

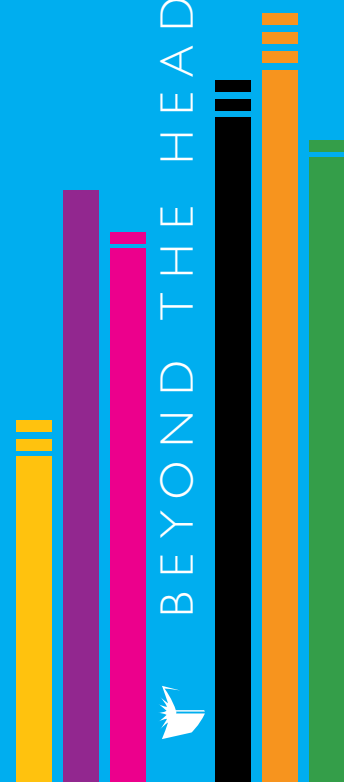
BEYOND THE HEADLINES

BRINGING YOU INTO THE CONVERSATION



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BEYOND THE HEADLINES





Concordia is committed to teaching and learning. It is also dedicated to research and creativity, to developing innovative approaches to advancing knowledge and to sharing these approaches with its community and the world at large.

We encourage big thinking beyond the walls of academia by facilitating open access to our research, and by forging community partnerships. We want our researchers to exchange their knowledge, expertise and ideas because it matters. This is one reason why Concordia's research profile continues to rise in Canada and around the globe.

In this second annual edition of *Beyond the Headlines*, we present the highlights of five conversations between Concordia researchers and their contemporaries on topics that engaged the public's imagination and sparked interest for further discussion.

These exchanges represent just a small part of the breadth of the big thinking that happens every day at Concordia and that has a beneficial impact on society — from understanding cancer to improving workplace productivity to creating the ideal conditions for childhood learning.

The discussions surrounding these topics are worth having and worth listening to as are the conversations examining the search for sustainable solutions to an aging urban infrastructure or the role of a city as a cultural expression of design and innovation.

To view the full conversations visit concordia.ca/headlines.

I hope you enjoy this introduction to our headline-making researchers and encourage you to contribute to the dialogue by continuing the conversation online.

A handwritten signature in black ink that reads "Alan Shepard". The signature is fluid and cursive.

Alan Shepard
President and Vice-Chancellor

CONCORDIA'S RESEARCH REACHES AROUND THE GLOBE

Innovative research, scholarship, and creative work are essential to Concordia's mission, and a significant factor in recruiting and retaining top-notch faculty and students.

That is why Concordia has made substantial investments to strengthen its research capacity and to share the findings of groundbreaking research taking place on campus. In many

cases, these projects are the result of interdisciplinary collaboration supported by the university's 36 research centres.

Our efforts are paying off — media coverage of Concordia's published research has quadrupled in the past two years.

The studies featured on these pages provide a glimpse into the growing influence Concordia's researchers are

having in global conversations, including the impact of stress on health and the workplace and the benefits of solar energy and green technologies to build more sustainable cities. They have also studied how gender impacts marketing in pop culture, and how art and culture can effect change. Their contributions are making headlines around the world. ■

CONCORDIA'S NEW LAB ALLOWS FOR INDOOR RESEARCH ON SOLAR ENERGY **MONTREAL GAZETTE** DEC. 10, 2011

Disabled demand better access to buses **MONTREAL GAZETTE** Jan. 28, 2012

Concordia lends out people for a day - University's first Human Library will be in full force Saturday **MONTREAL GAZETTE** Sept. 19, 2011

Rien à voir avec un « crime d'honneur » **LA PRESSE** Jan. 28, 2012

Vladimir Titorenko et son équipe de recherche : Personnalité de la semaine **LA PRESSE-RADIO-CANADA** Jan. 16, 2012

INFORMATIONS ET COMMUNICATIONS- TECHNOLOGIES « VERTES »
DITES- VOUS? **LE DEVOIR** SEPT. 17, 2011

Is homeschooling a better option than public school? **GLOBE AND MAIL** Sept. 9, 2011

Montreal tunnel collapse a lesson for the entire country **TORONTO STAR** Aug. 1, 2011

Une oeuvre montréalaise dans le métro de Paris **RADIO-CANADA** Oct. 8, 2011

Lego's 'pink ghetto' draws fire over gender-specific marketing **NATIONAL POST** Jan. 21, 2012

More cool images from Expo 67 **MONTREAL GAZETTE** July 25, 2011

MODE: STILLETOS DE SAUMON CLIN D'OEIL JAN. 2012

Cinq à Six – "Art-house" arcade **CBC** Jan. 28, 2012

Newsmaker: Paul Allen on ethics and religious course **CTV MONTREAL** Feb. 21, 2012

De l'espoir malgré tout! **RADIO-CANADA'S LE TÉLÉJOURNAL** and **TV5** Jan. 8, 2012





UNA HORMONA DEL EMBARAZO PARA COMBATIR LA TIMIDEZ **EL MUNDO** DEC. 19, 2011

Boys want to look good, but not too good **DISCOVERY NEWS** Sept. 30, 2011

The Three Types of Multi-taskers **CBS** Oct. 6, 2011

CIGARETTE TAX UNLIKELY TO DETER SOME SMOKERS: REPORT **U.S. NEWS & WORLD REPORT** JULY 15, 2011

German Casino Hands Dutch Old Master to Jewish Dealer's Heirs **BLOOMBERG NEWS** Oct. 24, 2011

Office 'troopers' who work while ill could be less productive than colleagues who take more sick days **THE DAILY MAIL** Nov. 18, 2011

