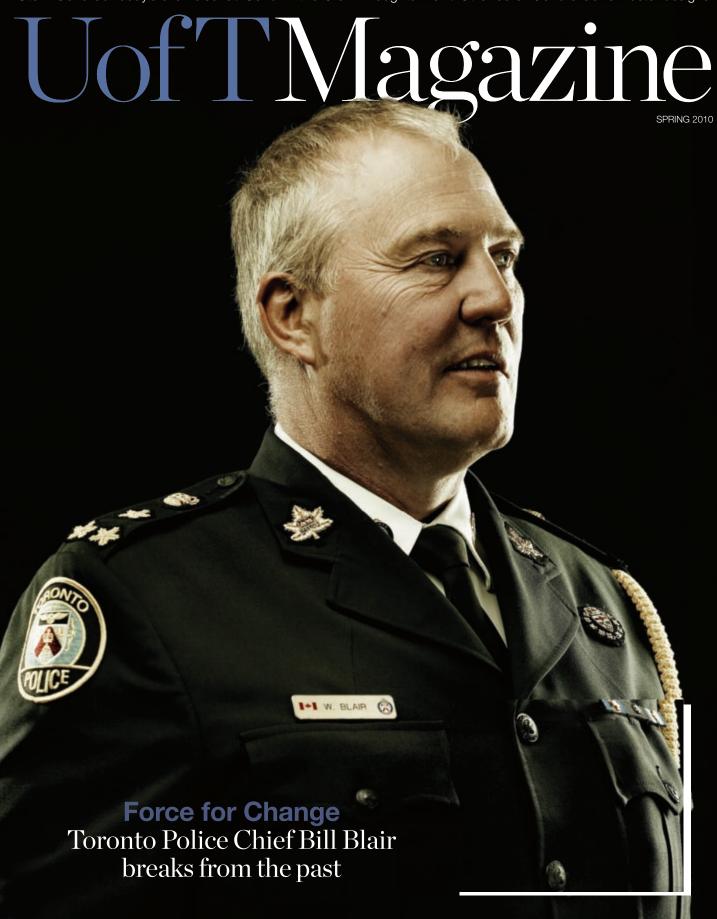
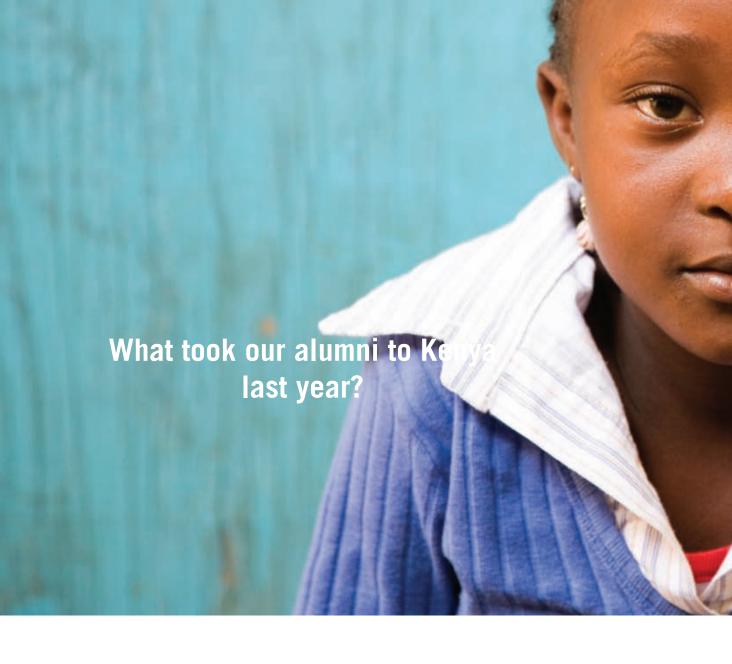
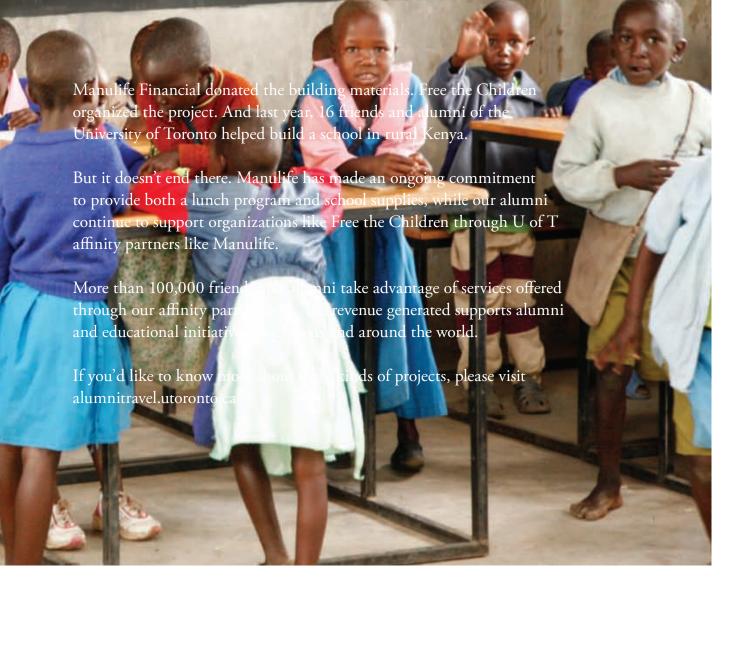
Risky Business When science meets commerce / Birthright Lottery Rethinking citizenship / Dionne Brand Poet in motion Stem Cells Our body's chameleons / Send in the Clown Laughter 101 / Strokes of Genuis Golf's master designer









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"Once a guy came after me with a bulldozer"

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Scholars at Risk helps academics who have faced political strife

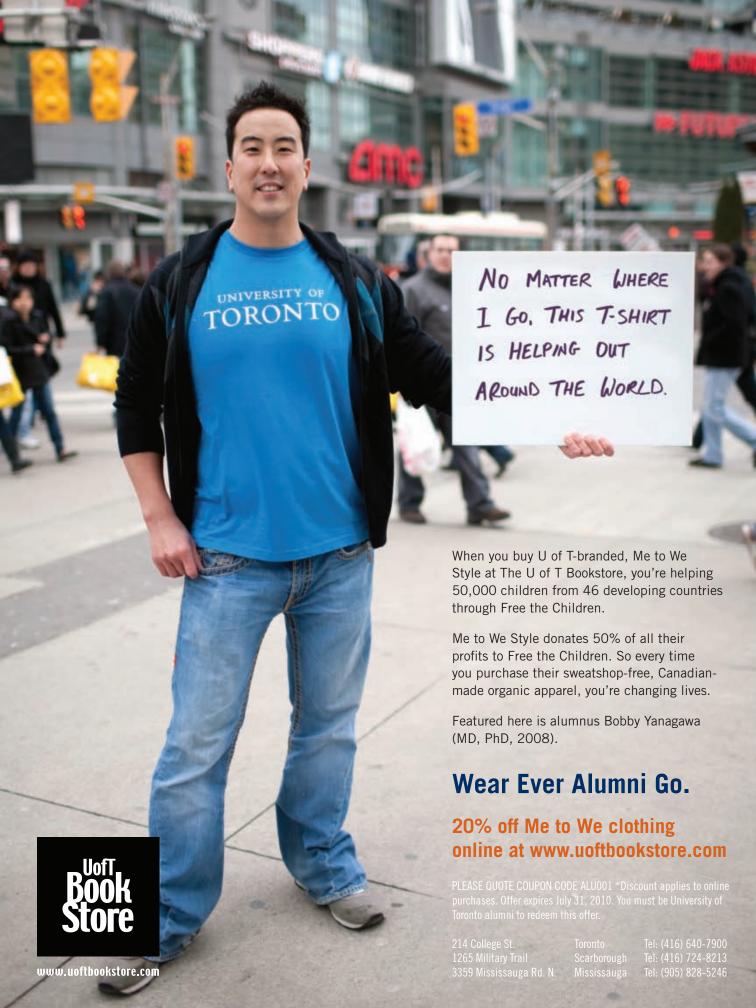


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Letters

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"Do we really want our every glance monitored by Coca-Cola and Harvey's so they can make another buck?"

- Geoff Rytell BEd 1975 OISE, TORONTO

Welfare Indexes Are Unconvincing

Kurt Kleiner does a splendid job of knocking gross domestic product (GDP) as a measure of welfare ("Is Life Getting Better?" Winter 2010). However, he does not really explain why welfare indexes, such as the UN's Human Development Index or our own Canadian Index of Wellbeing, are unconvincing to economists – who then resort to GDP, imperfect though they know it is.

The problem with welfare measurements is not the choice of what to include in the index. After all, the mighty GDP itself does not count every last market transaction that takes place. There are simply too many. So GDP is calculated by sampling – taking a "basket" of economic interactions and multiplying their value by the number of times each of them takes place (which is itself an estimate). GDP is a selective, sample-based measure, not an actual

count, and exactly the same procedure could be applied to welfare measurements. Why don't we do it, then?

As Kleiner hints here and there, the problem with welfare measures is the weighting - the relative importance attached to any given item in the index. This is not just a technical issue; it is the core of the problem. If education in my community improves but the life expectancy of people in Nunavut declines, what happens to the index? This is another way of saying, how important is my children's schooling compared to the health of people in Iqaluit or Kugaaruk? Any answer is subjective, so that movement of the welfare measure is arbitrary. You can get the opposite answer by changing the relative importance of the two measurements.

The strength of the GDP measure, for all of its other faults, is that the relative importance of goods and services is already known: it's their price. If a haircut costs 10 times more than a tin of beans, and we produce 20 fewer tins of beans and one more haircut, our GDP falls. There is no ambiguity here, no subjective evaluation, no doubt.

In many ways GDP is a flawed and misleading number. But, within the limits of human ability, it is not arbitrary, and economists and politicians and journalists will keep using it until welfare indexes can be based on firmer foundations.

My fellow economists know that these firmer foundations exist, by the way: they're called "welfare equivalences," but I am not aware of attempts to transform their principles into operationally feasible procedures.

- Francesco L. Galassi BA 1981 UC, MA 1982, PHD 1987 OTTAWA

A Chilling Scenario

"The Ads Have Eyes" (Winter 2010) describes a new technology that can track how many pairs of eyeballs are looking at onscreen ads. The system can also make a stab at identifying the gender and age of onlookers. According to one of its creators, it will not be Big Brotherly intrusive.

We shall see. It isn't too far from counting anonymous eyes to the chilling scenario depicted in the film *Minority Report*, where digital scans of everyone's eyes are kept on file and known to every business and, of course, the police.

Letters

Do we really want our every glance monitored by Coca-Cola and Harvey's so they can make another buck? Even if Tom Cruise's character in the movie had not been wanted by the police, he might still have wanted to swap out his eyeballs in exchange for a little privacy.

- Geoff Rytell BED 1975 OISE TORONTO

Unspeakable Mistreatment

I find it shocking that John Allemang's outstanding profile of author Denise Chong ("Act of Defiance," Autumn 2009) makes no mention of the unspeakable mistreatment of Falun Gong practitioners in China over the past 20 years. I believe Canadians and people throughout the world should condemn the torture inflicted by the Chinese government on these innocent, peace-loving

persons. It is our duty if we wish to vigorously uphold the principles of human rights everywhere.

- Dr. Abraham L. Halpern MD 1952 MAMARONECK, NEW YORK

Protecting the Birds

For those of us who obtained our architecture degree while working in a building unsuited to that practice, the renovation of the John H. Daniels Faculty of Architecture, Landscape, and Design, featured in the Winter 2010 issue, is welcome.

However, environmentally friendly or LEED-rated buildings should not be confused with being bird-friendly. Judging by the rendering in the magazine, there are no assurances that the building's facade will be bird-friendly. Every year, almost a billion birds are killed when they strike buildings, primarily due to reflective glass. The City of Toronto Bird-Friendly Development Guidelines, for which Toronto received a Canadian Urban Institute Leadership Award for City Initiatives, was to become mandatory at the end of January.

I look forward to learning of the strategies the architects will employ to achieve bird-friendly status for the refitting of 230 College Street.

- John Robert Carley BARCH 1974

Read more comments from readers at www.magazine.utoronto.ca.





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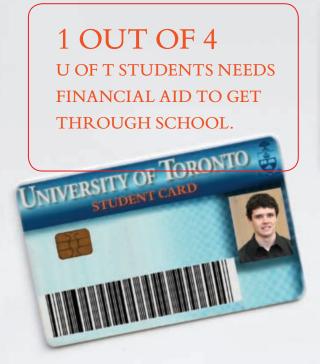
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Tempus Fugit

Some personal reflections on this "great good place"



I FIRST CAME TO THE ST. GEORGE CAMPUS of the University of Toronto almost 50 years ago – to visit my big sister in residence at University College. Neither Scarborough nor Erindale College existed. The student population on the downtown campus was less than half its current level. Toronto was smaller than Montreal. And Mississauga was not even a town.

A decade later, I entered U of T as an undergrad. Somehow, apart from only two interruptions – graduate school at Oxford and a fellowship in internal medicine at Western – I've been at the university or its partner institutions ever since. These wonderful years have flown by, and already include almost five years as president. Thus, when the university's governors recently asked me to renew for another term, several considerations influenced my positive response.

Higher education matters. Skilled trades and post-secondary diploma programs are still very relevant. However, prosperous and innovative societies strongly encourage high school graduates to enrol in degree-granting programs and to carry those studies forward to master's and doctoral degrees. Institutions of higher education are also magnets for global talent and wellsprings for equality of opportunity. Thus, with all their imperfections, universities remain hugely important to this country's future.

The University of Toronto matters. With three dynamic campuses, great hospital partners and many other partner institutions, the university has a massive social and economic impact in Canada and beyond. No Canadian organization does more research, assembles more talent under one academic umbrella, puts as many great minds in the classroom, has a bigger footprint in the full range of disciplines, sends as many young professionals out into the world or prepares as many graduates with advanced research degrees.

Our faculty and staff are remarkable. We are incredibly fortunate to be associated with thousands of brilliant, committed, creative and dedicated faculty and staff. This reality was reaffirmed for me at the spring event where we celebrate scores of employees who've served 25, 35 and, yes, 40 years. These

cheerful veterans come from all corners of the university, and include long-serving staff as well as senior professors from every academic department. They are also a surprisingly youthful bunch – renewed, I surmise, by succeeding generations of students.

Our students remain an inspiration. Year after year, hardworking students bring their native intelligence and life dreams to us from every continent and most nations of the world. Recently, for example, I dined with some upper-year undergrads at the behest of Robert Bothwell, the distinguished historian who has directed the international relations program at Trinity College for 16 years. Each student spoke about his or her background, academic work, outside interests and future plans. It would be hard to imagine a more diverse group, or a more inspiring array of talent and positive ambition. I came away with a strong sense that, notwithstanding the problems that our generation has passed on, the world is going to be just fine.

Alumni and friends care deeply about the university. Those international relations students will soon be our alumni. They will graduate and make their mark; as alumni, they and countless other graduates are the university's most important contribution to the betterment of the world. In turn, our alumni are dedicated to the betterment of their university. They consistently convey their views to us on a range of issues and developments. They also volunteer at alumni events, support new grads as mentors, donate very generously and champion their university in more than 150 nations.

All things considered, it's a privilege to spend a few more years serving this "great good place" and the broader causes of higher education, advanced research and university-derived innovation. There is no shortage of things to do, and I am certain the ensuing years will fly by even faster than the last five.

