The newsmakers

Grabbing headlines with research, education

$1M gift creates Chanchlani Research Centre

Health sciences students engage the city
Message from the Dean and Vice-President

McMaster's Faculty of Health Sciences is built on a remarkable cadre of students, staff, faculty, alumni and supporters. Each member of our community has a different perspective and, consequently, a different contribution.

For the students, their primary responsibility includes the acquisition of knowledge and skill sets. For the faculty, their responsibility includes the generation of new knowledge through research. The dissemination and transmission of this knowledge is the process of education. The staff functions as the organizational arm, aligning and facilitating these groups. Alumni are the ambassadors of McMaster and, in many cases, our greatest supporters. Our donors help to achieve and grow research and educational excellence. For that contribution, we are all grateful.

I have had the pleasure of serving as Dean and Vice-President of the Faculty of Health Sciences since 2001. In July, I began my third term in this role. There have been many challenges over the past decade, but none as persistent as the rising costs for the provision of education and research and the university funding that has lagged behind.

Given the financial pressures on the health care system and the increasing capital and operational needs of post-secondary institutions, it’s no surprise that our funding dollars need to stretch further.

I believe that the Faculty of Health Sciences at McMaster University is best able to respond to these changing forces by reinforcing our culture of innovation. Over the past decade, we have worked hard to put the structures in place to best serve our community – a decentralized structure that is defined by strong partnerships with our teaching hospitals, community partners and the various schools, departments and research institutes that comprise the Faculty.

We have also worked to enhance our educational offerings, including revitalizing our various curricula and becoming a leader in distributed medical education and e-learning. Our focus over the next five years will be to develop better integration of these tools and programs, and evolve our distributed medical campuses into health education hubs that push the boundaries of interprofessional education and interprofessional care.

McMaster is recognized as one of Canada’s most research-intensive universities. Our success in this area, as evidenced by consistent, broad, international media coverage, is highlighted in this issue of Network.

Over the past decade, we have realigned our research groups to syn- ergize research outcomes. Future success will involve collaborations that will cross schools, disciplines and universities as well as universities and commercial enterprise partners.

Even at a time of fiscal constraint, new opportunities arise. The challenge is to recognize them and be sufficiently nimble to obtain them. Attracting the best minds and nurturing their talent will be critical to sustaining our success, as will forming flexible partnerships across traditional and non-traditional boundaries.

I am optimistic about the opportunities ahead for McMaster’s Faculty of Health Sciences. Our remarkable students, energized and committed faculty and staff, along with engaged alumni and dedicated partners will position us for continued success.

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

On the cover

Brian Timmons, assistant professor of pediatrics, speaks with Kelly Crowe, CBC TV’s national health reporter, while cameraman Dave Macintosh films for a segment on the impact of heat waves on children that aired on The National.
A group of six senior nursing officials from Haiti travelled to Hamilton in June to spend a week tapping into McMaster’s “well of knowledge of health needs and quality health services,” said Mirielle Sylvain, an educator with Haiti’s National School of Nursing.

A grant in October 2010 from the Department of Foreign Affairs and International Trade Canada allowed the McMaster School of Nursing (SON) to support joint Canada-Haiti academic projects to build capacity of academic institutions, provide opportunities for Haitians to resume studying and enhance their skill sets. It is in partnership with University Hospital School of Nursing in Haiti, the Haitian Nurses’ Association and the Hôpital Universitaire de la Paix in Port-au-Prince.

McMaster hosted the nursing administrators to learn more about their challenges, how McMaster can help meet their needs and to provide an overview of nursing in Canada.

There are two nurses for every 10,000 people in Haiti and the average life expectancy there is 56 years. The many issues facing nurses in Haiti include: poor working conditions; motivated nurses lacking the equipment and resources to do their job; challenges related to the delivery of patient care and no protocol; other care providers not working collaboratively with nurses; lack of clinical supervisors for students; lack of co-ordination for training nurses; lack of respect for nursing as a profession; nurse managers having no power; the need for a college of nursing to promote continuing education, and nurse retention.

Anita Fisher, an associate professor with the SON, believes McMaster can assist with ongoing efforts to develop the curriculum for a four-year bachelor of science in nursing degree.

“I think McMaster can play a huge role in basic education and also a role in graduate education, preparing these nurses to be clinical teachers. Our leadership and management program could also play a role, as they have a need for their nurse managers to develop leadership,” Fisher said.

From nursing student to faculty member

McMaster alumni Jodi Pipes’ career has come full circle. She returned to the university in September 2010, bringing a decade of global nursing experience to share with a new generation of adventurous nursing students hoping to improve the health of Canada and abroad.

Pipes, who graduated in 2000, has returned as a part-time faculty member in the School of Nursing. In her spare time she voluntarily provides pre-departure training for medical and nursing students preparing for international and Canadian outpost placements.

“I gained so much from my experiences, so for me to share that, because it so enriches the nursing experience, it’s really special,” Pipes said.

Her own international journey began with a student clinical nursing outpost placement in Ekwendeni, Malawi, in 1999, where she spent three months in the pediatrics unit and travelled with outreach clinics.

With Malawi having one of the highest HIV rates in the world, Pipes wanted to learn more, and after graduation she became a Hamilton public health nurse in the STI/HIV program. She then continued to develop her knowledge and clinical skills in acute pediatric and family-centred care while working in other Ontario hospitals. She also had contracts in New Mexico and Australia, where she completed further graduate studies in public health and tropical medicine.

Ultimately, Pipes achieved her lifelong dream of working for Médecins Sans Frontières/Doctors Without Borders (MSF) as an outreach nurse in South Sudan. After that she worked in rural Australian communities, focusing on maternal and child health.

Pipes plans to continue working with MSF and other organizations, supporting international and outpost placement opportunities. She will also help improve the knowledge, understanding and cultural awareness for students and health professionals who face the specific needs of new immigrants to Canada.
For an ambitious group of students at McMaster University, community engagement starts with boarding a familiar yellow school bus.