DEPRESSION MAY SLOW DOWN EXERCISE RECOVERY **NEW YORK TIMES** DEC. 1, 2011

Blaming others can ruin your health **CNN** Aug. 18, 2011

Les bébés se méfient des menteurs, selon une étude canadienne **AFP** Dec. 6, 2011

Les charts sont-ils sexistes? **SLATE FRANCE** Dec. 15, 2011

JOB STRESS TAKING A TOLL ON NORTH AMERICANS, RESEARCH SAYS **THE INDEPENDENT** AUG. 19, 2011

"Ice Shield" experiment aims to cool Mongolian city **NATIONAL GEOGRAPHIC** Dec. 7, 2011

Engaged dads boost IQ, behavior in children **UPI** Aug. 31, 2011

Feel-good music aids psychological counseling **THE HINDUSTAN TIMES** Apr. 20, 2012

THE VICTORIANATOR **THE NEW YORKER** AUG. 18, 2011



Listen to or view the conversation!

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YOU WOULD NEVER GUESS THAT WORKING WITH YEAST,
YOU WOULD END UP FINDING A NEW ANTI-CANCER
COMPOUND. THAT'S THE BEAUTY OF SCIENCE.

UNEXPECTED DISCOVERY COULD HALT CANCER

Vladimir Titorenko is unlocking the secrets of aging buried deep within our genetic code. However, instead of the fountain of youth, his research uncovered something unexpected — a chemical that stops cancer in its tracks.

His experiments demonstrated that lithocholic acid, a chemical produced by the liver, effectively kills cancer cells while prolonging the life of healthy cells. The potential benefit of such a focused effect is extraordinary, since most current cancer treatments make no distinction between healthy and unhealthy cells, destroying both indiscriminately.

The Concordia biology professor made the discovery while experimenting with a variety of natural chemicals to determine which, if any, could interrupt the aging process at the genetic level.

“For a very long time aging was considered something that just happened with time,” he explains. “But it appears that actually there is a very limited number of genes responsible for defining how long any individual will live.”

Titorenko conducted his experiments with yeast, an organism genetically similar to human beings, with a lifespan of only a few weeks. The accelerated maturation time for yeast means genetic responses to chemicals can be observed in days, instead of years.

By evaluating the effects of exposure to different chemicals, he was able to identify a few that interfered with how quickly yeast aged. Among the chemicals was lithocholic acid, which effectively extended its life.

Since cancer is a disease associated with aging, Titorenko took the experiment further, exposing human cells, and then human cancer cells to lithocholic acid, with positive results. His next step is to steward this potential new treatment through the long process from the Petri dish to the doctor’s office.

Meanwhile, he can also conduct further tests using some of the other chemicals that showed potential in slowing the aging process in yeast.

VLADIMIR TITORENKO

Currently an associate professor in biology and the Concordia University Research Chair in Genomics, Cell Biology, and Aging, Vladimir Titorenko is studying the role that genes play in the aging process. His research may provide clues to combatting diseases associated with growing older, such as cancer and Alzheimer’s.

Since earning his PhD in genetics in Moscow in 1988, he has spent several decades conducting award-winning research projects in private laboratories across Europe and in Canada.

Titorenko easily transitioned from private labs to academia, joining Concordia’s Department of Chemistry and Biochemistry in 2002. He is currently affiliated with the university’s Centre for Structural and Functional Genomics. He has received multiple grants from the Canadian Institutes of Health Research and the Natural Sciences and Engineering Research Council of Canada. He has also received grants from the Canadian Foundation for Innovation for indispensable research equipment.

His work has been published in scientific journals around the world, and in the mainstream media. In January, Titorenko was named Personality of the Week by *La Presse* and Radio-Canada.



Vladimir Titorenko did not set out to find a cancer-blocking compound when researching the genes associated with aging. But, now that he has identified a promising chemical that could be used in the fight against cancer, he would like to get his laboratory results into the real world.

The treatment must be proven to be effective and safe. To this end, he has established ties with Thomas Sanderson, a toxicologist whose lab looks at the impact of pesticides and other chemicals on the endocrine system.

Sanderson has followed Titorenko's work closely. He recently hired one of Titorenko's former students as a postgraduate researcher in his own lab. Along with researchers at McGill University and the University of Saskatchewan, they are conducting additional tests on the compound. The researchers are interested in how the potential treatment might perform in combination with other compounds and using different delivery methods.

A PROMISING NEW PATH

TITORENKO: We were looking specifically for a chemical compound, out of this collection of thousands and thousands of different compounds, which can greatly increase the longevity of yeast. So that was our primary interest, and we discovered about 20. Six of these were compounds that belonged to the group 'bile acids.'

Because cancer is considered an age-related disorder, we decided to test whether or not this compound has any anti-cancer effects in cultured human cells recovered from different kinds of cancers.

SANDERSON: Two striking results, I believe Dr. Titorenko found. First of all, that lithocholic acid can kill certain cancer cells, whilst leaving normal

cells alone ... The second thing that I thought was very interesting is that the lithocholic acid doesn't actually get into the cell ... That means there's some characteristic on the cell surface that is making them susceptible to lithocholic acid. [Something] not just stopping them from growing, but actually telling them to undergo a programmed cell death.

FROM EXPERIMENT TO TREATMENT

SANDERSON: What's plausible is, based on the structure of lithocholic acid, related chemicals can possibly be synthesized that may have even more potency than lithocholic acid, and also reduce potential toxicities.

TITORENKO: Not only that, but perhaps even a certain type of targeted

THOMAS SANDERSON

Thomas Sanderson studies the effects of pesticides on the endocrine system in the human body. Recently he has examined the potential effects natural compounds may have on the endocrine system.