Sincerely, David Naylor

Calendar of Events

→ MORE EVENTS! Check out the latest campus happenings at www.utoronto.ca



Hana's Suitcase. In 2000, a child's suitcase arrived from Auschwitz at the Children's Holocaust Education Resource Centre in Tokyo. On the suitcase was the name "Hana

Brady." Curator Fumiko Ishioka's quest for more information about Hana led her to Toronto. Here, she found Hana's brother, who told her how their idyllic life in Czechoslovakia was shattered when the Nazis invaded the country. A true story. Join U of T alumni and friends at this family show. An ice-cream party will be held after the play. \$16. 2 p.m. Lorraine Kimsa Theatre for Young People, 165 Front St. E. Contact (416) 978-5881 or sabrina.martinez@utoronto.ca.

For more info: www.alumni.utoronto.ca/hanassuitcase.

ALUMNI

April, May and June Soldiers' Tower

Soldiers' Tower will hold carillon recitals and open the Memorial Room to visitors on select dates in April, May and June. The tower is located at the western end of Hart House, 7 Hart House Circle. For more info, call (416) 978-0544 or email soldiers.tower@utoronto.ca.

April 10 Ĥart House

Mechanical and Industrial Engineering Alumni Dinner.

Reception at 6 p.m., dinner at 7 p.m. Great Hall, Hart House, 7 Hart House Circle. For info, www.mie.utoronto.ca/alumni, (416) 978-5450 or nina@mie.utoronto.ca.

April 12 New York City All U of T alumni are invited to an Alumni Reception hosted by Chancellor David R. Peterson. 7-9 p.m. Manhattan Penthouse, 80 Fifth Ave., 17th floor.

April 13 Boston

All U of T alumni are invited to an Alumni Reception hosted by Chancellor David R. Peterson. 6-8 p.m. Hampshire House, 84 Beacon St.

May 10 Washington, D.C. Alumni Reception hosted by Chancellor David R. Peterson. 6-8 p.m. Embassy of Canada, 501 Pennsylvania Ave. NW.

June 21 Jordan, Ontario **Alumni Reception** hosted by Chancellor David R. Peterson. Cave Springs Winery, 3836 Main St. 6-8 p.m.

For info on all alumni receptions, visit www.alumni.utoronto.ca/regional or contact Teo Salgado at (416) 978-2368 or teo.salgado@utoronto.ca.

SPRING REUNION

May 26 Toronto

LGBTQ Pride Kick-Off. Alumni and friends are invited to enjoy drinks on the eve of Spring Reunion, and get a head start on Pride.

6:30-9:30 p.m. Fuzion Resto-Lounge & Garden, 580 Church St. Please contact Sabrina Martinez at (416) 978-5881 or visit www.alumni.utoronto.ca/LGBTQ.

May 27 to 30 Toronto

Spring Reunion 2010 honours alumni who graduated in a year ending in a "5" or "0." For more information, please contact (416) 978-5881 or spring.reunion@ utoronto.ca, or visit www.alumni. utoronto.ca/springreunion.

May 27 and 28 University College May 27. Women of Whitney Hall Luncheon is part of Spring Reunion events. Tea, lunch, photos and residence tours. \$15. 1-3 p.m.

May 28. Principal's Dinner is part of Spring Reunion events. Cocktail reception, dinner, photos and college tours. \$70. 4-8 p.m.

Both UC events take place at Howard Ferguson Dining Hall, 75 St. George St. For more information or to reserve tickets, (416) 978-2968 or uc.alumni@utoronto.ca.

May 27-31 U of T Scarborough Alumni Spring Reunion 2010. For more information, please visit www.alumni.utoronto.ca/ springreunion.

May 29 Faculty of Applied Science and Engineering

Spring Reunion Engineering Lectures. Speakers TBA. Sandford Fleming Building. 10 Kina's College Rd. Room 1105. 2:30-3:30 p.m. For info, contact Megan Murphy at (416) 978-4941 or alumni@ecf.utoronto.ca.

UofT Alumni Events / Exhibitions / Festivals / Music / Sports / Theatre

Peter Smith's Mountain and or Other Gods at the Doris McCarthy **Gallery until April 14**



Spring Reunion Engineering Reception and Dinner. Classes of '40, '45, '50, '55, '60, '65, '70, '75, '80 and '85. Dean's reception, 6 p.m. Class dinners, 7 p.m. Hyatt Regency Toronto, 370 King St. \$100 each. For more info, contact Megan Murphy at (416) 978-4941 or alumni@ecf.utoronto.ca

Faculty of Applied Science and Engineering Spring Reunion Departmental Lunches. The following departments will host a free lunch and tour from 12-2 p.m., unless otherwise noted. Chemical Engineering: Wallberg Building, room 238, 184 College St. www. alumni.utoronto.ca/chemenglunch. RSVP: (416) 978-8770 or liam. mitchell@utoronto.ca. Civil/Mineral Engineering: Galbraith Building, Mark Huggins Structures Lab, room 29, 35 St. George St. RSVP: (416) 978-5904 or hilda@civ.utoronto.ca. **Electrical and Computer Engi**neering: Galbraith Building, Energy Systems Lab, room 040. RSVP: (416) 978-1999 or susan.grant@ utoronto.ca. Division of Engineering Science: lunch, meet and greet, 12-1:30 p.m. Bahen Centre, 2nd floor, 40 St. George St. RSVP: (416) 978-8634 or engsci@ecf.utoronto.ca. Mechanical and Industrial Engineering: 5 King's College Rd., room 215. RSVP: (416) 978-5450 or nina@mie.utoronto.ca. Materials Science and Engineering: Wallberg Building, room TBA. RSVP: (416) 946-3211 or lukeyh.ng@ utoronto.ca.

CAREER FAIR

April 28 Û of T Scarborough Career Information Fair will be held 11:30 a.m. to 2:30 p.m. in the Meeting Place, 1265 Military Trail. Visit www.utsc.utoronto.ca/aacc.

CONFERENCE

May 1 U of T Mississauga Alumni Leadership Conference. Free for new grads, \$20 for alumni. Lunch included. For more info, contact Melissa Heide at m.heide@ utoronto.ca or (905) 569-4924.

EXHIBITIONS

To April 14 Doris McCarthy Gallery U of T Scarborough Peter Smith: You May Find

Yourself. In prints and assemblages composed of daily detritus - from scrap wood to dollar-store surplus -Peter Smith's works unite throwaway culture with aspirations for transcendence. Tues. to Fri., 10 a.m.-4 p.m. (Wed. to 8 p.m.), Sat. and Sun., 12-5 p.m. 1265 Military Trail. (416) 287-7007, dmg@utsc.utoronto.ca or www.utsc.utoronto.ca/dmg.

To April 30 Thomas Fisher Rare Book Library Caterpillars and Cathedrals: The Art of Wenceslaus Hollar, curated by Anne Thackray. The Fisher library holds one of the world's finest collections of printmaker Wenceslaus Hollar's work. Hollar's subject matter reflects political and religious conflicts, changes in book and print culture, and the expansion of European knowledge during the 17th century. Mon. to Fri. 9 a.m.-5 p.m. 120 St. George St. (416) 978-5285 or www.library.utoronto.ca/fisher/ exhibitions/current.html.

April 1 to 17 University of Toronto Art Centre **University of Toronto** MVS Programme 2010 **Graduating Exhibition** will feature the works of graduating students in the master of visual studies program in studio art. Tues. to Fri., 12-5 p.m., Sat., 12-4 p.m. 15 King's College Circle. (416) 978-1838 or www.utac. utoronto.ca.

May I to 29 University of Toronto Art Centre **Brothel without Walls: Toronto** Photography Festival 2010. UTAC will mount a show for CONTACT, the city-wide photography festival. Brothel without Walls will consider the ways photography informs and transforms human behaviour while recognizing the influence of Marshall McLuhan on the 30th year of his death. Tues. to Fri., 12-5 p.m., Sat., 12-4 p.m. 15 King's College Circle. (416) 978-1838 or www.utac. utoronto ca.

LECTURES

April

St. George Campus **Canadian Perspectives Lecture** Series offered by the Senior Alumni Association is open to alumni and non-alumni over 55 years of age. Spring series begins in April and runs for five weeks. \$45. Lectures are held at various locations throughout St. George Campus. (416) 978-0544, senior.alumni@ utoronto.ca.

Wednesdays, April 14 to May 19 Innis College

Academy for Lifelong Learning -Spring Talks. \$6 per person. Free for academy members. Wednesdays at 9:45 a.m. Innis College Town Hall, 2 Sussex Ave. For a list of speakers, please visit www.allto.ca or email info@allto.ca.

April 22 U of T Scarborough Food for Thought, part of Classes without Quizzes. The session will feature Daniel Bender, a history

professor at U of T Scarborough. He will share his knowledge of the history and culture of cuisine during a cooking demonstration. 7-9 p.m. Location TBA. U of T alumni and friends are welcome. Classes fill on a first-come, first-serve basis. Registration is recommended. To RSVP. please visit www.utsc.utoronto. ca/~advancement/alumni/cwq.html.

MUSIC

April 5 Walter Hall

Gryphon Trio. The Juno-winning resident piano trio at the Faculty of Music performs Chopin's Piano Trio and Brahms' Piano Quartet in A. with violist Steven Dann. \$25 (seniors and students, \$15). Walter Hall, Edward Johnson Building, 80 Queen's Park. For tickets, (416) 978-3744 or boxoffice.music@ utoronto ca. For more information. www.music.utoronto.ca.

April 8 and 10 Roy Thomson Hall The University of Toronto

MacMillan Singers with the Toronto Symphony performs Bach: Mass in B Minor. Doreen Rao, music director, and Helmuth Rilling, conductor. \$29-\$128. 8 p.m. Roy Thomson Hall, 60 Simcoe St. For tickets and information, please visit www.tso.ca.

April 23 Walter Hall

Felix Galimir Chamber Music Award Concert. Featuring the 2010 Felix Galimir Chamber Music Award winner. Pay what you can. 7:30 p.m. Walter Hall, Edward Johnson Building, 80 Queen's Park. For tickets, (416) 978-3744 or boxoffice. music@utoronto.ca. For more information, please visit www.music. utoronto ca.



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Life on

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Scholars at Risk

U of T program supports academics who have experienced political oppression

aving already enjoyed a long career as a high school principal in Zimbabwe, Clement Jumbe was excited about embarking on a new career path in the 21st century: co-ordinating a national secretariat on AIDS education, as well as running a program to increase learning opportunities for rural schoolchildren.

But by 2005, political strife in Zimbabwe had shattered Jumbe's dreams. Separated from his family and forced to enter Canada as a refugee, he worried that his life as an educator might be over. Fortunately, U of T's Scholars at Risk was there to help.

Scholars at Risk-which celebrated its 10th anniversary>>>

last year - offers support to academics and graduate students who have fled conditions of political oppression in their homeland. "We give them community, context and the most important thing of all, which is a sense of their former academic life," says John Fraser, master of Massey College - which administers the program with the School of Graduate Studies. Support can take many forms: when possible, academics are given teaching positions directly within the university. Some have been given assistance to complete graduate studies and have gone on to teach at other schools. The program hosts several scholars within any given year, and has helped some 15 so far.

Scholars at Risk has provided Jumbe with the necessary tools to pick up his working life: room and board, a scholarship, contacts and speaking engagements. "It has made a huge difference," he says. "If I had not passed through here, I would be an isolated person, with no connections." Jumbe is completing his doctorate in education at OISE, and plans to seek work in Canada.

Scholars come to the program "by hook or by crook," says Fraser. "PEN, Amnesty International, church groups - all the usual suspects know that we exist." Other notable thinkers who've benefited include Iranian writer Reza Baraheni, who taught at U of T's Centre for Comparative Literature and later served as president of PEN Canada, and Martha Kumsa, an Ethiopian journalist who survived 10 years of imprisonment and torture, earned her PhD at the Factor-Inwentash Faculty of Social Work and is now a professor of social work at Wilfrid Laurier University in Waterloo.

Ramin Jahanbegloo – a political philosopher from Iran who was awarded the 2009 UN Peace Prize - is perhaps the program's best-known academic, having made headlines in 2006 when he was detained without cause in Tehran's Evin Prison for four months. Jahanbegloo, a political science professor and a fellow at U of T's Centre for Ethics, believes that scholars have always posed a threat to repressive political systems. "Since the Middle Ages - if not going back to Socrates - scholars, philosophers and poets have always been a danger for tyrannies. They put into question their raison d'être," he says.

Scholars at Risk is supported by a million-dollar endowment, consisting of funding from the Donner Foundation, the Faculty of Arts and Sciences and private donations allowing Toronto to benefit from the experience of thinkers such as Jumbe and Jahanbegloo, and vice versa. "In life, you often plan things," says Jumbe. "But sometimes, things are planned for you." – Cynthia Macdonald



Send in the Clown

Fiona Griffiths helps students access their inner entertainer at Hart House

VERYBODY NEEDS TO PLAY," says Fiona Griffiths, the actor and choreographer who recently taught an eight-week course in clowning at Hart House. "That's the really great thing about clowning - we get to play. We think that as adults we shouldn't."

"Clowning Around" was part of Hart House's Creative Classes, a series of courses in acting, filmmaking and photography introduced last fall. While clowning is great training for actors, she says - allowing them to dig deeper into their characters and act instinctually and authentically onstage -





Jack Hallam had enjoyed the cover feature "Out and Proud" about the history of gay activism at the University of Toronto in the summer issue of U of T Magazine. So when the magazine published a number of letters criticizing

the article, Hallam decided to express his appreciation more openly.

In October, Hallam (BA 1952 UC, MSc 1954, PhD zoology 1974) donated \$100,000 to the Mark S. Bonham Centre for Sexual Diversity Studies at University College to support the creation of two scholarships. Hallam, who is gay but was not "out" when he attended U of T six decades ago, took particular note of one letter, by a man who had also graduated in 1952 and could have been a classmate of Hallam's. The letter writer indicated he might withdraw financial support from U of T. "I was annoyed," says Hallam, who wrote to the magazine almost immediately to see about making a financial statement of his own. "I wanted to do something to counter the homophobia, and to show that there are people who support these programs."

The Jack Hallam UC '52 Undergraduate Scholarship will be awarded to undergrads in the Sexual Diversity Studies program, though the scholarship may also be given to lesbian, gay, bisexual, transgender and queer students enrolled in other programs at U of T. The Jack Hallam UC '52 Graduate Student Endowment Fund will support graduate students at the Bonham Centre. - Scott Anderson

Fiona Griffiths' character Mabel is a ballerina who longs to dance

anyone can benefit from unearthing their inner clown. "There are therapeutic benefits of laughter," says Griffiths. "It relieves stress, stimulates your immune system and

improves oxygenation. Your dopamine receptors go crazy."

Griffiths is a veteran of Canada's small but vibrant clowning scene, and she travels prepared: at one point she roots around her purse and triumphantly produces a red nose, which she waggles at the end of its elastic strap. "I never travel without an emergency nose," she says with a laugh. But for Griffiths, laughter isn't the only emotion involved in clowning. She is a devotee of Pochinko Clowning, a deeply emotive style - in contrast to the highly stylized and structured clowning of the European tradition - developed by the Canadian Richard Pochinko in the 1970s. It encourages unstructured play and mask work to promote a state of emotional freedom.

Often that emotion is joy - but not always. Griffiths' first

clown character was Mabel, a failed ballerina who longs to dance Swan Lake but instead ends up choking to death on spaghetti at her own birthday party (at which she is the only attendee). The performance itself is a piece of slapstick, rooted in deep melancholy. "Clowns tell the truth," says Griffiths, and sometimes that truth is ugly.

