Palliative care: a multi-disciplinary approach

How big data can tackle superbugs
Gifts that keep giving
Students committed to the core
Message from the Dean and Vice-President

It is a privilege to be selected as the new dean and vice-president of McMaster University’s Faculty of Health Sciences. I am confident that we will continue to advance on the many remarkable successes made under the leadership of former dean and vice-president John Kelton, who achieved considerable distinction for the Faculty over the past 15 years. It is a tremendous responsibility and opportunity to both sustain and build on the legacy of my predecessors.

This role is not a solo endeavour, but a collective ambition combining some of the best and brightest minds in the country. Our remarkable team of faculty, staff and students are highly engaged in advancing health and wellbeing, and together, we are dedicated to making a real and significant impact on people’s lives.

In this edition of Network, we focus our attention on something that is top of mind this year: the exceedingly complex, yet critically important issue of palliative care. Many members of McMaster’s Faculty of Health Sciences’ schools and programs recognize the urgent need for problem-solving in this area and we highlight some of our outstanding faculty members who are advocating for change and challenging the way we think about palliative care.

This issue also highlights our numerous accomplishments within our labs and classrooms. This fall, for example, we announced a new partnership that will ensure midwifery students in Manitoba, who have already invested significant time and effort towards their studies, may complete their coursework uninterrupted through our midwifery program. Also, several of our world-leading investigators have taken strides in helping to solve some of the most pressing health issues of our time. This includes the development of a cross-national research consortium to develop big data solutions to the growing problem of antimicrobial resistance, and the development of a new treatment for an incurable brain cancer called glioblastoma.

We have also received significant support from both funders and donors to augment this and other important work. For example, the federal government has invested in a new state-of-the-art Fraunhofer Project Centre at McMaster, which is valued at $33 million and will be home to several of our leading researchers who will work to improve the quality of life of Canadians and global citizens.

We have also received generous philanthropic support to propel our successes forward and also galvanize additional private and public support. These include a donation from the Samuel Family Foundation to help bridge the gap between cancer treatment discoveries in McMaster’s labs and their development into therapies for clinical use; a gift from the Zonta Club of Hamilton to help aspiring physiotherapists study at McMaster; and a bequest from alumnus Ernest Kay ’47, which includes a library collection, a scholarship fund, and his two-storey Westdale home to be used as a laboratory to test smart home technology.

This issue also highlights some of our outstanding alumni who are making tremendous impact in Hamilton and beyond. For example, alumna Margo Mountjoy ’86 worked tirelessly behind the scenes at the 2016 Summer Olympics in Rio overseeing all medical services for elite athletes on the field, and alumni Avi Sarker ’16 and Kevin Singh ’16 are revitalizing Hamilton’s downtown with a project that delivers care and health advocacy to marginalized populations.

This issue of Network clearly illustrates how collectively our exceptionally committed and talented faculty and staff, high achieving student body and exceedingly devoted alumni have and will continue to position McMaster among the best universities in the world. A testament to our excellence and impact can be seen in the many awards and honours our faculty and staff have received for their contributions to the promotion of health sciences, among them new fellowships, inductions into the Royal Society of Canada, and the Order of Canada. Among other honors, faculty have been selected as the new dean and vice-president of McMaster among the best universities in the world. A testament to our excellence and impact can be seen in the many awards and honours our faculty and staff have received for their contributions to the promotion of health sciences, among them new fellowships, inductions into the Royal Society of Canada, and the Order of Canada.

I hope you enjoy reading about some of our recent achievements and developments. I encourage you to visit fhs.mcmaster.ca to stay up-to-date on all of our latest news and success stories that continue to make a significant and rippling impact in Ontario, in Canada and around the globe.

Paul O’Byrne, MB, FRCP(C), FRSC
Dean and Vice-President
Faculty of Health Sciences
McMaster University researchers have been chosen for one of two Canadian studies that are part of a global thrust by an international research consortium into the prevention and management of chronic lung diseases.

Leading research on the impact of tobacco pricing and packaging on use in five middle-income countries – South Africa, Vietnam, Chile, Colombia and Ecuador – is Emmanuel Guindon, an assistant professor of clinical epidemiology and biostatistics for McMaster’s Michael G. DeGroote School of Medicine and research member of the Centre for Health Economics and Policy Analysis (CHEPA).

“Although there is overwhelming evidence from high-income countries that taxation and packaging policies can reduce tobacco use, there are a number of research gaps that hamper the optimal design of tobacco tax and packaging policies in low- and middle-income countries,” said Guindon. “The overarching goal of our project is to fill some of these gaps.”

Guindon’s study is one of 13 international research projects worth a total of $72.5 million to be rolled out over the next three to five years by the Global Alliance for Chronic Diseases (GACD). All projects have a focus on chronic lung diseases in low- and middle-income countries, vulnerable populations in high-income countries and aboriginal communities.

“The GACD is extremely proud to be announcing such a ground-breaking program of research focused on finding real solutions to the growing burden of these diseases,” said Alain Beaudet, chair of the international alliance and president of the federal Canadian Institutes of Health Research.

The study, which is worth $2 million, is a partnership with investigators in several of the countries that are being studied. The South African Medical Research Council and Canada’s International Development Research Centre are co-funders of this project.

This summer, the federal government announced it would invest almost $12 million to help develop McMaster’s new Biomedical Engineering and Advanced Manufacturing (BEAM) research facility.

The state-of-the-art Fraunhofer Project Centre, which is valued at $33 million, will be home to several of McMaster’s leading researchers who will work to improve the quality of life of Canadians and global citizens. The 20,000-square-foot facility is set to open next year.

Other significant investments have come from McMaster University, Fraunhofer IZI, the Government of Ontario, the City of Hamilton, and other organizations and private sector partners.

“The Government of Canada is committed to positioning Canada as a global centre for innovation – one that creates well-paying jobs for the middle class, drives growth across all industries and improves the lives of all Canadians,” said Navdeep Bains, Canada’s Minister of Innovation, Science and Economic Development. “The most innovative solutions often happen when people from different fields collaborate.”

The project is expected to create at least 74 full-time jobs and produce 35 new industrial collaborations bringing together several partners, including small businesses and multi-national enterprises, university-based researchers, and the German-based Fraunhofer Institute for Cell Therapy and Immunology IZI.

The centre will also help commercialize new products, accelerate the growth of small businesses, expertise and global value chains and will diversify Hamilton’s economy by attracting other businesses and talent to the region.
Fourteen midwifery students who have completed their first year of the program at the University of Manitoba (UM) have joined McMaster University’s midwifery program this September in a partnership between the two universities.

“Fourteen midwifery students from the University of Manitoba have joined McMaster University’s midwifery program this September in a partnership between the two universities.

The Manitoba program was established in 2006, but is now being transferred to McMaster.

“This new partnership will ensure the midwifery students in Manitoba who have already invested significant time and effort towards their studies can complete their coursework uninterrupted,” said Manitoba’s Education and Training Minister Ian Wishart, who made the announcement in August.

Students will continue their studies at the UM campus as McMaster transfer students, taking classes and labs with qualified UM midwifery instructors, participating in distance learning led by McMaster faculty, and joining distance tutorials with their fellow McMaster classmates during their clinical rotations in Manitoba communities.

“We are delighted to be working with the University of Manitoba and the Manitoba government on this innovative educational program,” said McMaster’s assistant dean, midwifery and professor of obstetrics and gynecology at McMaster University.

“This collaboration will build on McMaster’s expertise in midwifery education and support the growth of midwifery in Manitoba.”

—Eileen Hutton

For Canadians with inflammatory bowel diseases (IBD), chronic use of steroids is too high, and wait times for specialized care is around 100 days, when it should take two weeks.

