

Annual report of the Dean and Vice-President, Faculty of Health Sciences



Dean's message



This summer, as I pass the torch to a new dean and vice-president of the Faculty of Health Sciences at McMaster University, I will do so with a deep sense of pride, gratitude and fulfilment for all that has been accomplished here over the past 15 years.

Our many successes, from paradigm-shifting research to the establishment of state-of-the-art buildings, programs and institutes and to the graduation of our nation's next generation of health specialists, have been the unequivocal result of a stellar team. This team is comprised of faculty who lead ground-breaking

studies that reimagine our way of thinking; students who use their education and skills to improve health care; clinicians who provide critical treatments for the most challenging illnesses and diseases of our time; and staff who continue to work tirelessly to enable and support our ongoing successes.

The past 15 years has seen significant growth in the Faculty, and this would not have been possible without the enormous contributions of each of these groups.

On July 1, we will welcome a new dean and vice-president, Dr. Paul O'Byrne. Dr. O'Byrne is a passionate, committed and visionary administrator who will bring an abundance of experience to the deanship. I am personally delighted by this appointment. I am certain the Faculty will continue to succeed under his leadership.

It has been an honour to have led the Faculty of Health Sciences since 2001, and I will step aside with gratitude and respect for a remarkable team that has shaped McMaster and its Faculty of Health Sciences into one of the foremost institutions in the world for research, education and care.

Kind Regards,

John G. Kelton, MD
Dean and Vice-President
Faculty of Health Sciences, McMaster University



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Deborah Cook, professor,
Department of Clinical Epidemiology and Biostatistics



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David Braley speaks at the
opening of the new David
Braley Health Sciences Centre



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Canadian Longitudinal Study on
Aging lead principal investigator
Parminder Raina

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Cover/Back: Images of faculty, researchers, students and friends.

Making the news



▲ Russell de Souza, assistant professor, Department of Clinical Epidemiology and Biostatistics, left, and Sonia Anand, professor, Department of Medicine.

■ The Michael G. DeGroot School of Medicine is the site for an international documentary about the best training of medical doctors. Eos Films, a production company from the U.K., was on campus and in area hospitals to film all aspects of the program which pioneered small group, problem-based education for physicians and a candidate selection program that selects for communications, teamwork, problem-solving and ethical skills.

■ McMaster scientist Mick Bhatia and his team have discovered how to directly convert adult human blood cells to both central nervous system neurons as well as neurons in the peripheral nervous system that are responsible for pain, temperature and itch perception. The breakthrough was featured on the cover of the journal *Cell Reports*.

■ Trans fats are associated with greater risk of death and coronary heart disease, but saturated fats are not associated with an increased risk of death, heart disease, stroke, or Type 2 diabetes, says a study in the *British Medical Journal* led by Russell de Souza, an assistant professor of clinical epidemiology and biostatistics and Sonia Anand, professor of medicine.

■ Scientists from the Farncombe Family Digestive Health Research Institute found bacteria in the gut plays an important role in inducing anxiety and depression. Published in *Nature Communications*, the study is the first to explore the role of intestinal

microbiota in altered behaviour that comes from early life stress. The study was led by Premysl Bercik, senior author of the paper and an associate professor of medicine.

■ 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 study led by Deborah Cook, professor of medicine and clinical epidemiology and biostatistics. The research, published in the *Annals of Internal Medicine*, is about a Three Wishes Project that involves a researcher or patient's clinician sensitively eliciting three ways 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 the wishes.

■ Paul O'Byrne-, pictured below, has been appointed the next dean and vice-president of the Faculty of Health Sciences. Currently chair of McMaster's Department of Medicine, O'Byrne will assume the role on July 1, 2016.