Griffiths' Hart House class, though, accentuated the positive, to create a feel-good bubble where grown-ups could forget their jobs, PhD theses or mortgages and concentrate on just having fun again, through music, movement and improvisational games. "I've noticed over the years that students are more and more out of their body," says Griffiths, noting they can be wrapped up with their Blackberrys, high-def TVs and Facebook statuses. Clowning, she says, helps them "connect with themselves again." Griffiths adds: "The only technology is the red nose." - Graham F. Scott

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Overheard



Low quality, cheap sensationalism and rigid shallowness is as apparent to the thoughtful younger digital consumer as it is to the older Financial Times reader.



Senator Hugh Segal,

"Democracy and Journalism" lecture, Munk Centre, November 23.

Wisdom Windows

Chancellor Emerita Rose Wolfe and Professor Emerita Ursula Franklin were recently honoured by Massey College: windows were installed in the Upper Library to celebrate their contributions to the college.

Franklin, a metallurgist who taught in U of T's department of material science and engineering, is a senior fellow at Massey College. She

was the first woman at the university to be designated a University Professor, in 1984.

Rose Wolfe (BA 1938 UC, DIP SW 1939) served as chancellor of U of T from 1991 to 1997, and established the Chancellor Rose and Ray Wolfe Chair in Holocaust Studies. She is a senior fellow and visitor emerita at Massey.

The stained-glass windows, shown in close-up above, have been dubbed Wisdom Windows. They were created by Canadian glass artist Sarah Hall.

 $Poll \mid \text{Are today's students more vocal about social or political issues than when you were an undergraduate?}$



60% No, they are less vocal.



17% They are about the same.



In the 1960s, students staged sit-ins at Simcoe Hall, and in the 1980s, they marched against apartheid. Today, it seems students are more likely to sign a Facebook petition to register their dissent than to take to the streets in protest. Or are they? Are today's students more likely to be "slacktivists" - people who complain online but do little else - or true activists? While the majority of those polled feel students are less vocal, almost one-quarter disagree – believing they are doing more than ever to change the world. This poll was conducted online between Jan. 20 and Feb. 16.

Read Joe Howell's blog "On 'Slacktive' Duty" at www.magazine.utoronto.ca.



Every year, thousands of students come through the doors of Ontario's universities – expecting no less than the best education and advanced training.

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Revolution from Within U of T student Nerissa Cariño garners a Peace Medallion for her work fighting violence against women

THE NIGHT THAT I MEET NERISSA CARIÑO, there are several children at her home in Pickering, Ontario. Four are her own: Cariño and her partner have boys aged 11, seven and three, and a five-year-old girl. The others are family that they are babysitting. "It's really loud there!" she says, as we chat at Tim Hortons. But Cariño seems pretty serene about the situation - the U of T student, volunteer, activist and volleyball player is used to being pulled in a lot of directions.

In November, Cariño was awarded the YMCA of Greater Toronto's Peace Medallion. The award recognized V-Day events that she organized at U of T Scarborough in 2009. V-Day is a movement inspired by Eve Ensler's play The Vagina

Monologues - independent groups hold events all over the world on or around February 14, raising awareness and money for charities that combat violence against women. It's an issue that Cariño has become passionate about. "To raise money, I approached entrepreneurs. And many of the women said, 'I really want to get involved, because this is what happened to me," she says.

At U of T Scarborough, Cariño's events raised \$2,500 for Springtide Resources, the Toronto Rape Crisis Centre and women in the Democratic Republic of Congo.

V-Day wasn't Cariño's first project - she has been running the Scarborough Mystics Volleyball Club for years, giving women a place to play and create a sense of community. Cariño started at U of T when her oldest son was five and if her story has one message, it might be the liberating power of higher education.

"I was a makeup artist, and also worked in product development, with MAC, and I didn't want to go back there," she says. "University totally changed me; your eyes are opened, and you gain the confidence to explore."

Cariño graduated in 2007 with a degree in anthropology and religion, which she upgraded to an honours degree in 2008 (and which now includes a health studies component). This year, she is taking courses to complete prerequisites for teachers' college. Since winning the peace medallion Cariño is also considering such options as starting an organization that supports women. It's hard to imagine where she will find the time, between shuttling her kids to schools and sports, doing her own homework and housework, and playing volleyball. "I don't sleep much," says Cariño. "I kind of catnap between three and six a.m., and at six I'm ready to go!"

Cariño says the award has helped her stay motivated. "You get tired, because you just feel that there's so much of you being given out," she says. "But to get honoured in this way refuels you." - Allison Martell

People

David Naylor's term as president has been extended three years - until June 2013. Governing Council also approved the possibility of a further extension of up to two years. Naylor became U of T's 15th president in 2005, and was previously

dean of the university's Faculty of Medicine and vice-provost (relations with healthcare institutions).

U of T Mississauga will have a new vice-president and principal



Prof. Hargurdeep (Deep) Saini

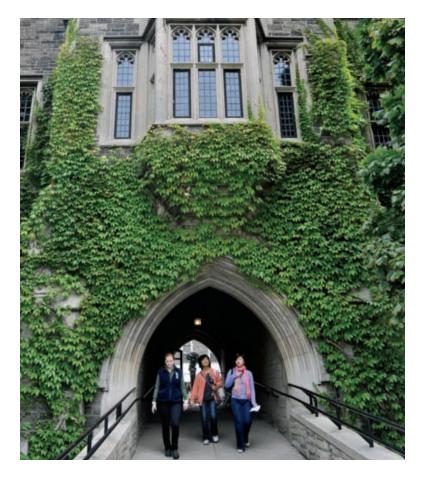
in July: Prof. Hargurdeep (Deep) Saini, currently dean of the Faculty of Environment at the University of Waterloo.

Prof. Ira Jacobs has been chosen as the new dean of the Faculty of Physical Education and Health. Jacobs, chair of York University's School of Kinesiology and Health Science, will start in July.

Several faculty members and alumni have been appointed to the Order of Canada. Named officers were: Prof. Mel Cappe (BA 1971 NEW), of the School of Public Policy and Governance; Prof. James Orbinski (MA 1998), of the

Dalla Lana School of Public Health and the Munk Centre; Dr. Gordon Perkin (MD 1959), director of global health at the Gates Foundation; and Carol Stephenson (BA 1973 NEW), dean of the Richard Ivey School of Business at UWO. Named members were: the Hon. Jean Augustine (BA 1973 WOODS, MEd 1980), fairness commissioner for the Province of Ontario; Prof. Emeritus Bernard Goldman (MD 1960, BSc Med.

What Rankings Reveal Global surveys place U of T among top universities worldwide in academic and research strength



1962) of surgery; Dr. Larry Goldenberg (MD 1978), who has helped advance prostate cancer research; Prof. Patrick Gullane, chair of Otolaryngology - Head and Neck Surgery; Jeffrey Lozon, of health policy, management and evaluation; Margaret Lyons (BA 2003 WOODS), a former CBC executive; Patricia Parr of the Faculty of Music; and Wayne Strongman (BMus 1971, MA 1974), of Tapestry New Opera Works.

THE UNIVERSITY OF TORONTO'S ACADEMIC and research performance is considered among the best in the world - and the best in Canada - according to a spate of prestigious international rankings announced last fall.

U of Tranked 27th, the best of any Canadian university, in Shanghai Jiao Tong University's annual Academic Ranking of

> World Universities. The report analyzes 1,200 universities on research output, the quality of faculty and the quality of education.

> U of T placed 11th overall - also tops for a Canadian university-in a ranking that measures the performance of scientific papers for world universities. The ranking, which was compiled by the Higher Education Evaluation and Accreditation Council of Taiwan, measures the productivity, impact and excellence of published scientific papers. Five hundred universities around the world are evaluated annually.

> And finally, U of T is the world's ninth strongest university as judged by academics at other institutions around the world. The finding was released as part of the Times Higher Education - QS World University Rankings.

> The Times survey asked 9,000 academics to rank by reputation 621 universities worldwide (not including their own). For the second year in a row, U of T placed in the top 10 - alongside top private universities in the United States and elite universities in Europe and Asia.

> The Times also asked academics to rank universities' performance in specific fields. U of T stood out on these measures as well, placing within the top 15 worldwide in all major fields surveyed - one of the few universities to do so.

> The Times survey placed U of T 29th overall in an aggregate ranking, which is heavily influenced by how universities choose to report

faculty numbers. In its total faculty count, U of T includes part-time instructors but weights them to reflect their part-time status. Some peer institutions, by contrast, submit unadjusted head counts, and thereby boost their scores.

"Very few publicly funded universities reach this level anywhere in the world," says U of T president David Naylor. "This is a measure of our faculty's relentless focus on academic excellence and discoveries of global rank as well as the wonderful calibre of our students."

"U of T's global strength is the *breadth* of our leadership," Naylor added. "Many research universities build their reputation on one or two areas of strength." - Laurie Stephens



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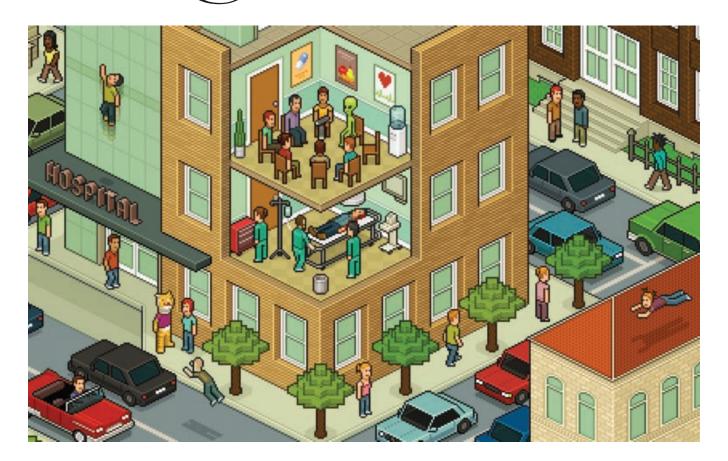
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Second Opinion

The real world offers many sources of medical advice. Soon virtual worlds may, too

ublic health officials will stop at nothing to get their point across. They bombard you with radio messages, sneak posters into bathroom stalls and plaster grotesque warnings on cigarette packages. Now they've begun to invade the virtual world as well.

Jennifer Keelan, an assistant professor at U of T's Dalla Lana School of Public Health, wanted to know whether virtual worlds might offer new opportunities for evaluating how effective public health messages are. So she decided to spend time in a virtual world known as Second Life, with little concept of how it operated. "We weren't sure what we were going to find," she says. Second Life is an online world where "avatars" - alter egos created and controlled by real people - live, work and play. Almost one million people worldwide are >>>

Together with colleague Leslie Beard, Keelan created a female avatar named Ellebee Helendale. When Ellebee surveyed what kinds of Second Life public health resources existed, she found everything from information to support groups, marketing to medical training.

To test Second Life's potential as a place to conduct research, Keelan ran a focus group on parental attitudes toward vaccination, to see if focus groups with avatars could work as well as they do with real people. The task was not easy. For one thing, recruiting participants in Second Life itself proved impossible; in the end, they had to turn to online support groups and even hang posters in places such as Starbucks, where new parents congregate. Also, most of the 18 parents who participated had little experience with Second Life, and found it hard to physically control their avatars - they had trouble getting their clothes on, for instance, and kept bumping into others at the sessions. "The startup is hard," Keelan admits. "It's very fussy getting an avatar up."

But despite the pitfalls, Keelan thinks Second Life and other online communities hold enormous research potential. For one thing, there would be cost savings: "You don't have to travel to interact and meet," she points out, as the Second Life experience gives users the sense of interacting face to face. The researchers also see anonymity as a huge plus, allowing people to be more open about how they feel - and about learning new things or asking questions - without fear of repercussions. "What implications will that have for people with STDs? For experimentation with safe sex practices? For professional women who don't want their health status known?" Keelan wonders.

Best of all, studies have indicated that what people learn in the virtual world transfers to the real one. So if public health messages can't reach people in this life, maybe they can in another. – Alison Motluk



The Better Way? Not So Fast

Tolls are better than transit for easing traffic gridlock over the long term, researchers say

TORONTO POLITICIANS HAVE LONG DESCRIBED transit as a "decongestant" because buses, streetcars and subways get people out of their cars. But a new study on driving patterns in American cities, released recently by a pair of U of T economists, suggests that adding transit service doesn't relieve traffic gridlock in the long term.

The research, by Gilles Duranton and Matthew Turner, expands on a long-observed phenomenon: that adding highway capacity doesn't reduce traffic congestion and the additional lanes just fill up over time. The main reason: individuals change their driving behaviour, triggering even more traffic. "Build it," says Turner, "and they will drive."

Adding transit doesn't short-circuit traffic buildup either, Turner concludes. Drivers that give up their cars for transit are eventually replaced by new drivers. But he notes the study shouldn't be interpreted as a case against transit because the provision of additional buses, in particular, allows more people to take trips on existing transportation infrastructure at little extra cost.

Duranton and Turner calculate the benefits drivers gain from new roads in the U.S. and conclude that they are well below the cost of providing the roads. Extending subways and streetcar routes are also expensive and result in little gain for the average commuter.

So what is the best public policy response to gridlock? The authors suggest that the City of London has the right idea, using peak-hour traffic tolls to dissuade drivers from taking their cars to work. "These findings strengthen the case for congestion pricing as a policy response to traffic congestion," their report concludes. – John Lorinc



The Big Idea

Birthright Lottery

Why should the accidental circumstances of birth confer almost unlimited opportunity to some and condemn others to a life of struggle?

WASN'T UNTIL THE BIRTH of her child that U of T law professor Ayelet Shachar truly grasped the benefits of being a Canadian citizen. Shachar realized that her son - simply by being born on Canadian soil - had been granted membership into one of the world's most prosperous and peaceful societies.

Was it fair that her son gained such an opportunity, while a child born in Haiti or Ethiopia, for example, did not?

In her new book, The Birthright Lottery (Harvard University Press, 2009), Shachar, the Canada Research Chair in Citizenship and Multiculturalism, examines a broad range of philosophical and legal issues concerning citizenship. In particular, she focuses on the question of why nations continue to assign citizenship based on the accident of where one is born.

The idea of gaining privileges by such arbitrary criteria as one's birthplace or bloodline has been discredited and banned in virtually all fields of public life. Citizenship is perhaps the only area in which it still applies. "At present, nations award citizenship mostly by birthright," says Shachar. A child born in Haiti might not have access to clean water and education, but a child born in Canada will. "The harsh reality is that most people alive today - indeed, 97 per cent of the global population - are assigned citizenship by the lottery of birth and either choose, or are forced, to keep it that way."

To overcome this arbitrary system of allotting life chances, Shachar suggests looking to property and inheritance legal theory and history. In the feudal era, it was considered part of the "natural structure" that some families were wealthy estate landowners and others weren't. This notion of entitlement has long since been discarded in property law, but it persists with respect to citizenship, says Shachar. "Citizenship is not a 'natural structure.' It is a legal construct. And if we want to maintain it because we believe that it has a social value, then we can't be blind to the fact that it also has global distributive implications."

But what can be done? One idea explored in the book is placing a "birthright privilege levy" on those benefiting from the inheritance of citizenship, with the aim of eradicating this system's most glaring inequalities. Just as many countries established estate taxes to help "level the playing field," Shachar's proposed birthright privilege levy-a toll on citizenship inheritance, essentially - is conceived so that some of the good fortune of those who win in the birthright lottery is transferred to those who don't. "A serious consideration of the privilege of citizenship will also take into account the need for people to give back to the world," she says.

Another proposal Shachar explores is awarding citizenship based on a person's genuine connection to a country. This would ease the injustice facing individuals who have resided in certain countries for extended periods of time, but do not have a birthright claim to citizenship.