Engaging the City, a course offered by the Bachelor of Health Sciences (Honours) program (B.H.Sc.), begins with third- and fourth-year students from across all Faculties taking a “learning trip” around Hamilton to understand issues facing some of the city’s 505,000 residents.

After gaining insight into different neighbourhoods, students join in “conversation cafes.” During the discussions, agencies share their guiding principles, mission and needs – planting seeds that may develop into future research projects in which students explore ways of improving the quality of life through the lens of poverty, economy, environment, ethics, housing and disability.

The intent is to involve students outside the “bubble” of McMaster. By encouraging students to follow personal interests, they build meaningful research projects with partner organizations – potentially leading to better quality of life in neighbourhoods.

The first cohort of students was welcomed into the 18-month course in January 2009. Before starting their research, the students must be involved with a community partner for a significant amount of time. That involvement is enhanced with guest speakers from McMaster and the community, weekly meetings and reflections on what they have learned.

“The basic premise of the course is partnership and collaboration,” said Margaret Secord, assistant clinical professor in the B.H.Sc. program who facilitates the course with Sarah Glen and Matt Thompson.

“We are not just going out and doing research. Students are out there in a participatory partnership of community-based research. We have even developed a learning contract with our agencies so they are aware of what students are doing and students are aware of what is needed. Everyone is on the same page.”

Secord said many agencies that have been in Hamilton for as long as 20 years have never had their program evaluated. “Now, they are able to have that,” she said.

Del Harnish, assistant dean of the B.H.Sc. program, calls the Engaging the City course “one of the best things I’ve seen in 25 years.”

His enthusiasm is echoed by Riaz Sayani-Mulji, 20, a fourth-year B.H.Sc. student who has done volunteer work for five years, most recently with inner city youth. “I came into this class with one perspective but this really allowed me to broaden it. It is one of the best classes I’ve ever taken at McMaster. I wish it was offered across more Faculties.”

The hope for the course is that students learn that research is more than numbers by developing an awareness that they can become agents of change in a community.

Initially, the program developed partnerships with 12 different community organizations. Now, agencies are approaching McMaster, asking to partner with the university. “One of the things we learned from the partners is that they had many things they wanted help with in terms continued on page 5
Course sparks interest in inner city health

Inner city health had never been on Jonathan Hsu's radar, but he admits it's become a priority as he prepares to enter medical school at the University of Toronto this fall.

What sparked his passion was Engaging the City, a course offered through the Bachelor of Health Sciences (B.H.Sc.) program which introduces McMaster University students to issues affecting inner-city neighbourhoods in Hamilton.

Conducting research for the Hamilton Roundtable on Poverty Reduction, Hsu gained new insights as he inter-

more and more out of the hospital,” said Janet Landeen, assistant dean, undergraduate nursing education program.

The concept of putting SON resources in the Perkins Centre was brought to the SON by Steven Rolfe, a nursing alumnus who is the centre’s program director and clinical faculty in nursing.

The new neighbourhood cooperative will be a "living laboratory," said Landeen, who admits this concept has been a dream of hers for 20 years. “Patrick Deane’s vision and our vision are absolutely aligned.”

Nursing students contribute an “amazing” number of volunteer hours in the community, working with organizations ranging from the food bank to Big Brothers Big Sisters. “In any given year, we have 500 students across three sites, two-thirds of them in Hamilton, each one doing 32 hours of service in each of the sites,” said Landeen.

Community involvement also includes:

• Mini-Med School. This annual community education program established by students of the Michael G. DeGroote School of Medicine provides insight into the world of medicine.

• MacSOC (McMaster Student Outreach Collaborative). Set up by nursing students, now almost 400

student volunteers from all Faculties use a hands-on approach to provide food, clothing, health and social services information to support to the marginally housed, homeless and those at risk of homelessness.

• As part of Health in the Hubs, a new initiative aimed at uncovering priority health issues in three Hamilton neighbourhoods, nursing students hit the streets with resident co-

ordinators last January to discuss barriers to good health. Results from 700 surveys were analyzed and consultations were held with residents to identify the top three areas of concern to tackle in the second phase of the project, now underway.

• The Midwifery Education Program is undertaking a pilot project that will bring midwifery services to the McQuesten neighbourhood. Funded through the Hamilton Community Foundation, the project will evaluate the introduction of group prenatal care and may involve both midwifery and nursing students in the provision of care.

While community outreach benefits residents across the city, the impact is also felt closer to home, especially by McMaster students.

“In health sciences, we learn about collaboration and that we ought to work together for the greater good,” said Sayani-Mulji. “Engaging the City takes that mentality and applies it to the real world.”
A lack of good screening tools and effective treatments have researchers from McMaster University giving the thumbs down to routine autism screening.

In a study published in the journal *Pediatrics*, the researchers say there is “not enough sound evidence to support the implementation of a routine population-based screening program for autism.”

Jan Willem Gorter, a researcher in McMaster’s CanChild Centre for Childhood Disability Research and associate professor in the Department of Pediatrics, and his team found there is no evidence that routine screening does more good than harm.

Contrary to the McMaster researchers’ findings, the American Academy of Pediatrics recently recommended that screening for autism be incorporated into routine practice, regardless of whether a concern has been raised by the parents.

Autism, or autism spectrum disorders (ASDs), is a group of serious neuro-developmental disorders with major, life-altering implications. Autism symptoms include differences and disabilities in many areas, including social, communication skills, fine and gross motor skills, and sometimes intellectual skills.

During the past three decades, the prevalence of autism has risen dramatically to 11 cases per 1,000 school-aged children from 0.8 cases per 1,000. Reasons for this increase vary: Improved detection, changes in diagnosing the disorder or an actual increase.

For the study, McMaster researchers conducted a literature search to assess the effectiveness of community screening programs for autism. They found that none of the available autism screening tests had been shown to be able to fulfill the properties of accuracy, namely high sensitivity, high specificity, and high predictive value (proportion of patients with positive test results who are diagnosed correctly) in a population-wide screening program.