With distinction

McMaster consistently ranks highly among Canadian and worldwide universities



INTERNATIONAL RANKINGS

★ Third in Canada in the clinical medicine and pharmacy category
Shanghai Jiaotong University Academic Ranking of World Universities 2015

★ Third in Canada for post-secondary institutions offering clinical, pre-clinical and health programs
Times Higher Education World University Rankings 2015

★ Fourth in Canada in the medicine subject ranking
QS World University Rankings 2015

★ Fifth in Canada in a ranking measuring how universities perform on graduate employability
Times Higher Education Global Employability University Survey 2015

★ Sixth in Canada as ranked for research productivity, impact and excellence
National Taiwan University: Performance Ranking of Scientific Papers for World Universities 2015



CANADIAN RANKINGS


★ Ranked in the top four Canadian universities for biomedical and health care research funding for the past decade
Association of Faculties of Medicine of Canada

★ Rated sixth out of Canada's top 50 research universities
Research Infosource 2015

★ Ranked first for mental health services for Canadian medical doctoral universities
Maclean's Student Satisfaction Rankings 2016

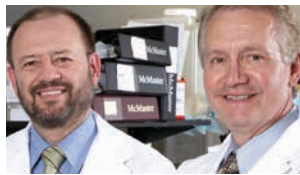
Research, innovation & collaboration

HONOURS

■  New members of the Order of Canada include Jean Chamberlain Froese, an associate professor in the Department of Obstetrics and Gynecology; Alba DiCenso, professor emeritus of nursing and John Kelton, professor of medicine and pathology and molecular medicine. Deborah Cook, a professor in the departments of medicine and clinical epidemiology and biostatistics, and Susan French, former associate dean of health sciences, nursing from 1980 to 1990, have been named officers of the order.

■ Paul O'Byrne, chair of the Department of Medicine at the Michael G. DeGroot School of Medicine, was inducted into the Canadian Academy of Health Sciences. O'Byrne is internationally recognized for seminal contributions into understanding the causes and treatment of asthma. He joins 17 others from McMaster who have been inducted into the Academy.

■ Research partners John Kelton (right) and Ted Warkentin (left) have received the 2015 Prix Galien



Canada, the highest award for Canadian scientists who have made significant advances in pharmaceutical research. Both are professors of medicine, as well as pathology and molecular medicine, at the Michael G. DeGroot School of Medicine.

■ McMaster professors Deborah Cook and Paul O'Byrne have been named Distinguished University Professors. The title, created in 1996, is the University's highest honour for professors who achieve the upmost level of excellence in teaching, learning and research.

■ 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.

GRANTS & COLLABORATIONS

■ The Canadian Longitudinal Study on Aging, the most comprehensive study of aging ever undertaken in Canada, received \$41.6 million from the Canadian Institutes for Health Research to continue its work for the next five years.

■ The Canadian Institutes of Health Research awarded \$37.2 million to 22 Faculty of Health Sciences investigators to support research ranging from a better understanding of how to combat bacteria to improving critical care to studying cardiovascular issues around the world.

■ The Faculty received a \$3.5-million boost from the Ontario Research Fund for research into antimicrobial resistance undertaken by the Michael G. DeGroot Institute for Infectious Disease Research and more than \$3.5 million to McMaster's Biointerfaces Institute for a project to provide instant diagnosis of infectious disease, deadly pathogens and environmental contaminants.

■ Allergen, NCE, the national Allergy, Genes and Environment Network, hosted by McMaster, will receive continuous funding from the federal government to 2019 – a total of \$74.4 million since 2005.

■ The Public Health Agency of Canada and Health Canada provided \$4.1 million to study better ways to support victims of family violence. The study is being co-led by McMaster professor Harriet MacMillan.

■ The Movember Foundation and Prostate Cancer Canada awarded \$3.5 million 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.

■ Eric Brown, a professor of biochemistry and biomedical sciences was awarded a Canadian Institutes of Health Research Foundation Grant valued at \$2.8 million over seven years to focus on understanding survival strategies of bacteria.

■ The Ontario SPOR SUPPORT Unit gave \$1.8 million to McMaster researcher P.J. Devereaux to study the impact of accelerated surgical care for hip fractures.

