



MESSAGE FROM THE PRESIDENT

MAKING A DIFFERENCE IN OUR WORLD

It's impossible not to be immensely proud of what our community accomplished in 2022. Our women's hockey team won gold at the U Sports national championship. One of our varsity wrestlers received the Tom Longboat Award, which honours top Indigenous athletes in Canada. We announced our first McCall MacBain Scholar, one of 20 chosen from 700 applicants, two Vanier Scholars and a Banting Postdoctoral Fellow.

Three of our faculty were inducted into the Royal Society of Canada and one won a Governor General's Literary Award. A recent grad won the BMO 1st Art! competition prize for Quebec while another fine arts student had their design featured on a Truth and Reconciliation keepsake coin issued by the Royal Canadian Mint.

A 3D printing technique developed at Concordia with implications for treating human health was named by *Quebec Science* a top 10 scientific discovery of the year while a journalism project on environmental leadership in Inukjuak earned international attention at COP 15.

We launched an entrepreneurial postdoc program that's unique in Canada and opened a new space for community partners to work with Concordia through the SHIFT Centre for Social Transformation.

We're fulfilling the recommendations of the President's Task Force on Anti-Black Racism, including extending an apology for the mishandling of the largest anti-Black racism protest in Canada and its consequences for students.

To align student success with fairness, equality and inclusion, we created an Accessibility Hub for students and announced our commitment to offer all undergraduates an experiential learning opportunity as part of their academic program.

We're coming off a record year of fundraising and, to put it simply, it's a great time for Concordia.



GRAHAM CARR

PRESIDENT AND VICE-CHANCELLOR



NEXT GEN NOW



PRIORITIZING OUR SOCIAL RESPONSIBILITY

AS A NEXT-GENERATION UNIVERSITY, WE REIMAGINE THE FUTURE OF HIGHER EDUCATION. CONCORDIA'S INNOVATIVE APPROACH TO EXPERIENTIAL LEARNING AND CROSS-FUNCTIONAL RESEARCH BENEFITS OUR 51,500 STUDENTS. CONCORDIA IS THE TOP-RANKED UNIVERSITY IN NORTH AMERICA UNDER 50, LOCATED IN VIBRANT MONTREAL ON THE TRADITIONAL LANDS OF THE KANIEN'KEHÁ:KA NATION.

WE STRIVE TO BE SOCIALLY RESPONSIBLE AND CREATE A MORE EQUITABLE AND SUSTAINABLE WORLD.

ENGAGEMENT

Bringing our insight, understanding, expertise and commitment to the public

DISCOVERY & INNOVATION

Performing novel and dynamic knowledge-creation across disciplines

HEALTH

Introducing a broad perspective to wellness

LEARNING

Disrupting the traditional classroom with new concepts

SUSTAINABILITY

Incorporating a sustainable mindset into all we do

SPACES

Using buildings to their fullest potential to foster multidisciplinary collaboration

NEXT-GEN ENGAGEMENT

THOUGHTFULLY CREATING COMMUNITY BONDS

HIGHLIGHTS

President's Task Force on Anti-Black Racism releases its final report ►

The President's Task Force on Anti-Black Racism released its final report and recommendations — a landmark document in Concordia's history, and a roadmap for the university's future. Drafting the document involved two years of research, well over 100 meetings, six subcommittees and unprecedented institution-wide discussions. Using a critical race lens, the task force anchored its report in the four overarching principles of the 2021 Scarborough Charter on Anti-Black Racism and Black Inclusion in Canadian Higher Education: Black flourishing, inclusive excellence, mutuality and accountability.

The university also shared a historic apology for its inadequate handling of race-based student complaints and subsequent outcomes of the 1969 Sir George Williams student protest.

"The courage, emotional labour, time and research invested by Black Concordians in this work is a debt that is forever owed to these individuals, as their contributions have been invaluable to Concordia in charting a new way forward and a turning point in its history and relations with Black communities," says Angélique Willkie, task force chair and special advisor to the provost on Black integration and knowledges.

Concordia launches Accessibility Hub

Concordia launched its Accessibility Hub, a one-stop online resource on accessibility and disability at the university, in December. "Accessibility is a collective responsibility, and the successful launch of the hub is the culmination of months of work of the Accessibility Advisory Committee chaired by Anna Barrafato, the accessibility change lead at the Equity Office," says Lisa White, executive director of Concordia's Equity Office. "I commend their efforts and the support of senior leaders toward this incredibly meaningful initiative."

The hub provides information on accessible event planning, facilities management, instructor resources and more, and highlights the Policy on Accessibility and Accommodation for Students and Employees.

Initiative empowers Indigenous and racialized communities

A Concordia-led project is tackling systemic forms of discrimination by documenting how diverse communities of Black, Indigenous (First Nations, Métis and Inuit) and people of colour sustainably build resilience in an increasingly polarized society. Based in Montreal, Chicoutimi, Quebec, and Edmonton, Alberta, the Innovative Social Pedagogy to Empower Indigenous Communities, Reduce Gender and Racial Biases project is the latest initiative under the Project SOMEONE umbrella.

Directed by Vivek Venkatesh, professor of inclusive practices in visual arts, Project SOMEONE is the pedagogical arm of the UNESCO Chair in Prevention of Radicalization and Violent Extremism and aims to "build awareness, create spaces for pluralistic dialogues and combat discrimination and online hate."