In putting these ideas together, Shachar's aim is to highlight the opportunities that come with citizenship as well as the need to justify our good fortune in the birthright lottery; in her view, privilege comes with responsibility. Shachar argues that because citizenship confers legal privileges, there must be a legal duty to address any injustice that arises from it. "If we want to preserve what's valuable about citizenship - identity, freedom and security - it is imperative to mitigate the effects of membership inheritance," she says.

Ultimately, Shachar hopes she will at least prompt people in well-off countries to ask themselves "What does being a citizen mean to me?" - and to realize that something they've taken for granted all along is actually very valuable. After all, what Canadian travelling abroad hasn't been told how lucky they are to come from Canada? "I want to motivate people to do something that will make a difference in the world," she says. - Scott Anderson



Ask an Expert

Dr. Reinhold Vieth The Vitamin D Crisis



Last November, Dr. Reinhold Vieth, a professor in U of T's departments of nutritional sciences, and laboratory medicine and pathobiology, was one of several medical professionals who participated in a conference on the "vitamin D deficiency crisis" in North America. Dr. Vieth has been studying the health

effects of vitamin D for more than 30 years. He spoke recently with *U of T Magazine* editor **Scott Anderson**.

What do we know about the health benefits of vitamin D?

In the 1990s, clinical trials indicated that calcium and vitamin D reduce bone fracture rates. Higher vitamin D levels are also associated with a lower risk for multiple sclerosis, breast and colon cancers, and juvenile and adult-onset diabetes, as well as lower rates of cardiovascular disease.

How much vitamin D needs to be present in the body for positive health effects to occur?

More than 75 nanomoles per litre (nmol/L). The average Canadian has about 65, although it varies by season. It also varies by skin type. People with darker skin tend to have less.

One of the main sources of vitamin D is sunlight. Yet we've been warned that spending too much time in the sun causes skin cancer. What is the best course of action?

In summer, sunbathing for 10 minutes on your front and 10 minutes on your back makes about 10,000 units of vitamin D. This is the equivalent of 100 glasses of milk or 25 vitamin pills - and enough for most people to produce the desired 75 nmol/L of vitamin D in their blood. We require – and are designed to survive - a certain amount of sunshine. People just need to remember to cover up before they burn.

"Crisis" is a strong word. Why do you think there is a vitamin D deficiency crisis in Canada?

I fear we will see a sharp rise in disease due to vitamin D deficiency, particularly among new Canadians. People native to northern latitudes have lighter skin so they can absorb more vitamin D from sunlight. Many new immigrants have moved from a southern environment, for which their skin colour is optimized, to Canada, for which their skin colour is not optimized.

Young people of non-European ancestry living in Canada have low vitamin D levels, predisposing them to a long-term risk for some diseases. People from India or equatorial Africa require six times the sun exposure to make the same amount of vitamin D as a white person. At Canadian levels of exposure, they don't have to worry about skin cancer. Unfortunately public health messages try to "keep it simple." So we end up telling the black African person to keep out of the sun just as much as the pale Scottish person.

What's the solution?

I think everybody would benefit from taking vitamin D supplements in the winter. There's no harm in taking 2,000 units. For a dark-skinned person it's appropriate to take more than that, but no one's telling them to.

Health Canada's recommended levels are much lower, are they not?

Health Canada recommends 200 units a day for people under 50. But the food and nutrition board in the U.S. is reviewing dietary guidelines for vitamin D and by late May is expected to announce a new recommended daily allowance. This board is jointly sponsored by Health Canada, so any changes announced there will also be made here.

Should we have our vitamin D level measured each time we go to the doctor?

I believe we should pay as much attention to vitamin D as we do to cholesterol.

Prototype

Smarter Buildings A U of T computer scientist is developing a program to help predict – and ultimately reduce – buildings' energy use



IT'S NO SECRET that buildings can be energy guzzlers - so anything that architects and builders can do to improve building designs can both save money and help the environment. But Danny Tarlow, a PhD candidate in computer science, says the usual approach – which relies on modelling a building's physical characteristics in detail - is often ineffective.

"It's hard to get the inputs right," Tarlow says. "To track down, for a

given building, what the walls and floor are made out of, and to draw a 3-D model of the whole thing - it's very complicated. It's easy to have wrong or incomplete information."

Tarlow believes we can make better energy-use predictions by not only examining individual structures, but by collecting energy-use data from dozens or even hundreds of buildings. With enough data, patterns emerge. "You start to see commonalities between buildings," Tarlow says. "You use what you've learned about the first two buildings on Main Street to make predictions about the third" - even if it is still under construction.

Tarlow and his colleagues spent more than a year analyzing data provided by the Walt Disney Company, which keeps meticulous records of energy use at all of its theme parks. Disney parks are also remarkably homogenous, with similar shops and restaurants found from one park to another, from California to Florida to Hong Kong. This means that information from one park can help predict energy-use patterns in a similar building, even if it's thousands of kilometres away. Tarlow's goal is to develop computer models that make better predictions about energy use than models based solely on physical data from a specific building. That, in turn, could ultimately aid in the design of new buildings or in the retrofitting of old ones.

Tarlow's strategy is still in its early stages; for now he's just trying to show that the method has potential. But he says the principles used in the Disney study could apply to any large group of buildings with similar properties, such as a chain of fast-food restaurants or big-box department stores. The people who run those buildings, Tarlow says, are more conscious than ever about how efficiently the structures are operating. "A significant portion of the energy used in the developed world goes toward heating, cooling and operating buildings," he says. Learning to operate buildings smartly "is one piece of the puzzle, and I think it's an important piece." - Dan Falk

Findings



to Abuse

Adults who experienced physical abuse as children have a 56 per cent greater chance of developing osteoarthritis later in life compared to those who have not been abused, according to a

study by U of T researchers.

The researchers investigated the relationship between self-reported childhood physical abuse and a diagnosis of osteoarthritis using data from the 2005 Canadian Community Health Survey.

The study found that 10.2 per cent of those with osteoarthritis reported they had been physically abused as children compared to just 6.5 per cent of those without osteoarthritis. Lead author Esme Fuller-Thomson, of U of T's Factor-Inwentash Faculty of Social Work and department of family and community medicine, says the study indicates the need to investigate the possible role that childhood abuse plays in the development of chronic illness.

The study was published in the November issue of the journal Arthritis Care & Research. - Joyann Callendar



Don't I **Know You?**

We have all had the embarrassing experience of seeing an acquaintance in an unfamiliar setting - and we know we know them but can't recall who they are. But with the correct cues from conversation or context, something seems to click and vivid memories

about the individual come flooding back.

Scientists from U of T and the Krembil Neuroscience Centre have shed light on this mysterious process, discovering that the hippocampus region of the brain is involved when cues enable us to recall these rich

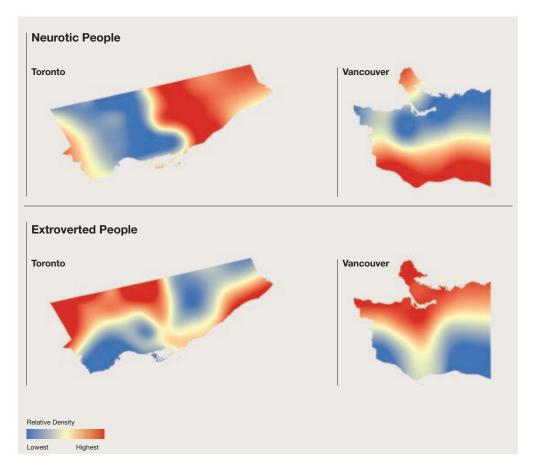
"This study is important because it resolves a current debate on the role of the hippocampus in retrieving memories. Some have argued it is the strength of the memory that matters most in retrieval," says Melanie Cohn, a postdoctoral fellow in neuropsychology and lead author of the study. "We have shown it is actually context that activates the hippocampus." - Kim Luke

Read more about the latest U of T research at www.magazine.utoronto.ca/category/blogs/eureka.

Is Your City Happy?

Cities have physical and economic attributes. So why not personalities? Kevin Stolarick and his team at U of T's Martin Prosperity Institute have been using data from online personality surveys to examine how cities are defined by their inhabitants. These maps (right) show the relative concentration of neurotic people and extroverted people living in Toronto and Vancouver. The institute has also created maps showing the location of agreeable people, conscientious people and people who are "open to experience."

Stolarick says he is still studying the data, and can't yet say whether people move to a place because they are neurotic, for example, or whether living in that place makes them neurotic. But he thinks that looking at personality types will help him better understand the factors that make some cities more prosperous than others. He also hopes to gain insight into how people choose where to live. "Where we are is now as important to us as what we do," he says. - Scott Anderson



Balance? What Balance?

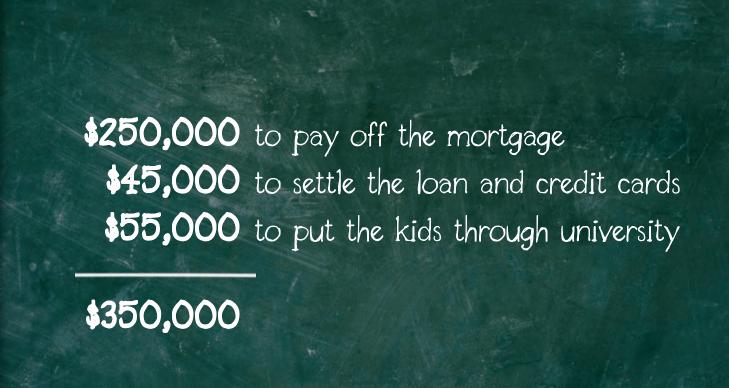
Finding harmony between professional and personal life proves elusive for many, study finds

AS MANY AS 50 PER CENT OF PEOPLE bring their work home with them regularly, according to new U of Tresearch that describes the stress associated with work-life balance and the factors that predict it.

Researchers measured the extent to which work was interfering with personal time using data from a national survey of 1,800 American workers. Sociology professor Scott Schieman and his co-authors Melissa Milkie of the University of Maryland and U of T PhD student Paul Glavin asked participants questions such as: "How often does your job interfere with your home or family life?" and "How often do you think about things going on at work when you are not working?" Schieman says, "Nearly half of the population reports that these situations occur'sometimes' or 'frequently,' which is particularly concerning given that the negative health impacts of an imbalance between work and private life are well documented."

Among the authors' core findings in their American Sociological Review article: People with university or postgraduate degrees report greater work interference at home than those with a high school degree. The researchers also found that interpersonal work conflict, job insecurity and high-pressure situations all predict more work interference at home. However, having control over the pace of one's work diminishes the negative effects of high-pressure situations. Also, people with greater job authority, higher skill level, greater decisionmaking latitude and higher personal earnings report more work interference in home life.

The last point reflects what Schieman refers to as "the stress of higher status." "While many benefits undoubtedly accrue to those in higher status positions and conditions, a downside is the greater likelihood of work interfering with personal life," he says. - April Kemick



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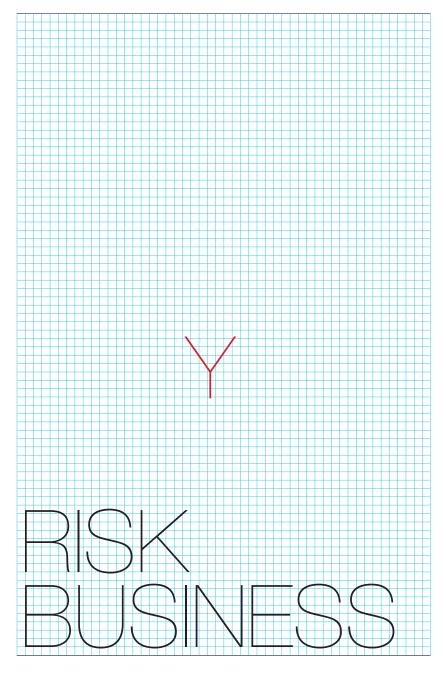
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Where do high-tech entrepreneurs come from? U of T is teaching science students how to turn their ideas into products the world wants

Profiled here are Neena Kanwar and five other U of T-educated entrepreneurs running successful high-tech companies



Healthy Hearts Neena Kanwar

BSc 1979 Victoria

The urge to help people, not to make money, is what drives Neena Kanwar.

Kanwar, who earned a bachelor of science degree, wanted to become a doctor but wasn't accepted into medical school. Undeterred, she went back to school to become a nuclear medicine technologist.

After earning her diploma in 1981, she began a six-year stint at St. Michael's Hospital in Toronto as a technologist, where she chose to specialize in cardiology testing because of a family history of heart disease. "It was the place where I thought I could make the most difference," says Kanwar, 51.

She eventually tired of the commute from Mississauga to Toronto and decided to cash in her RRSPs and sell her home to help finance a small nuclear medicine testing facility. She and her husband, Vijay Kanwar (MBA 1997), began operating the facility in 1988.

From those modest beginnings, the Kanwars built the company, KMH Cardiology and Diagnostic Centres, into the largest provider of nuclear cardiology testing services in North America. With more than 250 employees working out of eight facilities in Canada, the company generated \$28 million in revenues in 2009. A new facility opened recently in Baltimore, and three more in the U.S. and one in Dubai are slated to open later this year.

Kanwar says her firm's success is built upon a commitment to quality patient care, short wait times and state-of-the-art technology. "For me, money is secondary," she says. "It's more important to do what I love doing."

WHEN REZA SATCHU TALKS, students listen. The dapper Harvard Business School graduate has a drill sergeant's bark. And he takes that no-nonsense temperament into a class he teaches on entrepreneurship at U of T's economics department.

Thirty-five select students, plucked from hundreds of candidates, attend what effectively is an entrepreneur boot camp, where the accomplished investor hammers home a simple philosophy: success means challenging yourself to take calculated risks.

If students are late, unprepared or their cellphone goes off in class, they're out. Most stay. In return, they get to dissect reallife business case studies and meet high-powered entrepreneurs

Animating the Body Sonya Amin

BSc 1999, MSc 2003

Sonya Amin has turned her love of comics and science into a flourishing animation business. Amin, the co-founder of Toronto's AXS Biomedical Animation Studio, remembers how she filled her lab notebooks with doodles while taking an undergraduate degree in developmental biology.

Time spent as a "fruit-fly wrangler" at U of T's Medical Sciences Building convinced Amin that she wanted to make a living marrying her passion for science with her creative streak.

Amin enrolled in U of T's biomedical communications master's program, where she studied anatomy, pathology and computer art. During her studies, she chose to concentrate on 3-D animation with a view to teaching children about science.

But after graduating in 2003, Amin had a tough time finding full-time work as a biomedical animator. So along with two classmates, Amin started a medical animation company and worked out of her one-bedroom apartment.

Business took off in 2005 when Amin landed a three-year contract to do all the medical and science animation for the TV series ReGenesis, which follows a group of scientists as they investigate biotechnological mysteries. "We haven't looked back since," says Amin, 32.

Indeed, the firm has moved into a downtown office and doubled its revenue almost every year since its inception. It now enjoys a clientele that includes big-time pharmaceutical companies and biotech companies. The firm has also recently completed the animation for a CBC documentary about possible links between marijuana and mental illness.

"We're still growing," Amin says. "It's hard not to be proud of ourselves."





who routinely appear as guest lecturers. The top student every year wins a work placement and a scholarship that Satchu pays for. Perhaps most importantly, Satchu demands that his students set high expectations. "They are pushed in ways they are not used to being pushed," he says.

He hopes that this uncompromising approach will produce a new breed of entrepreneurial leader in Canada. "Our goal cannot be to be a commodities-based nation. That is a recipe for disaster," says Satchu, who came to Canada from Kenya. "Our goal has to be to develop an economy that is based on innovation and creativity."