Currently an associate professor at the Institut national de la recherche scientifique-Institute Armand-Frappier, he has held a variety of positions at academic institutions across Europe and North America.

With funds from the Natural Sciences and Engineering Research Council of Canada he is researching the mechanism by which a wide variety of chemicals interfere with androgen and estrogen biosynthesis in human and animal models. His research has implications for better understanding certain hormone-dependent cancers and the growing incidence of reproductive problems in humans.





delivery so that the compound will be surrounded by a pill, which will dissolve only in certain parts of the body. This is really complex research, so this is a very important first step.

SANDERSON: As research scientists, we're generally at the very early stage of this kind of development. To get it all the way to the phase where it's tested in humans, you'd have to get pharmaceutical companies interested. This is more of a challenge with [natural] compounds like bile acids, which already exist. They can't really be patented. They can

maybe be patented if these bile acids are formulated in a certain way — one that is effective in treating human cancers.

TITORENKO: It's very important to remember that any compound can be toxic to healthy cells if it exceeds a certain type of dose or concentration. And the same is true about any magic bullet, any anti-cancer, anti-aging compound. They're toxic if you exceed a certain dose. So it's very important to figure out how to deliver this

compound. Many questions need to be addressed, because, yes, if you exceed a certain critical dose, it can be dangerous, just like aspirin.

SANDERSON: I agree with Vladimir, because I study natural compounds and in fact, yes, they are, they have beneficial effects at lower concentrations, but generally at higher concentrations, some of them can be very toxic. ■



Listen to or view the conversation!

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WHAT WE FOUND WAS THAT CHILDREN BEING TAUGHT
AT HOME WITH STRUCTURE WERE BETTER READERS,
BETTER AT MATH, BETTER AT SOCIAL SCIENCE.

HIGH MARKS FOR HOME-SCHOOLING

Children who receive structured home-schooling significantly outperform public school children across a range of subjects. “In some instances, home-schooled children were five grade levels higher than those kids being taught in the public school,” says Sandra Martin-Chang.

The assistant professor in the Department of Education captured headlines with her study comparing test scores for children who learned at home with those who attended public school.

The catalyst for Martin-Chang’s research was listening to strong opinions voiced by friends and family about her sister-in-law’s decision to home-school her children. When she went searching for facts, she found very little research on learning outcomes. This led her to conduct a study to compare 37 home-schooled children with 37 children in the public system.

The home-schooling families who participated in the study reflected a variety of motivations and experiences. Some parents wanted to ensure their children were not exposed to political, social or religious ideas they did not agree with,

while other parents rejected the structure of traditional schooling.

Among the families who opted for home-schooling, some followed existing curricula or designed lesson plans for their children. In other homes, children established their own learning routines and priorities.

HOME-SCHOOLED CHILDREN SCORE HIGHER

Martin-Chang’s research evaluated learning outcomes of primary-aged, home-schooled and public school students of comparable backgrounds. Children who received structured home-schooling, under the direction of their parents, scored significantly higher on standardized tests in seven different subjects.

“I think parents working with a smaller number of kids at home have a better idea of exactly where their children stand,” says Martin-Chang of the dramatic difference in test scores. She believes parents motivate their children by establishing realistic challenges.

SANDRA MARTIN-CHANG

Sandra Martin-Chang joined Concordia’s education department in 2007. Her ongoing research, aimed at better understanding how children learn to read, has helped her to transition into her current role training the teachers of tomorrow.

In 2005, she earned a PhD in psychology from McMaster University studying how context, environment and neuropsychology affect learning. She spent three years at Mount Allison University, in New Brunswick, where she conducted her research on home-schooling. She also received a Margaret and Wallace McCain Postdoctoral Fellowship from the university.

With grants from the Social Science and Humanities Research Council of Canada and the Fonds québécois de la recherche sur la société et la culture, Martin-Chang is pursuing her research on reading.

She is also affiliated with the Centre for Research in Human Development, an initiative spearheaded by Concordia, involving five other Quebec universities, which takes an interdisciplinary approach to examining key issues and transitions from infancy to old age.



Sandra Martin-Chang and Wendi Hadd are both parents and educators: Martin-Chang works at Concordia's Department of Education while Hadd is at John Abbott College. In fact, Hadd assigns Martin-Chang's study on home-schooling to students in her sociology of education class.

The two women participated in a wide-ranging discussion on the motivations and challenges for parents in determining the best educational approach for their children. During the exchange, Martin-Chang shared her observations on the families she met while researching home-schooling in the Maritime provinces and Hadd spoke about her own experience home-schooling her six children in Quebec.

Martin-Chang feels direction and structure are important for learning while Hadd lets her children guide their education. Despite their different approaches to teaching and learning, both recognized there are commonalities in how adults can help kids to thrive.

THE DECISION TO HOME-SCHOOL

HADD: I chose to homeschool my children because I wanted to spend more time with them. So I really approached it from that perspective – that we were going to be together.

MARTIN-CHANG: That is one of the main reasons ... Some are dissatisfied with, or a little bit frightened of, what could be happening in the school system. For example, I've heard bullying come up often as a reason not to necessarily send your children to school.

DEBUNKING THE MYTH ABOUT ISOLATION

Many people mistakenly believe that home-schooled children are isolated, interacting primarily, if not exclusively,

with other family members. Turns out, there are numerous associations, networks and programs for home-schooling families to organize field trips, science fairs and joint lessons.

MARTIN-CHANG: The kids that we worked with belonged to a lot of groups ... It seemed like their days were longer, they had more time to take violin, and go to skiing lessons. There was not this huge chunk of the day that was busy at school.