Shining a light on EDI in STEM ▲

Imge Ozugergin, MSc 19, is on a mission to find out how to get more young people from diverse backgrounds interested in a science career. She is pursuing her PhD in biology studying cytokinesis regulation, a process crucial for growth and development. At the same time, Ozugergin is exploring ways to encourage those from a broad background to follow her path. "The more diversity we have, the better," she says.

Ozugergin recently participated in an American Society for Cell Biology annual conference panel discussion. "The more I do outside of the lab for science, the more it makes me want to do science. It's a positive feedback loop."





End of the world, by Dayna Danger, 2018

Canada's first grad artwork sales and rental service ▲

Concordia introduced the Art Volt Collection, a sales and rental service that displays artworks by recent Faculty of Fine Arts graduates. The goal of the not-for-profit initiative is to help artists launch their careers and support them as they enter a competitive professional environment.

Annie Gérin, dean of the Faculty of Fine Arts, points out that the Art Volt Collection is unique in Canada. "No other university offers a launch pad like this to its fine arts graduates," she says.

Gina Cody School celebrates EDI with new award and research grant ▼

Three Gina Cody School community members' work was recognized for advancing equitable, diverse and inclusive (EDI) environments through outreach, research and teaching activities. Riya Dutta, a graduate student in software engineering, Horizon postdoctoral fellow Mirjam Fines-Neuschild and Carole El Ayoubi, senior lecturer of mechanical, industrial and aerospace engineering, received the inaugural Gina Cody School EDI Award.



Riya Dutta, Carole El-Ayoubi and Mirjam Fines-Neuschild

Concordians and Indigenous partners' film screens at COP 15 in Montreal ▼

Journalism students Kaaria Quash, GrDip 18, and Luca Caruso-Moro, under the direction of Aphrodite Salas, assistant professor of journalism, and their Indigenous partners presented their work at the United Nations' climate change conference, COP 27, in Sharm El-Sheik, Egypt, in November, and at the UN's Biodiversity Conference, COP 15, in Montreal in December.

The team's documentary, *Innavik: Leading the way to a clean energy future*, shares the story of the construction of the first hydroelectric facility in Arctic Quebec. It examines the shift away from the hazardous use of diesel fuel that the Inuit village of Inukjuak has relied on for decades.



Office of Community Engagement joins Indigenous schools initiative

Concordia's Office of Community Engagement teamed up with Montreal's McCord Museum and the Indigenous-led digital initiative UHU labos nomades for a new education project with Indigenous youth. The UMITEMIEU initiative focuses on introducing digital photogrammetry — the extraction of 3D information from photographs — and creating virtual educational collections by and for five Indigenous communities in Quebec.

The workshops allowed the youth in various regions to interact with both physical and virtual objects as they discovered photogrammetry.

NEXT-GEN DISCOVERY & INNOVATION

THINKING BEYOND TRADITIONAL BOUNDARIES

HIGHLIGHTS

Direct sound printing is a potential game-changer in 3D printing ▶

The development of a new platform technology for 3D printing called direct sound printing, which uses soundwaves to produce new objects, may benefit industries that rely on highly specific and delicate equipment. The process, described in a paper published in *Nature Communications*, shows how focused ultrasound waves are capable of creating sonochemical reactions in minuscule cavitation regions — essentially tiny bubbles. *Québec Science* magazine named the technology one of the most significant scientific breakthroughs of 2022.

The paper's corresponding author was Muthukumaran Packirisamy, professor and Concordia Research Chair of mechanical, industrial and aerospace engineering. Mohsen Habibi, research associate at Concordia's Optical-Bio Microsystems Lab, lead author and PhD student Shervin Foughi and former master's student Vahid Karamzadeh were co-authors.



Dating apps adapted to go-slow approach spark love during the pandemic ▼

A study in the journal *New Media & Society* demonstrates that dating apps like Tinder, Bumble and Match.com quickly adapted to the COVID-19 pandemic. Innovations in technology, customer messaging and promotional material helped the apps pivot from hook-up culture toward a new kind of “virtual dating,” in which couples met over video calls with take-it-slow expectations, prizing connections, relationships and authenticity over instant chemistry and sexual attraction.

The study’s lead author, Stefanie Duguay, assistant professor of communication studies, reported that the app companies seized the opportunities presented by improved video calling technology to normalize virtual dating.



Concordia receives \$1.9M for transformative coatings research

The Government of Canada has committed \$24 million through the New Frontiers in Research Fund for a project poised to extend the lifespan of metals. The Queen’s University-led project uses unique molecular coatings that could save billions of dollars on maintenance across several sectors.

Christian Moreau, professor of mechanical, industrial and aerospace engineering, is co-principal investigator of the research project. The Canada Research Chair in Thermal Spray and Surface Engineering will receive \$1.875 million. “This new coating approach has the potential to revolutionize our manufacturing processes to produce coatings of exceptional quality that could improve Canada’s health, environment and economy,” Moreau says.

\$1M to develop new strategies against naval cyberattacks

Canada’s Department of National Defence awarded Concordia researchers \$1 million in funding to help counter targeted cyberattacks on Canadian naval fleets. Kash Khorasani, professor of electrical and computer engineering and Honorary Concordia University Research Chair in Control of Autonomous Network of Unmanned Systems (Tier 1), leads the project.

“We will be looking at means to counter these key, emerging disruptive technologies,” he says. “This is a challenge the government has recognized requires the development of novel approaches.” Walter Lucia, associate professor at the Concordia Institute for Information Systems Engineering, and Rastko Selmic, professor of electrical and computer engineering, are Concordia’s other project co-applicants.