For Canadians with inflammatory bowel diseases (IBD), chronic use of steroids is too high, and wait times for specialized care is around 100 days, when it should take two weeks.

A recently launched national network, **Promoting Access and Care through Centres of Excellence (PACE)**, sponsored by Crohn’s and Colitis Canada, aims to improve equal access to the best care by finding solutions to these critical issues.

As part of the network, McMaster will develop an innovative electronic health platform that will allow patients with IBM to monitor their health and stay connected with their physicians between clinic visits.

Pharmaceuticals and the Farncombe Family Digestive Health Research Institute will oversee the research necessary to create it.

“Changing symptoms and disease flare often cause patients to self-adjust treatments,” said Neeraj Narula, an assistant professor of medicine at McMaster, HHS staff gastroenterologist and co-lead for the project. “Improved monitoring and two-way communication will keep patients engaged and doctors informed, leading to better adherence to treatments, informed discussions and improved monitoring.”

PACE is the largest Canadian collaboration of patient care and research centres for adults living with Crohn’s disease and ulcerative colitis.

At the opening of McMaster’s ICES facility, pictured from left, were: Steve Collins, associate dean, research for the Faculty of Health Sciences; Hsien Seow, incoming site director for the facility; John Cairney, inaugural and outgoing site director; and Michael Schull, president and CEO of ICES.

**In collaboration with** the Province of Ontario’s Institute for Clinical Evaluative Sciences (ICES), McMaster opened its own ICES facility in the Health Sciences Centre this summer.

The satellite facility will provide researchers with secure access to millions of anonymous health care records from across Ontario.

Access to this information will help scientists develop better ways to assess the quality and safety of health care in Ontario. For example, McMaster University researcher John You used information provided by ICES to discover that a provincial initiative aimed at improving access to MRI scans was only available for wealthy Ontarians, and not for those from poorer neighbourhoods, and Hsien Seow, a McMaster health services researcher, found that increased end-of-life homecare reduced unnecessary hospitalizations, emergency visits and deaths while reducing overall system cost.

The new 2,300-square-foot facility is physically and data secure. Scientists who want to work with its vast array of population-wide health-related data must first pass a rigorous screening process. Previously, most Hamilton researchers have had to travel to ICES’s central office in Toronto to access the ICES data.

“Access to this unique database will enhance our research community’s ability to remain at the forefront of innovation in health care,” said Steve Collins, associate dean, research for McMaster’s Faculty of Health Sciences.

**Improving digestive diseases care**

**Health data at your fingertips**

**Manitoba midwifery students join McMaster**
Kurdish victims of Islamic State militants in northern Iraq have received more than $100,000 of surplus medical equipment. The supplies, which were gathered from around southern Ontario by volunteers in Hamilton, are the result of a longstanding friendship between Lynn Dykeman, an assistant professor with McMaster’s Department of Family Medicine, and members of Hamilton’s Kurdish community. The shipment left McMaster’s Stonechurch Family Health Centre late last year, and included 23 wheelchairs, 20 walkers, 20 sets of crutches, 40 boxes of orthopedic supplies and a variety of other medical goods.

“It is remarkable the amount of good medical equipment no longer used and sitting in dusty storage rooms,” says Dykeman, who visited northern Iraq in 2009. “It is very important we send as much equipment as we can.”

Majeed Shukey with the organization International Emergency Help in Duhok, Iraq has seen the significant impact the shipment has already had on the lives of the population.

“This shipment covered a huge gap, because we have a lack here in everything for those in medical need,” says Shukey. “These supplies enable them to walk or sit and feel safety.”

Collection for a second shipment is ongoing in Hamilton, and Dykeman is hoping to send another container this year.

McMaster students honoured for excellence

Two residents accept inaugural Dr. Fred Baxter Award

Brent MacLellan and Josh Peachey, fourth-year anesthesia residents, have been awarded the inaugural Dr. Fred Baxter Award for Excellence in Nephrology and Patient Care.

The award is given to anesthesia residents who demonstrate excellence in integrating CanMEDS roles in the provision of optimal patient-centre care.

The award honours Baxter, a clinical professor of anesthesia working in critical care at St. Joseph’s Healthcare Hamilton, who has made major contributions in patient advocacy, patient safety and patient care.

“These are two worthy recipients that are receiving this honour. Josh is an outstanding clinician and an engaged individual. And Brent – he could go out and practice tomorrow,” said Baxter.

MacLellan and Peachey said they are honoured to have their names grace a plaque celebrating the professor they hold in such high regard.

“Dr. Baxter is someone who’s dedicated his life to his profession as a clinician and as an educator,” said Peachey. “Routinely he’s regarded as one of the best anesthesiologists in the city and I can certainly support this claim from my experiences working with him.”

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Mental health PhD student celebrated for civic engagement

The prestigious Pierre Elliott Trudeau Foundation doctoral scholarship was awarded this summer to Heather Bullock, a McMaster University PhD student in health policy who is identifying the best ways to embed mental health policy into Canada’s social system.

She is one of 15 Canadian social sciences and humanities students being recognized for their academic excellence, civic engagement and commitment to reaching beyond academic circles. Bullock is McMaster University’s third Trudeau scholar since the scholarships were established in 2003.
Gifts that keep giving

Family springboards new therapy from lab to clinic

This summer, the Samuel Family Foundation invested $450,000 to help bridge the gap between cancer treatment discoveries in McMaster University labs and their development into therapies for clinical use. Close to half of that amount came from the personal contributions of family members, Mark Samuel and Kevin Sanford.

This is in addition to the Foundation’s initial contribution of $500,000 in 2014, which was donated with the goal of enabling the McMaster Immunology Research Centre’s researchers to develop a personalized immunotherapy cancer treatment using a patient’s own immune cells to control and eliminate cancer.

Considered transformative, this treatment has the potential to cover a broad range of cancers, with the promise of long-term remission and without debilitating side effects and harsh chemotherapies.

According to Jonathan Bramson, assistant dean, research for the Faculty of Health Sciences, these gifts are critical, as there is no formal funding mechanism to support bringing early developmental work from university laboratories towards use in a clinic.

“Although we had developed this revolutionary technology, we faced a new challenge of bringing this promising new therapy forward,” he said. “The private sector is cautious about supporting such research, since many new drugs and therapies cannot be manufactured at a reasonable cost, or fail in the first human trial.”

A generous gift from the Zonta Club of Hamilton will help aspiring physiotherapists study at McMaster.

The Frances Colter Memorial Bursary will be awarded to grad students enrolled in the School of Rehabilitation Science’s physiotherapy program who demonstrate financial need.

The bursary is from the estate of Zonta member Fran Colter, who was a pioneer in the field of physiotherapy at Chedoke Hospital.

Colter died in 2014 and left a bequest to the Zonta Club of Hamilton which was used to establish the endowed scholarship.

“The Zonta Club of Hamilton 1 Frances Colter Memorial Bursary will not only pay tribute to Frances’ professional and volunteer worlds and the vital work of Zonta International, but will also make a significant difference to our program’s female students through the provision of critical financial support, allowing them to learn, grow and excel,” said Vanina Dal Bello-Haas, associate dean of physiotherapy.

Zonta is an international service organization dedicated to advancing the status of women. It has supported McMaster with various gifts for more than 30 years.

Mac grad’s bequest includes his house

A McMaster graduate has left the University a bequest valued at more than $1.8 million, which includes his library collection, a scholarship fund, and his two-storey Westdale home to be used as a laboratory.

The 100-year-old house was the family home of Ernest Kay ’47, ’49, who moved there with his parents in 1936. He was a lifelong supporter of his alma mater.

