs. Students are then matched with community organizations and closely supervised by Glen and Secord throughout the research process.

“At the end of the day, students want to make an impact,” says Sarah Glen (right). Glen and Margaret Secord, both instructors with the Bachelor of Health Sciences program, are the recipients of the first-ever MSU Community Engagement Teaching Award.

Canada Research Chairs for two FHS researchers

John Lavis and Gerry Wright were awarded senior Canada Research Chairs (CRC) for their research on better health systems and on infectious disease, respectively.

Lavis, a professor of clinical epidemiology and biostatistics, was awarded a Tier 1 CRC in Evidence-Informed Health Systems. Wright, director of the Michael G. DeGroote Institute for Infectious Disease Research and a professor of biochemistry and biomedical sciences, had his Tier 1 CRC in Molecular Studies of Antibiotics renewed.

Both will receive $1.4 million over the next seven years.
Chair of Medicine receives top Canadian recognition

**Paul O’Byrne**, Chair of Medicine at the Michael G. DeGroote School of Medicine, was one of 35 new fellows inducted into the Canadian Academy of Health Sciences (CAHS).

The induction ceremony took place September 17th and 18th at its 2015 forum and annual general meeting, in Ottawa. The CAHS works in partnership with the Royal Society of Canada and the Canadian Academy of Engineering to form the three member academies of the Council of Canadian Academies. Fellows elected to the Academy are recognized by their peers nationally and internationally for their contributions to the promotion of health science and is considered one of the highest honours for individuals in the Canadian health sciences community.

O’Byrne is internationally recognized for seminal contributions into understanding the causes and treatment of asthma, including the first studies of the central role of airway inflammation in its initiation and persistence. His work has explained the mechanisms of allergen-induced inflammatory responses and aided the development of anti-leukotrienes as a new asthma treatment. He has published extensively in the most highly cited peer-reviewed journals and his studies of asthma treatment have influenced treatment guidelines worldwide.

---

McMaster alumna wins Sibley Award for teaching

**Amanda Bell**, an assistant clinical professor of family medicine for the Michael G. DeGroote School of Medicine’s Niagara Regional Campus, is the 2015 recipient of the John C. Sibley Award for excellence in education by part-time faculty.

Bell graduated from McMaster’s medical program in 1998 and has been praised for her leadership as a family physician in Port Colborne, and she is being honoured now for her clinical teaching.

A faculty member for the past 15 years while practicing family medicine, Bell has focused on adolescent medicine and women’s health.

She was one of the first clinical supervisors at the Niagara family medicine residency site. As well, she played a pivotal role in developing and improving the tutor training program, and in introducing a peer observation program. Her models of faculty development have been adopted at the medical school’s other campuses in Hamilton and Waterloo.

Among other achievements, Bell led the development of an educational program that has medical students provide workshops and information sessions on health careers to students of Niagara elementary and high schools. She also developed a community-based women’s health elective for medical students and residents.

The John C. Sibley Award is named for a former associate dean at McMaster who was known for his interdisciplinary approach to community health locally and internationally. The award is presented annually to a part-time faculty member who has made outstanding contributions to the education of health professionals.
Three awarded new University Scholar prize

Dorothy Bakker, director of the Mac-CARE Program, was named Regional Family Physician (OCFP) of the Year (Region 3) for 2015 by the Ontario College of Family Physicians. The award recognizes the outstanding contributions of seven OCFP members, one from each region, who provide exemplary care to their patients and are passionately involved in activities that contribute to excellence in family medicine.

Avram Denburg, a McMaster PhD student in health policy, received a prestigious doctoral scholarship from the Pierre Elliott Trudeau Foundation. Denburg is a graduate of McMaster’s medical program and currently a pediatric oncologist at SickKids Hospital in Toronto. His research focus is on constructing a more coherent decision-making framework, informed by public values, for funding new cancer drugs for children in Canada. He will receive $60,000 annually over three years to work with a community of scholars, mentors and fellows to accelerate his professional growth.

Karen Hill received the inaugural Royal College Dr. Thomas Dignan Indigenous Health Award for her dedication to bridging the gap between indigenous health values and the practice of western medicine. The Mohawk Nation family physician graduated from the Michael G. DeGroote School of Medicine in 2003, and she has been the faculty lead in Aboriginal Peoples health for the Department of Family Medicine since 2007. She also works at Juddah’s Place, a clinic she co-founded in 2013 in Ohsweken, Ont., on the Six Nations of the Grand River First Nation reserve.

