

#### **SENATE**

#### **NOTICE OF MEETING**

March 10, 2023

Please be advised that the next regular meeting of Senate of Concordia University will be held on Friday, March 17, 2023, at 2 p.m., in the Norman D. Hébert, LLD Meeting Room (Room EV 2.260) on the SGW Campus.

The Agenda and documents for the Open Session meeting are now posted on the <u>Senate webpage</u>.

Please note that Closed Session documents and discussions are confidential.

Please note that there is no Closed Session for this meeting. The Senate meeting will start with the Open Session at 2:00 p.m., and all members of the University community who wish to view the Open Session meeting will be admitted at this time.

Karan Singh Secretary of Senate



# AGENDA OF THE OPEN SESSION OF THE MEETING OF SENATE

Friday, March 17, 2023, at 2 p.m in the Norman D. Hébert, LLD Meeting Room (Room EV 2.260) on the SGW Campus and via Zoom video conferencing

Item		Presenter(s)	Action		
1.	<ul><li>Call to order</li><li>1.1 Approval of the Agenda</li><li>1.2 Adoption of Minutes from the Open Session meeting of February 17, 2023</li></ul>	G. Carr G. Carr G. Carr	Approval Approval		
2.	Business arising from the Minutes not included on the Agenda	G. Carr			
3.	President's remarks	G. Carr	Information		
4.	Academic update (Document US-2023-2-D1)	A. Whitelaw	Information		
CONSENT AGENDA					
5.	Tribunal Pool/Committee Appointments (Document US-2023-2-D2)		Approval		
6.	Academic Programs Committee Report (Document US-2023-2-D3)		Information		
7.	Academic Planning and Priorities Committee Report (Document US-2023-2-D4)		Information		

### **REGULAR AGENDA**

8. Strategic Research Plan (Document US-2023-2-D5)

D. Bérubé Information

- **9.** Question period (*maximum 15 minutes*)
- **10.** Other business

**11.** Adjournment

G. Carr



US-2023-1

# MINUTES OF THE OPEN SESSION OF THE MEETING OF SENATE

Friday, February 17, 2023, at 2 p.m. in the Norman D. Hébert, LLD Meeting Room (Room EV 2.260) on the SGW Campus and via Zoom video conferencing

#### **PRESENT**

Voting Members: Graham Carr (Chair), Nagendra Sri Anurag Appala, Leslie Barker (attended remotely), Sabine Bergler, Dominique Bérubé, Beverley Best, Catherine Bolton, Adam Bouguila, Sally Cooke (remotely), Anne-Marie Croteau, Fabienne Cyrius, Alexandra Dawson, Selvadurai Dayanandan, Mourad Debbabi, Larry Deck, Effrosyni Diamantoudi, William Dickson, Mary Esteve (attended remotely), Mehdi Farashahi, Annie Gérin, Marina Ghali, Fawaz Halloum, Steve Henle, Asli Isaaq, Jordan Jerome-Pitre, Rebecca Kaninda, Michael Lecchino, Sofia Lipari-Couture, Christopher Moore, Peter Morden (attended remotely), Catherine Mulligan (attended remotely), Fuzhan Nasiri (attended remotely), Xavier Ottenwaelder, Ian Rakita, Nachiketh R. Ravindra, Pat Riva, Ahmadou Sakho, Pascale Sicotte, Sofiane Tahar, Kelly Thompson, Craig Townsend, Guylaine Vaillancourt (attended remotely), Deeva Wazir, Anne Whitelaw, Radu Grigore Zmeureanu

Non-voting members: Philippe Beauregard, Paul Chesser, Stéphanie de Celles, Michael Di Grappa (attended remotely), Nadia Hardy, Frederica Jacobs, Emilie Martel (attended remotely), Stefana Nita

Also attending: Nadia Bhuiyan (attended remotely), William Cheaib, Richard Courtemanche, Alex De Visscher, Danielle Dennie, Sandra Gabrielle (attended remotely), Melanie Jane Hazlett, Lisa Ostiguy (attended remotely), Anna Sheftel

#### **ABSENT**

<u>Voting members:</u> Matthew Barker, Samreet Kaur, Moshe Lander, David Morris, Mireille Paquet, Thenmozhie Rajan

Non-voting members: Denis Cossette, Isabel Dunnigan, Tom Hughes

#### 1. Call to order

The President called the meeting to order at 2:03 p.m.