■ 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 Canada Foundation for Innovation gave nearly \$1.2 million in infrastructure funding through its John Evans Leadership Fund for five research projects, including \$400,000 for the establishment of an Origins of Life Laboratory by researchers Yingfu Li, Maikel Rheinstädter and Ralph Pudritz. Other researchers awarded funding were Jonathan Bramson, Gerry Wright, Lesley MacNeil and Andrew McArthur.

■ McMaster researcher Charu Kaushik was awarded a Canadian Institutes of Health Research Team Grant of \$1.2 million to study the mucosal immune response to HIV.

RESEARCH CHAIRS

■ John Lavis, a professor of clinical epidemiology and biostatistics, was awarded a Tier 1 Canada Research Chair (CRC) in Evidence-Informed Health Systems.



■ Gerry Wright, director of the Michael G. DeGroot Institute for Infectious Disease Research and a professor of biochemistry and biomedical sciences, had his Tier 1 CRC in Molecular Studies of Antibiotics renewed.

■ Donald Arnold, an associate professor of medicine, was named the inaugural holder of the John G. Kelton

Chair in Translational Research, an endowed position funded by Michael G. DeGroot with Hamilton Health Sciences, St. Joseph's Healthcare Hamilton and McMaster University.

■ The first holder of the Marta and Owen Boris Chair in Stroke Research and Care is Dr. Ashkan Shoamanesh, an assistant professor of medicine.

► On a tour of the Biorepository and Bioanalysis Centre, lead principal investigator of the Canadian Longitudinal Study on Aging (CLSA) Parminder Raina (at right) shows then Minister of Labour Kellie Leitch and Member of Parliament David Sweet the cryofreezers, which are used to store CLSA biospecimens.



Accolades



★ May Cohen (top), a professor emeritus of family medicine who worked to promote the equality and well-being of women both as providers and beneficiaries of health care, and Gordon Guyatt (bottom), a

Distinguished University Professor of clinical epidemiology and biostatistics who made ground breaking contributions in the measurement of health-related quality of life and led the initial development of the concept of evidence-based medicine, have been named to the Canadian Medical Hall of Fame.



★ Peter Dent (top), the clinician scientist behind the creation of the McMaster Children's Hospital; Jack Gaudie (middle), world-renowned as a pioneer in gene therapeutics, and Peter George (bottom), president emeritus of McMaster University, have been inducted into the Faculty of Health Sciences' Community of Distinction.



★ Mohit Bhandari, a professor of surgery with the Michael G. DeGroot School of Medicine and a world-renowned orthopedic surgeon, has been named to the Hamilton Gallery of Distinction.



★ 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.



★ Jenny Ploeg, a professor in the School of Nursing and co-scientific director of McMaster's

Aging, Community and Health Research Unit, was honoured with the 2015 Outstanding Recognition Award by the Hamilton Council on Aging.

Sparking innovation



▲ Pictured cutting the ribbon at the opening of the David Braley Health Sciences Centre at the McMaster Health Campus, are (from left): Elizabeth Richardson, Hamilton medical officer of health; David Price, chair, Department of Family Medicine; Fred Eisenberger, mayor of Hamilton; Patrick Deane, McMaster University president; Rona Ambrose, then minister of health for Canada; David Braley; Indira Naidoo-Harris, Halton MPP; and John Kelton, dean and vice-president, Faculty of Health Sciences.

■ The new \$84.6M David Braley Health Sciences Centre at the McMaster Health Campus has opened in downtown Hamilton. The six-storey, 192,000-square-foot centre incorporates family health, maternity and public health clinics, and is also home for major research and education initiatives of McMaster's Faculty of Health Sciences. The building reflects a growing partnership between Public Health Services for the City of Hamilton and the Department of Family Medicine of McMaster's Michael G. DeGroot School of Medicine.