HADD: I think because [home-schooled children] don't spend all of their time with one age group, they tend to develop skills in dealing with people who are older than them, and also in dealing with children who are smaller than them.

WENDI HADD

Two decades ago, Wendi Hadd began teaching sociology at John Abbott College after earning a PhD in medical sociology from the Université de Montréal. At about the same time, she decided to home-school her children to maximize the time she spent with them.

As a home-schooler, she decided not to use formal lesson plans. Instead, her children were free to pursue their own interests. She did connect with other home-schooling families, especially when her children were younger.

Six kids later, Hadd has no regrets about her decision to let her children set their own pace for learning. Her older children are now confidently transitioning into the traditional school system to pursue higher education.





INDIVIDUALIZED ATTENTION ADVANCES LEARNING

Hadd's children direct their own learning; however, she follows their interests and progress, identifying where they might need help.

HADD: I really believe that children have to read, and read well in order to accomplish anything at all ... We read a lot. We had games where you would use letters. So, you know, as much as we're unstructured, we did things that lead to learning.

[My daughter's] pattern with language was very different from her elder brothers, and so I knew, when she was six, something wasn't going to work out for her without some very intense reinforcement.

Ultimately, Martin-Chang believes that kind of individual attention leads to stronger learning outcomes. She hopes the educators she is teaching will

develop ways to bring that approach into the classroom.

MARTIN-CHANG: So that's another thing we encourage in our Concordia-trained teachers, to get a really good sense of how each child in their class is doing, so that you can teach just above it, just beyond what he or she can do alone. ■



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IF ONE REALLY WANTS TO UNDERSTAND LOST PRODUCTIVITY, IT SEEMS IMPERATIVE TO UNDERSTAND THE INHERENT TRADE-OFF BETWEEN ABSENTEEISM AND PRESENTEEISM. IN OTHER WORDS, UNDER WHAT CONDITIONS DOES AN EMPLOYEE CHOOSE TO BE ABSENT VERSUS GOING TO WORK ILL?

GARY JOHNS & GINA RIZZO

PRESENTEEISM HURTS PRODUCTIVITY

Why do employees with acute, chronic or episodic illness work rather than stay home?

Gary Johns, a management professor in Concordia's John Molson School of Business, has been conducting research on presenteeism – the decision to go to work despite feeling unwell.

Although there are no Canadian figures, an American study estimated the cost of presenteeism at \$150 billion each year.

TO WORK OR NOT TO WORK

Johns's research determines the social, physical, psychological and workplace factors that get some employees out the door while others snuggle under the covers when they are sick. To date, this subject has been addressed primarily by medical researchers establishing which illnesses most frequently lead to presenteeism and if certain medications can reduce the potential loss of productivity.

Johns is among the few researchers to apply organizational psychology to the question and consider a range of work-related factors that might affect presenteeism.

As part of his study, he surveyed 444 people on their job requirements and work experience. They were questioned about their attitudes and behaviours, as well as their workplace role and their office culture.

When asked to report on the previous six months, participants reported an average of three presenteeism days and an average of 1.8 absenteeism days, most of which were attributed to illness. Johns's analysis helped determine how presenteeism impacts workplace productivity.

Caregivers and people working in early education, for example, report higher rates of presenteeism compared to people from other fields. "Often, a person might feel socially obligated to attend work despite illness, while other employees feel organizational pressure to work despite medical discomfort," says Johns.

Despite the frequency of presenteeism, most human resources departments have not addressed the issue directly, says Johns. He believes that better understanding the issue will improve both office morale and productivity. In most instances, managerial flexibility in decision-making is key.



GARY JOHNS

A Fellow of the Academy of Management since 2010, Gary Johns is a professor and the Concordia University Research Chair in Management at the John Molson School of Business. He earned the 2012 Canadian Society for Industrial and Organizational Psychology Award for distinguished contributions to the field.

Johns came to Montreal in the early 1970s with a solid background in organizational psychology and a PhD from Michigan's Wayne State University. He joined the university's faculty shortly after Sir George Williams University and Loyola College merged to form Concordia, and has remained ever since, with the exception of visiting professorships in Australia, Hong Kong and Singapore.

His research has been funded by the Social Sciences and Humanities Research Council of Canada and Quebec's *Fonds pour la Formation de chercheurs et l'aide à la recherche*.

Presenteeism is rarely discussed, except when infection rates are high (for instance during flu epidemics). However, beyond the risk of infecting others, what are the implications for individuals and their co-workers who continue to go in to work?

This was a question that human resources executive Gina Rizzo considered when she reflected on the results of Johns's research. Rizzo had an 'aha' moment. "We've lived this forever. We've never talked about it. It's not something that organizations, at least not in my experience, necessarily have a plan to deal with."

Most workplaces have policies outlining the terms and conditions required for sick days, personal days and leaves for family responsibilities. It is far more difficult to assess the potential productivity gains of managing presenteeism.

Johns and Rizzo sat down to discuss the importance of getting managers on board. "I think the onus at some point needs to be on leadership and on the management practices," says Rizzo. "So how do we make managers aware that this is a problem?"

EVERYBODY'S DONE IT

RIZZO: As a manager, I know at times I just didn't feel like going in for whatever reason. You know there were things happening at home, an ill mother, a child not well, yet I was there. That may be a way to introduce the topic of presenteeism in organizations that are perhaps not even aware of what it is.

JOHNS: One of the nice things about researching absenteeism-presenteeism, is that everybody's done it ... One of my goals in doing this research is to bring this subject, that's mainly been studied in occupational medicine — trying to find how much productivity is lost due to asthma, due to allergies, due to depression — into mainstream management, and organizational behaviour research.