#### 1.1 Approval of the Agenda

R-2023-1-1 Upon motion duly moved and seconded, it was unanimously resolved that the revised Agenda of the Open Session be approved.

#### 1.2 Adoption of December 16, 2022 Minutes

R-2023-1-2 Upon motion duly moved and seconded, it was unanimously resolved that the Minutes of the Open Session meeting of December 16, 2022, be adopted.

#### 2. Business arising from the Minutes not included on the Agenda

There was no business arising from the Minutes not included on the Agenda.

#### 3. President's Remarks

The President's remarks are summarized as follows:

- G. Carr began by acknowledging that the last 2 weeks have been extremely difficult for members of Concordia's Turkish and Syrian communities because of the devastating earthquakes that ravaged southern Turkey and northern Syria, which, per reports from the United Nations, have killed more than 40,000 people and displaced millions of others. He noted that Concordia currently has 396 Syrian students and 99 Turkish students. The Syrian students are mainly permanent residents and Canadian citizens, while the Turkish students are in Canada on international visas.
- He informed Senate that, following news of the earthquakes, the International Students Office (ISO) reached out directly to every Turkish and Syrian student at Concordia to check on them and make them aware of the supports available to them. The office also made arrangements with major telephone service providers to facilitate free calls to their home countries (in areas where phone service was still functioning).
- There are also many Iraqi and Iranian students who have been admitted to Concordia but who are temporarily residing in Turkey pending visa decisions, and the ISO also reached out to them. He confirmed that none of those students, and no students or faculty on exchange or doing research in the affected areas, had been injured or worse because of the earthquakes. The University was continuing to post and update information on the Student Hub and has also sent a message to faculty deans for distribution to departments asking that academic accommodations be provided to students who have been severely affected by the events.
- He further noted that it is more difficult for the University to identify and therefore reach out to faculty and staff of Syrian and Turkish origin, as the University doesn't

have that information, but information has been posted on the Employee Hub about assistance services that are available.

- There is also information available in an article on the University's home page which includes a link to the Red Cross relief effort for those would like to make a donation; the Concordia Student Union has also been collecting donations that are destined for Turkish and Syrian organizations. There is also a link to the Concordia University Turkish Student Association's Instagram and the Association is working with Turquebec and the Turkish Embassy to further the support efforts. The University is continuing to monitor events as they unfold and is responding directly to individuals who have questions or remain uncertain about how to get support.
- G. Carr then noted that, as part of Black History Month, several Concordians were highlighted last week by CBC as Black Changemakers. He congratulated all of them.
- He informed the Board that on February 6, there was an unveiling of a temporary plaque (a model of what will be installed in the spring) in the Atrium of the Hall Building commemorating the student protest against anti-Black racism that took place in the Hall Building in 1969. A bilingual interactive website was also launched and will be populated with additional materials in the future. At this launch, A. Whitelaw announced that, in partnership with the Student Success Center, Concordia was creating a Black Student Centre, and that work had begun on designing a minor in Black and African Diaspora Studies in the Canadian context. He concluded that all of these initiatives are actions stemming from the report of the President's Task Force on Anti-Black Racism, and there are many more recommendations still to be implemented.
- He was pleased to report that the University had recorded a great year of research funding with more than \$75M in research income in the 2021 fiscal year. This was the first time in the University's history that the \$70M threshold has been exceeded, and this increase represented a leap of more than 25% over the previous year. Only one other university among the top 25 institutions, the University of Saskatchewan, had a higher percentage gain. He noted that this growth largely occurred during the pandemic and was a testimonial to the point that universities continued to advance their mission, even under the duress that everyone experienced during the pandemic.
- Earlier in the week, an event in the John Molson Building was held to honour recipients of the Presidents' Media Outreach awards. These awards are given to faculty and graduate students whose vulgarisation of their research has helped the public understand some of the grand challenges of our time, or whose research has been hailed externally as a breakthrough. One of the awards was given to Muthu Packirisamy, (faculty in Mechanical, Industrial and Aerospace Engineering), whose development of a breakthrough nano technology in optical-bio microsystems was identified as a top-10 science discovery of the year by *Science QC*.