“This will be a living laboratory,” says Oiyin Fang, an associate professor of engineering physics. Heading up a joint project between the Faculty of Engineering and the Faculty of Health Sciences, he plans to retrofit the interior of the house to develop and test smart technology, such as optical and ultrasound sensors, that will enable older people suffering from chronic diseases to live in their homes longer.

“This is an opportunity to care more efficiently for the aging population and help them live more independently,” said Fang. He anticipates renovations will be completed and research will be underway in early 2017.

As well as helping older patients to live more safely and independently in their own homes, the research project seeks to relieve the burden on family members and caregivers, and reduce non-emergency visits to the hospital.

Renovations will be funded by a grant from the Canada Foundation for Innovation.

Four people who have been touched by the life of Ernest Kay ’47, ’49 are (from left) Qiyin Fang, who will lead a unique research project in Kay’s former home; Tiffany (Yuxin) Tian ‘15 and Saad Syed ’16, who each received a Kay scholarship; and Priscilla Bayliss, Kay’s personal support worker.
Big data is much more than jargon. When used properly, it can offer solutions to some big problems, including one of the world’s most critical public health threats. That’s where McMaster’s Andrew McArthur comes in. He’s at the forefront of a cross-national research consortium to develop big data solutions to the growing problem of antimicrobial resistance (AMR).

The consortium, which includes researchers from the University of British Columbia, Simon Fraser University and Dalhousie University, received $500,000 in grants over four years from Genome Canada and the Canadian Institutes of Health Research (CIHR). The government’s investment to date totals more than $4 million. McArthur is McMaster’s inaugural Cisco Research Chair in Bioinformatics and an associate professor of biochemistry and biomedical sciences. He will be working with the other researchers to design and develop novel software and database systems that will empower public health agencies and the agri-food sector to rapidly respond to threats posed by infectious disease outbreaks and food-borne illnesses.

“McMaster is the birthplace of evidence-based medicine, and we now know that the next round of evidence is personalized genomics – either sequencing patient or pathogen genomes,” said McArthur. “These are very large data sets, and you need a cadre of specialists and the appropriate tools to translate basic research into clinical practice. This funding will allow us to focus on technical, computational and mathematical problems, in an effort to improve clinical outcomes and public health surveillance.”

Internet addiction could signal mental health problems

Internet addiction may signal more mental health problems, according to a team of Hamilton researchers from the MacAnxiety Research Centre. In their study, which was presented to the European College of Neuropsychopharmacology (ECNP) conference in Vienna in September, internet use was correlated with general mental health during a survey of 254 first-year undergraduate McMaster University students. Between 33 and 107 of the students were addicted to the internet, depending on the screening tool used. Further testing showed that those classified as having an addiction were more likely to experience trouble dealing with day-to-day activities in social settings. These findings have implications on how psychiatrists approach patients who use the internet excessively: “If you are trying to treat someone for an addiction when in fact they are anxious or depressed, then you may be going down the wrong route,” said Michael Van Ameringen, lead investigator and a professor of psychiatry and behavioural neurosciences at the Michael G. DeGroote School of Medicine. Van Ameringen says a larger study is needed to determine if mental health issues are a cause or consequence of excessive internet use, as well as whether the prevalence of internet addiction as a whole is underestimated.

Fecal transplants in kids studied

Fecal transplants involve the transfer of fecal material from a healthy donor into a patient’s gastrointestinal tract through an enema, endoscope, or catheter. In adults with IBD, the treatment has been found to be beneficial.

“The PediFETCh study will help determine – for the first time – whether fecal transplants can be a viable treatment for children with ulcerative colitis who cannot control their disease with their current medications, or who want to avoid moving onto higher doses, different medications, or surgery,” said Pai. “This is a potentially life-changing treatment option.”

Nikhil Pai, assistant professor of pediatrics at McMaster and principal investigator for the PediFETCh trial.

Hamilton researchers are conducting a ground-breaking trial on fecal transplants in children with inflammatory bowel disease (IBD), the first such study for children with IBD in Canada, and the first randomized controlled trial of its kind in the world.

That’s particularly significant given that the rates of IBD in Ontario children are among the highest in the world and rising, according to Nikhil Pai, principal investigator for the pediatric fecal transplant for ulcerative colitis trial or PediFETCh.

“Over the past five years, IBD has increased most rapidly in children under the age of 10 years old,” said Pai, who is also an assistant professor of pediatrics at McMaster University and pediatric gastroenterologist at McMaster Children’s Hospital.

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New ‘dream team’ fights relapsed brain cancer

McMaster University researchers are looking to find new treatments for the incurable brain cancer that Canadian musician Gord Downie of The Tragically Hip is currently battling.

The team, led by Sheila Singh, an associate professor of surgery of the Michael G. DeGroote School of Medicine and principal investigator, will receive $2.5 million in funding from the Terry Fox Research Institute over the next three years.

Their work will be focused not on the original tumour, but the relapsed cancer. “What we’ve learned so far about glioblastoma is that it always comes back, and when it does come back it’s an entirely different tumour landscape than the original cancer,” said Singh, who is also a pediatric neurosurgeon at McMaster Children’s Hospital. “We think it’s so much more valuable to study the disease that’s actually killing the patients and to try to develop targeted therapies against that.”

Approximately two to three people per 100,000 are diagnosed with glioblastoma each year. Fewer than five per cent of these patients survive beyond five years, with average survival time around 15 months.

Flu season

Matthew Miller, assistant professor of biochemistry and biomedical sciences at McMaster’s Michael G. DeGroote School of Medicine.

Universal flu vaccine on the horizon

Researchers at McMaster University and two American universities have taken another step towards developing a more effective “one-punch” universal flu vaccine.

Their latest findings, published in the journal Proceedings of the National Academy of Science (PNAS), build upon the researchers earlier discovery of a class of antibodies capable of neutralizing the most dangerous types of influenza viruses.

Seasonal flu vaccines work by generating antibodies that bind to the virus and prevent it from infecting cells, explained Matthew Miller, senior author of the study. A universal flu vaccine goes one step further by recruiting white blood cells to destroy infected cells.

Miller is an assistant professor of biochemistry and biomedical sciences and a member of both the McMaster Immunology Research Centre and the Michael G. DeGroote Institute for Infectious Disease Research.

While some antibodies work well together to recruit these white blood cells, others block their recruitment, discovered Miller and colleagues at the Icahn School of Medicine at Mount Sinai, New York and the University of Chicago.

“Using this knowledge, we can design our universal vaccine to generate the most desirable types of antibodies and avoid antibodies that block the functions we want,” said Miller.

A universal flu vaccine, given just once, could prevent seasonal mismatches and would protect against all strains. That’s a significant feat considering flu is responsible for an estimated 250,000 to 500,000 deaths globally each year.

The work, funded by the Canadian Institutes of Health Research and the National Institutes of Health in the United States could also aid in the creation of an HIV vaccine and bring about improvements to chemotherapy cancer treatments.

Flu nasal spray just as good as shot

A study led by McMaster University researchers found that, contrary to recent reports, flu nasal sprays provide similar protection against influenza as standard flu shots.

The findings, which were published in the scientific journal Annals of Internal Medicine, challenge this year’s recommendation not to use the nose spray for children this flu season by the U.S. Centers for Disease Control’s Advisory Committee on Immunization Practices (ACIP).

“The ACIP’s decision was an unprecedented decision in influenza vaccine policy,” said lead author Mark Loeb, a professor of pathology and molecular medicine at McMaster.

“Our results show conclusively that the nasal spray for children this flu season by the ACIP’s decision was an unprecedented decision in influenza vaccine policy,” said lead author Mark Loeb, a professor of pathology and molecular medicine at McMaster.