Karyn Kaufman, the assistant dean of McMaster’s midwifery program from its inception in 1993 to her retirement in 2006, was honoured with a lifetime achievement award from the Association of Ontario Midwives. She worked for more than 20 years to help midwifery become a respected health profession in Ontario.

The Michael G. DeGroote School of Medicine picked up four awards from the Professional Association of Residents of Ontario, including the top residency program excellence award for the Department of Pediatrics. The program award is given to the one program in the province that consistently provides an exceptionally positive and rewarding experience to the residents, while producing physicians who are expertly trained to care for their patients. Other McMaster award recipients include: Ally Prebtani, associate professor of medicine, Excellence in Clinical Teaching Award; Aarti Rana, medical student, Citizenship Award; and Heung Kan Ma, anesthesia resident, Resident Teaching Award.

Peter Rosenbaum, a professor of pediatrics and co-founder of the CanChild Centre for Childhood Disability Research, was awarded the inaugural Medal of Excellence in Childhood Disability from the Holland Bloorview Kids Rehabilitation Hospital. The new medal is the hospital’s highest honour, recognizing a current leader who has made significant advances and a global impact in the field of childhood disability. The award is for Rosenbaum’s positive influence and lifetime commitment to improving the lives of children with disabilities and their families.

Mohit Bhandari, professor of surgery; Gregory Steinberg, professor of medicine; and P.J. Devereaux, professor of clinical epidemiology and biostatistics, along with six other faculty members from across campus.

Recipients of the award are considered global leaders in a number of diverse research areas and academic disciplines, and the award honours those who have demonstrated excellence and innovation in research, teaching and service.

Other awards and honours
Former dean of FHS truly cared for patients

Jack Laidlaw, former dean of the Faculty of Health Sciences known for his commitment to caring for patients, died in June at age 94.

A professor of medicine at McMaster from 1975 to 1986, Laidlaw served six years as chair of the Department of Medicine before being appointed dean of the Faculty from 1981 to 1985. The endocrinologist retired as professor emeritus in 1986.

A leading scientist in the field of endocrinology, his concern for patients led him to focus on patient-centred care, communications with patients and between health professionals, supportive care for cancer patients, and the education of future health care providers.

The Jack C. Laidlaw Chair in Patient-Centred Health Care at McMaster was established in his honour in 2002 and he received an honorary doctorate of science from McMaster in 2004.

Among the many roles he held throughout his career, Laidlaw was founding director of the University of Toronto's Institute of Medical Science; executive director, medical affairs for the Canadian Cancer Society; president of the Canadian Society for Clinical Investigation; president of the Canadian Society for Endocrinology and Metabolism; and an international consultant to Cancer Care International and the World Health Organization.

Former chair of pediatrics advocated for most vulnerable children

Angus MacMillan, a former chair of the Department of Pediatrics who devoted his career to improving the lives of children, died in August at age 84.


The pediatrician will be remembered as a strong advocate for children, especially those most vulnerable; for his ability to relate to children; and his commitment to providing the best care for them.

He championed a pediatric hospital in Hamilton and served as chief of pediatrics at both McMaster Children’s Hospital and St. Joseph’s Healthcare Hamilton.

MacMillan also served on many medical committees and garnered a number of special awards and appointments over the years.

David Sackett remembered as ‘father of evidence-based medicine’

David Sackett, widely known as the father of evidence-based medicine, died in May at age 80.

Sackett was 32 and a physician with training in internal medicine, nephrology and epidemiology when he came to Hamilton as the founding chair of Canada’s first Department of Clinical Epidemiology and Biostatistics in 1968.

At McMaster from 1967 to 1994, he developed and mentored a new breed of applied clinician-scientists and worked with them to create and disseminate evidence-based medicine throughout the world. His collaborative research teams were the first to validate the efficacy of aspirin and carotid endarterectomy for patients with threatened stroke, to develop effective strategies for helping hypertensive patients, and to generate compelling evidence of the effectiveness of nurse practitioners.

Sackett earned many prestigious awards and published 10 books, about 50 book chapters, and over 400 papers in medical and scientific journals.

