



CHANCELLOR'S BUILDERS

Newsletter



WELCOME TO OUR NEW CHANCELLOR'S BUILDERS NEWSLETTER!

Over the past year, I've seen us come together as a strong, proud community intent on future-proofing Concordia's learning experiences and outlining our growth. As I like to tell people, change before you have to! Our nine strategic directions are about digging in, showing the right mettle and being innovative — even if that means going against the grain a little. Learn more about our road map for the future at concordia.ca/directions.

Several of our strategic directions are measurable, such as "double our research." On page 2, you'll find examples of the research we'll be seeing more of — such as how to keep your brain young.

We have a few directions that are less tangible, such as "take pride." It's no less important. This step is about honouring our institutional

lineage, which consists of Sir George Williams University and Loyola College. It further involves celebrating our community's many accomplishments. Page 3 features students worthy of kudos and pride.

A third direction I'll mention is "grow smartly." We're doing just that with the passion and drive of our smart, forward-thinking leadership. I tip my cap to Concordia President Alan Shepard, who was recently reappointed, unanimously, to a second term at the university's helm.

Being a member of the Chancellor's Builders Circle comes with its privileges. Our annual gathering of university champions, the **Chancellor's Builders Dinner**, takes place on **November 3, 2016**, at the **Le Windsor Ballroom**. It promises to be another momentous celebration



of Concordia's leaders. Members of the circle can take advantage of first-in-line seating at Concordia events.

I hope you enjoy reading this first-ever *Chancellor's Builders Newsletter*.

Jonathan Wener, BComm '71
Concordia Chancellor

CONCORDIA'S GROWING RESEARCH FOOTPRINT

A \$7-million infusion of government support will fund 50 big-thinking research projects at Concordia over the next five years, thanks to Discovery Grants from the Natural Sciences and Engineering Research Council of Canada (NSERC).

The new investment will advance fields such as psychology, chemistry and engineering — to the benefit of professors and students alike.

"My recently awarded NSERC grant will support experimental work to understand two fundamental

cognitive mechanisms underpinning various types of complex activities," says Karen Li, a professor in the Department of Psychology who will receive funding for work on how to age while retaining vitality and independence.

Another Concordia expert receiving funding is Pascale Biron, a professor in the Department of Geography, Planning and Environment. As she says, \$35,000 per year over the next five years will help her move forward: "It provides freedom to explore new ideas."

HEALTHY BODY, HEALTHY MIND

Take the stairs. That's what new Concordia research indicates, as flights taken and years of education attained correlate to better brain health.

Published in *Neurobiology of Aging*, a study led by Jason Steffener at Concordia's preventive health PERFORM Centre, shows brain age decreases by 0.95 years for each year of education, and by 0.58 years for one additional flight of stairs climbed daily.

"This is encouraging because it demonstrates that a simple thing like climbing stairs has great potential as an intervention tool to promote brain health," says Steffener.

To arrive at this discovery, Steffener and his co-authors used magnetic resonance imaging (MRI) to non-invasively examine the brains of 331 healthy adults who ranged in age from 19 to 79. Those who took the stairs and had higher levels of education had more grey matter in their brains — which diminishes with age.



A Concordia study shows taking the stairs can lead to better brain health.

THE MAGIC OF ABRACADABRA — NEW STUDY FINDS MAJOR BENEFITS TO CONCORDIA-MADE CHILD LITERACY SOFTWARE

Developed to support children from kindergarten to Grade 2, ABRACADABRA is enjoying renewed praise — this time for helping children with autism spectrum disorder (ASD).

The free literacy software was created at Concordia's Centre for the Study of Learning and Performance (CSLP) in 2002. A study of 20 children with ASD conducted at the University of Sydney in Australia found significant gains in reading accuracy and comprehension thanks to ABRACADABRA.

"It's what we hoped for but this is the first real demonstration. The magnitude of the effects is very encouraging," says Phil Abrami, professor in Concordia's Department of Education

and director of the CSLP. The findings appeared in the prestigious *Journal of Educational Psychology*.

ABRACADABRA has a long string of accomplishments. It earned a Design and Development Division Outstanding Practice Award in 2010 from the Association for Educational Communications and Technology. The interactive software received an Award of Merit in 2011 from the Canadian Network for Innovation in Education.

This October, as part of a \$600,000 gift to Concordia, TD Bank Group invested \$300,000 to advance the ABRACADABRA literacy program and help more children acquire reading skills.



Concordia's ABRACADABRA software can help children with autism spectrum disorder improve their reading skills.