A Minecraft build can be used to teach almost any subject ▲

Minecraft — the highest-selling video game of all time — is not highly regarded among serious gamers. Yet Darren Wershler, professor of English, and Bart Simon, associate professor of sociology and director of Concordia's Milieux Institute for Arts, Culture and Technology, showed the value of Minecraft's flexibility in a paper published in the journal *gamevironments*.

The paper describes how Wershler used Minecraft to teach a class on the history and culture of modernity, based entirely within the game server. The pedagogical framework allowed the researchers to see how the students used the game for academic goals and found that they quickly adapted to their unique classroom and learning environment.

Despite progress, women still underrepresented in AI research

Female researchers in the artificial intelligence (AI) industry face underrepresentation, lower hiring rates and limited professional opportunities, as they do across STEM fields. A study published in the *Journal of Informetrics* showed that while the number of women working in AI increased in the past two decades, representation remained around 27 per cent. However, the researchers described a noticeable uptick in female-male and female-female collaboration.

"Females are getting more involved and having a greater impact in the AI scientific field," says the paper's co-author Andrea Schiffauerova, associate professor with the Concordia Institute for Information Systems Engineering. Anahita Hajjibabaei, MSc 22, was the paper's lead author.

New research and funding power Concordia's nanoparticle lab

Recent developments in the Naccache Research Group's nanoparticle lab in the Applied Science Hub include tackling sustainable biofuels and post-operative wound healing. The latter project was awarded \$1 million in funding via a Natural Sciences and Engineering Research Council of Canada Alliance grant.

Rafik Naccache, associate professor of chemistry and biochemistry and the Concordia University Research Chair in Sustainable Multifunctional Nanomaterials (Tier 2), is seeking to make biofuels environmentally safe through an in-depth understanding of their chemistry. He works to make carbon nanomaterials, prepared from carbon sources such as orange peels, coffee beans or simple molecules, cost efficient and sustainable.

Electric vehicle charging stations' weaknesses uncovered

As reported in a paper published in the journal *Computers & Security*, a Concordia-led team of researchers found vulnerabilities from some of the electric vehicle (EV) charging station industry's biggest manufacturers. The researchers at the Gina Cody School's Security Research Centre uncovered weaknesses in firmware and mobile and web applications that can leave those systems open to cyberattacks.

The researchers identified three categories of EV charging station management systems, all of which to different degrees are vulnerable to manipulation and potential malware infection. By exploiting and manipulating them, the researchers concluded that attackers could conduct multiple types of malicious actions. "We are about to see an exponential rise of EVs on the road," says Chadi Assi, professor at the Concordia Institute for Information Systems Engineering and the paper's supervising author. "But without a secure charging infrastructure, customers will be reluctant to commit to electric cars."

Concordia researcher explores how to make AI "more intelligent"

Simone Brugiapaglia, assistant professor of mathematics and statistics, co-authored an article for *Proceedings of Machine Learning Research* that asked what happens when AI systems get things wrong and examined how to make AI "more intelligent."

"Many mathematical results on deep learning assert the existence of neural networks able to approximate a given class of functions up to a desired accuracy," he says. "However, most of these results do not address the ability of training such networks nor do they quantify the amount of data needed to reliably do this. Despite the tremendous success of deep learning in countless applications, the mathematics of it is still in its infancy."



Disney's plans for total dominance are well underway ▲

In a paper published in the journal *Television & New Media*, Jake Pitre, a PhD student in film and moving image studies at the Mel Hoppenheim School of Cinema, described how the Walt Disney Company uses a strategy he calls brand futurity to instill a sense of inevitable, permanent and total Disney cultural dominance well into the future, burnished with the sheen of its trademark joy and wonder.

"Brand futurity is a way of understanding how brands position themselves in the digital age and in the age of hyperfinancialization," he says. "My focus is anti-capitalist but pro-hope."

INNOVATION HIGHLIGHTS

Concordia co-leads Canadian cybersecurity innovation network ▼

The Government of Canada announced \$76.4 million in funding over four years to the National Cybersecurity Consortium (NCC). The NCC, as a lead recipient, will establish the Cyber Security Innovation Network, a vital platform for the advancement of cybersecurity in Canada.

“Cyberattacks are on the rise with unprecedented sophistication, speed, intensity, volume, damage and audacity,” says Mourad Debbabi, director of Concordia’s Security Research Centre and dean of the Gina Cody School of Engineering and Computer Science, and one of the NCC’s five co-founding executive directors. “This investment will usher in a new era of collaborative R&D, innovation and training that will further secure Quebec and Canada’s economy.”



Concordia launches Applied AI Institute

Climate change, smart cities, health care, transportation, aerospace, cybersecurity, privacy and trust — Concordia researchers have been applying AI solutions to these problems for years. Now, they’re joining forces under the university’s newly launched Applied AI Institute, co-directed by Tristan Glatard, professor of computer science and software engineering, and Fenwick McKelvey, professor of communication studies.

“My work will amplify the innovation that research at Concordia brings to the global AI ecosystem,” says Glatard, who holds the Canada Research Chair (Tier 2) on Big Data Infrastructures for Neuroinformatics. “Artificial intelligences raise governance questions, challenging our traditions of technology regulation. Solutions have to be interdisciplinary,” McKelvey adds.

New think tank bridges digital innovation and climate action

Concordia, in collaboration with Future Earth Canada Hub, welcomed Sustainability in the Digital Age (SDA). The think tank brings together subject-matter experts to explore how digital innovation can support the United Nations’ Sustainable Development Goals (SDGs).