- He also congratulated E. Diamontoudi, who has been appointed as the new Dean of Graduate Studies after the conclusion of a national search. Senators and meeting guests joined in congratulating E. Diamontoudi.
- The seventh edition of ConUHacks was held on January 21st and 22nd, with record attendance of some 900 attendees, mostly students, who came from across North America to participate in the event. An outstanding list of sponsors from the private and public sector issued the challenges that the hackers sought to crack.
- The winter open house is scheduled for the weekend ahead. The pre-registration numbers are: 4550 students already registered as of the beginning of this week, including nearly 1700 from Quebec, more than 350 from rest of Canada, more than 100 from the United States, and some 2400 who will join targeted virtual information sessions, with the largest group of prospective international students in African countries this time. The students attending in person will be accompanied by more than 2000 guests, mainly parents and siblings. He thanked all of the volunteers for giving their time to the Open House, it is greatly appreciated by the University.

#### **4. Academic update** (Document US-2023-1-D1)

In addition to the written report, A. Whitelaw informed Senate that the draft of the new Academic Freedom Policy and procedures was ready and would be shared with Senators sometime next week via a link. She also noted that she would be visiting Faculty Councils to present the policy, and she will also be scheduling meetings with the undergraduate and graduate student senators to get feedback on the policy and answer questions. This consultation process will last about a month, with the policy scheduled to be brought to Senate for approval in May.

#### **CONSENT**

#### 5. Tribunal Pool/Committee Nominations (Document US-2023-1-D2)

R-2023-1-3 Upon motion duly moved and seconded, it was unanimously resolved that the *Tribunal Pool and Committee appointments be approved.* 

#### **6. Research Committee Report** (Document US-2023-1-D3)

This report was for information purposes.

#### **REGULAR**

7. Academic Programs Committee - Report and recommendation - Microprogram in Indigenous Land-Based Education (Document US-2023-1-D4)

A. Whitelaw presented the item, noting that this comes on the heels of a bridging Indigenous Studies program that was approved in December. P. Sicotte spoke of the new program.

Speaking privileges were requested and granted to Richard Courtemanche and Anna Sheftel, who provided more details about the program and responded to questions.

- R-2023-1-4 Upon motion duly moved and seconded, it was unanimously resolved that, following recommendation of the Academic Programs Committee, the Senate approve the new Microprogram in Indigenous Land-Based Education as detailed in the attached document (Document US-2023-1-D4).
- 8. Academic Programs Committee Report and recommendation Report and recommendation BEng in Chemical Engineering (Document US-2023-1-D5)

A. Whitelaw presented the item and M. Debbabi spoke to the needs of this new program and shared some facts about the department with Senate. The BEng would be offered starting Fall 2023. He also spoke about the relevance of the program both in Quebec and Canada and how the program would respond to the market needs of engineers. Speaking privileges were requested and granted to Alex De Visscher and Melanie Hazlett, who have championed this program. They both provided more details about the program and responded to some of the questions from Senators.

- R-2023-1-5 Upon motion duly moved and seconded, it was unanimously resolved that, following recommendation of the Academic Programs Committee, the Senate approve the new BEng in Chemical Engineering program as detailed in the attached document (Document US-2023-1-D5).
- 9. Research Data Management Strategic Plan (Document US-2023-1-D6)
- P. Riva presented the item and requested for speaking privileges for Danielle Dennie, who provided a summary of the presentation that was included in the Senate documentation package.

Senators had some questions about the application of the Tri-Agency policy on data and research results that may be encumbered under agreements. Senators also asked whether funding would be available to help researcher comply with the new frameworks.

D. Dennie clarified that the Tri-Agency policy provides for data that is legally permissible to be put in a repository, thus recognizing legal agreements. The Tri-Agencies also had policies around dissemination of research results. On the question of funding, the Chair noted that it

was expected that with new requirements, researchers could include the costs related to data management compliance as a new line item in their budgets.

It was also clarified that the Tri-Agency policy was already in place and there was no change that could be made to that. The only thing being approved today was the University's plan to comply with the policy. With regards to specific reservations about the provisions of the policy, the Chair recommended that the same may be recorded in a cover note, that accompanies the strategy document, when it is submitted to the Tri-Agencies.

R-2023-1-6 Upon motion duly moved and seconded, it was unanimously resolved that the Senate approve and adopt the Institutional Research Data Management Strategy as detailed in the attached document (Document US-2023-1-D6).