So far, the report card on that front isn't good. In a recent study, the Conference Board of Canada, an Ottawa-based economics think-tank, gave Canada a "D" for innovation. The board's brain trust warned that Canada was risking its future prosperity by slipping to the back of the innovation "class" behind the U.S., Germany and Japan. According to the board, Canada appears content to shore up its familiar "fading oldster" commodities-based industries at the expense of innovation and the emerging creative economy. "With some exceptions," the report concluded, "Canada does not take the steps to ensure that science can be successfully commercialized and used as a source of advantage for innovative companies seeking global market share."

Translation: Canada's got talent, but it does a poor job of turning ideas into high-tech products that can be sold to the

Francis Shen (left) is co-CEO of Aastra Technologies with his brother, Anthony Shen (BASc 1980)

world. As for a prescription, the board offers little in its report beyond the admonition that Canada needs to dramatically change its thinking about innovation and entrepreneurship in order to compete globally.

A lot of that necessary thinking is taking place at U of T. Several faculties and departments are encouraging innovation and entrepreneurship to fashion what Richard Florida, the director of the Martin Prosperity Institute at U of T's Rotman School of Management, calls the "idea-driven economy."

This work is vital as the country emerges from recession. It's also important because entrepreneurship in the age of the idea-driven economy is not simply about ringing the cash register; it's about creating more knowledge-based jobs.

Calling All Businesses Francis Shen

BASc 1981, MASc 1983

Francis Shen is proof of the old business adage, change or die.

In 1983, soon after earning his master's degree in engineering science, Shen and a partner bought a small, Ottawa-based consulting company specializing in aircraft certification.

The company worked with the aerospace and defence industries, but in the mid-1990s Shen entered the rapidly growing telecommunications market. The company abandoned its old lines of business, and became known instead for such products as distinctive ring tones for fax machines and caller identification.

By 1999, Shen's firm, Aastra Technologies Ltd., had become the largest seller of caller ID addon units in North America. But Shen knew that he couldn't stand still. In January 2000, he bought a telecom equipment business unit of Nortel.

In 2003, Shen shifted focus again when Aastra bought a Swiss-based firm that provided office phone systems. That market now preoccupies most of Aastra's 2,100 employees and generates \$800 million a year in business. The company makes most of its money in Europe, where it's one of the biggest players in the enterprise voice communications market.

Shen, 51, credits luck, good ideas, timing and avoiding complacency for his success. He's learned that in business, the good times don't always last. "We continue to question whether our business is sustainable and ask ourselves whether to grow by innovation or acquisition," he says.

CLAD IN A HEAVY BROWN checked shirt and winter boots, and sporting an unruly salt-and-pepper beard, 48-year-old Scott Mabury looks more like a construction worker than a world-renowned chemistry professor.

Mabury, vice-provost of academic operations and U of T's former chemistry chair, is eager to show a visitor how his department has become a hotbed of innovation and entrepreneurship. "Chemistry has more invention disclosures than almost any other department on campus," he boasts. By his count, the chemistry department makes upwards of 30 invention disclosures a year.

Mabury is especially proud of the facilities the department has built to help convert these scientific discoveries into

Thinking Small

Darren Anderson

BSc 2001 UC, MSc 2003, PhD 2006

Darren Anderson thought he was destined for a career in academics, not business. After earning his doctorate in chemistry in 2006, Anderson briefly took a job as the academic program co-ordinator at U of T's Institute for Optical Sciences. Anderson enjoyed the work, but his stint at the institute confirmed that a bureaucratic life wasn't for him.

By the fall of 2006, Anderson had left his job and the world of academia and with five U of T faculty and grad students, formed a company to commercialize ultra-small scale (nano) materials that one of them had researched during a graduate course.

Anderson and his partners found that the nanomaterials could be applied in "clean" industries such as wastewater treatment and fuel and solar cells to make the industries more efficient and environmentally friendly.

In 2008, Anderson and his cofounders changed the firm's name from Northern Nanotechnologies to Vive Nano. Anderson, 31, is Vive Nano's chief technology officer, largely responsible for research and development and technical sales.

Business is booming. The firm has 18 employees, and the federal and provincial governments recently awarded the company \$7.8 million because of its potential to create jobs and to further develop, manufacture and sell its nanomaterials worldwide. Indeed, Vive Nano's partners include one of the world's large crop protection firms and a leading Canadian chemical company. (Anderson declined to name the companies.)

While his firm's technology is small, Anderson thinks big. "There are going to be companies that will be the next global chemical giants," he says. "I want Vive Nano to be one of them.'



marketable products. In 2003, with money raised from private industry and U of T, Mabury and the chemistry department began to transform empty space and classrooms into state-ofthe-art laboratories - where faculty and senior students get the time and space to let their ideas mature before they graduate into the market. (Statistics show that 30 per cent of small businesses don't survive more than five years.)

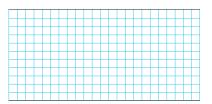
Mabury calls the refurbished labs "pre-incubators." It's here that some of the new chemical compounds discovered every year by faculty, senior students and researchers begin the long journey to becoming products.

The department's five pre-incubators have paid dividends. To date, five spinoff companies have taken flight after spending time in the facilities, while another five are gestating. These companies often hire U of T graduates.

The pre-incubators also make U of T money. "The university shares in the ownership of the intellectual property. The more valuable that property is when it's sold, the larger chemistry's and the university's share of the cut," says Mabury.

Finally, the pre-incubators nurture an entrepreneurial

Canada has everything it needs to create robust startup companies – political stability, seed money and first-rate universities. The only thing we really lack is a strong entrepreneurial culture



spirit among faculty and students in the chemistry department. "Today, the one word that would capture the culture of this department is entrepreneurial," Mabury says.

That means abandoning old ways of thinking about the relationship between business and the university, coming up with novel ways to make investments in buildings and people to promote entrepreneurship, and, perhaps most importantly, taking risks.

Like Mabury, Professor Jonathan Rose is convinced that U of T needs to cultivate a culture of entrepreneurship, particularly among its science and engineering students. Canada has everything it needs, he says, to create robust startup companies – political stability, seed money and first-rate universities. "The only thing we really lack is a strong entrepreneurial culture," says Rose, who is the former chair of the Edward S. Rogers Sr. Department of Electrical and Computer Engineering.

In 2005, Rose helped Professor Emeritus Joseph Paradi create undergraduate courses in entrepreneurship for all engineering students. A year earlier, Rose had launched a popular seminar series in which successful entrepreneurs had been invited to the university to share their business insights and experiences with engineering students.

"The whole point is to have students hear the stories – the good, the bad, the great – and think about how they could do it, too, and come to believe that they could do it," Rose says.

This burgeoning interest in entrepreneurship reflects changing attitudes on campus. Rose says that today's engineering students have a bigger appetite for business and risk-taking than some of their professors, who focus on basic research. Entrepreneurship and academia, Rose insists, can coexist without sacrificing the central purpose of a university – the pursuit of ideas and understanding.

"We would all like to have unfettered, curiosity-driven research. But new government [research] programs aren't in large part designed that way," Rose says. These days, governments often require that engineering faculty and students set up shop with companies that can commercialize their ideas or technology before governments hand over research grants.

Rose acknowledges that it's difficult to measure how quickly the culture of entrepreneurship is taking root inside U of T's third-largest faculty. He points, however, to the five companies that recently have been launched out of the electrical and computer engineering department and the several others in the offing. "The act of creating a [company] is so delightful when it succeeds," Rose says.

Civil engineering professor Bryan Karney also wants U of T's engineering students to learn how to develop ideas into commercial products. To help them, he is taking Rose's seminar series and entrepreneurial course a big step further.

Karney is helping design a minor degree in engineering business as the co-leader of a task force made up of engineering alumni, students, faculty and two professors from the Rotman School of Management. "We want to foster in our engineering students a greater degree of awareness of the opportunities that exist for people not to simply be employees, but to think about starting their own business," he says.

The new degree is slated to be offered to all undergraduate engineering students in the fall, and it will bring together faculty and students from the Rotman School of Management and the Faculty of Applied Science and Engineering. "There's an appreciation that [economic] problems aren't going to be solved by staying in silos," Karney says. "To my mind, one of the most exciting things we are doing is breaking down those barriers that have often existed between business and engineering."

Karney believes the new degree will also encourage students who are already inclined to think outside the box to apply their critical-thinking and analytical skills to spreadsheets and business plans. Though the curriculum is still a work in progress, Karney says engineering students will likely take courses in economics and finance so they can better understand the vocabulary of business.

Those wishing to combine engineering with a business degree have another option at U of T.The Jeffrey Skoll program,

The Virtual Office Anand Agarawala

MSc 2006 Computer Science

Anand Agarawala, 28, once considered business a four-letter word. That is until a video he produced in 2006 as part of his master's thesis at U of T went viral on YouTube. The short video is a demonstration of technology developed by the Nigerian-born Canadian that changes how people interact with computers.

The software, dubbed Bump Top, converts a computer screen into a virtual, three-dimensional office desk by letting users tack Post-it notes onto a "wall" and stack documents and photos into piles just like on a real desk. And in the age of the ubiquitous smartphone, it also allows users to build and manoeuvre their virtual world using a finger or pen, instead of a mouse or keyboard.

Bump Top's popularity online attracted the attention of software giants who offered to buy Agarawala's software outright. Agarawala turned them down because he had his own vision for how he wanted to build the business.

After cobbling together a business plan, Agarawala rolled the dice and officially established his company in February 2007 to further develop and distribute the software. Since April 2008, Bump Top has been downloaded 600,000 times. A free version of the software is the lure to get users to buy the more sophisticated "Pro" edition. Today, Bump Technologies has 16 employees,

several of whom are U of T graduates, and this year the company's software will be "bundled" into millions of computer products in a distribution deal with HP and another large computer company. (Agarawala declined to identify the firm.)

Agarawala urges enterprising but inexperienced student entrepreneurs to take risks as he did. "That's the true entrepreneurial spirit," he says.





established a decade ago with a \$7.5-million gift from the former EBay president, allows students to earn an undergraduate applied science degree and an MBA degree (as well as do a professional experience year) in six years and eight months. Karney says the main difference between the two programs is that the Skoll MBA is accelerated - it's intended as a fast track for extremely motivated students. The minor "will reach out to a larger group," he says.

Becky Reuber, a professor of strategic management at Rotman and another member of the task force, cautions that business courses and degrees offered to engineering students are no guarantee of success or that entrepreneurs will emerge. "[No one] is born with an entrepreneurial gene," she says.

The new degree will, she hopes, help aspiring engineering entrepreneurs recognize commercial possibilities, navigate their way in the uncertain world of business, and attract potential investors and customers. "When you get the stamp of a good university behind you, people are more apt to listen to you," Reuber says.

Jim Milway (BA 1973 St. Michael's), executive director of the Martin Prosperity Institute, says the broader public policy problem confronting Canada is that governments need to recognize that innovation and entrepreneurship on campus should involve more than a "love affair" with "white coats and labs." "Business skills and entrepreneurial skills are equally important for innovation," he says.

This means that governments need to spend more money not only to fund science and engineering departments, but business schools as well. Rotman, for example, offers a major in innovation and entrepreneurship that caters to students interested in launching their own company. The emphasis is on creating value from new ideas and bringing new products to market.

University administrators also need to invest not only in



basic research, but in ways to enhance the student experience. "It's a matter of getting the balance right, of getting back to the notion that professors do research and produce innovative technologies in the labs, but they are also teaching students and those students are the entrepreneurs of the future."

Reni Barlow (BSc 1982) agrees. The executive director of Youth Science Canada, a nationwide organization devoted to getting students from grades 7 to 12 interested in science and innovation, believes university leaders need to do a better job of shattering the myth that a science degree invariably leads to donning a white coat in a lab or hospital.

One way U of T can do that, he suggests, is by publicizing the success stories of science and technology graduates who have become entrepreneurs. Ottawa can also play a bigger role. Barlow has urged federal officials to duplicate highprofile campaigns promoting the skilled trades and careers in technlogy. "The success of that program could be replicated in the areas of science and technology to say that working in science can not only be fun, but lucrative too."

Andrew Mitrovica (BA 1983 VIC) is a journalist in Toronto. He wrote "The New Freedom Fighters" in the Autumn 2009 issue.

Here Comes the Sun Shawn (Xiaohua) Qu PhD 1995

Shawn Qu's philosophy of life and business is simple: seize the opportunity. Qu has been abiding by that edict since he arrived in Canada from China in 1987 to pursue postgraduate studies.

Qu threw himself into life at U of T, where he became the founding president of the Federation of Chinese Students and Scholars in Canada and joined the debating club, all the while working on his PhD in metallurgy and material science.

After earning his doctorate in 1995, Qu went to work for Ontario Hydro where he conducted research into solar power systems. He moved into the private solar industry in 1998 to hone his business and management skills.

In 2001, Qu was enjoying a comfortable and secure corporate lifestyle when he decided to give it all up and form a new solar energy company on his own. And with that, Canadian Solar was born. His first commercial product was a small solar charger attached to a windshield that recharged automobile batteries. Sales of the solar charger skyrocketed.

The success of the charger helped fuel Canadian Solar's extraordinary growth and expansion into solar systems for residential and broader commercial installations. Today, Canadian Solar is one of the world's largest solar energy-systems manufacturers with 7,000 employees on three continents, and annual revenues of more than US \$800 million.

But Qu's not satisfied. He wants to become a world leader in the solar energy industry. Before the new decade is out, Qu, 46, aims to grab at least 10 per cent of the worldwide solar energy market and to be among the industry's top five earners. "Solar energy is going to play a very important role in the transformation of the Canadian economy," he says.



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Toronto Police Chief Bill Blair breaks from the past



ON MOST DAYS, the cavernous marble-clad lobby of Toronto police headquarters at 40 College Street is congested with desk cops, detectives in stiff suits and people waiting for background checks. But one grey day in January, the usual suspects made way for cameras, reporters and dignitaries, there to watch Chief Bill Blair kick off Crime Stoppers month and a new anti-gun ad campaign.

Someone had put the podium on a staircase landing a few metres above the lobby floor, so when the six-foot-five police commander stood behind it to deliver the opening address, he loomed over the crowd even more than usual. At 55, Blair is a heavy-set man with short, grey hair and a disarmingly

lopsided grin that emerges periodically from a watchful scowl. Out of habit, he swept his pale blue eyes across the crowd, appraising the whole scene in the way only a career cop can.

The year 2009, Blair began, marked a record number of tips to Crime Stoppers. "We saw a significant decline in crime last year," he said, adding that there's a "direct correlation" between the decline and the 10,000-plus leads submitted last year by Torontonians who had some shard of information about a crime and were willing to phone, text or upload it anonymously to police investigators.

As other speakers prattled on, the reporters drifted over to a grieving African-Canadian man holding a photo of his dead brother, gunned down in a rough housing project on New Year's Eve – Toronto's 62nd homicide. The victim, Ken Mark, was known as "the gentle giant," a young man who worked hard to keep gangs and guns out of his community. The killing had made headlines and the police released security videos to encourage witnesses to come forward. With weeping family members at his side, the man with the photo also appealed to the public to help police catch the shooters.

After the Crime Stoppers launch ended, it was Blair's turn to be in the middle of the media scrum. "By all accounts," the chief said gravely, "[Mark] was a very fine man." He waved aside further questions and headed back up to his seventh-floor office.