Damon Matthews, Concordia University Research Chair in Climate Science and Sustainability and SDA scientific co-director, stresses the importance of meeting climate goals and the SDGs. “Progress and societal transformations need to be amplified and accelerated, and this is where the digital revolution is key,” he says. “If we could harness the innovative power of the digital world toward meeting the world’s climate and other sustainability goals, we might be able to start making real and rapid progress.”



NEXT GEN HEALTH

ELEVATING HUMAN WELL-BEING

HIGHLIGHTS

Professor lands \$1.5M for brain-health research

The Weston Family Foundation awarded Simon Bacon, professor of health, kinesiology and applied physiology, \$1.5 million over three years to further his groundbreaking brain-health research on the impact of health behaviours and lifestyle on chronic diseases.

Bacon holds the Canadian Institutes of Health Research Strategy for Patient-Oriented Research Mentorship Chair in Innovative, Patient-Oriented, Behavioural Clinical Trials and is also co-director of the Montreal Behavioural Medicine Centre. The project will study patients undergoing bariatric surgery, which helps people lose weight, and how dramatic changes in their diet and the bacteria in their stomach, the gut microbiome, can impact their brain structure and function.

The aim is to identify eating patterns that can improve cognitive health and reduce the risk of cognitive decline. Bacon asks: "Wouldn't it be great to know that if we eat more of X food, we might be sharper at work or be able to maintain conversations with families for longer?"

Insomnia increases the likelihood of older adults' memory decline

A Canadian study published in the journal *SLEEP* revealed that people aged between 45 and 85 with insomnia are at greater risk of developing memory decline and long-term cognitive impairment such as dementia. Study participants who reported worsening sleep quality in a three-year interval from 2019 to 2022 also had greater odds of reporting subjective memory decline.

"We found that insomnia specifically was related to worse memory performance compared to those who have some insomnia symptoms alone or no sleep problems at all," says the study's co-lead author Nathan Cross, a postdoctoral fellow at Concordia's Sleep, Cognition and Neuroimaging Lab.

Alcohol consumption affected by circadian-rhythm-linked protein ▶

Research published in the *Nature* journal *Communications Biology* showed that the reason we drink alcohol is at least partly due to the presence of the *Bmal1* gene in the area of the forebrain that regulates, among other things, decision-making and reward perception. Interestingly, male mice without the protein consumed more alcohol than those with it, while the reverse was true for female mice. *Bmal1* is integral in regulating the sleep-wake cycle in the master circadian clock found in all mammals.

Nuria de Zavalía, research associate and lab manager at Concordia's Center for Studies in Behavioral Neurobiology, led the study, supervised by Shimon Amir, professor of psychology.

Pilot project bringing art therapy to newcomers

Jude Ibrahim, an MA in art therapy student, initiated and led a pilot project for the Concordia Arts in Health Centre in collaboration with the Refugee Centre, Montreal Therapy Centre and Montreal Museum of Fine Art. The project provided affirmative and culturally relevant mental-health services to newcomers through the development of an art therapy internship with the organizations.

The project offered short-term, individual art therapy sessions and museum-based group art therapy sessions for recently arrived mothers. "Newcomers and refugees face multifaceted obstacles and barriers throughout their forced migration journey," Ibrahim says, which pose "a tremendous strain on their mental health and well-being."



Female employment increasingly at risk due to COVID-19 ▼

A paper co-authored by Shirin Emadi-Mahabadi, MBA 21, published in the *European Journal of Business Management Research*, argued that while companies acknowledge a direct relationship between an inclusive work environment and a healthy bottom line, too many have discarded inclusivity practices following the COVID-19 outbreak — which is not just bad for women but for the company's future growth and profitability.

"As we point out in the study, women are 12 times more likely to step away from their jobs to take care of family members. And if they stay, they may see their careers suffer due to reduced ability to focus on their work," says Emadi-Mahabadi.

Researchers find patterns and predictors of physical distancing adherence

Sasha MacNeil, a Vanier Scholar and PhD candidate in clinical psychology, reports that age, education and employment status are only a few reasons why some are more willing than others to follow public health guidelines. "We wanted to identify different patterns of adherence to physical distancing," MacNeil says of a study she led that was published in the journal *Psychology & Health*.

The findings reveal four distinct physical-distancing trajectories from respondents. The largest group, "high adherents," constituted 50 per cent of respondents. The rest, "slow decliners," "fluctuating adherents" and "fast decliners," who exhibited poorer adherence, held common beliefs: perceptions of lower self-efficacy, higher barriers and lower prosocial attitude.

Concordia-developed biosensor system detects rotten meat more easily

A group of Concordia researchers designed a new, inexpensive, reliable and consumer-friendly technology that identifies the presence of the dangerous toxin putrescine in beef. The researchers explain how they developed the paper-based synthetic biosensor in the journal *Applied Bio Materials* using a protein found in nature.

"We wanted to make a device that anyone could use, that is disposable and contained no toxic materials," explains lead author Alaa Selim, MSc 22, now pursuing her PhD at the University of Saskatchewan. Her co-authors include her former PhD student colleagues at the Shih Microfluidics Lab, led by Steve Shih, associate professor of electrical and computer engineering.





