

DID YOU KNOW THAT MCGILL IS MAKING HISTORY?

'11
'12

Recent Discoveries, Breakthroughs and Milestones



McGill

DID YOU KNOW?

► McGill in the Rankings

McGill has placed among the top 25 universities globally for the eighth consecutive year in the prestigious QS World University Rankings.

The University's 17th place listing in the 2011 rankings is again the highest of any Canadian university and underscores its continued recognition as one of the top institutions of higher learning around the world. In the past three years, McGill has placed 18th, 19th and now 17th in these rankings.

In addition, McGill came in an impressive 28th in the London-based *Times Higher Education's* World University Rankings for 2011.

Closer to home, *Maclean's* magazine named McGill Canada's top university in its Medical Doctoral class for the seventh straight year. And, in the *Globe and Mail's* 2012 Canadian University Report, students ranked the University first in the following categories: Reputation with Employers ("A+"), City Satisfaction ("A"), Libraries ("A-") and Information Technology ("A-").

"McGill's consistently strong performance in these rankings is particularly gratifying, reflecting the University's outstanding contributions in teaching, research and innovation across a broad range of academic fields," says Principal and Vice-Chancellor Heather Munroe-Blum. "As we are celebrating our 190th anniversary this year, it's nice to know we are holding up our responsibility to fulfill James McGill's mission for a secular university of great stature."

QS World Rankings 2011-12

Overall Rankings

1	University of Cambridge
2	Harvard University
3	Massachusetts Institute of Technology
4	Yale University
5	University of Oxford
6	Imperial College London
7	University College London
8	University of Chicago
9	University of Pennsylvania
10	Columbia University
11	Stanford University
12	California Institute of Technology
13	Princeton University
14	University of Michigan
15	Cornell University
16	Johns Hopkins University
17	McGill University
18	ETH Zurich (Swiss Federal Institute of Technology)
19	Duke University
20	University of Edinburgh
21	University of California, Berkeley
22	University of Hong Kong
23	University of Toronto
24	Northwestern University
25	University of Tokyo

McGill placed among the top 25 universities in the world in 19 of the 26 subcategories that make up the QS rankings

► Accounting and Finance (21)
► Biological Sciences (18)
► Chemical Engineering (15)
► Computer Science (23)
► Economics (18)
► English (12)
► Environmental Science (21)
► Geography & Area Studies (17)
► History (15)
► Law (12)
► Linguistics (9)
► Mathematics (25)
► Medicine (13)
► Modern Languages (15)
► Philosophy (18)
► Politics & International Studies (25)
► Psychology (10)
► Sociology (15)
► Statistics & Operational Research (20)

Maclean's Canadian University Rankings 2011-12

Medical Doctoral Category

1	McGill
2	Toronto
3	British Columbia
4	Queen's
5	Alberta

6*	Dalhousie
6*	McMaster
8	Calgary
9	Western
10*	Ottawa
10*	Saskatchewan

* indicates a tie

DID YOU KNOW?

► University News

Iconic actor William Shatner, BCom'52, has won many awards throughout his career, including a pair of Emmys, a Golden Globe, the Banff World Television Festival Lifetime Achievement Award and the Governor General's Performing Arts Award for Lifetime Artistic Achievement. Now the man behind such timeless characters as Captain James T. Kirk, T.J. Hooker and Denny Crane can add one more prestigious award to his already impressive repertoire.

Shatner headlined a stellar list of scholars and renowned individuals who were awarded honorary degrees at McGill's 2011 Spring Convocation ceremonies. Addressing a crowd of more than 500 McGill students, the Montreal native spent much of his time outlining his struggles in the classroom – including missing his own Convocation ceremony in 1952 because of a failed math course.

"I did get my education – complete, whole and useful – at McGill," said Shatner,

That's *Doctor* Shatner to you



who reminded people that his academic travails were balanced by his burgeoning love of acting that led, of course, to a wildly successful career that has spanned nearly six decades. "I got it my own way and I urge you all to get it your way."

While Shatner may have created the biggest buzz, he wasn't the only luminary in one of the most star-studded Hon Doc lineups in recent history. Media mogul

Mortimer Zuckerman, BA'57, BCL'61, LLD'11, Nobel Prize winner Jack Szostak, BSc'72, DSc'11, Aboriginal leader Roberta Jamieson, LLD'11, and prominent philanthropists Rosalind, BA'63, LLD'11, and Morris, LLD'11, Goodman, were also among those recognized for their extraordinary achievements in their respective fields.