At this time, they call community screening of all preschoolers premature. Alternatively, they recommend careful surveillance and assessment of all preschoolers who show signs of language, social and cognitive problems.
Abbott, a global, broad-based health care company, and the Michael G. DeGroote School of Medicine have created an endowed chair to focus on teaching the next generation of rheumatologists for the growing number of Canadians living with arthritis.

Abbott has given $1 million to establish the Chanchlani Research Centre, which is headed by McMaster physician and research scientist Sonia Anand, a Canadian leader in the research of genetic and environmental causes of vascular disease. The centre will focus on understanding disease among diverse ethnic populations, concentrating largely on South Asians. It will also provide an innovative training program for the next generation of health researchers in this field.

The Chanchlani gift provides an additional $250,000 to fund the Chanchlani Global Health Award. This scholarship, awarded upon completion of an international search, will provide $25,000 each year to support a student, researcher or faculty member working to understand and find solutions to genetic and environmental causes of chronic disease.

“What we are trying to accomplish here is not about philanthropy or giving financial assistance to a university,” said Vasu Chanchlani. “Rather, it is about how we can leverage the resources, passion and influence of people of South Asian origin in engaging them to a serious social cause that is afflicting people of South Asian origin around the world.”

Abbott, McMaster create education chair in rheumatology

Two important factors that influence human health are the environment and family history, especially for conditions such as heart disease and diabetes. But how these factors come into play is still a mystery.

Vasu and Jaya Chanchlani are determined to help find out. The couple recently funded a new research centre in the Faculty of Health Sciences that will focus on finding the answers to these questions as well as develop new strategies for diagnosis, treatment and prevention of chronic diseases. Vasu Chanchlani is an entrepreneur, philanthropist and founding member of the Canada India Foundation and his wife, Jaya, has been a family physician in Brampton for more than 20 years.

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University and local officials gathered in January to celebrate a $1-million gift from Vasu and Jaya Chanchlani to establish the Chanchlani Research Centre. Seated are (left to right): Jaya Chanchlani, McMaster President Patrick Deane and Vasu Chanchlani.

A small number of specialists are serving a growing population and arthritis incurs high financial costs and decreased work productivity.”

John Kelton, dean and vice-president of the Faculty of Health Sciences, said the focus puts a dedicated spotlight on a chronic problem. “At McMaster, we’re known for our innovative ways of education, so we particularly appreciate Abbott’s generosity in supporting this new position.”
In the middle of July, page one of the New York Times featured McMaster University’s development of a “speed dating” interview process for selection of students for the Michael G. DeGroote School of Medicine.

The same week Faculty of Health Sciences professors were interviewed for CBC TV’s The National on the impact of heat waves on children, a Globe & Mail article regarding older drivers, a CTV Canada AM interview on autism, by ABC news on the importance of eating less salt, and in television, radio and newspapers across North America for research showing stem cells know their preferred destiny. As well, a commentary by the Faculty’s dean and vice-president on the potential impact of a downtown Hamilton health campus was published in The Hamilton Spectator, while arrangements were made for the local paper’s coverage of a School of Nursing program in the city’s vulnerable neighbourhoods.

Faculty of Health Sciences research, programs, students, faculty and staff are creating news waves around the world, receiving half the media attention given to McMaster University and more than three-quarters of its international coverage. In 2011 the Faculty’s public relations staff, led by director Susan Emigh, won gold and silver awards for news release writing in Canadian and international competitions for universities and colleges.

Taking the Faculty’s accomplishments to the public through the media is an important step in the research process, says John Kelton, dean and vice-president of the Faculty of Health Sciences.

“The media helps close the circle between us and the public, our donors and governments: The circle started by their financial support,” he said.

“I know some people from Hamilton are surprised when they travel and frequently see stories from the Faculty in the newspapers and major broadcast media in the U.S. and Europe. We are well known for our world-class innovation and the excellence of our faculty and researchers.”

Mick Bhatia, the scientific director of the McMaster Stem Cell and Cancer Research Institute, handles dozens of media interviews each year related to the high-impact research from his institute and sharing his expertise on stem cell developments elsewhere.

“I really feel it is the obligation of scientists to explain their work to the public; the taxpayers have the right to know the benefits of their investment. It’s critically important that we be clear, precise and relate our work to their understanding: we have an educational role.”

Sharon Kirkey, health reporter for the Postmedia newspapers in Canada, regularly calls for McMaster expertise. “McMaster experts are excellent and they get it. They know how to make their work accessible, and they know the importance of our deadlines,” she said.

Kelly Crowe, health reporter for CBC TV’s The National, finds it worthwhile to frequently bring a film crew from Toronto for both research discoveries and expertise on topics of the moment. She said: “At McMaster the faculty is always doing interesting things that fit so well with people’s huge hunger for health information. Folks there are always helpful and fast.”

Bhatia, for one, welcomes the opportunity. “It’s beneficial to me, I learn a lot from the questions.”
**Study may change radiation standards**

**Tim Whelan** has established a reputation for research that changes practice.

The oncologist and breast cancer investigator received accolades in 2010 for research with the Ontario Clinical Oncology Group that showed a shorter, three-week course of higher-dose radiation may be just as effective as the standard five-week course for women with early-stage breast cancer.

The study, published in the *New England Journal of Medicine*, was named one of the top clinical cancer advances of 2010 by the American Society of Clinical Oncology. It also topped the Canadian Cancer Society’s list of top 10 research stories of 2010.

This year, Whelan made headlines again when an interim study he led showed that additional radiation treatment improves disease-free survival lessening the chance of cancer recurring in women with early breast cancer who have had breast-conserving surgery (lumpectomy).

“These results are potentially practice-changing,” said Whelan, who presented the study at the annual meeting of the American Society of Clinical Oncology in June.

Both advances received thorough coverage in scientific, medical and general media both in North America and around the world.