NEXT-GEN LEARNING

DELIVERING SCHOLARLY AND
EXPERIENTIAL KNOWLEDGE

HIGHLIGHTS

Experiential learning opportunities for all undergrads

Concordia has committed to offering every incoming undergraduate student at least one experiential learning opportunity during their studies and at least two by 2025. The commitment formally recognizes what's long been a priority for the university, says Concordia President Graham Carr. "This decision is our way of officially acknowledging — and perpetuating — Concordia's reputation for offering academic programs that really equip you with the tools to build the world you want to live in."

Learning by doing allows Concordians to invest in their skills and knowledge on a whole new level during their time pursuing a degree, through hands-on opportunities that might take the form of an internship, research project, field course or capstone project, to name a few.

Carr stresses that the experiential learning commitment is especially timely. "Society is in the midst of rethinking the future of work, against a backdrop of labour shortages, supply-chain disruptions and the proliferation of new technologies," he says. "Developing, integrating and retaining next-generation talent has a new urgency."



Board game teaches how social media amplifies online conspiracies

Communication studies PhD student Scott DeJong has created a board game that pits conspiracy theorists and their online troll amplifiers against moderators and educators. He says he designed the fun-but-educational game *Lizards & Lies*, available as a free download, as a model to help grasp the movement of false content and the frustrations those fighting against it can experience.

The game explores the widely held supposition that the spread of conspiracy theories and misinformation online constitutes a new front in a global war on truth.

Bouclair's Galerie B highlights Concordia student artists

At Montreal retailer Bouclair's Galerie B, five Concordia studio art students took part in a group exhibition: Paulina Bereza, fibres and material practice, Alice Zerini-Le Reste, ceramics, Diane Roe, print media, Octavious Jones, sculpture, and Emiliano Moreno Quesada, sculpture.

Bouclair produced videos of the artists and received local media coverage. "Galerie B was great exposure," Roe notes. "It has opened up doors."

Film production programs will triple in size ▲

Concordia will triple the capacity of the Mel Hoppenheim School of Cinema's film production programs in the coming years, accommodating more than 220 new students. The expansion aims to ensure Quebec's thriving cinema and television industry benefits from the creative and highly trained graduates who have cemented the school's reputation over its half-century of existence. "We're pleased to support the talent of our filmmakers as they enrich Quebec's cultural industries," says Annie Gérin, dean of the Faculty of Fine Arts.

PhD Career Connect exposes students to diverse career paths

Concordia introduced PhD Career Connect, the first program of its kind in Canada, bringing together doctoral students and employers in the private, public and non-profit sectors to explore a range of career options. The first cohort of 45 select PhD candidates, recent graduates and postdoctoral students participated in career preparation and professional skills training followed by an immersive event with 14 employers.

The participants have since secured various positions such as researchers, software engineers, market analysts, machine learning engineers, scientific officers, lecturers and program coordinators.



Kristy Snell joins Concordia as Journalist-in-Residence ▼

Award-winning multi-platform journalist Kristy Snell was appointed academic director of the Institute for Inclusive, Investigative, and Innovative Journalism and as Concordia's Journalist-in-Residence. She is teaching and working on a project focusing on Indigenous education.

Snell has spent nearly a decade and a half delivering morning radio newscasts for CBC in Montreal and Quebec City. She has taught radio skills and broadcast writing at the CBC and audio news at Concordia's Department of Journalism. Snell is currently pursuing an MEd in Indigenous education at the University of British Columbia. She is a member of Standing Buffalo Dakota Nation.



V1 Studio provides Canadian researchers an entrepreneurial touchpoint

V1 Studio is a venture builder founded by Concordia in partnership with its innovation hub, District 3. V1 Studio's mission is to give researchers across Canada a touchpoint with entrepreneurship.

One V1 Studio initiative is the Quebec Scientific Entrepreneurship (QcSE) program, which facilitates researchers' lab-to-market journey through entrepreneurship training. The Fonds de recherche du Québec awarded QcSE \$600,000 over three years to support the creation of new curriculum and expand program outreach.

"Too many student researchers bypass the idea of starting a business to advance their technologies and products," says Diana Horqque, V1 Studio's executive director. "Training can help make entrepreneurship a viable career option. Having researchers bring their ideas to market feeds into the innovation pipelines that positively impact our communities and economies."

V1 Studio's Scientific Venture Program (SVP) recruits doctoral researchers with a great concept for a startup. Open to PhD graduates from Concordia and other institutions, the SVP aims to accelerate innovative, research-based ideas in science, health, agri-food, cybersecurity and cleantech. SVP is the only program of its kind in Canada. Rather than shelving their PhD research, participants receive tools and resources that help them transition ideas to implementation, including \$71,000 in financial and in-kind services per year.



Women's hockey team wins nationals ▲

The Concordia Stingers women's hockey team, under head coach Julie Chu, won the gold medal at the U Sports national championship in Charlottetown, P.E.I., in March. The Stingers defeated the Nipissing Lakers 4-0 in the final game to earn the Golden Path Trophy. It marked the third national title in the team's history. Concordia won the first two U Sports women's hockey championships, in 1998 and 1999.

To honour the champs, MNAs welcomed the Stingers to the National Assembly of Quebec in May. Members of the team met Isabelle Charest, the minister responsible for sports, Chantal Rouleau, the minister responsible for the Montreal region, and Quebec Premier François Legault.

STUDENT ACCOMPLISHMENTS

Three Concordia undergraduate students won medals at the Beijing 2022 Winter Olympics and Paralympics: Pascal Dion, finance — gold, men's short-track speed skating, 5,000-metre relay; Paralympian Anton Jacobs-Webb, mechanical engineering — silver, men's para ice-hockey; Marion Thénault, aerospace engineering — bronze, freestyle skiing mixed team aerials.