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The upside to thumb-sucking and nail-biting

Often considered bad childhood habits, thumb-sucking and nail-biting have an upside: they can act as invisible shields against allergic sensitivities, according to new research published this summer in the journal *Pediatrics*. Children who have both habits, say the authors, are even less likely to be allergic to such things as house dust mites, grass, cats, dogs, horses or airborne fungi.

“Our findings are consistent with the hygiene theory that early exposure to dirt or germs reduces the risk of developing allergies,” said Malcolm Sears, a respirologist at McMaster University and lead author of the longitudinal study that tracked a group of more than 1,000 New Zealand children for more than three decades.

Among all children aged 13 years old, 45 per cent showed atopic sensitization. Forty per cent of those with one oral habit had allergies; while only 31 per cent with both habits had allergies. This trend was sustained into adulthood.

“While we don’t recommend these habits be encouraged, there does appear to be a positive side to these habits,” he said.

Risk factors for stroke vary by region: study

Ten modifiable risk factors, such as hypertension, physical activity and diet, are responsible for nine of 10 strokes worldwide, but the ranking of those factors vary regionally, according to a study led by researchers of the Population Health Research Institute (PHRI) at McMaster University.

This variation by region should be an important factor in influencing the development of strategies for reducing stroke risk, say lead authors Martin O’Donnell and Salim Yusuf, along with collaborators from 32 countries.

“Our findings will inform the development of global population-level interventions to reduce stroke, and how such programs may be tailored to individual regions,” said Yusuf, a professor of medicine of McMaster’s Michael G. DeGroote School of Medicine and director of the PHRI. “This includes better health education, more affordable healthy food, avoidance of tobacco and more affordable medication.”

Their research, published this summer in *The Lancet*, builds on findings from the first phase of the INTERSTROKE study which identified these 10 modifiable risk factors for stroke in 6,000 participants from 22 countries.

Adult preemies must watch blood sugars and weight

Adults who were born at an extremely low birth weight (ELBW) are likely to have weight and blood sugar issues, according to new research published in the journal *Pediatrics* this September.

“Because they were born early, the ELBW babies were living outside the womb during the most important developmental period for fat and muscle development. We think that might be related to our findings,” said Katherine Morrison, principal investigator of the study and professor of pediatrics at McMaster’s Michael G. DeGroote School of Medicine.

Now in their early 30s, 26 per cent of the ELBW babies have dysglycemia, or abnormal blood glucose, compared to their normal birth weight peers.

Researchers at McMaster University, led by pediatrics professor Sarog Saigal, have been following the health of extreme preemies since their birth at Hamilton Health Sciences (HHS) between 1977 and 1982.

The long-term study is funded by the Canadian Institutes of Health Research.
Less than a century ago, end of human life frequently occurred at home in the company of loved ones and, often, the family doctor. Fast-forward to today, and the majority of Canadians spend their final days in hospital rather than at home or in a palliative or hospice setting.

Studies show that’s not how patients – or their families – want to die, and yet thousands of Canadians end up in emergency or acute-care hospital beds because they lack access to proper palliative care. Multiple studies have shown that when quality palliative care is made available, whether at home, in hospice, or in a hospital setting, it can significantly relieve suffering, and, in some cases, extend life. So, why at a time when it’s widely known our population is aging is there such a disconnect?

Medical professionals, health organizations, government officials and the media have highlighted a number of critical factors: massive gaps and fragmented services in the system, inconsistent standards of care, a lack of information available to patients, students and doctors, and the absence of a common definition of palliative care. Despite the myriad advances made in medicine and technology, for many, this reality is a significant step in the wrong direction.

Members of McMaster’s Faculty of Health Sciences’ schools and programs recognize the urgent need for problem-solving in this area and are taking big steps forward. Writer Kara Aaserud talked to nine faculty members who are knocking down silos, advocating for change and challenging the way we think about palliative care as a whole.
“Education, care provision and the role that society plays are all important,” she says. “Palliative care shouldn’t just be a set of beds, which, while necessary, are not sufficient. The first responder at your bedside—whether doctor, nurse or social worker—needs the basics of palliative care, in addition to just enough specialty support.”

“The prevalence of dying in our species is 100 per cent. Why is this not everybody’s business?”

— Denese Marshall

As such, one of her current initiatives is to help revamp the curriculum in the family medicine department and push to have palliative care integrated in more Faculty of Health Science programs and departments where it may have been just briefly touched upon before. Another is to spearhead the connection between public health in Canada and palliative care. “The prevalence of dying in our species is 100 per cent. Why is this not everybody’s business?”

Joshua Shadd, assistant professor, family medicine, Michael G. DeGroote School of Medicine

As the new director of the Division of Palliative Care, Joshua Shadd continues to build upon the foundation Marshall laid. His priorities include promoting interprofessional collaboration under the entire Faculty of Health Sciences umbrella, not just primary care; providing support to educate students about the interdisciplinary role of palliative care; and emphasizing the importance of an ongoing national conversation about death and dying that extends well beyond the clinical setting of a hospice or hospital.

Developed in the U.K. in the 1960s, palliative care was once very focused on end-of-life care for cancer patients. It has since evolved to include all terminal patients in an effort to normalize and assist the human experience of dying.

But today death is still largely handed over to the medical system, says Shadd. “If we cast our minds back through human history, what it meant to die or approach the end of life wasn’t primarily a medical thing. It was a community thing. It was a social experience. There were spiritual elements to it,” he says. He challenges educators, students and professionals to ask themselves, “How do we as a society want to approach end of life?”

“If we choose not to think about it, the default will be the medical model, which is designed to help overcome fixable, acute problems,” he says. “But death and dying is not a fixable, acute problem.”

With that in mind, he is pushing for every learner in the Faculty’s programs to have appropriate education, including modeling and clinical experiences, that will enable them to incorporate a palliative approach into their role for their patients when appropriate.

“The first goal is to help us as health care professionals understand that death is normal; death is not necessarily a failure; and that all of us have a real responsibility and opportunity to make a difference in the experience of patients and families who are living with progressive illnesses.”

John You, associate professor, medicine and clinical epidemiology and biostatistics

End-of-life patients aren’t being heard. It’s a hard truth John You, an associate professor of the departments of medicine and clinical epidemiology and biostatistics, hopes to eradicating through his research on end-of-life communication and decision-making.

He’s headed multiple studies with the intent of improving quality of end-of-life communication, decision-making and care for seriously ill elderly patients and their families as a member of McMaster’s research group CLARITY (Clinical Advances Through Research and Information Translation), an adjunct scientist at the Institute for Clinical Evaluative Sciences (ICES), and
an executive member of CARENET (Canadian Researchers at the End-of-Life Network). “We’ve interviewed hundreds of patients in hospitals in Canada, and the result is that prescribed orders for life sustaining treatments don’t line up with what patients say they, in fact, want,” says You. “The medical error rate is pretty high. We wouldn’t accept that type of error rate for most other things.”

In a study published two years ago in the *CMAJ*, You and his colleagues highlighted five important areas that patients and families want to discuss regarding end-of-life care: preferences for care in the event of life-threatening illness; patient values; prognosis of illness; fears or concerns; and additional questions about care. He has also published a related guide for doctors, *Just ask: discussing goals of care with patients in hospital with serious illness*.

“The better [palliative care] model, and what the palliative care world is trying to move towards, which is integrating palliative approach to care earlier in the disease trajectory is going to require both a culture change and a system change,” he says. “That’s what we’re working on now.”

**PEDIATRIC PALLIATIVE CARE**

**The case for earlier discussions and care**

For Karen Choong, an associate professor and physician in the Division of Critical Care in the Department of Pediatrics at McMaster’s Children’s Hospital, it’s not uncommon to come face to face with the death of a child. Too often, however, what she doesn’t see are families who have prepared for it, despite the fact that many of the kids who end up in her care have chronic or terminal illnesses.