**Good-bye itchy**, watery eyes. McMaster University researchers have developed a vaccine that successfully treats people with cat allergies.

The news, announced in March, spread like wildfire through traditional and social media channels. The researcher behind the discovery, Mark Larché, appeared on national TV news networks and the research was showcased in newspapers around the world – from the Los Angeles Times to the U.K.’s *The Daily Telegraph*.

Until now, frequent allergy shots have been considered the most effective way to bring relief to cat-allergy sufferers. But Larché, a professor in the Department of Medicine, and his team developed a vaccine by deconstructing an allergy-causing protein that cats secrete on their fur.

Using the amino acid code for the whole protein, researchers made synthetic versions of these regions. For the cat allergy vaccine, they found seven peptides (strings of amino acids).

“And those synthetic peptides are what we mix together to make the vaccine,” said Larché. “We picked the peptides that would work in as much of the population as possible.”

Known as “peptide immunotherapy,” a low dose of the vaccine is given into the skin. Initially, four to eight doses a year may be required, but the side effects of the traditional allergy shots do not arise, Larché said.

The optimal dose will be determined in Phase 3 clinical trials, which are getting underway with a much larger group of cat-allergy sufferers.
Walk the walk for concussions

Do we take concussions seriously enough? Not according to a study by Carol DeMatteo, an associate professor in the School of Rehabilitation Science. The occupational therapist and investigator with the CanChild Centre for Childhood Disability found children who receive the label “concussion” spend fewer days in hospital, and return to school sooner than children with head injuries not diagnosed as concussion.

“We believe that just receiving the concussion diagnosis is not enough because families don’t always understand what concussion means,” she said. “The concussion diagnosis has to go along with a lot of education about what they should do and what they shouldn’t do after it.”

DeMatteo’s study, published in the journal Pediatrics, was reported by major media across the country, and started a national dialogue on the issue. Her research recommended using the term “mild traumatic brain injury” instead of “concussion” to more accurately reflect the nature of the diagnosis.

“We may not be able to prevent the first concussion, but we should be able to prevent the next one and that’s by not allowing people or their children to go back to sport or school if they’re not ready.”

Associate professor Carol DeMatteo (left) and occupational therapy student Mandy Rubinoff (right) assess John Douglas, 16, four months after he received a concussion on the soccer field.
In just a few years, it may be possible to have blood created from a patch of your own skin because of work by Mick Bhatia, scientific director of the McMaster Stem Cell and Cancer Research Institute, and his team.

The researcher made headlines around the world in November 2010 when he showed that adult human skin cells can be converted directly into blood stem cells.

The study was published in the prestigious scientific journal Nature.

The breakthrough discovery has begun a new era of transfusion medicine in which people who need blood for surgery, cancer therapy or treatment of other blood conditions like anemia could have blood created from their own skin.

Bhatia and his colleagues showed the conversion is direct. Making blood from skin does not require the middle step of changing a skin stem cell into a pluripotent stem cell, which can make many other types of human cells.

“We have shown this works using human skin. We know how it works and believe we can even improve on the process,” Bhatia said.

“We'll now go on to work on developing other types of human cell types from skin, as we already have encouraging evidence.”

Since publication of the discovery, Bhatia has appeared as an expert on CNN and commented on the discovery in newspapers, TV and radio from North America, Europe, Asia and Australia, as well as throughout Canada.

The breakthrough was named the top scientific leap of 2010 by the Toronto Star and one of the top 10 research stories of 2010 by the Canadian Cancer Society.

It was also highlighted as one of the “leading edge” technical developments in stem cell reprogramming by the scientific journal Cell.

“I think the public understood the importance of this discovery,” said Bhatia. “On a national scale, the media was absolutely fascinated.”
They say it takes a village to raise a child, but protecting a whole community from the flu may be as simple as vaccinating the children and adolescents.

This groundbreaking finding emerged from a study led by infectious disease expert and physician Mark Loeb. The professor of the Michael G. DeGroote School of Medicine led a team of investigators from Canada and the United States to study whether selective immunization of healthy youngsters could prevent the spread of the flu in the wider community.

“The discovery within Hutterite communities that vaccinating children can lead to a herd immunity effect and protect the wider population has been well received by public health agencies both nationally and internationally,” he said.

The research was also recognized by The Lancet as the 2010 research paper of the year, and received worldwide coverage in the media.

The McMaster researchers found giving the flu shot to children and adolescents reduced the incidence of influenza by about 60 per cent in individuals who did not receive the vaccine. They also found that when they looked at the whole community, including the children who were immunized, the overall benefit was about the same.

“We certainly appreciate the recognition by The Lancet readers that the study has important public health implications,” Loeb said. “We are particularly grateful for the graciousness of the participating Hutterite colonies in assisting in the improvement of the health of many communities.”

New risk factor for postpartum depression

New moms took notice of a recent study from the School of Nursing that found women with urinary incontinence after giving birth are almost twice as likely to develop postpartum depression as those without incontinence.

Wendy Sword, a professor of nursing, led the research that appeared in the British Journal of Obstetrics and Gynecology. She and her colleagues set out to examine the relationship between mode of delivery and postpartum depression at six weeks following hospital discharge.

The research team found no association between postpartum depression and mode of delivery, but their investigation did show the five strongest predictors of postpartum depression are the mother being less than 25-years-old; the mother having to be readmitted to hospital; non-initiation of breastfeeding; good, fair, or poor self-reported postpartum health; and urinary incontinence or involuntary urination.

The study was highlighted in medical, women’s health and parenting media around the world.
Alison Fenney knows we (or perhaps that should be Wii) have a lot to learn about the role video games can play in engaging people with dementia.

The new McMaster PhD in neuroscience studied the capacity of patients with Alzheimer’s disease and other forms of dementia to learn new physical tasks. Using the Nintendo Wii bowling game, Fenney completed a nine-week training session with three patients with dementia who served as case studies. Five months later, the participants received a follow-up retention test.