THE PRESSURE TO PERFORM

RIZZO: I'm asthmatic, and I can tell you I've lost very few days of work because I think there's also this cowboy attitude that you find in the workplace. It's not gender specific —you'll find it in males, you'll find it in females — that basically says, "I've got to show that I'm committed to the organization."

JOHNS: There's been a bit of research that also suggests that men are particularly prone to toughing it out. And this is an act of loyalty... a sign of commitment, whether you're a man or a woman, to the organization.

Some research has shown that if people continue to go to work ill, this is a precursor to absenteeism. So sometimes an occasional absentee day can serve as kind of a safety valve. Get you back together.



GINA RIZZO

Gina Rizzo has been with the Human Resources Department of the McGill University Health Centre (MUHC) for the past 14 years and is currently a human resources (HR) manager and assistant to the MUHC director of human resources. She joined the HR management team in 2006, after seven years as a recruitment specialist.

Her mandate to improve employee retention culminated when she won the AQESSS (Association québécoise d'établissements de santé et de services sociaux) award for Best HR Innovation across Quebec health care organizations for inaugurating the first MUHC Director General Awards and Gala.



JOB TYPE IMPACTS PRESENTEEISM

JOHNS: People who perceived their jobs as being significant in terms of direct, immediate impact on others, were less likely to be absent. People who are involved in jobs that had a lot of interdependence — teamwork, project work — these people were also very inclined to engage in presenteeism.

RIZZO: Absolutely, if we think of nurses, for instance, we know that there's a shortage, there's a shortage of pharmacists, there's a shortage of other health care professionals. If you know that there's nobody that'll replace you, well your professional conscience says what? I need to go in.

POLICY AND EMPLOYEE WELLNESS PROGRAMS

JOHNS: I don't know of any organization that's developed firm policies or guidelines for managers. We're firmly in the domain of illness when we talk about presenteeism. And organizations may be disinclined to have managers probing employees about their health.

RIZZO: As far as I'm concerned, there's a link between your place of

work and the health of your employees at work, and job satisfaction, or job productivity. I know that a lot of other health care organizations are talking about instituting wellness programs.

JOHNS: I think these more holistic HR approaches to wellness are going to open the door to allow us to talk about these more specific details. Because it's not so much a matter of you're going to work ill, it's a matter of how healthy are you on any given day. ■



Listen to or view the conversation!

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WHAT WE REALLY NEED IS TWO THINGS: REGULAR INSPECTIONS BY STRUCTURAL ENGINEERS FOR ALL OUR BUILDINGS AND REGULAR MAINTENANCE.

BUILDING SUSTAINABLE CITIES

In recent years, devastating infrastructure failures involving collapsing bridges and tunnels have plagued Montreal. There have also been numerous occurrences involving privately owned buildings, all resulting in severe harm to pedestrians or drivers.

Among these incidents are the collapse of the De la Concorde Boulevard overpass and a 25-ton concrete slab that fell from the ceiling of the Viger Tunnel. In addition, concrete and bricks have fallen from a number of private buildings.

“The problem with buildings is not the concrete or steel, it’s with the ground,” says Adel Hanna, a Concordia engineering professor who frequently responds to media calls to provide comments

on events and issues related to infrastructure construction, planning and renewal. “You put the building on the ground; if the ground shifts or dances or moves, it takes the building with it.”

As unoccupied land becomes scarcer, and more expensive, and the city’s infrastructure ages, the need to develop long-term solutions instead of cosmetic fixes becomes increasingly urgent.

“Once the problem is visible, it’s already too late,” he warns. He is calling for a coordinated effort to systematically monitor the health of structures, the way medical checkups monitor an individual’s health, to spot problems before they become too large to easily address.

ADEL HANNA

Adel Hanna left his home in Egypt for Canada after completing his master’s degree at Cairo University. He joined Concordia University’s Faculty of Engineering and Computer Science in 1978 – the same year he earned his PhD from the Technical University of Nova Scotia.

He never lost his childhood fascination with building blocks and by the time he reached high school, he had decided on a career as a structural engineer. His primary interest is geotechnical engineering — understanding how soil conditions below ground impact construction challenges above ground.

This unique expertise within Concordia’s Department of Building, Civil and Environmental Engineering has led him to develop several courses on the subject and has attracted more than 100 graduate students to work with him.

A Fellow of the American Society of Civil Engineering, Hanna has often served as a private consultant. He has contributed to manuals on foundation design across North America while also publishing more than 150 academic papers.



Both structural engineer Adel Hanna and architect Pierre Brisset agree that Montreal can become a more sustainable, liveable city. They propose maintaining and improving existing structures, whenever possible, instead of building new ones.

“Is there a way of salvaging, or altering a structure to prolong its life? When you break a leg, you put a cast around the leg, you don’t just amputate,” argues Brisset. “Rather than going to major amputations, perhaps we can do a few operations to prolong its life.”

They would like to see a coordinated plan that considers the long-term needs of the city.

Better coordination would ensure the long-term viability of, and accountability for, the city’s infrastructure. Currently, problems are addressed piecemeal, and remedies are often inconsistently applied.

Hanna stresses that forecasting a structure’s longevity requires ongoing evaluation. The infrastructure connecting Montreal to the South Shore must accommodate far more traffic than when it was constructed. “For a structure that’s 50 or 100 years old, we can predict natural deterioration, due to the weather and wear on materials ... we know that part. But could we have predicted how popular the South Shore would become?”

WAS MONTREAL BUILT TO LAST?