“We’re left having to introduce those discussions for the first time in the ICU because of a crisis situation,” says...
Choong. “We have to deal with end-of-life discussions and ethical decision making, and sometimes there may be conflicts with what parents feel and what physicians consider is in the best interests of the child. Those are our challenges.”

Dave Lysecki, an assistant professor and physician in the Division of Hematology/Oncology in the Department of Pediatrics, aims to address those challenges, among others, by finding realistic ways to prepare families for possible, or in some cases, inevitable, deteriorations in the patient’s health. His goal is to transform pediatric palliative care from something many consider negative or scary to a service associated with optimized quality of life by addressing the issues affecting children presently as well as preparing for the future.

Since 2015, he’s been at the helm of the region’s first specialist pediatric palliative care program, known as QoLA Care (Quality of Life and Advanced Care). But there’s a lot of work to catch up on since the majority of programs in Canada were initiated 10 to 20 years ago.

“It has taken us a long time as a culture to accept and talk about the fact that children die,” says Lysecki. “As a result, for a long time we pushed up until the very last minute, and the concern with that is, without stopping to reflect, we are at risk of making decisions that might jeopardize a child’s quality of life.”

As such, the fundamental principle behind QoLA Care is not about dying, but, rather, about living. “We are here to help children make the best out of every day. Part of what that entails is ensuring that we address and mediate the obstacles to achieving and maintaining a good quality of life through medications, pain, symptom management or through lifestyle counseling.” QoLA Care also facilitates activities, such as going to school, taking swimming lessons or attending music therapy so that each child can get the most from each day.

Along with clinical care, Lysecki participates in education, advocacy and research in the field of pediatric palliative medicine. He’d like to see McMaster become a centre of excellence for clinical care, education and research, with outreach support for families and community partners, as well as more pediatric hospices across Canada (there are currently six).

What she has taken from her experiences, and what she perpetuates in her teaching, is the importance of informed choice: “We have the founding principle around informed choice that obliges us to support what people want to do, rather than directing them what to do (within reason),” she says.

“[MIDWIFERY]

The importance of informed choice

Kathi Wilson, assistant clinical professor with McMaster’s Department of Family Medicine and a midwife, has seen a lot of babies come into the world. And she has seen some babies (and in much rarer cases, their mothers) go.

“As much as people have the view that midwifery is about birth and joy,” says Wilson, who is a partner of Thames Valley Midwives in London, Ont., “inevitably death is a part of birth somewhere along the line.”

“We have the founding principle around informed choice that obliges to support what people want to do, rather than directing them what to do (within reason).”

– Kathi Wilson

For nearly two decades she has helped Amish women in neighbouring communities deliver their babies. While family is central to them, the Amish typically don’t believe in heroic measures that involve technology during or after birth. So, when cases such as, say, congenital heart defects arise, conversation around pediatric palliative care become critical: what is best for the baby, and what is best for the parents, always taking their belief system into consideration. In some cases, with access to the right outpatient palliative supports, Wilson has seen terminally ill babies taken back to their communities without medical intervention and go on to live much longer than anticipated.

“What is it they want to work on? What are the things that bring meaning to their life? And how can OT, PT or Rehab facilitate that happening?”

“[REHABILITATION, OCCUPATIONAL THERAPY & PHYSICAL THERAPY]

The role of advocacy and legacy work

Rehabilitation is traditionally about a return to something. However, because of its client-centered focus that extends across professions, its role in palliative care is essential, despite the fact many patients are in a steady decline.

Shaminder Dhillon, an assistant clinical professor in McMaster’s School of Rehabilitation Science, believes students need to learn not only how to help maintain a person’s physical and cognitive abilities during this time, but also how to have important conversations around death and dying, and how to fulfill all of their patients’ goals.

This may include legacy work and might mean assisting a patient in attending a family wedding or dinner, or simply listening to and advocating for the client, says Dhillon. “What is it they want to work on? What are the things that bring meaning to their life? And how can OT, PT or Rehab facilitate that happening?”

“It’s a tremendous privilege to bear witness to such intimate moments in somebody’s life.”

– Shaminder Dhillon

“We try and prepare rehabilitation therapists not just for today’s practice, but for the future,” says Dhillon. “Part of that has been thinking about palliative

“…”
care not just at the very end of one’s care plan, but as a conversation that comes up early in a diagnosis. There’s sometimes a negative perception around palliative care. But I tell my students it’s a tremendous privilege to bear witness to such intimate moments in somebody’s life.”

**NURSING**

**Facilitating care**

“Nursing is more about caring than curing, so palliative care is a natural fit,” says Sharon Kaasalainen, associate professor at McMaster’s School of Nursing.

“It’s hard enough being ill without having to worry about navigating the system,” she says. “People are scared. They want to know that their suffering will be mitigated; they want the approach to match their own values; and they want to have some control in how things unfold.”

“Nursing is more about caring than curing.”

– Sharon Kaasalainen

Still, she says, Canadian nurses, who are traditionally trained under a very holistic model of care that takes into consideration not just the pathology, but also the patient, the family and the environment, have a long way to go when it comes to palliative care.

“There are huge gaps in our curriculum, and that’s across the board in Canada,” she says. “We’re putting out nurses who have never had to deal with a patient’s death, who are afraid to talk about dying, and are not able to care for themselves once they go through losing a patient.”

Kaasalainen is a passionate advocate for closing this gap in health care by preparing nurses from the very start of their educational career on how to handle terminal patients as well as the massive number of aging patients they’ll encounter in the next 20 to 40 years.

“Starting in 2017, we’re looking at ways to infuse more palliative care content across all four levels of curriculum so our nurses are more comfortable with death and dying, as well as learning the skills to care for themselves. We’ve been working hard to close the gap.”

**FAMILY MEDICINE**

**Perpetuating a cradle to grave mentality**

For family doctors, palliative care has always been a routine part of the job. This cradle to grave mentality still exists today; but because there are more services, medications and therapies available than ever before, the medical system has become more fragmented. As a result, communication from one specialty to the next, especially around palliative care, can be anything but seamless.

Nancy Fowler, associate professor at McMaster’s Department of Family Medicine and executive director of academic family medicine (AFM) with The College of Family Physicians of Canada (CFPC), actively advocates in her roles for a more patient-centered and coordinated approach.

“It’s hard enough being ill without having to worry about navigating the system,” she says. “People are scared. They want to know that their suffering will be mitigated; they want the approach to match their own values; and they want to have some control in how things unfold.”

“I believe in alleviating suffering at the end of life, and I believe that is the responsibility of clinicians. I agree with the principle of assisted dying, but how to operationalize it and make sure it’s not abused is a challenge.”

– Karen Choong

“As a physician, I feel uncomfortable doing it. But I’m not holding judgment over people who are willing to provide the service and I’m not placing judgment on patients who would ask for it. I can envision scenarios where it’s not a crazy request to be making.”

– John You

“I put myself in the camp of those who have a lot of mixed feelings. However, the whole discussion around Medical Assistance in Dying (MAID), palliative care and compassionate communities is an invitation for us to think about our roles in making our communities not just good places to live, but good places to live until the very end of life.”

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– Joshua Shadd
This summer, the Liberal Government’s assisted dying bill became law. Here’s what McMaster University’s faculty are saying about the emotionally charged issues that make up Bill C-14.