Greatest McGillians unveiled



Thomas Chang, the inventor of the artificial blood cell, was the leading vote-getter in a contest to identify the Greatest McGillians of all time, finishing ahead of iconic singer-poet Leonard Cohen and Nobel Prize winner Ernest Rutherford, who is credited with being the world's first nuclear physicist. The contest drew more than 60,000 votes for 20 finalists, including Canadian prime minister Wilfrid Laurier, humorist Stephen Leacock and trailblazing neurobiologist Brenda Milner. All 20 finalists are among 50 Great McGillians featured in an interactive online historical timeline (aoc.mcgill.ca/greatest-mcgillians).

Focus on better health

A \$50,000 annual academic prize has been created to reward research that promotes healthier living. The Bloomberg-Manulife Prize for the Promotion of Active Health was launched thanks to a pair of \$1-million gifts from Toronto financier Lawrence S. Bloomberg and financial services company Manulife. The impetus for the prize is to generate social change by blending philanthropic vision with concrete advancements in research. The ultimate goal is lofty, but achievable: to inspire Canadians to adopt healthier lifestyles.

Lending star power

Out of gratitude that his throat cancer was detected by a McGill doctor – a cancer several others had missed – Hollywood actor Michael Douglas headlined a gala that raised \$1.5 million for the University's Head and Neck Cancer Fund in May. Saul Frenkiel, Chair of the Department of Otolaryngology – Head and Neck Surgery, diagnosed stage 4 throat cancer during a visit by Douglas to the Jewish General Hospital the previous summer.



DID YOU KNOW?

► Awards and Accolades

Nobel Prize to late McGill alumnus



The late Ralph Steinman, BSc'63, is the most recent McGillian to be honoured with a Nobel Prize. Dr. Steinman, a faculty member at Rockefeller University in New York, was one of three recipients

awarded a share of this year's Prize in Medicine. He was honoured for his discovery of dendritic cells, a key component of the human immune system.

According to the award's citation, Dr. Steinman's discovery "has been pivotal to the development of improved types of vaccines against infectious diseases and novel approaches to fighting cancer. The research has helped lay the foundations for a new wave of so-called 'therapeutic vaccines' that stimulate the immune system to attack tumours."

Dr. Steinman is the ninth McGillian to be honoured with a Nobel Prize, and the third in two years, following the 2009 Prize in medicine for Jack Szostak, BSc'72, and the 2009 Prize in physics for Willard Boyle, BSc'47, MSc'48, PhD'50.

Sadly, Dr. Steinman passed away just three days before the Prize was announced. The Nobel Committee decided to maintain the award despite a policy against giving prizes posthumously.

It's easy being green



McGill's ongoing actions to create a more eco-friendly campus earned kudos from the City of Montreal in April at an annual gala in recognition of those pursuing sustainable development. Greening McGill is an evolving initiative that has reduced campus car traffic,

encouraged cycling, spawned new benches and plants where pavement and cement used to be, and test-marketed a skating rink and farmer's market.

Two new Guggenheim Fellows

Two McGill professors are among the latest recipients of prestigious Guggenheim Fellowships. History and Classical Studies Professor Lorenz M. Lüthi is writing a book that introduces a more nuanced, less Eurocentric interpretation of how and why the Cold War ended. And Department of East Asian Studies Professor Grace Fong unearthed a treasure trove of writings by pre-modern Chinese women that contradict their image as illiterate and subservient. The pair were among 3,000 applicants to the John Simon Guggenheim Memorial Foundation, which gives awards to those of exceptional promise building upon prior achievements.

Tackling tropical diseases

Timothy Geary, director of McGill's Institute of Parasitology, was awarded a \$1-million grant to support landmark research in addressing parasitic diseases through medicines derived from Africa's own botanical and microbial sources. The money is coming from a quartet of funders, including the Bill & Melinda Gates Foundation. More than one billion people in the developing world suffer from what are called Neglected Tropical Diseases (NTDs), which can cause disfigurement, disability and even death.



DID YOU KNOW?

► Student and Alumni Achievements

Rockers on Fire



Arcade Fire's momentous win at the Grammy Awards for album of the year surprised the Montreal band. And many others. Stunned Lady Gaga and Eminem fans swept online to ask, "Arcade who?"