■ In partnership with Hamilton Health Sciences, McMaster's Faculty of Health Sciences has opened a new Michael G. DeGroot Pain Clinic. Located on the fourth floor of the Health Sciences Centre, it is one of the only care facilities of its kind in Canada offering treatment for many pain conditions along with research and educational initiatives to better understand the ailment that affects nearly 500,000 people in the Hamilton Health Sciences catchment area. In addition, an online resource has been launched for the more than 2.5 million of Canadians living with neuropathic

pain. The DeGroot PainHQ website at <https://www.painhq.org/> provides access to evidence-based resources curated by experts and rated by the public.

■ More than 30 nurses and health professionals from across Latin and Central America attended McMaster for a two-day session on advanced practice nursing. The summit, hosted for the Pan American Health Organization, aimed to share how the role of the advanced practice nurse in Canada and the United States, including nurse practitioners, relates to universal access to health and health coverage.

Learning

★ An inaugural class of 30 has begun the new Master of Public Health Program led by the Department of Clinical Epidemiology and Biostatistics. 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.

★ McMaster is introducing a bold new initiative to develop tomorrow's health care leaders. Blending the expertise of its faculties of Business and Health Sciences, the new Michael G. DeGroot Health Leadership Academy will provide a pathway to an accelerated MBA degree for medical students and certificate and diploma programs that will provide leadership development for a broad range of health professionals.

★ McMaster's Master of Science in Global Health program received the Canadian Bureau for International Education Panorama Award for Outstanding International Education Program. A collaborative offering with Maastricht University in the Netherlands, the MSc Global Health program launched in 2010 to address emerging challenges in globalization and health and prepare future professionals for careers in a globalized world. Since then, enrolment

Engaging the community

■ Sarah Glen and Margaret Secord, instructors with the Bachelor of Health Sciences program, are 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.

■ Medical residents in the Michael G. DeGroot School of Medicine are obtaining a diverse array of experiences while helping their community. At the Niagara Regional Campus, medical residents conduct research initiatives with marginalized communities. At the Hamilton campus, medical students assist agencies such as Hamilton Urban Core and Refuge Healthcare. In addition, many family medicine residents of the Waterloo Regional Campus have established their practice in the Waterloo Wellington region upon graduation.

■ Several Faculty of Health Sciences projects that respond to McMaster's strategic direction of *Forward with Integrity* letter have received funding. They include the development of a youth network to inform research and program development at the CanChild Centre for Childhood Disability Research, and the creation of a website to foster a community of practice between a number of stakeholders of McMaster's new Biomedical Discovery and Commercialization program.



▲ Sarah Glen (right) and Margaret Secord, instructors with the Bachelor of Health Sciences program, are the first-ever recipients of the McMaster Students Union Community Engagement Teaching Award.



▲ Students from McMaster's regional campuses are gaining a wide range of experiences in their communities. Pictured here are students from the Niagara Regional Campus at the St. Catharines General Hospital.

has tripled, with partnerships expanding to include universities in India, Norway, Thailand and Colombia.

★ With the goal of helping more newly hired internationally educated nurses (IEN) to be successful here, professor Andrea Baumann and her team at McMaster's Nursing Health Services Research Unit have partnered with health care employers in Ontario to create an orientation and onboarding training program for new IENs.

It includes symposia, webinars and the creation of an employment manual. The research team received \$1.3 million over three years from the Ontario Ministry of Citizenship, Immigration and International Trade for the project.

★ A ribbon cutting was held to officially open expanded medical education space for McMaster University at the Grand River Hospital's Kitchener-Waterloo site. The medical education centre is the result

of a nearly \$300,000 investment by the Waterloo Regional Campus of the Michael G. DeGroot School of Medicine.

★ A recent study has found that McMaster University's School of Rehabilitation Science consistently ranks highest in Canada for faculty productivity and research impact. The research was published in *Physiotherapy Canada* and led by Joy MacDermid, a professor of rehabilitation science at McMaster.