“People want choice. But my belief is that if we had good palliative care, people wouldn’t feel so afraid of dying. To me, it speaks to the fact that we really need to improve the palliative care we provide.”
– Sharon Kaasalainen

“It’s an option that should be available to Canadians simply because it’s linked very closely to one of the key, founding principles of midwifery: informed choice. People should be permitted choice in terms of their end of life decisions.”
– Kathi Wilson

“The reality is that questions [around assisted death] may be raised with rehab professionals, and I think rehab has a really important role in terms of making sure patients are comfortable talking about it. Let’s make sure we feel comfortable having this conversation.”
– Shaminder Dhillon

“These requests come from people who either have unmitigated suffering or a fear of unmitigated suffering. Better palliative care will mean better treatment for suffering and less need for assisted death.”
– Dave Lysecki

“The important thing is going to be non-abandonment of patients when there is a disconnect between what a patient wants and what a physician believes ethically. We need to make sure that physicians are well-equipped to do a good job regardless of their own personal and ethical stance.”
– Nancy Fowler

“I stand behind several palliative care associations and the Ministry of Health in their clarification that medical assistance in dying is separate and distinct from palliative care in Canada. But I’m determined to use this spotlight on end of life care in Canada to finally create better education, better services and a more engaged society around palliative care.”
– Denise Marshall

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Spotlights

A new five-year degree that combines engineering and health sciences is set to launch at McMaster in September 2017. A first of its kind in Canada, the Integrated Biomedical Engineering and Health Sciences (IBEHS) program aims to solve real-world problems while providing graduates with multiple paths to careers in health, engineering and entrepreneurship.

"Students who graduate from the IBEHS program will not only have the ability to analyse complex health care problems, but also to develop unique, effective solutions and take them to the marketplace," said Hubert de Bruin, co-director of the program and professor of electrical and biomedical engineering.

The program will admit 140 students in its first year and will include health solutions design projects during each year of study, a feature that makes it unique, said Michelle MacDonald, co-director of the program and associate professor of biochemistry and biomedical sciences.

"Students working together will bring different perspectives to the design solutions project courses as well as throughout the curriculum," she said. "The creativity and cross-pollination that stems from this process brings about amazing innovative solutions that are completely executable and deliverable."

Graduates of McMaster’s new IBEHS program will have multiple career options in health, engineering and entrepreneurship.

Could mermaids, werewolves and dragons be real?

That’s the challenge given to students who are learning concepts of biology and psychology in a third-year Bachelor of Health Sciences course called ‘The Biopsychology of Fictional Characters’.

“Students have to consider and learn concepts in biology and psychology to investigate fictional characters.”

Some students have even gone beyond biology and psychology to apply concepts in biochemistry and physics to their characters, he added.

“We’re using the science of today, and extrapolating to what could be possible. The course promotes interdisciplinary learning, requiring students to draw upon concepts from a number of different fields in science,” said student Helen Kim.

The students’ projects this fall include examining the reality of werewolves; The Flash; Wolverine and other superheroes; Toothless, the dragon from the movie ‘How to Train Your Dragon’; Ariel, the mermaid from Disney’s ‘The Little Mermaid’, and characters from Japanese anime.
Preparing Canada for the oncoming “grey tsunami” – the unavoidable aging of our population – is the focus of a new $15-million gift from McMaster’s chancellor Suzanne Labarge.

The gift, which was announced this fall at Queen’s Park in Toronto, will fund the Labarge Centre for Mobility in Aging.

“In just eight years, one in five Canadians will be 65 or older,” said Labarge, the former vice-chair of the Royal Bank of Canada. “Not only are more of us entering our senior years than ever, we are also living longer once we get there.”

The gift invests in McMaster’s interdisciplinary research into ways seniors can live more independently through greater mobility, better health and fitness and increased social connection. It will also support research into what lifestyle choices young and middle-aged people can make today to have the best chance of living long and well tomorrow.

Students of McMaster’s Niagara Regional Campus of the Michael G. DeGroote School of Medicine got creative in November about addressing the health needs of the extremely poor in their region.

As part of an initiative called “Health and Equity through Advocacy, Research and Theatre” (HEART), the students interviewed members of this marginalized group, and then worked with Toronto’s Branch Out Theatre to create an audience-participation play, entitled ‘Gerbils’.

Although not open to the public, the students produced three shows at the Robertson Theatre of the FirstOntario Performing Arts Centre in St. Catharines for local audiences – medical and nursing students, health care professionals and people living in extreme poverty.

During each performance, the play was repeated twice with members of the audience taking the place of an actor during the second performance if they had a solution or different turn of events to suggest.

Performances were followed by panel discussions that included representatives of Niagara’s municipal office, health system, social services and others in the community.

Second-year medical students involved in the project include Rahat Hossain, Natalie Ramsay, Michael Milo and Mo Moore.

“Science is not the only way to create knowledge that can lead to social change. This format is powerful and will empower the homeless to make sure their health needs are addressed,” said Karl Stobbe, regional assistant dean of the Niagara Regional Campus of the medical school.

The students are producing a policy brief on behalf of the people living in extreme poverty.

Play spotlights health issues of extremely poor
Two faculty members join prestigious academy

Judah Denburg and Warren Foster have joined 19 Faculty of Health Sciences faculty members already fellows of the Canadian Academy of Health Sciences (CAHS) for their contributions to the promotion of health science.

Denburg, the founding scientific director and CEO of the Allergy, Genes & Environment Network (AllerGen) and a professor of medicine, is recognized for his expertise in autoimmune diseases and research on the development of allergic disease and asthma through the study of cord blood stem cells. He is also chief of service of the Division of Clinical Immunology & Allergy.

Foster, a professor in the reproductive biology division of the Department of Obstetrics and Gynecology, is a leading scientist who has initiated research augmenting insight into the development, diagnosis and treatment of endometriosis. His contributions have been recognized through several awards and leadership positions.

The pair were inducted during the CAHS Annual General Meeting in Montreal this fall.

Assistant dean lands prominent teaching award

Cathy Morris, founding assistant dean of the Waterloo Regional Campus of the Michael G. DeGroote School of Medicine, is the 2016 recipient of the John C. Sibley Award for excellence in education by part-time faculty.

A faculty member for 26 years, Morris was presented the award in September for her outstanding contributions to the education of health professionals.

Under her leadership as regional assistant dean since 2007, the Waterloo campus has grown to 84 undergraduate medical students and 43 residents.

“This is an exceptional privilege to be nominated and recognized by the medical educators whom I truly admire and respect,” said Morris, who is an associate clinical professor of medicine at McMaster.

McMaster health professors join Order of Canada

Two senior McMaster health scientists have been named members of the Order of Canada by His Excellency the Right Honourable David Johnston, Governor General of Canada.

Mark Levine, professor and chair of the Department of Oncology for the Michael G. DeGroote School of Medicine, was cited for his contributions as an oncologist, researcher and clinician, and for his development of treatments that have become the Canadian standard in clinical practice.

Harriet MacMillan, professor of the Department of Psychiatry and Behavioural Neurosciences and the Department of Pediatrics at the Michael G. DeGroote School of Medicine, is honoured for her leading research in the prevention of, and response to, family violence.

They are two of 113 Canadians who were appointed to one of Canada’s highest civilian honours, noted for their outstanding contributions at the local or regional level or in a special field of activity.

Thrombosis researcher named Royal Society Fellow

Jeffrey Weitz, professor of medicine and biochemistry, is among the newest Fellows of the Royal Society of Canada (RSC). Fellowship in the RSC is one of the highest achievements for Canadian academics.

Weitz is an internationally renowned clinician-scientist and pioneer in thrombosis research and care. His trailblazing studies provided the basis for new anticoagulants that have revolutionized stroke prevention and improved treatments for thrombosis, a major cause of morbidity and mortality worldwide.