“We saw that they not only learned and progressed in the nine-week training period, they remembered after a five-month break how to play the game,” said Fenney, who is jointly working towards an MBA in health service management.

But the most surprising finding was the impact the game had on the participants’ level of engagement.

“It’s one thing to know people can do something, but it’s another thing when it actually means something in their lives,” she said.

Fenney presented her findings as part of the 2011 Faculty Health Sciences (FHS) Research Plenary in May.

“The Health Sciences Research Plenary is a prime opportunity for the Faculty to showcase and recognize the achievements of our graduate students and post-doctoral fellows and their capacity for research excellence,” said Cathy Hayward, associate dean of graduate studies, health sciences.

Another of the presenters was Margaret Leyland, who graduated as part of the first cohort of the M.Sc. in eHealth program. She presented her research on using a unique patient-centred approach to designing electronic personal health records (ePHRs) for diabetes self-management.

Leyland used adaptive choice-based conjoint analysis, typically a market research technique, to examine patient preferences for the attributes of ePHRs. Her sample of 150 adults with prediabetes, Type 1 diabetes and Type 2 diabetes preferred Internet-based ePHRs supplied by a physician or specialist. They also preferred to exchange health information with their physician or nurse once a month.

“Diabetes is becoming a huge economic burden and our challenge in the e-health world is to help reduce this burden by designing and delivering health-care services that are safe, meaningful and sustainable,” she said.

FHS showcases research achievements of rising stars

Graduate student Alyshah Kaba (left) and post-doctoral fellow Kelly O’Brien received awards for their research at the 2011 FHS Research Plenary.

The Bachelor of Health Sciences (Honours) program has officially launched a new global health specialization.

The specialization provides undergraduate students with an opportunity to combine traditional academic fields of anthropology, philosophy, ethics and law with the Faculty of Health Sciences domains of biostatistics and epidemiology, health economics and policy, molecular medicine and pathology and health research methodology.

A core component of the specialization revolves around a four-month embedded learning experience with partners and institutions abroad and within Canada.

The specialization was developed by B.H.Sc. assistant dean Del Harnish, faculty member Sheila Barrett and program alumnus Gregory Knapp, along with a working group of other faculty.
Preparing doctors who are knowledgeable and competent to practice has been integral to the career of McMaster alumnus Joseph Ferencz (MD ’89), winner of the 2011 John C. Sibley Award.

The Sibley Award is presented annually to a part-time faculty member in the Faculty of Health Sciences who has made outstanding contributions to the education of health professionals.

Ferencz, an associate clinical professor in the Department of Psychiatry and Behavioural Neurosciences, said he felt honoured to be chosen for the award: “I’ve been involved in medical education throughout my career and it’s certainly gratifying to have my contributions recognized in this way.”

Ferencz has been involved in the teaching and supervision of medical students and residents since 1993. Shortly after joining the Department of Psychiatry and Behavioural Neurosciences, he accepted the position of core program coordinator for the postgraduate residency program and oversaw the major postgraduate curriculum revision. In 1998, he was awarded the Residents Association Clinical Teaching award.

“He has been a strong role model … and it has been particularly gratifying to see that many of his past students have gone on to take on leadership roles in medical education after graduation,” said James Bourgeois, professor and vice-chair, education, Department of Psychiatry and Behavioural Neurosciences.

Ferencz received his medical degree from McMaster in 1989, then his certificate in psychiatry from the Royal College of Physicians and Surgeons of Canada in 1993.

Between 1996 and 2000, he was involved in undergraduate medical education as chair of Unit 4 (neurology, locomotor and psychiatry). Subsequently, he participated in the revision of the medical program (COMPASS), assisting with the design and implementation of the professional competencies curriculum with a particular focus on life-long learning. He also contributed to the design of the psychiatry portion of the revised curriculum through the undergraduate psychiatry committee, designing case materials and illustrative problems.

Four years ago, he helped revise the resident didactic program, expanding the program to encompass the full five years of residency. While coordinating the overall curriculum, he is also developing a block of seminars focusing on psychiatric ethics.

This year, Ferencz was also awarded the Sister Joan O’Sullivan Award at St. Joseph’s Healthcare. The award is presented annually to a physician who exemplifies outstanding teaching and clinical abilities while maintaining the mission, values, commitment and vision of St. Joseph’s and the Sisters of St. Joseph’s of Hamilton.

Faculty honoured for excellence in teaching and clinical training

FHS faculty members Carl deLottinville (Health Sciences), Iris Mujica (Nursing) and Murray Junop (Science) have received 2010-11 McMaster Student Union (MSU) Teaching Awards. The awards honour the top teachers at McMaster, as chosen by students.

Karen Finlay, an associate professor of radiology, received the President’s Award for Educational Leadership. Since 2001, she has held the position of residency program director for diagnostic radiology and she is actively involved in teaching and clinical training for residents and clinical fellows. Under her leadership, the program is now recognized as one of the top Canadian radiology training programs.

Patangi (Chari) Rangachari was named the recipient of the 2011 Claude Bernard Distinguished Lectureship by the American Physiological Society. The award is presented to an educator who is making outstanding contributions to teaching and learning as it relates to physiology education.

D. Josh Williams, an assistant clinical professor in the Division of Emergency Medicine, received a 2011 PAIRO Excellence in Clinical Teaching Award for McMaster University. The award acknowledges the essential role that clinical teachers place in the training of physicians.

The graduating class of the Michael G. DeGroote School of Medicine presented teaching awards to: Karen Leone, Catherine Sellens, Alan Taniguchi, Deepak Dath, Christine Bradley, Daniel Reilly, Victoria Avram, David Callen, Anthony Levinson, Zain Kassam, Janet Sproat, William Harper, Mo Ali, Bruno DiGravio and Anna Kobylecky.
FHS faculty receive top awards

Sonia Anand, a professor of medicine; clinical epidemiology and biostatistics, has been named one of the Top 100 women of 2010 in the trailblazers category by the Women’s Executive Network. The Top 100 awards recognize the country’s highest achieving female leaders in the private, public and not-for-profit sectors.