Sage Duquette became the first Concordia student to become a McCall MacBain Scholar, which fully funds a master's or professional degree at McGill University. He joined a class of 20 chosen from nearly 700 Canadian applicants.

Community, public affairs and policy studies student Aiden Cyr was among the few hundred students from around the world to receive a prestigious Schwarzman Scholarship. He joined his peers for a one-year, fully funded master's program in global affairs hosted by Tsinghua University in Beijing, China.

The Northeastern Association of Graduate Schools honoured Amir Hooshier for outstanding PhD dissertation in agricultural, biological and health sciences, and Zhikun Chen, MASc 20, for outstanding master's thesis, which includes physical sciences, mathematics and engineering. The association is a regional affiliate of the Council of Graduate Schools, drawing from postsecondary institutions from across Northeastern Canada and the United States.

John Molson School of Business delegates reached the podium 11 times and finished first overall at the 2022 Jeux du Commerce hosted by Université Laval.

Stinger wrestler Connor Church received a prestigious Tom Longboat Award, presented to Aboriginal athletes for outstanding contribution to sport in Canada. ▼



Avery Mikolic-O'Rourke, BFA 22, a graduate of the Department of Studio Arts' Intermedia program, was chosen as the BMO 1st Art! competition Quebec regional winner. The BMO 1st Art! contest celebrates the creativity of art students from more than 100 postsecondary institutions across the country. Mikolic-O'Rourke's digital video installation is composed of roughly 700 video clips shot across eight hours from the same vantage point on Montreal's Jacques Cartier Bridge. ►

For its Truth and Reconciliation keepsake medallion, the Royal Canadian Mint selected the design created in part by studio arts and art history student Jason Sikoak. The medallion honours residential school survivors and victims. Sikoak, originally from the Inuit community of Rigolet, Nunatsiavut, in Labrador, had previously won a Royal Canadian Mint contest to design a silver coin.

Molecular biology student Mackenzie Thornbury and psychology student Sara Matovic, both doctoral researchers, were awarded Vanier Canada Graduate Scholarships. Thornbury was recognized for her work on yeast engineering and organic acids. Matovic was honoured for her research into adverse childhood experiences and their impact on emotional well-being later in life. The Government of Canada's Vanier Scholarship program aims to position the country as a global centre of excellence in graduate research.

Curator, critical museologist and designer Trina Cooper-Bolam was awarded a Banting Postdoctoral Fellowship for her postdoctoral project, "Storied Transformations: Decolonizing Inherited Space through Memorial Performance." The project is a transdisciplinary investigation into the reclaiming of the former Shingwauk Indian Residential School in Sault Ste. Marie, Ontario, in collaboration with survivors and students. The Government of Canada's Banting fellowship seeks to support and promote the work of the finest researchers in their given fields, both nationally and internationally.



FACULTY HONOURS

The Royal Society of Canada, the highest accolade available to scientists, scholars and artists from across the country, inducted Catherine Mulligan, professor of building, civil and environmental engineering, and professor Emad Shihab and associate professor Tristan Glatard, both from computer science and software engineering.

Geneviève Cadieux, associate professor of studio arts, was appointed as a member of the Order of Canada.

Judith Woodsworth, retired professor of translation studies, won a prestigious 2022 Governor General's Literary Award in the French-to-English translation category for her translation of Pierre Anctil's *Histoire des Juifs du Québec*.

Angélique Willkie, associate professor of contemporary dance, won a Prix de la danse de Montréal from Danse Danse for her solo performance of *Confession Publique*.

Emilio Imbriglio, BComm 80, GrDip 82, became the inaugural executive fellow at the John Molson School of Business.

NEXT-GEN SUSTAINABILITY

ADVANCING A SUSTAINABLE FUTURE



HIGHLIGHTS

◀ **Research partnership to improve the built environment**

Five Concordia researchers are part of a multidisciplinary group awarded a combined \$8.6 million from the Social Science and Humanities Research Council of Canada and other partners. Their unprecedented research project, titled Quality in Canada's Built Environment: Roadmaps to Equity, Social Value and Sustainability, will help increase the quality of Canada's built environment.

Carmela Cucuzzella, professor of design and computation arts, Ursula Eicker, professor of building, civil and environmental engineering, Cynthia Hammond, professor of art history, Meghan Joy, associate professor of political science, and Carly Ziter, assistant professor of biology, make up the university's team members.

"Concordia's involvement in the partnership has been crucial to building this network," says Cucuzzella, Concordia University Research Chair in Integrated Design, Ecology and Sustainability for the Built Environment and founding co-director of the Next-Generation Cities Institute along with Eicker. "Our team of five women scholars is a true model for interdisciplinary and critical approaches on issues of quality in the built environment."

Next-Generation Cities Institute's sustainability focus ▼

Concordia's Next-Generation Cities Institute (NGCI), which focuses on transdisciplinary collaboration to shape sustainable urban development, had a productive year.

The institute welcomed seven new partner organizations, which will work together on diverse projects such as developing smart and sustainable infrastructure and designing zero-carbon urban solutions.

The Climate Montreal Partnership, a zero-carbon buildings accelerator with ties to the NGCI, was launched in 2022. The accelerator will provide developers with tools and resources to make the entire industry more sustainable, and aims to multiply low-emission, climate-resilient construction and renovation projects in Montreal's commercial and residential areas.