HANNA: All of our buildings are getting old, and we do just a little bit of maintenance and inspections. With age, things change.

BRISSET: Strangely enough, the structures from the 1950s have a longer life, seem to be surviving better, than the structures from the 1960s. The Metropolitan was built in the late 1950s/early 1960s, but they’ve managed to salvage it. Today they expect to prolong its life for another 50 years.

Whereas on the south side, the Ville-Marie, and the Turcot Yards, and Ville St-Pierre, that whole collection of

structural overpasses, which were built in the 1960s, now they want to replace them all.

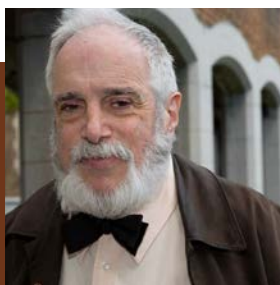
HANNA: If a structure is no longer suitable to sustain increased traffic, then it’s time to change it. Other than that, maintenance is needed — regular maintenance, proper inspections by qualified engineers, not just by maintenance technicians. And that will lead us to sustainable structures.

BUILDING WITH THE ENVIRONMENT

HANNA: Downtown we have rock at 40 feet, that’s why we built

our engineering building (Engineering, Computer Science and Visual Arts Complex) and the John Molson Building (John Molson School of Business) with three levels of basement. The foundation, right on the rock, generated three levels of space for the two buildings, and that was great.

BRISSET: Well, sustainable architecture is what you work with. Basically it’s to be able to understand the conditions you’re working with ... For example, it’s understood, one of the criticisms we have of the Turcot Yards is that the location where they want to put the new highway and the new rail line is



PIERRE BRISSET

Pierre Brisset is an architect who has become interested in urban transportation issues.

Since 1975, when he became a member of the Quebec Order of Architects, he has been involved in numerous projects in Montreal, including the Dawson College expansion project and modifications to the Salle Wilfrid-Pelletier in Place des Arts. Recently, his work restoring the Old Brewery Mission was recognized by both Design Montreal and Heritage Montreal.

He is one of the founding members of the Groupe de Recherche Urbaine Hochelaga-Maisonneuve, developing alternative transportation strategies for Montreal’s east end, such as light rail transit. His work with Concordia Associate Professor Pierre Gauthier on revising a solution for the Turcot Interchange was published in 2008 in *Montreal at the Crossroads*.



over an old river bed, which has a very weak bearing capacity.

Our argument is why invest so much money in putting an infrastructure in an area which doesn't have the soil-bearing capacity, and which would cost a great amount of money to try and stabilize? Can we afford it?

REPURPOSE INSTEAD OF REBUILDING

BRISSET: We have been spoiled in the past, building a lot of things — building highways, building networks,

building metros, this, that, and the other thing. But in today's society, we don't have the means to rebuild all of this.

... It just costs too much. I mean, who's going to pay for it? To rebuild the structure usually costs five times as much as to build the original structure because you have to maintain the existing structural operation while you rebuild, and it's very complicated.

HANNA: Fifty years ago we had the luxury of choosing whether a building

could be here, or here. Now we are very limited by available land ... We have to really maintain our existing buildings, and [when we do build] we have to build for 100 years ahead.

... If we study the last 100 years, we should be able to forecast the following 100 years. That's the way we do it. We don't have another technique except to study the past to prepare for the future. ■



Listen to or view the conversation!

We invite you to download the full discussion at concordia.ca/headlines



EXPO WAS VERY MUCH A BEACON ... ALL KINDS OF URBAN
CHANGES TOOK PLACE IN MONTREAL ... THERE WERE
DISCUSSIONS ABOUT HOW A MODERN CITY MIGHT WANT TO
LOOK, HOW IT SHOULD BE STRUCTURED AND WHAT KIND OF
FACILITIES ITS CITIZENS SHOULD HAVE AT THEIR DISPOSAL.

RHONA RICHMAN KENNEALLY &
GERMAINE YING-GEE WONG

EXPO 67: NOT JUST A SOUVENIR

More than four decades have passed, but for people who attended Expo 67 in Montreal, the memories are still vivid. The world's fair was an unprecedented event that captured international attention for its innovative exhibits and architecture, which became iconic symbols of national identity and optimism.

"Montreal was a laboratory for all things that were exciting and modern," says Rhona Richman Kenneally, of Concordia's Department of Design and Computation Arts. Her research on Expo 67's enduring role as a cultural touchstone made headlines.

While the buildings, expressions of cutting-edge architectural styles and methods, have almost all disappeared, the postcards, photos and other ephemera continue to do a brisk trade on eBay and are the subject of a surprising number of blogs.

Expo 67: Not Just a Souvenir features a collection of essays that provide reflections on the context and legacy of the summer when the world's eyes

were on Montreal. The book is co-edited by Richman Kenneally and Johanne Sloan, both of Concordia's Faculty of Fine Arts. It includes papers first presented at a conference they organized at the Canadian Centre for Architecture in conjunction with an exhibition entitled *The Sixties: Montreal Thinks Big*.

The book's essays present the contradictions and convergences evident in Montreal in 1967. Among them: Montreal's debut as a cosmopolitan city coincided with Quebec's *révolution tranquille* and Canada's celebration of its 100th anniversary since Confederation.

Not Just a Souvenir "represents the work of art historians, architects, sociologists, people in communication studies — a wide variety of areas of expertise," explains Richman Kenneally. "I think what's really nice as a scholar looking back at this, is the interdisciplinary focus ... reinforced by Concordia, because one of its key signatures is interdisciplinarity."