Dawn Bowdish, an assistant professor of pathology and molecular medicine, has received a $100,000 Young Investigator Grant from Pfizer Canada to study pneumonia in the elderly. The grant will support the study of why the elderly are at increased risk of pneumonia and how a co-infection with the influenza virus is particularly dangerous for them.

Brian Coombes, an assistant professor in the Department of Biochemistry and Biomedical Sciences, was recognized by The Globe and Mail as one of Canada’s Top 40 Under 40, an annual honour given to Canadians under the age of 40 who are considered outstanding leaders in their fields.

Jack Gauldie, Distinguished University Professor, has received the 2011 McMaster Lifetime Innovator Award.

Mick Bhatia, a professor in the Department of Biochemistry and Biomedical Sciences, was chosen as the McMaster Innovator of the Year. The McMaster Innovator Awards recognize researchers who contribute to McMaster University’s ongoing efforts to build a culture of innovation and entrepreneurship by creating a product or service to transfer their research discoveries and inventions to society.

Brian Haynes, a professor of the Department of Clinical Epidemiology and Biostatistics, has been recognized for his contributions in medical information research, advancing evidence-based clinical medicine in Canada and worldwide and his contributions to the systematic review of the impacts of information systems. Haynes is the recipient of the 2010 Roger A. Côté Medal for Excellence in Health Informatics, awarded annually by the National Institutes of Health Informatics (NIHI).

Brian Kerley, an assistant clinical professor and Niagara clerkship coordinator for the Department of Family Medicine and Division of Palliative Care, has received the Elizabeth J. Latimer Prize in Palliative Care. The award is given to a clinician whose work continues to pave the way for continued growth and improvement of end-of-life care in the region.

Meir Steiner, a professor emeritus in departments of psychiatry and behavioural neurosciences and obstetrics and gynecology, has received the 2011 Canadian College of Neuropsychopharmacology (CCNP) Medal. The award honours individuals for a meritorious career in, and outstanding contribution to, neuropsychopharmacology in Canada as evidenced by their activities in education, administration and/or patient care.

Stephen Walter, a professor in the Department of Clinical Epidemiology and Biostatistics, has been named the 2011 recipient of the Bernard Greenberg Award for Methods Development and Application. The award recognizes lifetime achievement in epidemiology. Walter has served as the chair of biostatistics in the International Clinical Epidemiology Network (INCLEN).

Gerry Wright, scientific director of the Michael G. DeGroote Institute for Infectious Disease Research, has been awarded a prestigious Killam Research Fellowship. The fellowship honours established scholars of exceptional ability who are engaged in research projects of broad significance and widespread interest. Wright is a Canadian leader in the study of antibiotic resistance.

FHS staff win awards for outstanding service

In May, the McMaster community celebrated the achievements of university staff during the annual President’s Awards for Outstanding Service ceremony and reception. The awards recognize employees or groups of employees who have made outstanding contributions to the mission of McMaster University beyond that normally expected for their positions.

Several Faculty of Health Sciences staff were honoured:

Sharon Baptist, administrative coordinator in the School of Nursing, received an individual award for her dedicated service to McMaster. Baptist has worked at McMaster for 21 years. Over the past five, she has been instrumental in supporting the McMaster-Mohawk-Conestoga BScN program in her role as administrative coordinator, Consortium Secretariat.

Teresa Basilio, Penny Losier and Andrea Phair received a team award for their work as part of the Bachelor of Health Sciences (B.H.Sc.) administration team. The B.H.Sc. team are responsible for supporting and promoting a McMaster degree program that is seen as one of the strongest and most successful in North America. In 2010, the team also organized the 10-year B.H.Sc. anniversary celebrations and fundraising initiatives.
Faculty and students recognized during spring convocation

Howard Barrows, a McMaster architect of problem-based learning who pioneered the concept of using simulated patients to train medical students, has died.

A professor of medicine at McMaster from 1971 to 1980, Barrows created educational tools and learning methods that have defined modern medical training. His innovations included standardized patients and performance-based testing. His research encompassed the problem solving skills of physicians and problem-based learning (PBL) as a structured teaching/learning method.

Following his time at McMaster, he joined the Southern Illinois University School of Medicine where he retired in 1999 as the chair of medical education. In his retirement, he returned to live in Hamilton.

In 2005, he was inducted into the McMaster Faculty of Health Sciences’ Community of Distinction. In 2010, the Howard Barrows Award was established to coincide with the 10-year anniversary of McMaster’s Bachelor of Health Sciences (Honours) Program. The award recognizes exceptional teachers.

Hargreave renowned for asthma research

Frederick (Freddy) Hargreave, a professor emeritus who led international advancements in the care of asthma patients, has died at the age of 72.

A member of the medical school since 1969, he was one of the founders of the Firestone Institute for Respiratory Health at McMaster and St. Joseph’s Healthcare Hamilton.

His studies in asthma changed the way the disease is diagnosed, as he developed innovative tests to measure airway responsiveness and airway inflammation and make decisions on clinical treatments.

Hargreave was a leader in the change in focus from just treating asthma symptoms to preventing and controlling them.

He was known as an excellent teacher, and he trained many of the world’s current leaders in asthma research.

He retired in 2004, but continued to be involved in research studies.

Faculty and students were honoured during McMaster convocation ceremonies this past spring:

Jack Gauldie, Distinguished University Professor and professor emeritus of the Department of Pathology and Molecular Medicine, received an honorary Doctor of Science degree. He is recognized as a pioneer in gene therapeutics and an international expert in the molecular regulation of inflammation and immunity. He holds the John Bienvenu Chair in Molecular Medicine.