Such is the life of a big city police chief, bouncing between administrative or ceremonial duties and the gritty work of enforcing the law in a media hothouse. It's a balancing act Blair has mastered in his five years in the job. Chosen in 2005 to replace Julian Fantino and now wrapping up his first term, Blair presides over a 7,200-person operation that soaks up almost a tenth of the city's \$9.2-billion budget. As Toronto's most visible civil servant, he answers to a politically appointed board whose members are committed to the sort of community policing Blair has advocated for years.

While Blair has done battle with a scourge of guns and gangs by flooding the streets with hundreds of extra beat officers, he's also made sure that his officers don't just arrest bad guys but also forge connections with the law-abiding residents who live in high-crime neighbourhoods. At the same time, Blair has pushed hard to change the face of Toronto's police force, recruiting hundreds of women and visible minorities, many of them armed with university degrees and an ability to speak multiple languages. He has this skill, too, in a sense. Blair can talk just as readily about social justice and Jane Jacobs as he can about surveillance techniques. He is a thinking person's cop.

IKE SO MANY COPS, Bill Blair grew up in a police family, his father having served for 39 years. Yet Blair *fils* wanted to pursue a career in law or finance when he enrolled at the University of Toronto Scarborough in the mid-1970s. But he needed to earn some money, so he joined the Toronto Police Service and took courses part time.

At the time, most cops joined the service out of high school and Blair took some flak from his colleagues for his determination to get a university degree, including the staff sergeants who had to schedule night shifts around Blair's evening classes.

On the job, Blair progressed quickly and soon found himself working undercover in the drug squad. When the shady characters with whom he had to associate would ask the towering young man if he was a cop, he'd joke that one could always spot the narcs because they were "short men with beards." He knew the trick to holding cover lay in how you talked, not how you looked.

Blair's academic interests had shifted from criminal law to criminology at the time when a growing number of academics and social activists were touting community policing as an alternative to the more traditional, militaristic approach. In class, he didn't let on what he did for a paycheque. "I found it prudent not to offer myself as an expert." One day, the professor was lecturing about police enforcement of drug laws. Blair bit his lip and listened. Some of the discussion, he recalls, "was grossly misinformed." But he found the experience of hearing other perspectives useful nonetheless: "It was valuable to see how people perceive us."

To this day, Blair places a high premium on post-secondary education for those who aspire to enforce the law. Critical thinking and the ability to look at problems from various perspectives "are skills that are very valuable in policing," he says, citing studies showing that cops with liberal arts degrees are 70 per cent less likely to become the subject of a civilian complaint.

In the late 1980s, with his criminology degree from U of T in hand, Blair saw his career accelerate. He participated in several high-profile drug busts, including the seizure of tens of millions of dollars of cocaine. But Blair knew that such enforcement efforts could do little to staunch the flow of contraband: "It's like a salamander – you cut off an arm and it grows back. It's going to continue," Blair said to a reporter in 1989. The drugs were a symptom of something else.

A few years later, Chief David Boothby turned to Blair to solve a local problem that had been festering. For several years, relations between the officers of 51 Division, who patrol the downtown's east end, and the residents of Regent Park, a low-income housing project, had deteriorated. Crime was up, and many residents saw the cops as aggressors who routinely sped through the complex in their cruisers with little regard for the safety of children. The division came to be known as "Fort Apache," and was the site of a wildcat strike by a handful of rogue cops.

Blair knew Regent Park because he walked a beat there in his early days on the force. He and his partner regularly strolled into the playground of the local elementary school during recess. The kids would flock around them, curious and full of questions. "Over time, we got to know people in that community and they got to know us." When he returned as superintendent in 1995, Blair one day decided to walk through that same schoolyard. "An extraordinary thing happened," he recalls. "The kids all ran away."

Scarcely a month after he took over, a brawl broke out between some teens and a clutch of 51 Division cops. Blair knew he had his work cut out for him. "I want to restore peace and reduce the level of fear right away," he told a reporter. "In the long term, we need to improve community relations."

The rebel cops at 51 went on to pursue their grievances through the Toronto police union. Blair, however, set to work normalizing community relations with a hearts-and-minds campaign. He assigned a couple of young beat cops to drop

by that elementary school every day, not just when trouble was brewing. Initially, they got a prickly reception. But they persisted. "Within five weeks," he recalls, "those officers were in the classrooms, reading to the kids." He took the same tactic with local merchants and churches. At one, the pastor told him his congregants were offering up prayers for the officers of 51 Division. Blair made sure to relay that surprising piece of information back to his squad; soon, some officers were attending services. As he says, "You can't police from the 50,000-foot perspective."

Two days after the Crime Stoppers launch, Blair flew to Ottawa on business. He's president of the Canadian Association of Chiefs of Police, which inserts its views into national debates about issues such as the Harper government's sentencing reforms and the fate of the long-gun registry. (Blair and other chiefs have balked at the Tories' attempt to disband something he says "encourages responsible gun ownership.") Mostly, he was making the trip to participate in a funeral for an Ottawa police officer stabbed outside a local hospital.

Blair could have been performing such official duties five years earlier, as he'd been spotted as a potential successor to Boothby. But in 1999, then mayor Mel Lastman and his supporters in the Mike Harris government engineered the hiring of Julian Fantino, who was York Region's chief, to the top spot. Blair survived a shakeup of the upper ranks and emerged as head of detective operations. Fantino (now head of the Ontario Provincial Police) pursued a militaristic approach to policing high-crime neighbourhoods until David Miller, elected mayor in 2003, chose not to renew his contract.

The next year, Miller began pushing a community safety drive in Toronto's neediest neighourhoods. He knew of Blair by reputation as a cop who could solve problems and didn't take a black-and-white view of the world. "The first thing I saw in Chief Blair is that he had a correct and very modern approach to policing," says Miller.

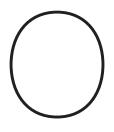
Hired to succeed Fantino, Blair set to work reorienting the force so it paid as much attention to community safety and reducing the influence of gangs as to locking up criminals. He redeployed 200 desk officers to street patrol, and then hired another 250 and put them out on bikes and foot as well. In the pre-Blair period, the force would establish budgets according to the number of 911 calls generated in each division. Blair takes a more nuanced approach. He's established more links to the city and to community groups; he's also recruited experts to do "hot spot" analysis that uses computer models and crime data to predict where criminal activity is likely to occur. "It enables us to be more intelligent in how we deploy our resources," he says.

During Fantino's term, many critics accused the force of engaging in racial profiling in the wake of a controversial series of articles in the *Toronto Star*. (Following a lengthy court battle to obtain police "contact" records, the *Star* in February updated its 2002 analysis. The data showed that African-Canadians continue to be stopped disproportionately for suspected drug,

"You can't police from the 50,000-foot perspective"

bail or driving offenses, although the arrest rates dropped slightly in some categories.)

After Blair took over, he embarked on a drive to recruit more broadly. He wanted to ensure that the next generation of police officers reflected a city where almost half the population was born outside Canada. When Blair joined the force in 1976, the vast majority of new recruits were, like him, white men in their early 20s. Over the past five years, half of the police college grads have been women or visible minorities; one-third speak three languages. The average age is 28 and many have undergrad degrees. "We place a huge emphasis on language and cultural competencies. It creates a diversity of perspective," says Blair. During graduation ceremonies, he presses the rookies on the importance of avoiding racial biases.



N BOXING DAY, 2005, a shooting match broke out on a crowded sidewalk near the Eaton Centre, leaving a teenage girl dead, the innocent victim of a stray bullet. Jane Creba's killing marked the bloody coda to Toronto's "year of the gun." While the overall crime rate has been falling in most North American

cities, there's been a surge of gun violence in public spaces. "That was a low point for the city and for me personally," Blair says. "Those events galvanized the city and the province's resolve."

The Creba killing prompted the province and Toronto-area police forces to ramp up the guns and gangs task force. It also led to the establishment of the Toronto Anti-Violence Intervention Strategy, which is a marriage of hard-nosed law enforcement and community policing in troubled neighbourhoods. "We'll do the big gang investigations," Blair says. But after making mass arrests, those neighbourhoods are flooded with uniformed officers in an effort to reassure frightened residents. As Blair points out, the police have to be alive to the reality that in high crime neighbourhoods, a handful of thugs victimize law-abiding people who struggle with poverty and the lack of jobs. "When we go in to those communities and simply vigorously enforce the law, we do little to change those communities." Homicides have dropped – to 62 last year from a high of 85 in 2007.

Since Creba's murder, the force has also sought to become savvier about the use of social networking as a crime-fighting tool. For years, television stations would run Crime Stopper re-enactments of unsolved cases on the evening news. As Blair notes, it took a while for the force to twig to the fact that many young people weren't watching the news. In recent years, a Toronto police detective named Scott Mills has taken on the job of using the Internet, Facebook, YouTube and Twitter to put out Crime Stopper appeals. The feedback jumped sevenfold with the switch, Blair says.

With Blair's blessing, Mills has also leveraged his thousands of Twitter and Facebook followers to promote positive activities for Toronto youth, such as legal graffiti art projects and BMX bike tournaments.

But the most noteworthy shift in the relationship between Toronto police and the city's young people has occurred in a far more traditional venue. In the wake of another high profile murder – the shooting death of 15-year-old Jordan Manners inside C.W. Jeffreys Collegiate, in Toronto's north end – Blair proposed to the city's boards of education that a police officer be stationed permanently in designated high schools. With this program, he was returning to those early experiences in the elementary schoolyard in Regent Park. "We wanted to build a respectful relationship with young people," he says.

The cops in schools are carefully selected, and their job is not to patrol the halls. Rather, Blair wants teens to know these officers as individuals with names. On the job, they offer advice, help with coaching and involve themselves with the life of the school. While some critics questioned the presence of gunwielding officers in schools, the program has come off almost without a hitch. Blair says he's "gratified" by the results.

As Blair heads into his second term, all of these moves raise a key question: has he changed policing in Toronto?

Toronto's crime rate – which is low by comparison to many North American cities – has been dropping, but Rosemary Gartner, a U of T criminologist, notes that this is a continental phenomenon visible in many urban regions. "Police in general can only have a marginal impact on crime trends," she says.

Blair himself acknowledges the point and has said that if police forces want to take credit for falling crime rates, they also have to accept the blame when they rise. In his view, police forces can make a difference by paying more attention to the root causes of crime.

U of T professor emeritus Peter Rosenthal, a criminal lawyer who has represented individuals who have had run-ins with the local police, feels that Blair "talks a much better game" than Fantino. Yet he argues the city could do more to ameliorate the sort of poverty that breeds crime by spending less on the police and more on services for vulnerable young people.

Rosenthal also says there's been less change on the force than Blair would care to admit. In Toronto, he notes, there are still too many incidents where police officers use firearms inappropriately, and where homeless people are arrested or harassed. "As far as I can tell, he hasn't operated very differently than his predecessors," says Rosenthal.

Other observers have even harsher words. Former mayor John Sewell (BA 1961 Victoria, LLB 1964), a member of the Toronto Police Accountability Coalition, says he's "disappointed" in Blair for failing to tackle racial profiling. "I would have been really interested in him moving ahead on [this]," says Sewell.

When interviewed by the *Toronto Star* as part of its recent racial profiling series, Blair acknowledged that problems remain. "We're not trying to make any excuses for this," he said. "We recognize that bias in police decision-making is a big, big issue for us, and so we're working really hard on it." Such candour earned him points from the newspaper's editorial writers.

Miller, for his part, rejects Sewell's verdict, and characterizes the chief's determination to broaden the force as "a sea change." "Blair," says the mayor, "has systematically changed the culture and recruited from diverse communities."



T THE END OF A WEEK that took Blair to Ottawa for one of the largest police funerals ever seen in Canada, he turned up on a Sunday morning to deliver a speech at the Lawrence Park Community Church, in North Toronto. Blair and a driver arrived in a large black SUV, the chief in his formal blue uniform.

Up at the podium, he told the mostly middle-aged crowd that he gets thousands of speaking invitations every year, but felt "compelled" to accept this one because it was part of the church's effort to launch a dialogue about urban living. Unlike many police officers, Blair is a natural public speaker, and he delivered his sermon-like talk without notes, weaving in religious words such as "blessed" and "comforted."

Toronto's safety, he remarked, "is not something we should take for granted." He stressed the dual focus of his approach to policing, and talked about the recruiting efforts, the program to place cops in high schools and the importance of promoting "social justice" in disadvantaged neighbourhoods.

Afterward, Blair greeted the congregants, then headed out to the waiting SUV. As he was about to get in, an older woman approached him with an admiring remark about his footwear.

He beamed: "A police chief has to have shiny shoes."

Thus engaged, the lady tried to get him to talk about the 2010 mayoral race and the city's precarious finances.

"I normally go quiet for the six weeks of the election," Blair replied.

Not taking the hint, she told him she hopes the next mayor will do something to rein in spending.

"I'm going to challenge you on that," Blair said with an indulgent smile. "I don't think we're broke. But I think we can do better."

John Lorinc (BSc 1987 UC) is a Toronto journalist who writes about urban affairs for Spacing and the Globe and Mail.

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Saturday, May 29

10 a.m.

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Stress is Contagious: But You Don't Have to Catch it

Robert Buckman shares scientific and practical tips on dealing with the stress of everyday life.

11 a.m.

Digital 3D Forensic Facial Reconstruction: An Exercise in Scientific Visualization

Marc Dryer explains his technique for digital facial modeling and his work with the police.

Jazz and Pop Music of the 50s and 60s

Doug Watson leads an interactive talk on artist development during this influential era.

12 p.m.

Genetically Modified Organisms and their Discontents: The Frankenstein Problem

Scott Prudham looks at the potential dangers of debating GMOs as opposed to GMO production.

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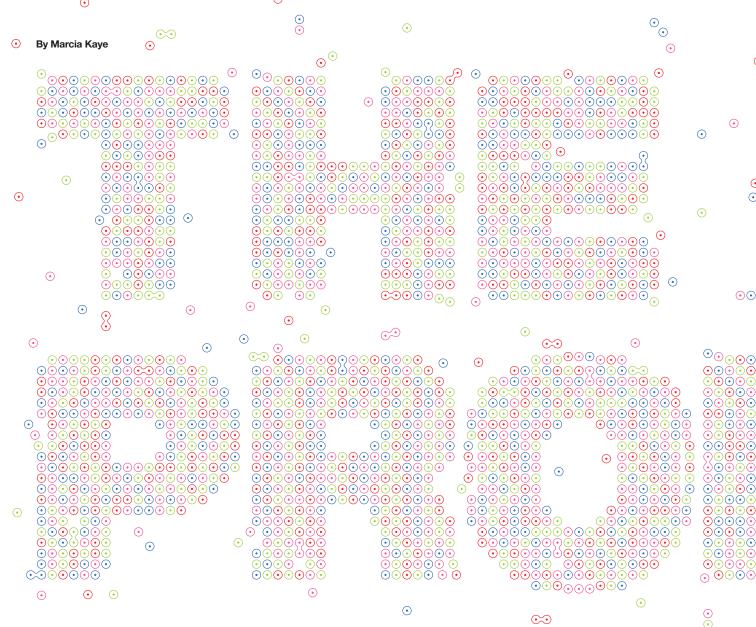
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of a Tiny Cell o

Stem cell medicine could ultimately touch any condition where cells have been damaged through disease or injury, generating new treatments for heart disease, cancer, diabetes – even blindness

AFTER ALMOST HALF A CENTURY OF RESEARCH, U of T scientists believe they may be on the verge of making exciting discoveries about stem cells that could lead to new treatments for a wide range of conditions, from heart disease to multiple sclerosis. Consider in the not-too-distant future:

You've been blind in one eye since being hit in the face with a baseball when you were a kid. But doctors take cells from the cornea of your good eye, isolate the stem cells, multiply them in the lab and transplant them into the damaged eye. Your sight is restored.