GOLD RUSH FOR STUDENT ENGINEERS

Students from Concordia's Mechanical Engineering program shone at the 2016 Canadian Society for Mechanical Engineering (CSME) International Congress, winning first prize in both undergraduate- and graduate-level competitions.

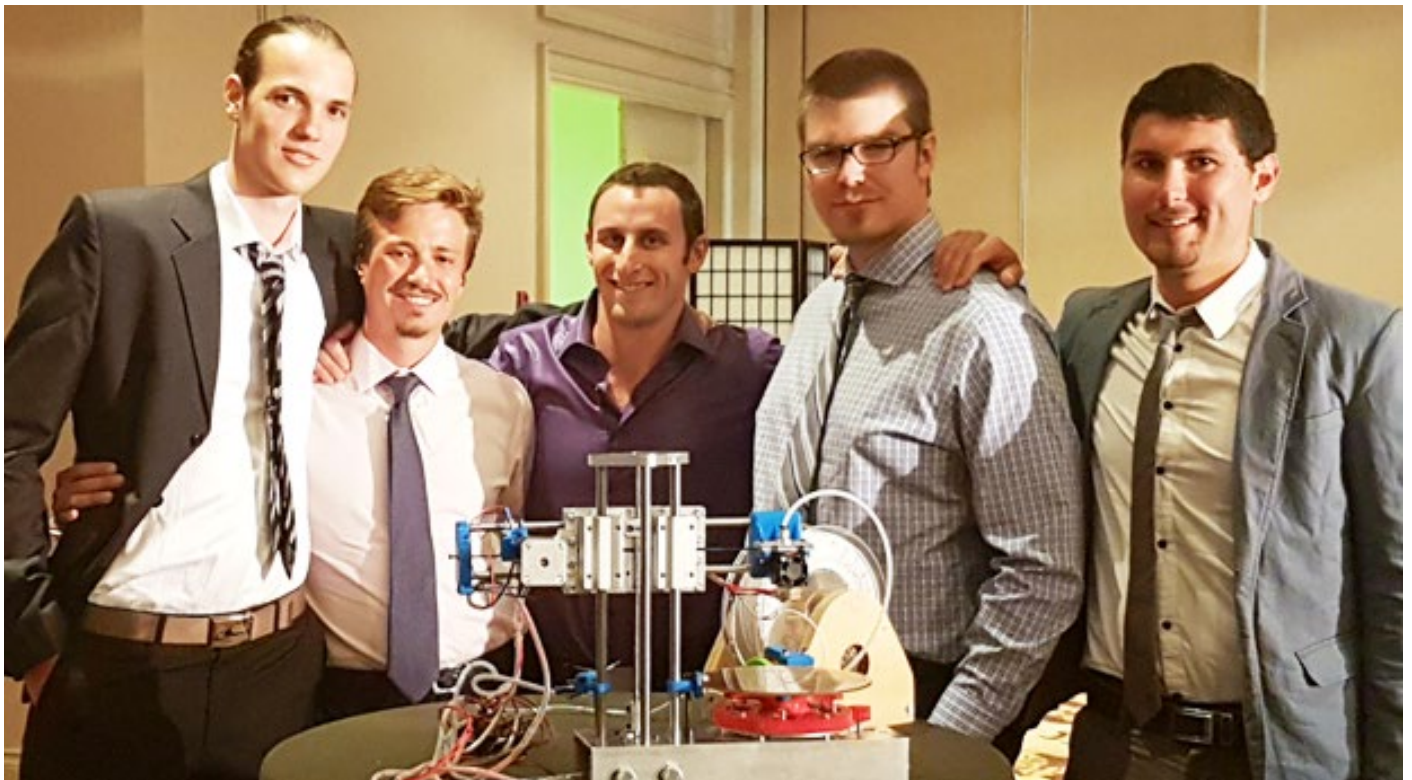
Dimtcho Krastev and Matthew Silverstein led 10 third- and fourth-year mechanical engineering undergraduates to Best Overall in the CSME National Design Competition, which challenges students across Canada to design and build a 3-D printer.

"We felt exceptionally happy and accomplished. It is good to see the results of many months of hard work become reality," says Krastev.

Solo act Lucas Hof, a third-year PhD student in mechanical engineering, won the CSME Graduate Student Paper Competition. His research was on the integration of micromachining technology developed by Concordia's Electrochemical Green Engineering Group.

"It is really nice to see that your research is appreciated by your peers. It felt great and stimulates me to continue," says Hof.

Seyed Mohammad Reza Attarzadeh, another PhD candidate at Concordia, also garnered notice, placing third in the paper competition.