Joshua Smalley, a recent graduate of the Bachelor of Health Sciences (Honours) program, received the President’s Award of Excellence in Student Leadership. As an undergraduate, he was active in many interprofessional and student organizations including the Student Initiation on Gender and Health Transformation (SIGHT) and the McMaster Medical Humanities Initiative, both of which he co-founded.

The William Osler Award was presented to Molly Forrester, who is now pursuing family medicine at the University of British Columbia.

The 2011 valedictorians were: Nicole Gabriele (Nursing/Medical Radiation Sciences), Jessica Jones (Health Sciences) and James Khan (Medicine oath ceremony).

FHS grads honoured

McMaster alumni were honoured with awards during Alumni Weekend in June: Jennifer Mitton (BScN ’99, PhD ’07) received an Arch Award in recognition of young alumni achievements. Mitton is a front-line public health nurse with Hamilton Public Health. With a focus on tobacco cessation programs, she developed a Quit Smoking Clinic and she co-chairs the Hamilton Tobacco Cessation Community of Practice. She also holds an appointment as an assistant clinical professor in McMaster's School of Nursing.

Michael Hayes (BA ’79, M.Sc. ’85, PhD ’88) and Anne-Marie Zajdlik (MD ’88) were inducted into the McMaster Alumni Gallery. Hayes is director of Health Education and Research at the University of Victoria. He was the driving force behind the creation of the Faculty of Health Sciences at Simon Fraser University. Zajdlik is a family doctor and HIV physician in Guelph, Ont., where she founded and now directs the Masai Centre for Local, Regional and Global Health, in response to the growing numbers of HIV/AIDS patients in the Guelph area. In 2005, she launched the Bracelet of Hope campaign which raised $1 million in Guelph for the fight against the AIDS pandemic in sub-Saharan Africa.
FHS alumni: Where are they now?

1970s

Jonathan Kronick, MD '78, PhD '79

Jonathan Kronick has received the 2011 Michel Weber Education Award from the Canadian Pediatric Society. The award recognizes a member who has had a significant impact in medical and/or interprofessional education. Kronick earned his MD in 1978 and his PhD in medical sciences a year later. As chair of pediatrics at Dalhousie University for two terms, Kronick oversaw the department and created an environment for students, faculty and staff to thrive. His career achievements include leading the revision of the Royal College Objectives of Training in Pediatrics and the development of the Royal College’s new pediatric certification examination. He says his greatest accomplishment is raising a wonderful family.

1980s

Lynn McCleary, BScN '84, M.Sc. ’96

After graduating from McMaster’s BScN program in 1984, Lynn McCleary worked for the Hamilton General Hospital before returning to McMaster to earn her master’s degree in clinical epidemiology and biostatistics in 1996. She continued her education at the University of Toronto and earned her PhD from the Faculty of Social Work. She then moved to the Baycrest Centre for Geriatric Care where she began research about dementia care and family caregiving. McCleary now works as an associate professor of nursing at Brock University. She is a member of the National Initiative for the Care of the Elderly (NICE), working to improve the care given to older Canadians by holding knowledge exchange institutes. The institutes support enhanced gerontological content in nursing, social work and medical education, a growing area of need in Canada’s aging society.

1990s

Shirin Aghili, B.H.Sc. (Midwifery) ’97

Shirin Aghili studied biology at McMaster before graduating with the second midwifery class at McMaster in 1997. She now works at St Joseph’s Healthcare Hamilton and is coming to the end of her term as the inaugural head of service for midwifery. In this role, Aghili was able to negotiate with the anesthetists, with great support from the chief of obstetrics and head of family medicine obstetrics, and now midwives can assist with anesthesia and have a full scope of practice. She has also been able to remain a full-time midwife with The Hamilton Midwives as well as tutor for the McMaster midwifery program, both at the practical and academic level. She plans to continue providing care to women and helping students learn the practice.

Colleen Cupido, BPE ’91, B.H.Sc. (PT) ’93, M.Sc. ’10

After Colleen Cupido earned her physiotherapy degree in 1993, she went to work in private practice. Five years later she returned to McMaster to create a centre of excellence in clinical care, education and research in sport medicine and orthopedics as clinic manager of the David Braley Sport Medicine and Rehabilitation Centre. Cupido is a sport-certified physiotherapist with Sport Physiotherapy Canada. She is also an assistant clinical professor in the McMaster School of Rehabilitation Science. Cupido completed her M.Sc. in kinesiology in 2010. Her thesis focused on the effects of massage therapy after exhaustive endurance exercise.

2000s

Maureen Taylor, B.H.Sc. (Physician Assistant) ’10

Maureen Taylor enrolled into the first Physician Assistant (PA) Program at McMaster after 25 years as a journalist, most recently as the CBC TV’s national medical reporter. She now works as a PA at Sunnybrook Health Science Centre in emergency medicine. Taylor says that McMaster prepared her for the medical field through problem-based learning, which has helped her continue to learn as she grows in her field, as well as given her the confidence to pursue new opportunities. Taylor is thankful to McMaster for being open-minded with its applicants and giving her a chance to begin a new career and make lifelong friends. In the future, she may consider moving from emergency medicine into obstetrics and gynecology.

Barbara Tatham, B.H.Sc. ’09, M.Sc. (PT) ’11

After completing her B.H.Sc. in 2009, Barbara Tatham, 24, was accepted into McMaster’s M.Sc. in physiotherapy program and graduates this November. She was attracted to the B.H.Sc. program for its reputation and promise of preparing her for a career in health care. She moved into physiotherapy because of the ability to build strong relationships with patients and see the value of her work. With an open mind and appreciation of the lifelong learning skills she acquired at McMaster, Tatham is prepared to take any opportunity that comes her way. Her next one begins in August when she enrolls in the McMaster MD program.
It was a press conference ambushed by a pandemic. There she was, Ontario’s new chief medical officer of health being introduced at Queen’s Park in April 2009. And right off the top, the media volleys were all about an ominous infection looming in Mexico. Welcome to your new job, Arlene King (MD ’81).