It's a fair question for this indie band known for its red-hot shows but whose music gets little commercial airplay.

The answer? Arcade Fire is a rock band composed of seven multi-talented musicians who play 16 instruments, among them arcane choices like the glockenspiel and hurdy-gurdy.

Lead singers and songwriters Win Butler and Régine Chassagne met at McGill, where Win earned a BA in religious studies and Régine took jazz courses.

The pair, who later married, hooked up with other musicians, including two locals who enjoyed sneaking into sound-proof rooms at the Strathcona Music Building to practise.

You could say that McGill sparks helped ignite the Fire.

Arcade Fire began a decade ago by playing in local lofts and art galleries. Five years later, they opened for part of U2's Vertigo tour. In 2011, the group's third album, *The Suburbs*, captured the Grammy, BRIT awards for best international album and group, and a trio of Canadian Junos: group of the year, album of the year, and alternative album of the year.

Orange Crush

The New Democratic Party's surprising rise to Official Opposition in last May's Canadian federal election had a distinct McGill flavour to it as leader and alumnus Jack Layton, BA'71, was joined in Parliament by five current McGill students – four undergrads and a doctoral student in urban planning. They were among the youngest group of MPs ever elected to Canada's House of Commons and will be expected to keep momentum in the NDP alive following the death of Layton less than four months after the election.

Striking the right chord



Philippe Sly's mellifluous bass-baritone won over judges and nearly 1,500 other contestants invited to compete at the Metropolitan Opera's 2011 National Council Auditions in New York this past March. Sly, a 22-year-old Schulich School of Music student, was coached by Met staffers in the run-up to the grand finals, performed to a packed house. He is the sixth McGillian to join the winner's circle at the annual competition.

Waste not, want not

A pair of School of Environment undergrads, Alex Pritz and Christian Elliott, won an inaugural Dalai Lama Fellowship that will fund their project to have Filipino and Kenyan children film their experience of waste. The iWastology project (*iwaste* means "to fix" in Filipino) met the fellowship's aim: to promote understanding and environmental sustainability.

Dynasty on Ice



With its sterling 33-0 record, the Martlets won gold at the Canadian Interuniversity Sport championship this year. The talented McGill women's hockey team has captured three CIS championships in the past four years.

DID YOU KNOW?

► Groundbreaking Research



Powerful Partnership

McGill signed an \$8.3-million contract with IBM to acquire a supercomputer cluster able to support the data-intensive research activities of the CLUMEQ High Performance Computing Consortium, making it the most powerful supercomputer in Quebec and the second-most energy-efficient data centre in Canada.

The first phase of the project, funded by the Canada Foundation for Innovation, aims to build the country's capacity to undertake world-class research and technology development to strengthen its position in today's knowledge economy. According to a recent report issued by the Organization for Economic Co-operation and Development, the province of Quebec is a hotbed of research and development. Therefore, Montreal is an ideal location for the project.

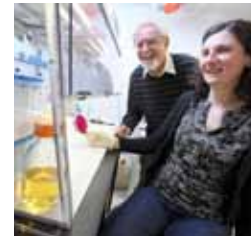
CLUMEQ will provide high performance computing capabilities to support the

research activities of the Quebec and Canadian university communities in several data-intensive sectors. McGill's focus includes high-energy physics, nanotechnologies, computational fluid dynamics, climate research, brain imaging, biology, and life sciences.

"McGill's CLUMEQ is poised to be a game-changer to help accelerate Canadian research innovation," said Denis Desbiens, Vice-President, Quebec, at IBM Canada. "Cutting edge research in a variety of disciplines is what McGill CLUMEQ will bring."

Founded in 2001, CLUMEQ is a super-computer consortium created with McGill, Université Laval and the Université du Québec network, which includes the École de technologie supérieure, where the supercomputer is housed.

Clean water in an emergency



Disasters such as floods, tsunamis, and earthquakes often result in the spread of diseases like gastroenteritis, giardiasis and cholera because

of an immediate shortage of clean drinking water. Now, McGill chemistry researchers have taken a key step toward developing a new and inexpensive way of filtering water. Using paper coated in silver nanoparticles, they have created a cheap, portable filter that can be used to provide rapid small-scale assistance in emergency settings.