Concordia undergraduate and graduate students took home prizes at the 2016 Canadian Society for Mechanical Engineering International Congress.

- Learn about our university's notable leaders, prominent researchers, entrepreneurs, artists, athletes and thinkers at concordia.ca/greatconcordians.
- Discover what Concordia achieved first in Montreal, Quebec, Canada and the world at concordia.ca/concordiafirsts.

AS VARSITY SEASON RAMPS UP, NEW RECRUITS LEAD TO EXCITEMENT

A new Stingers season has kicked off, with part of the thrill being the fresh talent that has suited up in maroon and gold. Here are a few names to look for:

Receiver **Vince Alessandrini** and defensive back **Jersey Henry** joined the Stingers football team.

Frédérique Rajotte and **Alex Tessier** are ones to watch on the Stingers women's rugby roster. Both represented Canada in the Women's Rugby Super Series in Salt Lake City, Utah, this past July.

Not all changes happen on the field. The Stingers men's rugby team has a new head coach in the way of Craig Beemer.

Stingers women's soccer added midfielder **Chama Sedki** and **Imane Chebel**, a defender. Both have played AAA club soccer in the Ligue de soccer élite du Québec in Longueuil, Que.

In the words of Stingers men's soccer head coach Greg Sutton: "We've got a bunch of new recruits to watch out for. **Abdullah Medouni** is a playmaker and he'll bring some offensive strength. We've also got a new athletic goalkeeper by the name of **Karl Gaoube**."



The addition of new Stingers receiver Vince Alessandrini will improve the team's offense.



The Stingers men's rugby team welcomed new head coach Craig Beemer.

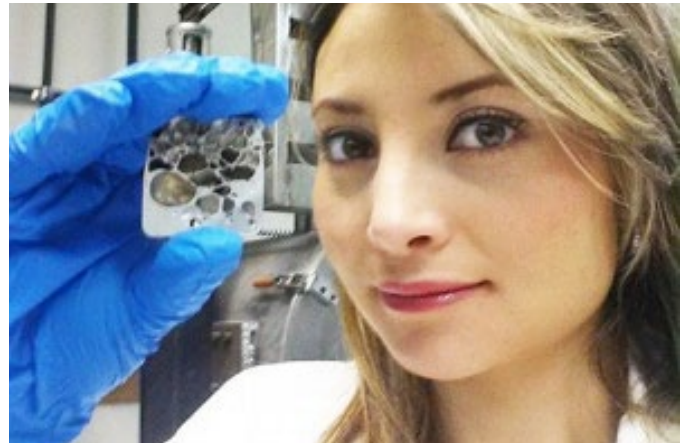
CONCORDIAN WOWS 3-MINUTE THESIS COMPETITION

The analogy Ana Maria Medina Ramirez used to describe safety applications of a new metal foam was that it would squish like a baguette under strain — it wouldn't crumble like a cracker.

The comparison worked. "Production of Metal Foams Using Dolomite," as her work is titled, won second prize — and \$1,000 — at the 2016 Canadian 3-Minute Thesis Competition (3MT).

"It's super exciting! The other 10 videos were 'winners of the winners,' so they were all at a high level," says Medina Ramirez.

The 3MT Finals is a virtual contest run by the Canadian Association for Graduate Studies (CAGS), which selects judges to evaluate videos by 11 regional finalists. This was the third year running that a Concordian went to the 3MT nationals.



Ana Maria Medina Ramirez earned second place at the 2016 Canadian 3-Minute Thesis Competition.

FORMER CONCORDIA STINGER WINS OLYMPIC BRONZE

It was a podium finish for Bianca Farella at the Olympic Games in Rio de Janeiro, Brazil. Dawning a bright red Team Canada uniform, Farella and her fellow women's rugby players overtook Great Britain to claim a medal. "It's been an incredible feeling. Ever since we won bronze, the only word I can use to describe this experience is surreal," says the gilded former Stinger. Farella played for Concordia in 2012, earning both the Réseau du sport étudiant du Québec (RSEQ) and Canadian Interuniversity Sport (CIS) Rookie of the Year titles.



Bianca Farella, who wore the Stingers maroon and gold in 2012, now has an Olympic bronze.

SYNTHETIC SOLUTIONS FOR REAL-LIFE MYSTERIES

“We’re really at the forefront of this research,” says Vincent Martin, co-director and co-founder of Concordia’s Centre for Applied Synthetic Biology. “Our competition is the big Ivy League schools.”

That area — synthetic biology — is the fusion of engineering and more traditional biology. Applications are in areas such as cancer and heart drugs, biofuels and plastics.