#### 10. Question period

A question was asked about the terminology used in the University's policy US-3, which seemed grammatically incorrect. C. Bolton responded that a lot of debate was undertaken on this, as the terminology stems from Latin, which has three genders. None of the terms could be used to encompass everyone, thus a compromise term was used.

#### 11. Other business

There was no other business to bring before the Open Session.

#### 12. Adjournment

The meeting was adjourned at 3:02 p.m.

K. Singh Karan Singh Secretary of Senate



#### Internal Memorandum

To: Members of Senate

From: Anne Whitelaw, Provost and Vice-President, Academic

Date: March 7, 2023 Re: Academic Update

Two Concordia journalism students, under the direction of <u>Aphrodite Salas</u> (Journalism) and Indigenous partners Pituvik and Indigenous Clean Energy, presented their work in the Canada Pavilion at the recent <u>COP 15</u>. The United Nations-organized conference, held in Montreal from December 7 to 19, examined the critical issue of preserving biodiversity. The team produced a documentary and multimedia project featuring the Inuit village of Inukjuak. The 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 Northern community has relied on for decades. <u>CTV News</u> was a partner in the project.

Concordia and <u>Kiuna College</u>, based in Odanak, Quebec, are joining forces to support future Indigenous creators, storytellers and film scholars. The new partnership seeks to encourage more Indigenous students to study cinema by granting transfer credits toward a Bachelor of Fine Arts at Concordia. Beginning in fall 2023, graduates from Kiuna's <u>First Nations Languages</u> and <u>Indigenous Cinema</u> programs can use these credits when entering the <u>Mel Hoppenheim School of Cinema</u>'s BFA programs in film animation, film production and film studies. The First Nations-led Kiuna College offers innovative post-secondary programs that reflect Indigenous histories and cultural heritages.

Concordia professors Mikhail Iossel and Josip Novakovich support up-and-coming writers by bringing literary workshops to Kenya. The inaugural International Literary Seminars (ILS) Kenya took place in Nairobi and on the island of Lamu in Kenya from December 6 to 20. They brought together an impressive array of writers, editors and industry people from around the world for the sake of the craft. The seminars are a streamlined version of an earlier program founded in 1998 by author and frequent New Yorker contributor Mikhail Iossel (English). The seminars provide intensive literary workshops in a spirit of cultural exchange. Participants were invited to the program based on the strength of their manuscripts, with three Kenyan writers receiving full scholarships to cover their expenses. This year saw the likes of writers George Saunders, Valeria Luiselli, Dawn Raffel and Laia Jufresa and the New Yorker's fiction editor Deborah Treisman give talks and readings.

Concordia's cross-faculty case competition celebrated 10 years of multidisciplinary learning. <a href="ENGCOMM">ENGCOMM</a> is an international case competition led by students at Concordia's <a href="Gina Cody School of Engineering and Computer Science">Gina Cody School of Engineering and Computer Science</a> and <a href="John Molson School of Business">John Molson School of Business</a> looking to bridge the gap between their fields. They are on a mission to propagate Concordia's professional reputation on a large scale by liaising with universities and sponsors worldwide. The competition offers a distinct opportunity for students to form teams, receive an industry case and present their proposed solution before a panel of judges. Each team comprises two commerce students and two engineering students from a given school. The competition is designed to boost students' confidence and soft skills. Over the years, competing in-person against other international schools has become a large part of the appeal for student participants, as has the chance to demonstrate their skills in front of sponsors. The tenth iteration of the competition started on February

21 and took place over five days, including opening and closing ceremonies, a gala, a networking event and the case solving itself.

Concordia reaffirmed its commitment to recommendations from the <a href="President's Task Force on Anti-Black Racism">President's Task Force on Anti-Black Racism</a> at an event in the Henry F. Hall Building on February 6, to mark the anniversary of the <a href="1969-Sir George Williams University student protest">1969-Sir George Williams University student protest</a> on February 11 and the arrest of 97 students. The incident had dire consequences on the lives of Black and Caribbean students and their supporters who stood up to the systemic racism they experienced at Sir George Williams University. The plaque serves as a temporary facsimile of the permanent plaque that will be cast in metal and installed in the Hall Building lobby in the coming months.