Toward better breast cancer outcomes



Researchers from McGill's Rosalind and Morris Goodman Cancer Research Centre, the Research Institute of the McGill University

Health Centre, the Dana-Farber Cancer Institute, and Harvard Medical School have discovered a gene signature that can accurately predict which breast cancer patients are at risk of relapse. Their breakthrough will ultimately help spare patients who have a lower risk of relapse from the burdens associated with unnecessary treatment.



"Croc dog" discovered

McGill and University of São Paulo researchers have identified a new species of 70-million-year-old crocodile that had enormous teeth and a dog-shaped head. Named *Pissarrachampsia sera*, the creature's ecology was probably similar to that of wild dogs living today. The researchers, including Professor Hans Larsson from the Redpath Museum, believe these carnivorous crocs were 15 to 20 feet long, used stereoscopic vision to track prey, and galloped on elongated limbs.

DID YOU KNOW?

► Groundbreaking Research



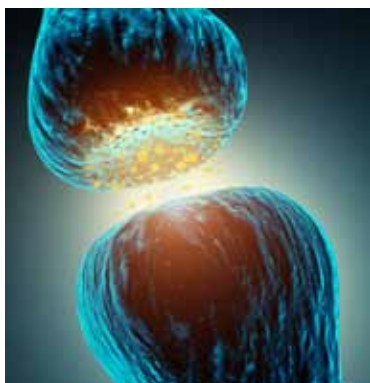
Research causes rethinking of TB tests

tests are carried out every year, usually at a high cost – financial and human – to unsuspecting patients. In fact, mounting evidence clearly shows that the tests do not accurately diagnose TB, and they are not as cost effective as other recommended TB tests.

These findings, summarized in two papers involving McGill epidemiologist Madhukar Pai, have inspired the World Health Organization (WHO) to issue a policy statement strongly advising countries against the use of antibody-based commercial blood tests for the diagnosis of active TB. The “negative policy recommendation” on current commercial TB diagnostics is the first of its kind issued by the WHO.

“While most regulatory bodies have mechanisms in place to withdraw or ban dangerous drugs and vaccines, there is little awareness about the health and economic impacts of inaccurate or suboptimal diagnostics,” explained Dr. Pai, an associate professor at McGill who is also a researcher in the Respiratory, Epidemiology and Clinical Research Unit at the Montreal Chest Institute and the Research Institute of the McGill University Health Centre. “It is wonderful that the WHO has taken a leadership role in recommending against inaccurate and suboptimal TB tests.”

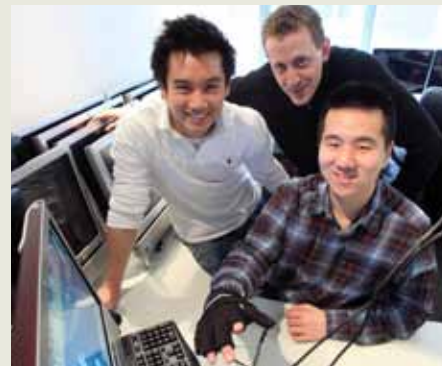
No policy has ever recommended serological (antibody) tests to detect active tuberculosis, yet dozens of these blood tests are marketed and sold in developing countries where regulation is weak or non-existent. More than a million of these unapproved



Bilingual neurons speak to secrets of brain disease

A team of researchers from McGill and l'Université de Montréal have discovered a type of “cellular bilingualism,” a phenomenon that allows a single neuron to use two different methods of communication to exchange information. The work could facilitate the identification of mechanisms that disrupt the function of neurons in diseases such as schizophrenia, Parkinson's and depression.

Sensor glove points to recovered mobility



Thanks to a glove developed at McGill, stroke patients may be able to recover hand motion simply by playing video games. The Biomedical Sensor Glove, developed by four McGill mechanical engineering undergraduates under the supervision of Professor Rosaire Mongrain, allows patients to exercise in their own homes with minimal supervision while permitting doctors to monitor their progress from a distance, thus cutting down on hospital visits and costs.

Website fights cyber-bullying



A McGill research team led by Professor Shaheen Shariff from the Faculty of Education has launched a new website that helps

define and discourage cyber-bullying, while encouraging socially responsible digital citizenship. The site (definethe-line.ca) promises to become a valuable resource for youth, parents and educators across North America by providing advice from leading experts in a user-friendly format.

McGill University is making history.
(Now you know.)



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