Or how about this: your mother has Parkinson's disease, the degenerative disorder of the nervous system involving a lack of the brain chemical dopamine. In a non-invasive procedure, doctors take a small sample of cells from her skin and reprogram its stem cells in the lab; instead of growing into more skin cells, they grow into brain cells. At this point,



drugs can easily be tested on the new cells in the lab to see which medication will be the safest and most effective for your mother.

Or this: your son has developed Type I diabetes and his body no longer produces insulin. Instead of saddling him with daily needles or a pump, specialists take a bit of his skin, coax its stem cells into becoming insulin-producing cells and then transplant them into your son. Since the new transplanted

cells were made from his own cells, there's no risk of his body rejecting the new tissue.

It's called personalized stem cell medicine, and it's currently one of the hottest fields of medical research. Advances are coming so quickly that the above scenarios could become reality this decade. In fact, stem cells are already being used in clinical trials to cure certain forms of blindness. According to the results of one trial, published in the American medical

journal *Stem Cells* in December, eight patients in the United Kingdom who were blind in one eye have at least partially regained their vision. Drug testing on tissue grown in labs from skin cells is expected to begin within two or three years. This will reduce negative side-effects in patients, since drugs can be tested on patients' tissue in labs and not on the patients themselves. Growing spare parts for transplant, such as hip or knee cartilage or even patches for a lung, kidney or heart, from a patient's own cells may be possible farther in the future.

The implications are staggering: "This field of research is exploding," says Janet Rossant, an internationally recognized developmental biologist known for her pioneering stem cell research in mice, and a professor in U of T's department of molecular genetics. "It's going to be quite revolutionary in the way we think about human disease, allowing us new ways to understand disease but also new ways to develop and deliver therapies." The potential of stem cell medicine could ultimately touch any condition where cells have been damaged through disease or injury. This could include many types of heart disease, cancer, spinal cord injury, Type I and II diabetes, blindness, cystic fibrosis, multiple sclerosis, liver and kidney disease, Parkinson's, Alzheimer's and many more.

Among the major stem cell research centres in the world, Canada ranks near the top, with the University of Toronto holding a prominent position. Not only is there a critical mass of at least 70 stem cell scientists and principal investigators now working in the field in Toronto alone, but there's a unique spirit of collaboration among researchers and across institutions in Ontario, which helps attract both talent and funding. British-born Rossant is the director of the newly launched Ontario Initiative in Personalized Stem Cell Medicine, which brings together researchers from U of T and five other institutions: the Hospital for Sick Children, the Samuel Lunenfeld Research Institute at Mount Sinai Hospital, the McEwen Centre for Regenerative Medicine (all in Toronto), and research centres at McMaster University in Hamilton, and the University of Ottawa.

In 2009 the group received \$25 million from provincial and federal governments and private sources. The money will go chiefly to purchase equipment to study cell behaviour. The six Ontario centres will also collaborate with institutes in Kyoto, Japan, and San Francisco. Because the field is so complex, collaboration is vital, says Rossant, who is also the chief of research at the Hospital for Sick Children and a senior scientist in its developmental stem cell biology program. "We have to exchange information so we can learn from each other and really be able to move the field forward."

STEM CELLS ARE AMONG THE BODY'S most flexible cells. These wondrous little powerhouses have two unique qualities: they can make infinite copies of themselves; and they can give rise to a specialized cell type, such as a muscle cell or a red blood cell. Their main role seems to be to repair and renew the body's tissues.

Embryonic stem cells appear to have the greatest flexibility of all stem cells; they can become any one of the 200-plus cell types in the human body. Adult stem cells, which have moved beyond the embryonic stage, have a more limited range of options, usually restricted to the tissue in which they reside.

Two U of Tresearchers – physicist James Till and biologist Ernest McCulloch, working together at the Ontario Cancer Institute – discovered the existence of stem cells in the early 1960s. Their groundbreaking work helped pave the way for the very first stem cell therapy – bone marrow transplants, which have been performed for more than 40 years in patients with blood diseases such as leukemia and aplastic anemia. The stem cells in the healthy, transplanted bone marrow are capable of growing a whole new blood system for the recipient.

In 1998, researchers at the University of Wisconsin became the first to isolate embryonic stem cells in humans and grow them in the lab. These embryonic stem cells were derived from very early embryos just a few days old and no bigger than the period at the end of this sentence. However, research on human embryos was controversial from the beginning. The embryos, given for research purposes with the donors' consent, were developed from eggs fertilized in vitro at fertility clinics, and would otherwise have been discarded. But pro-life groups vehemently opposed the practice, and many others were never completely comfortable with the idea of experimenting on human embryos. Former U.S. president George W. Bush banned new funding of such research, and there was much public debate about the ethical issues.

Then in 2006, Japanese researcher Shinya Yamanaka discovered what has been called an example of modern-day alchemy—a way to take adult stem cells from a mouse and get them to revert to embryonic stem cells. A year later, in 2007, he did the same with human stem cells, taking a bit of skin from a 36-year-old woman and, by adding just four genes, coaxing the adult stem cells to turn back the clock and become like embryonic stem cells. These new cells were called induced pluripotent stem cells, or iPS cells. Stem cell researchers around the world were giddy at the news that it was now possible to take cells from any human and turn them into embryo-like cells that could be studied in the Petri dish. Some

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This field is incredibly exciting. Things we didn't think were possible five years ago we can now do routinely in the lab

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researchers think that the discovery could eventually eliminate the need to use human embryos at all. "Embryonic stem cell lines are still very important to study because they're the gold standard," says Rossant. "But as we go forward there's no question that everybody has really jumped onto this concept of being able to take adult cells and turn them back."

Yamanaka, who first made the discovery, now chairs the Ontario initiative's external advisory board, a move seen as top-level endorsement of Canadian research. Not only was Yamanaka attracted by the high quality of talent here, but he realized that Toronto's ethnic diversity would ultimately offer a broad range of patient samples for testing new drugs and other therapies.

But there was a potential problem in reverting these iPS cells. To transfer the necessary four genes into the adult stem cell, researchers had to use viruses, which successfully reprogrammed the cell but also left behind DNA material that could create mutations, such as triggering the genes to become cancerous. Clearly, this method was far too risky ever to use in humans. But early in 2009, a U of T professor discovered a safer method to deliver the genes without using viruses – and made global headlines in the process. Andras Nagy, a senior scientist at Mount Sinai Hospital and a professor in molecular genetics at U of T, had a brainwave while attending a conference in Germany and grabbed the nearest piece of paper – it happened to be a lunch menu – to scribble down the circles, arrows and abbreviated words that would become the biggest stem cell breakthrough of the year.

Instead of using a virus, Nagy's hastily jotted idea was to insert the genes into a tiny piece of DNA called a jumping gene, which he nicknamed "piggyBac." Once it had done its job of ferrying the four genes into the cell, the jumping gene could be removed, leaving no trace. Back home, his lab tried the method at the first opportunity. "It was a surprisingly simple idea that no one had tried before – and it worked," says

Nagy, whose desk still bears the propitious, coffee-stained menu. In collaboration with a U.K. group that was on the same track, Nagy published his finding last year to worldwide acclaim. In June he became the only Canadian named to *Scientific American*'s Top 10 Honor Roll, among such luminaries as Barack Obama and Bill Gates.

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Nagy reprogrammed his lab, too, so that it's now heavily focused on this area of research. "We are still very, very excited about it," he says. "We expect that in certain cases of blindness, diabetes and spinal cord injury, cell replacement could be used – and relatively soon." Nagy, originally from Hungary and invited 20 years ago by Rossant to come and work in Canada, is proud to be part of the stem cell research community here. "Honestly, I've never seen such a high level of stem cell laboratories anywhere else in the world. And our attitude here is different. We like to talk to each other, which makes our collaborative community very unique."

Another rare feature among researchers in Canada is the diversity of disciplines: developmental biologists work alongside geneticists, clinicians and even engineers, each contributing a piece of the puzzle. For instance, bioengineer Peter Zandstra, a U of T professor of tissue engineering, has designed marvels of technology – bioreactors that take a few stem cells and, by controlling their environment, significantly increase their numbers. In the short term, this would provide larger sources for testing, with the hope of developing better drugs more quickly. In the longer term, it would ideally supply enough stem cells to replace bone marrow transplants for every patient who needed one, or enough insulin-producing cells for every diabetic.

Like many stem cell scientists in Canada, Zandstra is an academic "grandchild" of the original U of T discoverers of stem cells; he was trained by someone who was trained by Till. "This field is incredibly exciting," says Zandstra, who is also the Canada Research Chair in Stem Cell Bioengineering.

"Things we didn't think were possible five years ago we can now do routinely in the lab."

Many of these astonishing accomplishments have begun in Canadian labs. For decades scientists had thought that any cell was capable of causing cancer, until McEwen Centre scientist and molecular genetics professor John Dick in the mid-1990s became the first to discover the existence of cancer stem cells. These are abnormal stem cells that resist chemotherapy and have been shown to cause cancers of the breast, prostate, colon, blood and bone. More recently, Freda Miller, a professor of molecular genetics and a senior scientist at Sick Kids, was one of the first to show that stem cells could be harvested from adult human skin. She's now researching how skin-generated neural stem cells could help repair spinal-cord injuries and help people with cognitive dysfunction, such as learning disabilities and autism. Fellow U of T professor and McEwen scientist Derek van der Kooy has done groundbreaking work on retinal stem cell therapy, which may have implications for age-related macular degeneration, the vision-robbing condition that affects an estimated one million Canadians.

Another busy lab is Gordon Keller's. (In 2005, shortly before Keller returned to Canada after working for 16 years in the U.S., New York magazine named him one of the six doctors New York couldn't afford to lose.) He's the director of the McEwen Centre and a U of T professor of medical biophysics, and his Toronto lab was the first in the world to identify cardiac progenitor cells from human embryonic stem cells. Seen through a microscope, the tiny, colourless clusters of 1,000 to 2,000 beating cardiac cells pulse away in a Petri dish. Elsewhere in the lab, you can also see red blood cells that have been grown from stem cells, as well as clusters of liver cells and insulin-producing cells. Will stem cell transplantation save lives? "Absolutely," Keller says. "We predict that transplanting insulin-producing cells in diabetics will be one of the first success stories." But he cautions that there are still a lot of unknowns. "For example, the cells we've generated that secrete insulin do not sense glucose very well." He adds that we still need to conduct basic research to determine exactly how a human embryo makes insulinsecreting cells so that when we mimic this process in the lab, we don't miss any steps. The lab-produced cells need to share every property of the "natural" cells, including the ability to sense glucose well.

And that's where Rossant's research comes in. For 30 years she's been working on understanding the exact sequence of steps that makes a fertilized egg grow into an entire, complex human being. "We're actually quite good at making some of those early developmental events occur in the Petri dish," she says. "But the challenge we're facing now is getting them to the end of the process." Researchers have to keep going back to the embryo – in Rossant's case, mouse embryos – to follow the precise pathways of development.

There are other challenges, too, such as ensuring that any cell therapy is safe for the patient. Rossant worries about the rise of stem cell tourism, where desperate patients travel to other countries to seek out untested therapies. She says that in most cases the transplanted stem cells don't survive long, and in at least one case an experimental stem cell treatment caused new tumours in the patient. "These are powerful cells," she warns.

There are other ethical issues besides the use of embryos. For instance, what rights would donors have to the skin they donate for research, or any organs that have been developed from it? Also, since iPS cells have the potential to create human eggs and sperm, what would happen to those? Who would own them? Most experts agree that while regulations by Health Canada will ultimately be necessary, we're not at the stage yet where we can foresee all the issues that might arise. We don't yet fully know the power of stem cells.

As Rossant says, "The good thing about these wonderful cells is they can make every cell type," adding wryly, "And the bad thing about these wonderful cells is they can make every cell type." Only by observing every step of their transformation and carefully emulating them in the lab will researchers be able to harness the mysterious power of stem cells. "We haven't solved it yet," Rossant says. "But we're close."

Marcia Kaye (marciakaye.com) of Aurora, Ontario, is an award-winning magazine journalist specializing in health issues. She wrote about the science of sleep in the Spring 2009 issue.

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All about lumi



Poet in Motion

Dionne Brand releases her new collection, Ossuaries, while serving as Toronto's poet laureate

writer engagé is how the poet, novelist and essayist Dionne Brand defines herself, by which she means, of course, engaged with the world's big issues. But the French term also means "busy" and Brand is certainly that as well. When I speak to her, she's just sent her new collection of poems, Ossuaries (McClelland & Stewart), off to the publisher - "not as dark ... as the title makes it sound." She's

collaborating with Ottawa's National Arts Centre to turn her 2002 collection, thirsty, into a drama. And, as Toronto's new poet laureate, she's just penned paeans to the winners of local human rights awards and to a rejuvenated Jameson Avenue, while working at getting assorted bronzed lyrics inlaid into the city's sidewalks - "We want to have poetry in that moment between the doughnut shop and car dealership, speaking >>>

Strokes of Genius

Doug Carrick has designed more than 50 golf courses worldwide

DOUG CARRICK (BLA 1981) WAS BITTEN BY the golf bug early. At 13, he was caddying at the Bayview Country Club in Thornhill, Ontario, and by 17 he knew he wanted to design courses. Carrick's first time on a golf course was at 8 or 9 years old when he and his family were vacationing at a cottage near Midland, Ontario. "I immediately fell in love with the beautiful tranquil setting...and the sound of the ball being hit by a persimmon driver as it echoed through the trees," says Carrick. "I was hooked." As the principal of Carrick



Design Inc. in Toronto, he has designed more than 50 courses in multiple countries. He is also the new president of the American Society of Golf Course Architects.

An avid golfer when he can find time, Carrick has designed courses on vastly different terrain – from the Scottish countryside to suburban Seoul. He believes great golf courses test shot-making and mental skills, respect the natural environment, provide a fair challenge for golfers of all abilities, and offer tremendous variety. "There is an ebb and flow to all great courses – much like a great novel that leads the reader on – creating a variety of twists and turns, with some surprises along the way, and reaching a climax or crescendo toward the end," he says.

Carrick claims he doesn't have a favourite course – though people often ask him. He will concede that being the only Canadian to do a project in Scotland (The Carrick on Loch Lomond), "in the old country where golf originated," was a unique honour.

As a designer, Carrick also wants to make the game more affordable and less time-consuming. "People are trying to balance their time between family, work and recreation," he says. He hopes that Turnberry Golf Club, his recently completed "short course" in Brampton, Ontario, will be "a nice alternative for people who are looking for a round of golf that won't take five or six hours to play or cost a lot of money." – *Sarah Treleaven*



One of the biggest challenges I faced in my own life was illiteracy.... I made a promise to myself to begin each day by finding at least one positive thought to focus on. I discovered that changing the way I started my morning had a powerful effect on how the rest of my day went. With a more positive outlook, I began to make progress on my goal of learning to read and write. Suddenly, I was off the bench and in the game.



Excerpt from The Power of a Promise by Lesra Martin (BA 1988 Innis).
Martin spoke at Innis College on Feb. 9. His involvement with Rubin "Hurricane" Carter's release from jail was featured in The Hurricane.
The first book he read, at age 16, was Hurricane's memoir.

through the cacophony of consumerism."