Funding from Concordia's SHIFT Centre for Social Transformation will support the creation of a Black feminist advocacy organization. The project, Harambec: Reviving the Black Feminist Collective, will provide resources for and by Black women and gender-expansive people in the areas of teaching, experiential learning, research, professional development, mentorship and more. It's funded by the SHIFT Centre for Social Transformation Deep Investment Fund. Coined by writer, educator and community organizer Shirley Small, Harambec is a portmanteau of harambee, the African principle of self-help, and Quebec. Its name is intended to represent the daily challenges that African-descended women face in this province. The collective will serve as a hub for Black feminist organizing and as a space to connect to the wider community. It will host art residencies, public and cultural programming, performances, an exhibition and a presentation of Black Feminist Archives.

In celebration of its 50th anniversary, the <u>Canada Council Art Bank</u> recently announced the <u>acquisition of 72 new works</u> by emerging and established artists from across Canada. With more than 17,000 artworks by 3,000-plus artists, the Art Bank has the most extensive collection of contemporary Canadian art anywhere. Among the works selected three are by Concordia fine arts graduates and artists from the university's <u>Art Volt Collection</u> (AVC): Dayna Danger, MFA 17, Louis-Charles Dionne, BFA 17, and Laïla Mestari, BFA 17. The innovative not-for-profit sales and rental service showcases the work of emerging artists and provides career support during their transition into the professional art world.

Concordia's <u>Black Perspectives Office</u> (BPO) will provide three research fellowships in 2023 to highlight Black scholarship in Montreal, Quebec and beyond. The BPO's mission is to give funding, support, mentorship and advocacy for Concordia's Black community, as well as to promote programming, content and cultural networks related to Black identity and advocacy. Applicants can be students, faculty, staff and community members from all across Montreal, with priority given to Black student researchers at Concordia. Anthony Mclachlan, Anick Jasmin and Dalia Elsayed are the three graduate students the BPO chose as fellows this year. The researchers will look at Black women in the STEM fields, how hip hop is policed in Montreal and Black identity construction in academia.

As one of the first partners of <u>Premieres en Affaires</u> since it launched, John Molson will continue to grow this relationship for another 2 years. The publication is catered to affluent female entrepreneurs and senior-level professionals who identify as female. This partnership allows John Molson to position itself as leaders and demonstrate its ongoing commitment to support women in leadership and entrepreneurship. The proposal includes exposure at their flagship Palmares annual event, published thought leadership articles to showcase research related to current topics, and an added digital channel through which John Molson can develop corporate relationships for the long-term success of its faculty.

Concordia's Board of Governors approved Effrosyni (Faye) Diamantoudi for a five-year term as dean of graduate studies beginning February 17. Diamantoudi has served as interim dean of graduate studies since February 2020. This follows nine years of administrative service as associate dean of recruitment and awards in Concordia's School of Graduate Studies and as graduate program director in the Department of Economics. Diamantoudi has been a member of the Concordia community for almost 20 years. She joined the university in 2003 as an assistant professor in the Department of Economics and became a full professor in 2015. A specialist in game theory and environmental economics, she is also a member of the Loyola Sustainability Research Centre. Diamantoudi has received continuous external funding since 2004, including the prestigious Marie Sklowdowska-Curie fellowship (2017-18). She additionally brings a strong record of graduate supervision. Diamantoudi is a member of the Board of Directors of CIRANO (Centre Interuniversitaire de Recherche en Analyse des Organisations) and the executive committee of the Northeastern Association of Graduate Schools.

Concordia's <u>Access Centre for Students with Disabilities</u> (ACSD) has a new manager. Adelina Feo will lead the ACSD team that provides academic accommodations and services to students with disabilities — promoting inclusivity and equal access to education. Feo comes to Concordia from the <u>Cree Board of Health and Social Services of James Bay</u>, where she held numerous positions over the years. Her past roles include director of allied health services, assistant executive director of the <u>Pimuhteheu Department</u> and occupational therapist, among others. She holds an MA in bioethics with a focus on health-care policy from Université de Montréal and BScs in occupational therapy and microbiology and immunology from McGill University. She says one of her goals at ACSD is to ensure that Concordia is a safe place where people with disabilities feel they can fully participate, academically or otherwise.