RHONA RICHMAN KENNEALLY

Rhona Richman Kenneally has just completed her term as chair of the university's Department of Design and Computation Arts. She brings her background as a scholar of English literature and history, as well as her experience as an architect, to Concordia's design program. Her eclectic academic background encourages her to take an interdisciplinary approach to each project she undertakes.

Recently, she has been studying the social and cultural role of food in both Canada and Ireland. Her research is supported by the Social Sciences and Humanities Research Council of Canada.

In 2011, as a Fellow of Concordia's School of Canadian Irish Studies, she co-organized the first conference of the Canadian Association of Irish Studies to prioritize research in visual, material and spatial cultures. Richman Kenneally also collaborates on a research team investigating memory and identity in Ireland and Quebec. She is the editor of the *Canadian Journal of Irish Studies* and teaches courses on Irish material culture.



During the summer of Canada's centennial, Expo 67 was a monumental celebration of art, architecture, technology and cultural identity.

The site, featuring pavilions representing more than 60 countries, was the venue for concerts, performances and events of all kinds. There were 50 million visits during the six-month exhibition, making it the most successful world's fair to date. The excitement continued for several more years with *Man and His World*, an exhibition that featured many of the original pavilions plus a number of new attractions.

Richman Kenneally invited filmmaker Germaine Ying-Gee Wong, who worked as a hostess at these events, to reminisce about the anticipation and enthusiasm inspired by them. Both women shared their memories and discussed how the exhibition changed their lives, and the city around them.

CULTURAL SOPHISTICATION

The hostesses who worked at the site were expected to embody a cultural ideal. Wong's facility with language helped her win a coveted position. Her own experience, as a young teenager, did not necessarily coincide with that cosmopolitan image.

WONG: I had not known very many people from different cultures before that because I grew up in Verdun.

Verdun was a blue-collar working class neighbourhood that was predominantly white. I mean I was the only Asian person. There was one black girl, and there was one Italian, and that was exotic in those days. And then suddenly I met people

from Trinidad and Tobago, I met people from Russia, from every part of the world.

RICHMAN KENNEALLY: I was 10 years old, but I thought that the hostesses were extraordinary ... There was an expectation of glamour and sophistication that came from looking at those women who were the communicators of the dream and the vision, the physical manifestation of all of the aspirations of Expo 67.

THE QUEST FOR A CANADIAN IDENTITY

Expo 67 marked a moment when Canadians were defining the common ground between their northern, rural,

coastal and urban communities, as well as their country's relationship with the rest of the world.

RICHMAN KENNEALLY: I think what was really interesting was that bilingualism and biculturalism soon transformed into multilingualism and multiculturalism in the Canadian context ... Expo was just one of the many stimuli for thinking of us as an *us* that could be a *we*, that was a collective Canada.

WONG: The whole thing about Canadian identity, I don't know that I was ever conscious of being on a quest for identity. I represented Canada, but I don't really feel that I was a representative of Canada.



GERMAINE YING-GEE WONG

Germaine Ying-Gee Wong's distinguished career with the National Film Board of Canada spans three decades, with numerous credits in documentary and feature film. She earned her BA at Concordia University.

Many of the films she produced have garnered critical acclaim and recognition, including *Up the Yangtze*, winner of a Genie Award for best documentary and *Atanarjuat: The Fast Runner*, which received the *Caméra d'Or* at the 2001 Cannes International Film Festival.

In 2006, she was a producer on *The Point*, an alternate feature drama that used at-risk teens as writers and actors to create their own film. In 2004, Wong received a Genie nomination for *Mr. Mergler's Gift* as well as for *RIP: A Remix Manifesto* in 2007.



LASTING IMPRESSION

RICHMAN KENNEALLY: What was unanticipated was that some of the pavilions were to remain, because they were always perceived as being temporary. And so the French pavilion becoming the casino (Casino de Montréal), or the geodesic dome — the U.S. pavilion — sustaining itself in a variety of iterations.

Last week I was in Chicago in the airport, flying back to Montreal, and when I looked at the electronic signage that identified the destination of the plane, Montreal was represented by guess what? The geodesic dome.

A LIFE-CHANGING MOMENT

WONG: Before Expo, I was a student in modern languages. After Expo, I thought “well to hell with that.” I realized that there were such incredible expressions, stories, realities, and I saw also at Expo how everything was interconnected ... So from modern languages, I went into communication arts.

RICHMAN-KENNEALLY: [The experience continues in] what you take away with you afterward. So whether

you do that by virtue of the memories or whether you bring it home as different souvenirs that then become part of a family narrative ...

The personalization of the story, of the Expo and Man and His World experience, happened in so many ways, in our memories, in our stories, in our future narratives. ■

CONCORDIA AT A GLANCE

WHO WE ARE

Concordia University is welcoming, engaged and committed to innovation and excellence in education, research, creative activity and community partnerships. It dares to be different and draws on its diversity to transform the individual, strengthen society and enrich the world.

WHAT WE ASPIRE TO BE

Concordia's vision is to rank among Canada's top five comprehensive universities within the next decade, and to be a first choice for students and faculty locally, across Canada and internationally in a wide variety of defined areas of research and study.

WHAT DRIVES US

Concordia's core values stem from those long prized by its founding institutions. Concordia has adopted the motto of the City of Montreal, *Concordia salus*, which speaks to well-being through harmony. The union of two very different institutions of higher education has led to an exceptionally successful synthesis of compatible and timely values.

EXCELLENCE Concordia values the curiosity and engagement of its faculty, staff and students. Curiosity about the world around us, respectful engagement with those who inhabit it, and strong determination to improve it, leads to productive exploration of current understandings, a rich spectrum of creative activity and practice, and the creation and dissemination of new knowledge.