Ursula Eicker, institute co-director and Canada Excellence Research Chair in Smart, Sustainable and Resilient Cities and Communities, and PhD student Natalie Voland, president of Montreal-based real estate developer Gestion Immobiliere Quo Vadis, initiated the accelerator. The partnership groups some 100 Montreal economic, institutional, community and philanthropic organizations committed to meeting the challenge of reducing Montreal's greenhouse gas emissions by 55 per cent by 2030.

Voland was author of a paper published in the journal *Sustainability* that used real-world examples to lay out the obstacles, opportunities and realities of sustainable real estate development. Voland and co-authors Eicker and Concordia Public Scholar Mostafa Saad presented practical incentives local governments can offer to encourage private green real estate development.

Saad is researching city-scale decarbonization strategies for buildings. He explains that his research asks: "How can we make buildings more energy efficient and at the same time lower their carbon footprint by renovating or retrofitting them? And how can we find a scalable methodology that can be applied to other buildings?"

Concordia and BMO partner for innovative sustainability-linked loan

Concordia entered into a sustainability-linked financing deal with BMO Financial Group. The amendment to an existing credit agreement introduces a mechanism tied to the alignment of the university's assets under management with sustainable and impact investments.

This sustainability-linked loan underpins the university's commitment to advancing sustainability in its operations, management, research and curriculum. "We were the first university in North America to issue a sustainable bond," says Graham Carr. "And now I'm thrilled that we're once again the first university in Canada to conclude a sustainability-linked loan arrangement with BMO."



5th best in the world for Sustainable Cities and Communities

Concordia maintained its spot among the best 100 universities — 96th overall out of 1,406 institutions — in the 2022 Times Higher Education (THE) Impact Rankings, which tracks the progress of the international higher education sector toward helping achieve the SDGs. The university placed fifth in the world and second in Canada in the Sustainable Cities and Communities category, which measures universities' sustainability research, role in supporting arts and heritage, and internal approaches to sustainable practices.

Diplomats visit Concordia to discuss its approach to sustainability ▼

Diplomats from the five Nordic countries added Concordia to the itinerary of their November visit to Montreal. Concordia experts and the ambassadors of Iceland, Denmark, Finland and Sweden and the deputy head of mission for the Norwegian Embassy discussed multidisciplinary approaches to tackling the climate crisis, the university's work on renewable energy and decarbonization and the similar ongoing work in the Nordic region. They also explored the potential for collaboration on future initiatives.

Bringing together biology, genomics, social science and Indigenous knowledge

Monica Mulrennan, professor of geography, planning and environment, and Dylan Fraser, professor of biology, are among the dynamic group of researchers contributing to a large-scale partnership looking for ways to best protect and nourish fisheries in Canada's northern Indigenous communities. The project, FISHES (Fostering Indigenous Small-scale fisheries for Health, Economy, and food Security), bridges Indigenous knowledge with science in part to foster the development and co-management of sustainable northern fisheries.

"This project will contribute to our ability to address critical challenges and opportunities related to food security and fisheries conservation and development for northern Indigenous communities, including impacts related to climate change," says Mulrennan.

Humans are adapting to climate change, but not quickly enough

A study by the Global Adaptation Mapping Initiative, an international network of researchers, concludes that individual responses to the threats of climate change have been piecemeal and inadequate. In an article published in *Nature Climate Change*, the authors, including Alexandra Lesnikowski, assistant professor of geography, planning and environment, find significant areas where global efforts need improvement. The research revealed that while people are responding, it remains unclear if these responses are reducing overall risks, and the responses have not yet resulted in significant transformative change.

"Most of the adaptations being documented are at the very local level, including individuals, households and local governments," Lesnikowski says.