It's phrases like this – "the cacophony of consumerism" – that show Brand's intellectual roots. The U of T she came to from her native Trinidad in the 1970s was a charged campus, where Vietnam, human rights and the curriculum were all subjects for heated debate. She took the school's first feminist and black literature courses, held at New College, and fell under the thrall of the then trendy existentialists. "It was writers who had some part in the foment who spoke to me, this grand old tradition of engaged writers like Sartre and Camus," says Brand, who earned a BA in English and philosophy in 1975 from U of T Mississauga, and an MA in 1998 in the philosophy of education from OISE. (She now teaches at the University of Guelph.)

In her work, she's focused on the American invasion of Grenada (she dedicates poems to leaders of the socialist coup),

slavery, suicide bombing, Guantanamo. But the personal gets as much space as the political in her best work–strewn throughout her pieces are moments of dreamy other-worldliness. A line from her virtuoso 1997 collection, *Land to Light On*: "There are rooms across this city full/of my weeping."

Her pieces are also periodically studded with references to her beloved jazz ("Only Sarah Vaughan thank god sings in this snow"), with the new collection, out in March, riffing on the work of the genre's mid-20th century giants. "They stretched beyond what their time allowed them; in a way, it's still future music. When you listen, you think *when* was that made?" While Brand generally engages with the here and now, she also has her eyes on posterity. "What I want to see is what's beyond [the events of history]. Hopefully, my work can also leap beyond this particular moment." – *Alec Scott*

Mealtime Patriotism

Writer Sarah Elton argues in favour of local eating

SARAH ELTON'S DAUGHTER recently came home from a birthday party with a cookie in the shape of a pig, frosted pink - a cute and seemingly innocuous treat. A food writer and frequent CBC Radio food columnist, Elton was appalled, however, to learn the treat had been made in China and transported all the way to Toronto. "This cookie had a carbon load of a coal-fired power station," writes Elton (BA 1998 UC, MA 1999).

So begins Locavore (HarperCollins Canada), Elton's comprehensive summary of the state of the local, organic, sustainable food movement in Canada. She senses the beginning of a new nutritional era, but she's open to the possibility that the very term "locavore" will soon seem so 2007 - the year the Oxford American Dictionary designated it word of the year.

With farmers' markets springing up all over the country, top chefs specializing in local cuisine and even Loblaw promoting offerings from nearby farms, the movement seems to be making dramatic headway. But, Elton is quick to acknowledge that the country's organic farms couldn't begin to feed all Canadians at present - let alone the hungry export market.

In an effort to describe the food system's current state, Elton criss-crosses the nation, visiting a beef farm on a tidal plain in British Columbia's Fraser River Valley (around which a suburb has grown), hydroponic greenhouses in rural Ontario and organic market gardens in Nova Scotia. She speaks with everyone from the woman who convinced U of T to source more of its food from local farmers to an artisanal cheesemaker in Quebec; from the ultra-efficient manager of the Ontario Food Terminal to folksy urban agronomists intent on growing crops on their rooftops. She is particularly gifted at transporting the reader to the



places she visits, from Sooke House, the restaurant and boutique hotel at the tip of Vancouver Island, which Gourmet (RIP) named the best restaurant in the world for authentic local cuisine to a native community seeking to rediscover traditional foods.

For Elton, though she canvasses the arguments for and against the internationally oriented food market, the bottom line is environmental - big agriculture is sucking up too much energy and causing too much pollution. She doesn't propose precise solutions, but is heartened to see the local food movement poking through so many cracks in the pavement. Elton ends her book with another cookie - shortbread made in a local bakery from heritage grain flour sourced in Saskatchewan. Its raw material and manufacture kept Canadians employed, its transport placed less of a burden on the environment and, she concludes, "It was delicious." Call it patriotism of the plate. - Alec Scott



Engineering Science alumni showed off their operatic talents during the faculty's 75th anniversary dinner and concert at Hart House this December. The winners of the first Skule Idol competition - modelled on the popular American Idol TV series - each performed a duet with opera star Isabel Bayrakdarian (BASc 1997). Joseph Likuski (BASc 1982, MSc 1988) performed the "Brindisi" duet from Verdi's La Traviata. Anne Bornath (BASc 1991, MASc 1993) sang "Sull'aria..." from Le nozze di Figaro. The Skule Orchestra was led by Julian Kuerti (BASc 1999, Adv. Cert. Perf. 2001), assistant conductor of the Boston Symphony Orchestra.

Bayrakdarian, who came up with the idea of Skule Idol, has performed in many of the world's major opera houses and sings on The Lord of the Rings: The Two Towers and Ararat soundtracks. "There's truly no feeling like being on stage and I wanted to give that chance to another engineer, for them to taste the exhilaration of performing with an orchestra and to experience the sweet fusion of the left brain and the right brain," she says.

The Two of Us Jenna Rocca and Bill Hulme



JENNA ROCCA (BA 2007 ST. MIKE'S) and Bill Hulme (BSc 2006 St. Mike's, BEd 2007 OISE) first met six years ago at a St. Michael's mixer. Jenna is pursuing a master's in communication and culture at Ryerson University and Bill is a high school math and English

teacher. The couple is planning a partnership ceremony.

Bill: At first, I was interested in Jenna's roommate - we both played music (I played keyboard and sang) at St. Mike's open mike night. But when I went to visit, their door was covered in images from Beetlejuice, Batman and The Exorcist, and I found out Jenna did the decorating. I thought, "There could be something here." Jenna was in a production of *A Chorus Line* at Hart House so I went to the last performance, and she invited me out with the cast. Then I invited her to a St. Mike's Valentine's dance, but neither of us could get in because it was too packed. I went home to Sorbara Hall and asked her over, via Instant Messenger, to eat some pineapple. It was about midnight and she resisted. I sent her several links, including an image of Winnie the Pooh dressed like a pineapple. She finally agreed and we ate pineapple and talked well into the morning. What I really love about her is that she makes me laugh.



Bill Hulme and Jenna Rocca in front of a reproduction of Dali's The Temptation of St. Anthony

Jenna: Right after the pineapple, it was reading week and we both went home but were glued to IM. We fell in love within two weeks of our relationship. Most people think we're opposites because I'm hyper-organized and he's more free-flowing, but we're kindred spirits. And we laugh at the same things, which is so rare. We're not having a traditional marriage ceremony; we're having a "togetherness experience" at the Royal Ontario Museum in July. People often see marriage as a rite of passage that will change things, but we're not looking for our relationship to change. The details are a surprise for our guests, but it's going to be a night-long performance art piece and party. Instead of making vows, we're going to make declarations; we want to celebrate what's already in place instead of making promises.



Call him the accidental photographer. Brent Lewin, a 29-year-old history and psychology grad, never planned to take pictures for a living. But in 2007, he visited Thailand and found his muse: the Asian elephant.

In Thailand, the animals are revered as a national symbol, but it saddened Lewin to learn that many live in abysmal conditions. "A lot of these elephants live in cities without the proper food and space they need. Some end up hauling wood in illegal logging operations, where they're forced to work long hours high on amphetamines," he says.

In the past two years, Lewin has snapped hundreds of pictures of the majestic animal, ranging in style from documentary to fine art. He hopes to land a book deal or publish a book himself, and this past winter returned to Thailand to record more encounters with the Asian elephant. "It's a big story," he says. "And I feel as if I've only begun telling it." - Scott Anderson

Engine Gallery will feature Lewin's series "The Elephant in the Room" as part of Toronto's Contact Festival in May. Read more about Lewin at www.brentlewin.com.



First Person

What a School Can Be

Dr. Alison Kelford finds new meaning for "community" in Maasai Mara, Kenya

I HAD WANTED TO VOLUNTEER OVERSEAS for a long time. However, as a family doctor and mother of four, I felt unable to make the time commitment some volunteer humanitarian trips require. So when I read a U of T alumni brochure describing an opportunity for meaningful travel to Kenya, I was immediately drawn to it. This trip required only 12 days and was facilitated by Free the Children, an organization I was familiar with through projects I had been involved in at my kids' school. I believed in their philosophy of kids helping kids and was curious to see how they worked on the ground.

In October, I travelled to East Africa to help build classrooms at Emorijoi elementary school. I first flew to Nairobi where I joined 15 other alumni travellers, who turned out to be a great group of people from a range of careers, like-minded in their desire to lend a hand. From Nairobi we flew in a small plane over the spectacular Rift Valley to the Maasai Mara region. Landing in what appeared to be the middle of nowhere, Maasai warriors escorted us to the Free the Children compound where the organization has been hosting trips for several years. The local staff warmly welcomed us, and we settled into cottages made of indigenous, renewable materials. Immediately, they taught us about Free the Children's commitment

to education, health, clean water and alternative income projects such as beekeeping and raising goats. This helped us to understand how our brief time in Kenya was part of a larger program aimed at long-term community development.

The next morning, after a bumpy ride along a rugged road flanked by cattle, load-carrying donkeys and smiling, waving children, we arrived at the Emorijoi elementary school. Kids ran to meet us, grabbing our hands, asking us questions, showing us their classrooms. Emorijoi is an established site with an academic building, classrooms, library, kitchen and teacher accommodation. Our task was to help build two classrooms necessary to house the growing number of students. A local construction crew patiently taught us how to mix concrete, build block walls, and construct and hoist trusses. Working side by side with the local crew gave us an opportunity to get to know them, and for them to ask about our lives back in Canada. The kids often watched us from the playground and were keen for us to take their picture so they could look at themselves on the camera's back screen.

It soon became obvious that the school offered much more than education; it also provided a source of food and clean water. Since girls have traditionally spent their days collecting water, the provision of water allowed them to attend school. In addition to the Kenyan curriculum, the children learn about sanitation, handwashing, health education and gardening.

Although constructing the school was physically demanding at times, more challenging was the "water walk" we took with one of the "mamas." After learning about home life, we walked 1.5 kilometres to the river and each carried 10 to 20 litres of water on our backs, uphill! (The mamas make this journey four or five times each day.) This woman inspired us as she spoke of her life and community issues. She talked about the changes that were occurring from Free the Children being in the community, such as the creation of new sources of income, improved sanitation practices within the home and the establishment of collectives.

From the morning walks in the Kenyan countryside to the meeting of the community on our last day, the trip was truly amazing. Each day was better than the previous one, and we appreciated a generosity of spirit rarely experienced. My plan is to go back, perhaps to build a school with my family or to help with the newly constructed medical centre. I am not sure exactly what my project will be but I *am* going back.

Dr. Alison Kelford (BSc 1984 Victoria, MHSc 1986) is a family physician in Oakville, Ontario.

U of T Magazine invites alumni to share interesting opinions or unusual experiences. Contact Stacey Gibson at stacey.gibson@utoronto.ca for more information about contributing.

60 Seconds With

Peter Silverman



Peter Silverman receives the Order of Ontario from Lt.-Gov. David Onley in 2009

PETER SILVERMAN (PHD 1977) has been tracking down swindlers for more than 20 years. Part detective, part superman to the city's scammed, his Toronto-based Citytv segment – Silverman Helps - ran until 2008. (Viewers wrote in about companies that had bilked them; Silverman often succeeded in getting their money back.) He has since moved to Newstalk 1010; Saturdays from II a.m. to noon, he coaches callers on how to fight ripoffs. Lisa Bryn Rundle talks with him.

What got you into this line of work?

Moses Znaimer, then president of Cityty, decided that I was too lefty-pinko to be a business reporter. He made it clear that I was either going to do it or I was gone.

You were bullied into being the guy who stands up to bullies.

I was! Doing the business beat, you got freebies all over the place! And then all of a sudden I'm out there grubbing around, negotiating with people you'd rather shoot.

What skills does it take?

Keeping your temper. Our motto was: restitution, not vengeance. Still, aside from being a foreign correspondent in a war, it was the most dangerous job in the newsroom.

Speaking of which, you were famously attacked by an optician.

I was attacked by a lot of people. Once a guy came after me with a bulldozer. My job was to take the first hit because the cameraman has a 180-degree blind spot and his eye is up against the lens.

Who would you say was the lowdown-dirtiest scam artist you ever encountered?

Unregistered used-car dealers. And renovators and contractors. But the worst was a [nowdefunct] Toronto moving and storage company. We had 210 complaints about them. Once they got your stuff, they'd hold it hostage and charge huge fees. Not only that, they were selling the stuff off the back of the trucks. We went in there with bolt cutters. The owner actually tried to run down my cameraman.

Did you ever worry someone would come after you and your family?

Absolutely. There was a gentleman who did. We had a long relationship and none of it good - he was very bright and very violent.

How does your radio show compare to your TV show?

It's completely different. The best I can do is advise people and pass their complaints on.... I'm still helping people but with no staff, nowhere near to the degree I was able to before.

What does doing this work do to your faith in human beings?

There are a lot of very good people out there, and you meet as many of them as the bad guys. And you're contributing to the community and that feels pretty great.... But I don't think anybody else is taking it up. It's expensive; that's why we were closed down.

Has anyone ever tried to scam you?

Yes! Doing the work probably makes you less immune! You think: They're not going to do this to me - I'm Silverman!

Milestones



She has been referred to as the pre-eminent Bach pianist of our time, and earned a Gramophone Artist of the Year award in 2006. In November, worldrenowned pianist Angela Hewitt received an honorary doctorate from U of T during fall convocation. Lawrence S. Bloomberg earned an honorary doctor of laws degree for his contributions to health care in Canada. In 2007, the business leader and philanthropist made an historic gift to the Faculty of Nursing, which was renamed in his honour.

Wendy Cecil (BA 1971 VIC) recently earned a Thérèse Casgrain Volunteer Award in the lifelong commitment category for her good work within the health-care, education and arts sectors. She helped spearhead the Urban Angel Campaign, which funded a centre for people who are homeless to recover at after receiving medical treatment. Cecil, chair and president of Brookmoor Enterprises Ltd. and the chancellor of Victoria University, has provided leadership in strategic planning and fundraising to both U of T and St. Michael's Hospital.

Joseph Rotman (MComm 1960) and Sandra Rotman (BA 1975 WOODS) have received a 2009 Philanthropy Award from the Greater Toronto Chapter of the Association of Fundraising Professionals. The Rotmans were named "Outstanding Philanthropists" for their contributions. They are the founding philanthropists of U of T's Rotman School of Management, and last year the university's undergraduate commerce program was renamed Rotman Commerce in their honour. As a result of their leadership and financial contributions since 1993, the school has become an internationally recognized leader of business education.



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1969

Earthly Pursuits

Sculptor Dora de Pédery-Hunt captures the likeness of Erindale's principal

In 1969, John Tuzo Wilson sat still, holding his chin level and expression neutral, as sculptor Dora de Pédery-Hunt moulded a miniature bust of his features in her cluttered Toronto studio.

Wilson was the second principal of Erindale College and a professor of geophysics. A world-renowned scholar who specialized in plate tectonics, Wilson was shaping ideas about the earth: he was an early proponent of the continental drift theory. De Pédery-Hunt was, more literally, shaping earth that day, as she conjured Wilson's likeness in modelling clay. The Hungarian-born artist was best known for her work as a medallist; she also designed the profile of Queen Elizabeth II that appears on Canadian coins between 1990 and 2003, and a medal in honour of John Polanyi after he won the Nobel Prize.

The Wilson bust, which was cast in bronze, was commissioned by an Erindale art committee composed primarily of students and staff. The college's early mandate was to broaden intellectual pursuits beyond the classroom to include public lectures, musical events, and exhibitions of paintings and sculptures. De Pédery-Hunt's niece, Ildiko Hencz, recalls attending dinner parties at the principal's residence with her aunt in the 1960s and says that the artist and her subject were connected through a social network of scientists, artists and intellectuals.

The bust is now in possession of Wilson's daughter, Patty Proctor, assistant curator of Chinese Ceramics at the Royal Ontario Museum. It serves as a most elegant reminder of the seven years her father guided Erindale. – Sarah Treleaven

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