Sackett left McMaster in 1994 to found the international Centre for Evidence-Based Medicine at the University of Oxford in England. He officially retired from academia and clinical practice in 1999 and returned to Canada to establish a research and education centre about clinical trials.

There was lots of laughter and a few tears at a tribute to Sackett in June, hosted by the Department of Clinical Epidemiology and Biostatistics. His widow Barbara Sackett, four sons David, Charlie, Andy and Bob and other family members mixed with more than 200 attending the event at the David Braley Health Sciences Centre.

Sackett was remembered for his intelligence and being larger than life, friendly, kind and fun; and his wife Barbara was thanked for being his accomplice in enjoying life.

John Kelton, dean and vice-president of the Faculty of Health Sciences, read a letter he received last year in which Sackett said: “I’m simply delighted with all that I’ve accomplished in my career. I have had a wider range of experiences and opportunities than I could have ever imagined working with brilliant, inspiring, loving and fun-loving colleagues. I’ve been guaranteed immortality through the continuing accomplishments of the young people I’ve mentored. I am at peace.”
FHS alumni: Where are they now?

1970s

Arthur Leader, MD ’72
After graduation, Arthur Leader worked as a consultant in research planning at the Expanded Program on Human Reproduction for the World Health Organization in Geneva, Switzerland. There he found his passion for reproductive endocrinology/infertility. Trained in obstetrics/gynecology in the UK and Canada, he pursued research and clinical fellowships in Stockholm and Gothenburg, Sweden and Calgary. He is currently a professor with the University of Ottawa where he has served as departmental chairman, division head and IVF medical director. Leader has been nationally and internationally recognized with awards of excellence. He remains active in funded research with more than 105 peer-reviewed publications.

1990s

Jody White Van De Klippe, Diploma (Child Life Studies) ’96
Since 2011, Jody White Van De Klippe has been the Program Manager for Hamilton City Ballet’s Dance for Parkinson’s, an innovative series of ballet classes designed and created for people with Parkinson’s disease. Her team is also working with McMaster researchers to create avatar-based dance technology for people to use in their homes in between classes. Following graduation from McMaster, she worked as a child-life specialist, starting with Guelph General Hospital in pediatrics, and subsequently The Hospital for Sick Children in Toronto in burns, plastic surgery and urology; and Johns Hopkins Children’s Center in the Pre-Operative Unit in Baltimore, MD. She has also worked within McMaster’s Child Life Studies program as a tutor and developed several online courses.

2000s

Dilan Dissanayake, B.H.Sc. ’04
Dilan Dissanayake enrolled in the MD/PhD program at the University of Toronto (U of T) after graduating from McMaster. He earned his PhD in immunology with a focus on the factors that govern the activation of T-cell responses towards tissues in the setting of autoimmunity and cancer immunotherapy. As first author of a *Nature Medicine* article, he demonstrated that the absence of certain “brakes” in immune cells may predispose individuals to autoimmune disease. After completing his MD, Dissanayake entered U of T’s pediatric residency program. He intends to pursue a career as a clinician-scientist and wants to continue researching the impact of immune dysregulation on disease processes within the body with the hope of developing new therapeutic options.

Kevin Barlow, BScN ’06
After obtaining his nursing degree from McMaster, Kevin Barlow worked for four years as a nurse in the Inpatient Nephrology Unit at St. Michael’s Hospital in Toronto. During that time he also completed two stints as a nurse for Médecins Sans Frontières (MSF) / Doctors Without Borders, Switzerland; first with the Northern Corridor Project of West Darfur, Sudan, and then the Mobile Clinic Team of Mindanao, Philippines. Barlow earned his Master of Nursing (Health Policy and Education) from Ryerson University in 2012. Since 2013 he has been a clinical nurse educator at St. Michael’s Hospital covering outpatient haemodialysis, inpatient nephrology and home dialysis.

2010s

Natalie Dies, B.H.Sc. (Physician Assistant) ’12
As a physician assistant in the Division of General Surgery at Mount Sinai Hospital in Toronto, Natalie Dies has been involved in some of the most innovative surgeries/techniques for patients from all over Ontario undergoing surgical oncology or colorectal procedures. She has taken care of patients undergoing heated intraperitoneal chemotherapy (HIPEC) for peritoneal disease at Mount Sinai, which is the only centre in Ontario offering this oncologic option. As well, Dies has published data in the *Journal of the American Academy of Physician Assistants* examining the physician assistant role at Mount Sinai, which showed improved outcomes for residents and patients. She has also spearheaded many quality improvement projects, including a patient discharge education program and resident physician orientation.