<u>John Molson</u> professors were ranked among the Best Business and Management Scientists in Canada. Every year, <u>research.com ranks the world's best scientists</u> based on their research publications and citations. This year, the following faculty members were recognized globally and nationally:

- <u>Michel Laroche</u>, professor in marketing and holder of the Royal Bank Distinguished Professorship in Marketing, ranked #10 nationally, #189 globally
- Steven H. Appelbaum, professor in management ranked #46 nationally, #984 globally
- Michel Magnan, Distinguished University Research Professor in accountancy and the Stephen A.
   Jarislowsky Chair in Corporate Governance ranked #48 nationally, #1082 globally

<u>Susan Liscouët-Hanke</u> (Mechanical, Industrial and Aerospace Engineering) and <u>Shannon Lloyd</u> (Management), in collaboration with lead Université de Sherbrooke and École Polytechnique De Montréal, will be participating in a multi-disciplinary project funded by CRIAQ, NSERC, Pratt and Whitney Canada, Bombardier Inc. and Calogy entitled "Exploration and modelling of alternative propulsion technologies for business jets". The project's aim is to understand and identify viable alternative propulsion architectures for aircraft in order to support the design and operation of greener business jets.

Abdelwahab Hamou-Lhadj (Electrical and Computer Engineering) will be collaborating with lead École de technologie supérieure, Université du Québec à Trois-Rivières, Memorial University of Newfoundland, McMaster University, StreamScan and IPtoki Inc. on a project funded by the Department of National Defence (DND) under their Innovation for Defence Excellence and Security (IDEaS) Innovation Program. The project entitled "Context-aware and Robust Architectures for Defence and Security Operations" aims to push forward the development of novel cyber defence technology that can integrate with any 5G and beyond orchestrator to provide cyber warfare class capabilities.

Charalambos Poullis (Computer Science and Software Engineering) will be collaborating with Presagis Canada on an NSERC Alliance project entitled "PHOENIX: Generative models and Deep Reinforcement Learning for Geospatial Computer Vision". Building on the previous project entitled "DAEDALUS: Massive-scale Urban Reconstruction, Classification, and Rendering from Remote Sensor Imagery" funded by Presagis Canada, NSERC and DND, the objective of the PHOENIX project is to address significant research challenges in the area of deep learning techniques for 3D reconstruction, object classification, and photorealistic appearance modelling towards the creation of large-scale realistic virtual environments.

<u>Mourad Debbabi</u> (Dean of the Gina Cody School of Engineering and Professor at the Concordia Institute for Information Systems Engineering) is receiving funding from Industry Canada through CANARIE for the continued maintenance of CanIDS, an aggregation and visualization cybersecurity platform designed and developed over three years and operated by Concordia. The platform serves over 120+academic institutions by providing accurate, actionable, timely and relevant cyber threat intelligence.

<u>Pierre-Yann Dolbec</u> (Marketing) was an FRQSC-featured researcher in *Nouvelles capsules des Fonds de recherche du Québec* for his research team's work on <u>marketing practices and consumer intentions.</u>

Qi Feng, PhD student in the department of Building, Civil and Environment Engineering, has been awarded the <u>Relève étoile Louis-Berlinquet</u> prize from FRQNT for her work on the transport of microplastics in shore substrates over tidal cycles.

Sandra Biron, Senior Library Personnel Assistant, is the recipient of the 2022 Freda Otchere Staff Recognition Award. A celebration was held on March 8. This ceremony marks the fruits of Dr. Dan Otchere's generous gift that established the Freda Otchere Recognition Award. The award was created "to encourage and reward staff currently working for Concordia Library whose commitment and professionalism reflect the values exemplified by Freda Otchere".

An exciting new research project on urban sustainability is underway at the Webster Library. The project is a collaboration between Concordia University, the Goldman-Sonnenfeldt School for Sustainability and Climate Change at Ben-Gurion University of the Negev, in Be'er Sheva, Israel, and Siemens Canada. At Concordia, Ursula Eicker (founder and co-director of Concordia's Next-Generation Cities Institute), Mohammed Ouf (Building, Civil, and Environmental Engineering) and Mazdak Nik-Bakht (Building, Civil and Environmental Engineering) are leading the research. The project is made possible by a generous gift from Miriam Roland. The support will improve Concordia's ability to make good on a pledge outlined in the university's Sustainability Action Plan. Siemens Canada have installed occupancy and air quality sensors throughout LB-3 in the Webster Library to track occupancy and energy consumption. The Webster Library will become a "Living Lab" that will be used to create innovative solutions for future urban sustainability.