A pillar in his field, he has achieved extraordinary success as a highly cited researcher, exemplary scholar and leader in medical research. He was inducted into the RSC on Nov. 18.
Three profs awarded University’s highest honour

Three Faculty of Health Sciences professors were named Distinguished University Professors during the 2016 convocation season. The University’s highest honour was awarded to Gerry Wright, professor of biochemistry and biomedical sciences; Andrea Baumann, associate vice-president of global health, and Salim Yusuf, professor of medicine, for demonstrating an outstanding research record with international recognition and a sustained record of excellence in teaching and service.

A global leader in bacterial and fungal antimicrobial resistance, Wright is the developer of the Comprehensive Antimicrobial Resistance Database and the director of the Michael G. DeGroote Institute for Infectious Disease Research. Additionally, he won the 2016 NRC Research Press Senior Investigator Award for exceptional accomplishment in the fields of biochemistry, molecular biology or cellular biology.

Baumann has helped develop women health professionals in Pakistan, Ontario’s first nurse practitioner program, the nursing graduate program and the creation of the award-winning Master of Science in Global Health program.

Yusuf is the Heart and Stroke Foundation/Marion W. Burke Chair in Cardiovascular Disease and a global leader in evidence-based cardiology. The founder of the Population Health Research Institute at McMaster, he was the world’s second-most cited scientist globally in 2011 and, in 2014, The Globe and Mail named him Canada’s most influential scientist.

University scholars tackling some of health’s biggest questions

Two Faculty of Health Sciences professors have been named this year’s University Scholars, which recognizes faculty in mid-career who have distinguished themselves as international scholars. Brian Coombes, associate professor of the Department of Biochemistry and Biomedical Sciences, and Sonia Anand, professor of the Department of Medicine, are among four winners this year.

As the Canada Research Chair in Infectious Disease Pathogenesis, Coombs investigates how organisms impact gastrointestinal systems, and how human and environmental activities influence the evolution of these infectious diseases. Anand focuses on the environmental and genetic determinants of vascular disease in populations of varying ancestral origins, women and cardiovascular disease. She holds the Heart and Stroke Foundation/Michael G. DeGroote Chair in Population Health Research.

Other McMaster University Scholars include biophysicist Maikel Rheinstadter, who is looking at trans-membrane proteins, and engineer Steve Hranilovic, who is studying wireless communications that use light. Each scholar will receive $15,000 a year for four years, funded by the University and their Faculty.

Asthma researcher named to international award

Malcolm Sears, a world-renowned professor of medicine at McMaster University, was named a joint winner of the 2016 J. Allyn Taylor International Prize in Medicine for his influential research on asthma.

The award is given to individuals who have made significant contributions to a field of basic or clinical research on a specified topic. This year’s topic was chronic lung disease, including asthma and chronic obstructive pulmonary disease. “Dr. Sears is hugely respected worldwide for both the quality of his science and the honesty and integrity that he brings to this field,” said Paul O’Byrne, dean and vice-president of McMaster’s Faculty of Health Sciences.

Sears has led two influential longitudinal studies investigating the genetic and environmental factors influencing asthma and allergies in New Zealand and Canada, including the important CHILD study with AllerGen, following more than 3,000 Canadian children from before birth.
Early med school clinician was “universally respected”

Ron Browne, former chair of McMaster University’s Department of Anesthesia and one of the earliest clinician educators of the medical school, died in April at the age of 87.

Browne was an active staff member at the Hamilton Civic Hospitals in 1965 but soon joined the newly opened Michael G. DeGroote School of Medicine as a full-time faculty member.

“He was universally respected by surgeons, administrators and anesthesia colleagues as a calm, caring and extremely competent individual.”

– Norm Buckley

An advocate of McMaster’s self-directed learning approach

Edward John Ashworth, associate professor of anesthesia at the Michael G. DeGroote School of Medicine, died this September. He was 88 years old.

Ashworth joined McMaster University in 1977. While initially skeptical about the medical school’s self-directed learning approach, he soon became an enthusiastic advocate of it, eventually taking on the role as director of an internship program in 1979. He retired from McMaster in 1998.

Besides medicine, Ashworth had a passion for music and photography and was an avid equestrian, participating in many shows and events.

Prominent clinician made impact on McMaster lipid research

Maurice Mishkel, who joined the faculty of the Michael G. DeGroote School of Medicine in its formative days, died in October at the age of 86.

Mishkel received his medical and PhD degrees and practiced in his native Sydney, Australia, before coming to Canada in 1969 to join McMaster University and become founder and director of the Hamilton General Hospital – McMaster Lipid Research Laboratory.

As a professor of medicine, he was a committed teacher of medical, nursing and dietitian students; a published researcher on the role of lipid metabolism and their impact on coronary artery disease; and a prominent clinician. After becoming a professor emeritus in 1989, he maintained an active role in the university for several years.

“Dr. Mishkel was a dedicated physician who sincerely believed in his responsibility for education, research and patient care,” said Akbar Panju, acting chair of the Department of Medicine.

Medical student remembered for “many wonderful traits”

McMaster MD ’15 Robert Karoly Chu passed away suddenly this September. He was 25 years old, and a student of McMaster’s Master of Business Administration program.

“Robert will be remembered for his many wonderful traits including his hard work ethic, his diversity of interests, his gentle manner and his genuine concern for each and every person he encountered,” said Karl Stobbe, regional assistant dean for the Niagara Regional Campus of the medical school, where Chu had his medical training.

A memorial service at the Niagara Regional Campus took place in late November.

“Robert will be remembered for his many wonderful traits including his hard work ethic, his diversity of interests, his gentle manner and his genuine concern for each and every person he encountered.”

– Karl Stobbe
FHS alumni: Where are they now?

1980s

Thomas Dignan, MD '81, PG (Anaesthesiology) '03

More than 30 years ago, Thomas Dignan became the first Indigenous student to graduate from McMaster’s medical school. A Mohawk from Six Nations Territory of the Grand River, Thunder Bay, he’s since been recognized in Canada and abroad for his outstanding contributions to medicine and patient care, and as an advocate for improving the health status of Canada’s Indigenous People’s. Among numerous accolades, he is the first Indigenous physician to become an honorary Fellow of the Royal College of Physicians and Surgeons of Canada. He is also a member of the Order of Ontario. Today, Dignan advises leaders on public health and cultural safety, including the fallout of residential schools, in the roles of medical officer for Health Canada’s First Nations and Inuit Health Branch, and chair of the Royal College Indigenous Health Advisory Committee.

Cheryl Wagner, MD ’82

After graduating from McMaster in 1982, Cheryl Wagner started her career as a fly-in doctor to First Nations communities in Northern Ontario. A few years later, she was called to take over the practice of a Toronto physician diagnosed with AIDS. At the time, few support systems existed to treat people with HIV/AIDS, and even fewer for women. She set up clinic and became one of the first – and few – general practitioners to treat this vulnerable population. A pioneer then and now, Wagner continues to care for women and marginalized population in society, including refugee claimants, many abused in their own country due to their HIV status. In 2016, she was named the YWCA Woman of Distinction and Regional Family Physician of the year for the GTA by the Ontario College of Family Physicians for her tireless work in this area.

2000s

June MacDonald Jenkins, M.Sc. (Nursing) ’06

Since graduating with her Master’s degree in nursing eight years ago, June MacDonald Jenkins has served as dean of police education and innovation with the Durham Regional Police Service, a coordinator and professor at the Durham College/UALT Collaborative B.Sc. program (nursing), and she co-authored the Canadian nursing text Physical Examination and Health Assessment. Most recently, she was appointed dean of health, human and justice studies at Loyalist College in Belleville, Ont. To her latest role, she brings a wealth of experience and accolades, including the Registered Nurses Foundation of Ontario (RNFOO) Nursing Graduate Scholarship for exceptional research capacity and the Canadian Elsevier Resource Award, recognizing the use of technology to enhance learning. On top of her new duties at Loyalist, she is completing doctoral studies in Public Safety at Charles Sturt University.