Brian Ouellette, M.Sc. (PT) ’13
After earning his master of science (physiotherapy), Brian Ouellette started in the Acute Internal Medicine ward at Hamilton General Hospital. In that position he was a preceptor for physiotherapy students and involved in a pilot project of a Seniors Mobile Assess and Restore Team aiming to keep the elderly active while in hospital. He continues to work in the same ward, but also works for the Toronto Rehabilitation Institute as a clinical research physiotherapist, where he is exploring the feasibility and benefits of personalized exercise programs during dialysis for the frail elderly with multiple comorbidities. Ouellette also volunteers on the City of Burlington’s Accessibility Advisory Committee and is a reviewer for the *American Journal of Physical Medicine and Rehabilitation*.
Denise Bryant-Lukosius (BScN ’81, PhD ’03) is passionate about delivering high quality cancer nursing care for patients and families and minimizing the physical, emotional and psychosocial distress that can arise from a diagnosis of cancer and its treatment. Her interest stems from both her personal experiences as both a patient and an undergraduate nursing student at McMaster.

“Through my life I’ve been a patient in different ways. I haven’t had cancer, but I know what it means to be a patient and to feel vulnerable, to not have people listen, to not receive optimal care and for problems to happen,” says Bryant-Lukosius.

She says the intense need for access to high quality nursing services in cancer care is growing, as is the pivotal point of cancer control.

“Without really good nurses and access to good nursing care for patients, you can’t really deliver high quality cancer care,” she says.

As a nursing student, Bryant-Lukosius completed a clinical practicum on the adult hematology/oncology unit at McMaster. She loved it and got hired there after graduation.

“In oncology you can really see the impact that nurses can have on, not just patient health outcomes, but the whole way they experience having cancer,” she says.

“So, it’s how the nurses engage with patients and families in terms of addressing the psychosocial impact of what it means to have a cancer diagnosis; helping them cope with the symptoms and side effects; helping them to re-enter routine life once they’ve had really aggressive treatment like a bone marrow transplant or an aggressive bout of chemotherapy. And, it’s once they’ve recovered with that, helping them navigate and coordinate their care across multiple systems, sectors and providers.

“Nurses can make or break the cancer experience for patients. When it’s really, really good you see it and it’s a beautiful thing to watch, but when there are gaps and patients don’t have access to highly skilled nurses that are able to really function to advocate and work closely with patients, you see the gaps and unnecessary suffering,” Bryant-Lukosius says.

“Once you’ve lived it and you’ve experienced what it means to have really high quality nursing care and the tremendous impact it can have, the driver for me is to advocate for that for others.”

— Denise Bryant-Lukosius

A nurse with many years of clinical experience, her research focuses on how to best develop and utilize advanced practice nurses in cancer care in order to optimize patient experience and outcomes. She is sought after across the country and internationally to share her work.

Bryant-Lukosius joined the McMaster School of Nursing faculty in 2001 and is currently an associate professor of nursing and oncology, and the co-director for The Canadian Centre for Advanced Practice Nursing Research at McMaster. She holds a unique cross appointment with the Juravinski Cancer Centre (JCC) as a clinician scientist and director of the Canadian Centre of Excellence in Oncology Advanced Practice Nursing (OAPN). In 2011, she became a scientist in the Escarpment Cancer Research Institute.

Bryant-Lukosius says her biggest accomplishment to date is establishing OAPN, which provides a unique program of research, education, mentorship and knowledge translation activities to support the development of generalist, specialized and advanced nursing roles in cancer control. She says being based at the JCC allows her to work close to the front line, with health care managers, clinicians and especially advanced practice nurses.

She says the health care system is beginning to recognize the benefits of high quality nursing care to cancer patients and as a result
In addition to being an internationally recognized psychiatrist and chronic pain specialist in Hamilton, Jeffrey Ennis (MD ’88) is an outdoor enthusiast and artist who paints and builds boats to help him cope with his own chronic pain.