“It was, ‘What’s going on in Mexico? Are you going to issue a travel advisory? Are you seeing any cases in Ontario?’ There was just a non-ending stream of questions,” King recalls two years later. And it got worse.

King – a graduate of McMaster University’s medical school in 1981 – officially moved into her new office in June 2009. Four days earlier, the World Health Organization had declared the H1N1 influenza outbreak a global pandemic.

Over the next year and a half, H1N1 claimed 128 lives in Ontario, more than 420 across Canada. Week after week, the influenza scourge spurred intense media interest. There were media conferences practically every day. King and others set up their command centre in the emergency operations unit established years earlier after the deadly SARS epidemic.

There were successes: millions of people were vaccinated, there was an intense education campaign and schools stayed open despite the fear. There were fumbles too: sometimes there were mismatches between vaccine supply and public demand. But through all the course corrections, health officials made epidemiological gains in learning about the spread of the disease between exposure and onset of illness. H1N1 was “a great dry run,” she says, for future pandemics and other public health emergencies of international concern.

The incidence of pandemics also led to Ontario beefing up the co-ordinating powers of the chief medical officer of health (CMOH). Now, the CMOH can issue directives to regional medical officers of health and local boards of health. Previously, the chief medical officer could send out such mandates only to healthcare providers or health-care organizations.

In a way, King’s life has come full circle. After leaving McMaster and completing her residency in family medicine at the University of Calgary, she spent five years a family physician in Fairview, in northwestern Alberta. She delivered babies. She handled acute cardiac crises. She saw how disease worked through the local population.

And then there were the accidents, traumatic injuries on the family farm.

“I wondered, could there be some way whereby we stop pulling people out of the river all the time and not pushing them into the river in the first place,” she says in an interview in her 11th-floor office near the Queen’s Park Legislature.

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In that reflective comment lie the seeds of preventive health care, of disease reduction, of emergency preparedness. These are key drivers behind the chief medical officer of health’s job.

She credits McMaster’s problem-based learning with preparing her for both clinical and public health practice. Her population-medicine and preventive-medicine specialty training was completed at the University of British Columbia and further polished at the British Columbia Centre for Disease Control and in health units in Vancouver and Burnaby, B.C.

Then she went national. At Health Canada, she held several positions, including the post of Director General of Pandemic Preparedness. Later, she was named Director General of the Centre for Immunization and Respiratory Infectious Diseases at Canada’s public health agency. That was followed by her being named as the most senior hands-on public health officer in Ontario, population 13 million.

As she moved around the country, King and her husband, Michael, also raised a family of two boys, now both in their 20s.

Today, as chief medical officer, she oversees 36 health units across the province. In many cases, they are her early warning system. But doctors, nurses and other astute clinicians also spot incipient health emergencies. Then there are the national and international links and the post-SARS Ontario Agency for Health Protection and Promotion. This agency serves as the public health scientific arm of the government, and houses the provincial public health laboratory, a key source of scientific intelligence for King.

Over at the University Health Network in Toronto, a group tracks global air traffic; rapidly mutating viruses and bacteria don’t respect national borders.

Which all makes for interesting work for King.

“T’m never bored. Every minute, I’m dealing with a disease or health issue. Every day I’ll go from a communicable disease issue to an environmental health issue and then on to a non-communicable one.”

Recently, she has boned up on a new European-originated E. coli food-sourced scare, on cellphone radiation fears, whether wind turbine noise causes adverse health effects, even on radiation levels here after the Japanese earthquake and tsunami in March.

Hers is an internationally recognized name. King has credentials in both immunization and global outbreaks. She served on a World Health Organization (WHO) H1N1 pandemic review committee. She is an advisor to WHO on polio vaccination campaigns in Africa. She figures she is out of the province or out of the country at least five or six weeks each year doing national or global health business.

You get a fine view from that 11th-floor office. And sometimes the view is troubling.

King is pushing for a more comprehensive public health strategy to save people from that river of distress.

She says 42 per cent of the population over age 11 has at least one chronic disease. Childhood obesity is an emerging time bomb. And some people – almost 20 per cent of Ontario’s population – still smoke, despite all the alarms about cancer and heart disease.

Too many people simply have tumbled into the rut of ill health, made deeper by poor nutrition and lack of exercise: “We’ve engineered movement out of our lives,” she says.

Of course, spending on a comprehensive health strategy is a tough go in budgetary cutback times. But the potential prize would be lower health care costs. Health care eats up more than 40 per cent of provincial government expenditures.

People must get more involved in their own health and that of their health system, she says.

“Public health,” she adds, “is everyone’s business.”

Keep us up to date

Do you have news you would like to share in Network? Please e-mail us at network@mcmaster.ca to keep us up to date on your accomplishments.

New MDs establish endowed bursary for students

Naheed Dosani (MD ‘11) understands the financial burden that accompanies medical school.

As president of the MD Class of 2011, the new doctor has benefited from the generosity of others through student bursaries and scholarships. So have his classmates. Now, in honour of their graduation, the new MDs have decided to give back by establishing their own endowed fund to support future students.

“It’s coming from students who have gone through these struggles and know what it’s like,” said Dosani, now a family medicine resident at the University of Toronto. “We know the difference that some of these bursaries have made to our lives.”

That difference can mean opportunities such as having the money to participate in an elective which can opens doors and new career prospects, he said.

The MD Class of 2011 endowed student bursary will benefit medical students who demonstrate financial need.

So far, members of the class have given about $2,000. The goal is to reach $20,000 within five years.

“It makes sense to establish it now,” Dosani said. “The gift is really our thank you to the MD program.”
To register for your class reunion, visit alumni.mcmaster.ca and click “alumni events.”

A CME lecture, Beyond PBL: The evolution of problem-based learning at McMaster, 1969-2011, will be offered as part of the Oct. 1 MD class reunions. The program leader will be Geoff Norman, PhD.

For more information on CME registration, please contact Josie Bufalino-Jasek at jasekj@mcmaster.ca.