OPPORTUNITY Concordia values the openness and respect necessary to provide opportunities to a highly diverse student and faculty population. Here, diversity is interpreted broadly; in addition to embracing diversity in ethnicity, gender, language and accessibility, the university provides students with different and original ways of exploring their interests. Enabling faculty, staff and students to make a progressive impact on their world in ways that respect and engage the uniqueness of each individual is a hallmark of Concordia.

QUALITY OF LIFE Concordia values a secure and respectful learning environment and workplace. We are committed to promoting a healthy, safe and sustainable campus and to enhancing the quality of life of the community in which we live.

35,848

UNDERGRADUATE STUDENTS

7,314

GRADUATE STUDENTS

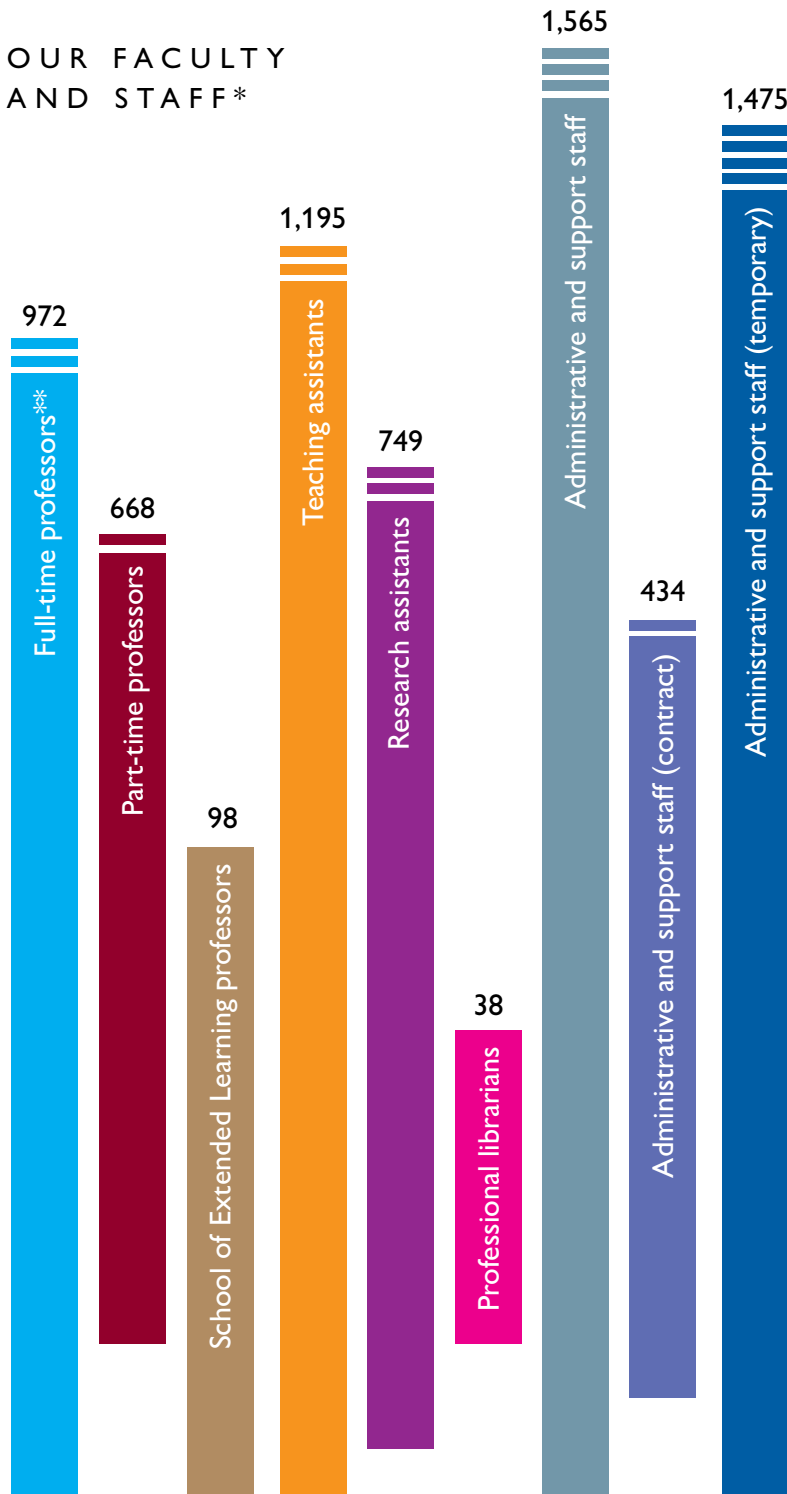
2,792

SCHOOL OF EXTENDED LEARNING STUDENTS

45,954

STUDENTS IN THE 2011-12
ACADEMIC YEAR

OUR FACULTY
AND STAFF*

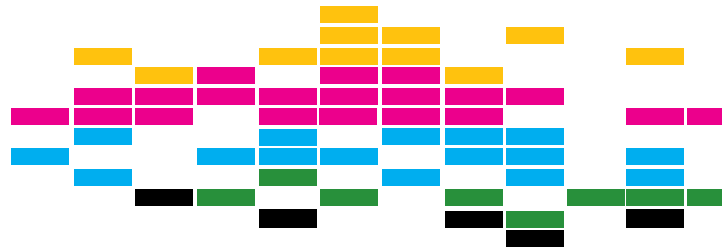


7,194
TOTAL EMPLOYEES

170,000
ALUMNI AROUND THE WORLD

* AS OF OCTOBER 2011

** INCLUDES VISITING AND
RESEARCH PROFESSORS



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