NEXT-GEN SPACES

BUILDING FOR TOMORROW

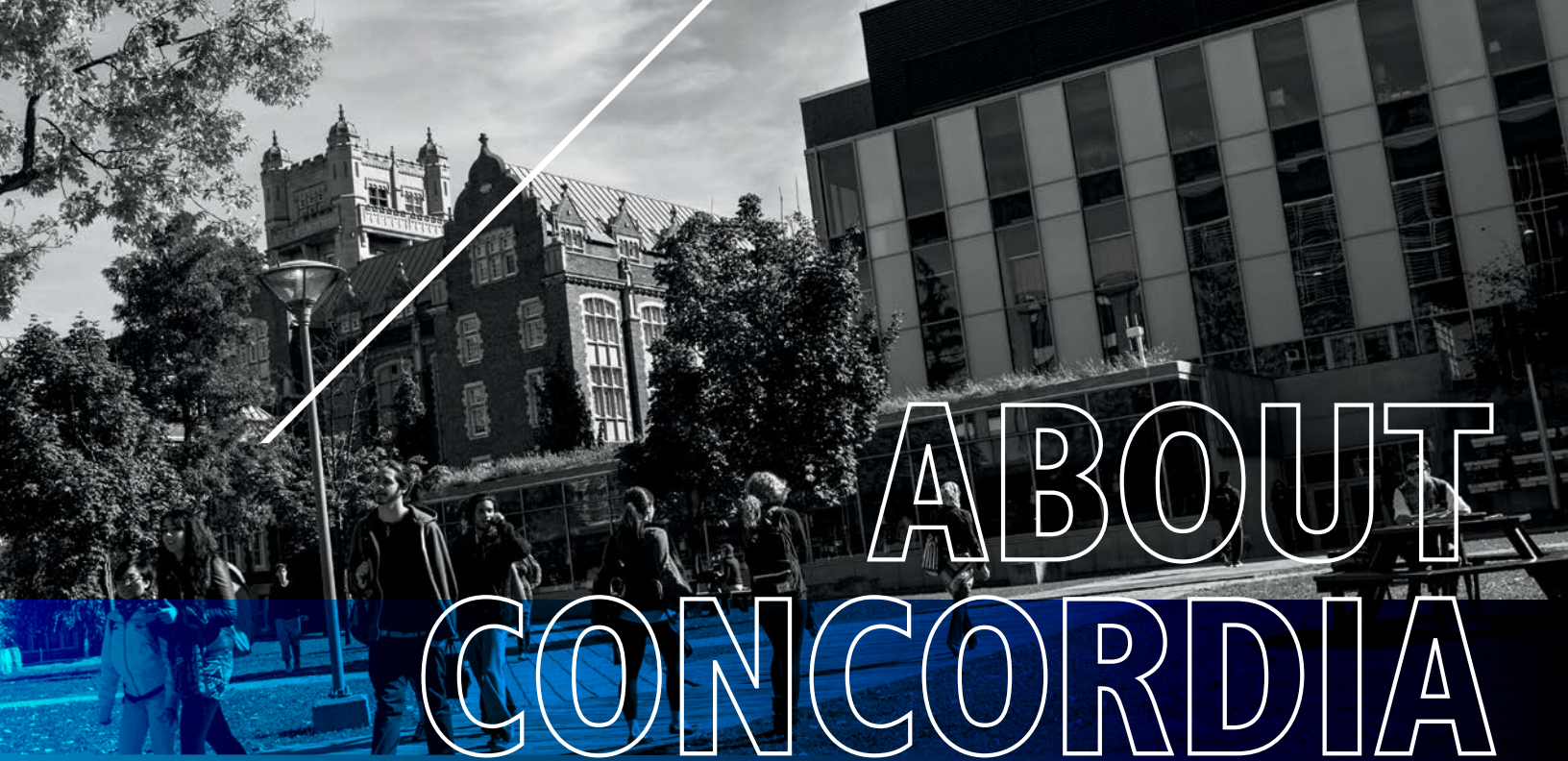
HIGHLIGHTS

The SHIFT Centre for Social Transformation opened on the street-level of the J.W. McConnell Building. It welcomes researchers, students and community-builders to inspire and learn from each other. “This new space was created to scale up and amplify our impact by welcoming diverse people, institutions, ideas and expertise for participatory research, experiential learning and project development,” says Anne Whitelaw, provost and vice-president, academic.

The university also received a number of impressive certifications for its buildings in 2021-22:

- The Canada Green Building Council recognized the Applied Science Hub with a LEED (Leadership in Energy and Environmental Design) Gold
- The Building Owners and Managers Association’s Québec Building Energy Challenge recognized university structures for their greenhouse gas reductions:
 - ◆ The John Molson Building earned a Diamond Distinction — the highest distinction — in the education and laboratory category
 - ◆ The Guy-De Maisonneuve Building, Jesuit Residence, Grey Nuns Residence and Z, M and B annexes received a platinum ranking
 - ◆ The Visual Arts Building won a silver ranking





ABOUT CONCORDIA

**#1 university in
North America**
under 50 years

75% of courses
have fewer than
60 students

**#1 favourite
student city**
in North America

**Top 100
in world**
for support of SDGs

Concordia is a next-generation university, continually reimagining the future of higher education. Located in the vibrant and multicultural city of Montreal, Concordia is the top-ranked university in North America founded within the last 50 years and annually registers some 51,500 students through its innovative approach to experiential learning and cross-functional research.

CONCORDIA.CA / ABOUT

PROMOTING THE UN SUSTAINABLE DEVELOPMENT GOALS

Concordia has joined the Decade of Action to achieve the UN's ambitious Sustainable Development Goals. The goals draw on our strengths in community health, global literacy, water security, environmental impact and sustainable infrastructure design.

ESSENTIAL PLAYER IN MONTREAL

Concordia's commitment to supporting its city by advancing research-creation, innovation and culture will ensure Montreal's vitality in the years ahead.

INTERESTED AND INVOLVED STUDENTS

The diverse and engaged students add a dynamic energy and vision to the university experience.

51,500+

students

9,800

international students

5,000+

co-op students

150

countries represented

FACULTY NETWORK

Professors and researchers collaborate across disciplines and network with the community to deliver groundbreaking knowledge-creation.

2,250+

professors and librarians

141

research chairs and professorships

\$75.8 million

research income



BLACK PERSPECTIVES

Concordia is dedicated to addressing and challenging anti-Black systemic racism and being inclusive and accessible to Black students, staff and faculty and fostering relationships with Black communities.

The work of the Black Perspectives Office is rooted in an anti-racist and anti-oppressive framework and informed by generations of Black students and community activism.

73

courses focused on Black, Indigenous and People of Colour

1

Task Force on Anti-Black Racism

1968

Concordia Caribbean Students' Union founded

2,220+

items in the Negro Community Centre fonds

COMMITTED TO DECOLONIZATION AND INDIGENIZATION

Concordia acknowledges that it is situated on unceded Indigenous lands and recognizes the Kanien'kehá:ka Nation as the custodians of the surrounding lands and waters. The university is committed to truth and reconciliation and engaging with ongoing Indigenous issues.

1st

First Peoples major in Quebec

1

Indigenous Directions Action Plan

1992

Aboriginal centre opens

30

Indigenous graduate scholarships