2010s

Kristen Burrows, B.H.Sc. (Physician Assistant) ’10

Six years after graduating from McMaster’s inaugural B.Sc. Physician Assistant (PA) program, Kristen Burrows has been appointed the program’s assistant dean. An epidemiologist since 2005, Burrows had worked as a public health consultant, both for the Public Health Agency of Canada and Palau’s Ministry of Health, before deciding to change her career focus. In her time between graduating and her new position, Burrows has worked as a PA at both St. Joseph’s Healthcare Hamilton and a dermatology clinic. On top of her new role as assistant dean and assistant clinical professor, she is working toward a PhD in Health Research Methodology at McMaster, studying the role of PAs in Ontario.

Alex Ball, M.Sc. (Occupational Therapy) ’15

After graduating from McMaster’s occupational therapy program and wrapping up his final placement with the Canadian Armed Forces Health Services, Alex Ball was presented with the Ontario Society of Occupational Therapists (OSOT) Student Award for demonstrated leadership. He moved to Estevan, Saskatchewan where he worked as an OT in two in-patient hospitals, five long-term care homes and five communities. Today, he’s back in Ontario at an inpatient post-traumatic stress recovery program at Homewood Health Centre in Guelph. In his role, he helps individuals impacted by trauma to re-integrate into meaningful roles and occupations. Ball credits McMaster’s OT program for giving him the tools he needed to launch his career.

Joshua Carvalho, B.Sc. (Nursing) Mohawk ’15

Upon graduation from McMaster’s nursing program from the Mohawk campus, Joshua Carvalho began his career in the Chest, Head and Neck Surgical Stepdown Unit at St. Joseph’s Healthcare Hamilton. Previously a banker in the financial industry, Carvalho says nursing has been an incredibly rewarding, albeit completely different, change of career. “No two days are the same,” he said. “It’s amazing to help patients throughout their time on the unit and to help them achieve their goal of discharge.” Carvalho is currently working on a post-graduate certificate in critical care and is an alumni member on McMaster University’s Nursing Education Committee. He hopes to complete a PhD in health policy in the future.

To make a submission to “Where Are They Now?” email network@mcmaster.ca
Margo Mountjoy worked tirelessly behind the scenes at the 2016 Summer Olympics in Rio. For the McMaster faculty member, the Games may be over, but the learning extends far beyond its two-and-a-half-week run.

Mountjoy is director of student and resident affairs at the Waterloo Regional Campus of the Michael G. DeGroote School of Medicine and a sports medicine physician in Guelph, but she attended the Olympics (her eighth) on behalf of the International Olympic Committee (IOC) and world swimming body FINA.

At the Games she wore many hats: overseeing all medical services for elite athletes on the field, assisting with implementation of the anti-doping program, educating visiting physicians on health and nutrition-related topics and acting as physician herself to 13 Canadian Olympians, all her own patients.

“My work is dedicated to preserving the integrity of the sport – to protecting clean athletes, as well as the prevention of adverse events such as illness, injury and abuse,” she said.

Her role as welfare officer at the Olympic Games is a testament to that statement. For the first time, the IOC implemented a program to protect athletes from issues of harassment and abuse, and set up an office within the clinic in the Olympic Village. Athletes could report to this clinic either in person, by phone or by email.

“My work is dedicated to preserving the integrity of the sport - to protecting clean athletes, as well as the prevention of adverse events such as illness, injury and abuse.”

-Margo Mountjoy

At this clinic, Mountjoy supported athletes with complaints by arranging appropriate medical and psychological support and ensuring referral to appropriate IOC departments. She was also the lead author of the consensus statement that spearheaded the project.

With information gathered from this project, Mountjoy plans to develop a tool kit so individual sports, international federations and the national Olympic committees may implement policies and procedures in their own countries.

When she wasn’t breaking new ground, Mountjoy was building e-modules to educate athletes and coaches about female-specific health issues and collecting data to better grasp what injuries and illnesses are most prevalent among athletes based on geographic location, gender, age, sport and discipline, research she’s been doing since 2004.

Of course, it wasn’t all work and no play for Mountjoy. A former international-level synchronized swimmer herself, she was required to spend some time where she feels most at home: poolside.

“Being part of the team behind the athlete is so rewarding,” said Mountjoy, who is a 1986 alumna of the Michael G. DeGroote School of Medicine.
Avi Sarker and Kevin Singh were strangers to each other and to the city of Hamilton when they joined McMaster’s Michael G. DeGroote School of Medicine in 2013. Three years later, the now tight-knit duo is changing Hamilton’s downtown for the better with MacHealth Delivering Neighbourhood Advocacy (or MacHealth DNA). This project delivers care and health advocacy to marginalized populations.

“When I came to school, I felt like I was at home,” said Singh, who grew up in Toronto. “The feeling of community (in Hamilton) is really strong.”

So strong, adds Sarker, a native of Edmonton, the two felt compelled to give back with a community engagement project that partners Faculty of Health Sciences students with the Hamilton Urban Core Community Health Centre team to help those with limited health care resources.

In 2015, Singh, Sarker and eight other students launched MacHealth DNA as a pilot. By October that year, they opened its doors officially.

“Many people don’t have guarantees of meals or shelter. They’ve been ostracized from the community,” said Sarker. “The Urban Core has been an opportunity for them to start fresh, and it’s really been a positive environment for us to learn.”

— Kevin Singh

The clinic runs twice a week on Tuesday and Thursday evenings at the corner of Rebecca and John streets, and is made up of volunteers, medical students and physicians. Patients are seen by students and reviewed by a physician. Also running at that time are programs to help with smoking, nutrition, women’s health, parenting, diabetes and more.

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Singh and Sarker graduated in May 2016 and passed the MacHealth DNA torch to the next student directors, Gaibrie Stephen and Christine MacCauley. A quarter of the 2018 graduating class applied to be involved during the new academic year, says Sarker. “That says a lot.”

The experience has been inspirational for both Singh and Sarker. Both are hoping to work in inner-city health in the future.

“Just seeing the changes from week to week with these patients and students has been truly memorable,” said Singh. “It has been such a rewarding experience — one that I’ll carry with me moving forward.”
Reunions

Save the date

McMaster’s Department of Psychiatry and Behavioural Neurosciences will be celebrating its 50th anniversary this year. Celebrations will begin Friday, June 2 and a formal gala dinner held on Saturday, June 3.

For more information, please visit http://psychiatry.mcmaster.ca/, email psych50@mcmaster.ca, or visit us on Facebook at https://www.facebook.com/deptofpsychiatry50th/.

MD reunions are held every fall to celebrate class anniversaries. If you are part of the classes of ’72, ’77, ’82, ’87, ’92, ’97 and ’07, please contact us at intouch@mcmaster.ca to ensure we have your current email and mailing addresses.

MD reunion weekend celebrations spans 30 years

The MD classes of ’76, ’81, ’86, ’91, ’96 and ’06 reunited this October over cocktails, meals, tours and lectures, including McMaster’s innovative anatomy and surgical skills lab, health sciences library and the medical school. A great time was had by all.

Pictured top row, from left, MD alumni enjoying a buffet lunch after attending CME lecture and tours; MD Alumni from the class of ’91. Pictured bottom row, from left, MD alumni from the class of ’96; Paul O’Byrne, the new dean and vice-president, Faculty of Health Sciences, gives welcoming remarks to more than 160 MD alumni and their guests during the gala dinner. For more photos from reunion weekends, go to https://fhs.mcmaster.ca/main/alumni/mdreunion2016.html.