Martin leads about a dozen projects at the centre, with the help of 13 postdoctoral researchers, research associates and graduate students. Together, they change the DNA of yeast or bacteria in order to get it to produce molecules.

“The goal of the project is to create an alternative technology that will allow pharmaceutical companies to study these other

compounds,” says Lauren Narcross, BSc 10, a current PhD student at the centre.

The process of taking genes out of plants — such as poppies — is tough. A \$2.5-million grant from the Canada Foundation for Innovation will add robotic help. “There’s a lot of automation that can be put into place to give our scientists, who are trained in how to think, more freedom,” says Narcross.

Martin’s aspirations go beyond the centre. “We want to push that [our research] into a national platform,” he says. “It’s not just for my lab. It’s for labs across the university, province and country.”



Concordia’s Centre for Applied Synthetic Biology is home to leading-edge research.

A CLOCK THAT COUNTS BACKWARDS

The scientific community has come to an alarming realization — since the industrial age began, dangerous, irreversible effects of global warming occur with a two-degree Celsius temperature rise.

Musician and activist David Usher, along with leading climate expert Damon Matthews, associate professor in Concordia’s Department of Geography, Planning and Environment, collaborated to create the “climate clock” [concordia.ca/news/countdown2degrees]. It illustrates when that dubious rise will occur, using a measurement that’s easy to grasp — time.

“A more than two-degree world will be a very dangerous world,” says Matthews. Usher adds: “After that point, it’s going to be very difficult to slow things down.”

They created the climate clock to show how our collective behaviour either advances or slows the amount of time until a dangerous temperature rise takes place. “The idea is to put when two degrees will happen out in the public,” says Usher.



The online climate clock counts down the years to reach a global two-degree temperature increase since the industrial age began.

Do you know someone extraordinary? Nominate them for an honorary degree. Visit concordia.ca/honorarydoctorates for a nomination form and instructions.

KEYSTONE BUILDERS: SPOTLIGHT ON ANDRÉ DESMARAIS AND FRANCE CHRÉTIEN DESMARAIS

As a couple, André Desmarais, BComm 78, LLD 07, and France Chrétien Desmarais, LLD 15, were the first major donors to Concordia's District 3 (D3) Innovation Centre — Concordia's start-up incubator.

Their \$1-million gift helps determined entrepreneurs get a foothold in Montreal's booming start-up scene. It further shows the philanthropic duo's foresight.

"We firmly believe that accelerating innovation and nurturing talent is fundamental to our society's long-term prosperity," says Desmarais, who is deputy chairman, president and co-chief executive officer of Power Corporation of Canada.

France Chrétien Desmarais, president of the Society for the Celebration of Montreal's 375th Anniversary, shares in the vision. "In our 21st-century knowledge economy, incubators increase innovation for Montreal, Quebec and Canada. The most effective conduits for these start-ups are universities.

The donation to D3 is one in a series of generous gifts that supports the future — and Concordia students.

Through the Power Corporation and the France and André Desmarais Fellowships, the pair has helped propel more

than 320 graduate students with bursaries ranging from \$5,000 to \$10,000. André Desmarais is a long-standing co-president of Concordia's annual Golf Classic — a signature fundraiser that has collected more than \$3.5 million for student bursaries and scholarships. For his generosity and community reach, he was named one of the university's 40 Great Concordians (concordia.ca/greatconcordians).

For their outstanding contributions over many years, both received honorary doctorates from Concordia.



André Desmarais and France Chrétien Desmarais, left, pictured with Concordia President Alan Shepard, generously donated a \$1 million start-up gift to Concordia's District 3 Innovation Centre.



CHANCELLOR'S BUILDERS CIRCLE DINNER SECOND ANNUAL EDITION

Concordia Chancellor **Jonathan Wener**, BComm 71, Board Chair **Norman Hébert Jr.**, BComm 77, and President **Alan Shepard** cordially invite you for an intimate evening to celebrate our donors and the generosity that inspires learning and discovery.

DATE: Thursday, November 3, 2016

TIME: 6 p.m.

LOCATION: LE WINDSOR
1170 Peel St., Montreal, Quebec

Dinner invitation for you and a guest
Valet parking



Learn about our university's exciting developments, student innovations and alumni accomplishments. Discover how Concordia is Canada's leading next-generation university.

This event will be emceed by **Debra Arbec**, BA 89, CBC Montreal News anchor and journalist.

RSVP by October 20, 2016
514-848-2424, ext. 4397

christopher.walker@concordia.ca

Thank you for supporting the next-generation of Concordia students. Questions?
Please contact our development staff at 514-848-2424, ext. 4856.