Now, he has established the Ennis Endowment Fund for Pain Management, to be awarded to McMaster medical residents studying management of chronic pain. He has committed to matching all donations to the fund up to $25,000.

His motivation is to encourage young physicians to specialize in the treatment of chronic pain, a field dwindling in specialists who offer this kind of care.

“I’ve been in the area for 30 years. Right now, I’m the youngest guy in the field in our region and I’m 61,” says Ennis, medical director of the Ennis Centre for Pain Management.

“There’s no one coming up through the pipe who I have met that has an interest in carrying out this type of work as their main practice.”

Ennis says working in pain management is ideal for someone who is in psychiatry but also has an interest in physical medicine.

“You have to be prepared to not be part of mainstream psychiatry,” says Ennis. “I do physical exams on people and that’s unusual for psychiatry.”

He adds: “You have to be willing to be patient. You don’t see large numbers of people in a day. It takes a long time to do an assessment. You have to like problem solving and thinking in a holistic manner.”

He says it is important for him to give back to McMaster. “It is where I was trained and I have a very positive regard for the University and the method of learning. When there are more innovative nursing roles in various models of care.

After starting out in a traditional nursing program, Bryant-Lukosius says her education at McMaster, particularly her experience with its problem-based learning (PBL), changed her thinking and how she approached clinical issues.

“I don’t think I would be where I am today if I hadn’t transferred into the third year of the nursing program at Mac,” she says. “That was a life-altering move for me.”

She has now come full circle and teaches fourth-year PBL.

“It is such a fun way to learn,” she says. “As a student it’s challenging, but then there will be that eureka moment where the light bulb clicks on and it takes your thinking to a different level. As a student that’s an exciting experience, but now as a faculty member and tutor, it’s interesting to see that happen in my students.”

Jeffrey Ennis in a birchbark canoe he built a few years ago.

Ennis has had to adapt significantly in order to approach boat building. For one, he has had to change the heights of things. As well, some of the boats require steam bending of ribs to put them into the boats and usually this would be done from the top down.

“Typically you would bend into the boat to put the ribs in, and I really can’t do that, so I reversed the whole boatbuilding method in order to do those kinds of things,” he says. “It’s just having to think through every step and doing it much differently than most people would.”

Ennis is currently working on three boats: an 18-foot trimaran, which is a three-part boat; a smaller sailboat; and a canoe for his youngest son. He has also built a boat for each of his other sons. He also always has two or three paintings on the go.

For more information on setting up student awards, please contact Josie Bufalino-Jasek at jasekj@mcmaster.ca or 905-525-9140 ext. 21874.
Reunions

Save the date!
Mark Saturday, Oct. 15, 2016 on your calendar for a special reunion celebrating the MD classes of ’76, ’81, ’86, ’91, ’96 and ’06.
Details and reunion packages will be sent in the spring/summer of 2016. Don’t miss out on reunion email updates. Send a note to intouch@mcmaster.ca with your preferred email and mailing address.
Individuals are also being recruited to assist with class outreach. For more information, email Josie Bufalino-Jasek at jasekj@mcmaster.ca.

MD class of 1990: 25-year reunion
Join your classmates for a special reunion weekend Oct. 23-25, 2015 in Niagara-on-the-Lake. For more information and to register visit: http://alumni.os.mcmaster.ca/MD1990

MD reunion weekend
On the weekend of Oct. 24-25, 2015, the Faculty of Health Sciences will host reunions featuring the MD classes of ’75, ’80, ’85, ’95 and ’05. For more details and to register for your reunion, visit:
http://alumni.os.mcmaster.ca/MD1975
http://alumni.os.mcmaster.ca/MD1980
http://alumni.os.mcmaster.ca/MD1985
http://alumni.os.mcmaster.ca/MD1995
http://alumni.os.mcmaster.ca/MD2005

Physiotherapy and Rehabilitation Science Graduate Soiree
The Physiotherapy and Rehabilitation Science Graduate Soiree took place at the CPA Conference in Halifax in June. This was the very first alumni gathering of its kind and alumni from both the Physiotherapy and Rehabilitation Science Graduate program attended.

From left, Alison Bonnyman (M.Sc. Rehabilitation Science ’11) and Jordan Miller (M.Sc. Physiotherapy ’09 and Rehabilitation Science PhD candidate), at the Physiotherapy and Rehabilitation Science Graduate Soiree in June.