<u>The SHIFT Centre for Social Transformation</u> recently completed a recruitment and selection process to add new members to their <u>participatory governance structure</u>. Out of 31 applications, a total of 17 community members, faculty, and students were selected to join either SHIFT's <u>Steering Committee</u> or one of the 4 <u>Program Hubs</u> and will contribute leadership to SHIFT's strategic directions for the next year.

The <u>Office of Community Engagement</u> is preparing to relaunch the <u>University of the Streets Café</u> after a 3-year pandemic related hiatus. The Winter 2023 season will focus on the theme of "Community

engagement in a changing world," with conversations exploring how community organizers are responding and adapting to the new realities brought on by recent social movements and crises.

For the Winter 2023 semester, the <u>Innovation Lab</u> recruited a cohort of 21 new students from 15 different disciplines to work with mentors from the <u>CTL</u>, <u>LITL</u>, <u>DATAH</u> I2A2, UNICA Music Center, and <u>CBAR</u> (<u>Community-Based Action Research</u>). The lab is currently running challenges on Learning Spaces, AI and Computer Vision, Music as Healing and Small Business Web Presence in Park Ex. Three students from past cohorts are receiving training as innovation leaders and are working on social media, prototyping and new partnerships for the lab.

The <u>Lab</u> is beginning exciting new collaborations with <u>Zero Waste Concordia</u> to work on an innovative E-Waste project and with <u>ENUF</u> on sustainability and food security. The lab is also developing new partnerships and recruiting mentors for an emerging innovation sandbox initiative.

<u>CityStudio Greater Montreal</u> is back for 2022-23 with a new partner. In Fall, the Jean Drapeau Park Society has allowed <u>civil engineering students</u> to experience a hands-on, real-world engineering project at one of the most iconic buildings in Montreal as part of their coursework. They worked on developing a 10-year maintenance plan for the Canada Pavilion, as well Jean-Doré Beach House. This Winter semester CityStudio collaboration continues with sculpture students. Working in teams, students installed 5 ephemeral public sculptures on February 22. Each Art piece is created with natural material from the park and built with sustainability in mind. The vernissage took place on March 8, 2023.

Several new partnerships were formed to create experiential learning opportunities for students. <a href="PWC">PWC</a>'s Campus Professional Learning Program (CPL) will include Cyber Security for Co-op placements and will hire approximately 10 students in the Master of Cybersecurity or Master of Computer Science programs including international students. There will be 15 postings for the summer 2023 work term period at <a href="Saputo">Saputo</a>. <a href="Dell">Dell</a> is a new employer for summer & fall 2023 and <a href="Bell Canada">Bell Canada</a> has posted engineering positions for the first time.

The SHIFT Centre for Social Transformation hosted another lunch & learn event on February 7, 2023 as part of the SHIFT Learning Community Showcase series. This series occurs on the first Tuesday of every month and creates opportunities for staff, students, faculty and community members to learn more about the socially transformative initiatives that SHIFT is supporting. At the February event, members of the Alliance for Community Adaptation and Sex [M]ed teams spoke about their work addressing critical gaps and failures of the healthcare system through partnerships between underserved communities and public health agencies. In addition to emphasizing the urgency of this work and the importance of community leadership, the presentations highlighted the valuable contributions of faculty from Concordia's Child Studies program and students from the Minor in Interdisciplinary Studies in Sexuality.

This year's winter Open House was another great success with some 4,200 visitors attending activities on both campuses on February 18. More than 75% of attendees came from Quebec but 15% of visitors traveled from 8 other Canadian provinces, more than 3% came from the US, and 5% came from other countries. New activities this year included a "meet and greet" event for the colleges, schools and institutes in FAS; an on-site application centre at Loyola; and an Open House preview event on February 17 specifically for international students and their families. Comments from participants were overwhelmingly positive, with many praising the energy and helpfulness of the volunteers and the quality of the presentations and other activities.

The <u>School of Graduate Studies</u>, alongside the faculties and other Concordia partners, hosted Grad Corner at Open House on February 18. The event attracted 278 prospects to meet faculty representatives and attend student panels and information sessions. Panels featuring current students and alumni, and presentations on funding were the most popular, exceeding room capacity. Enthusiasm from Open House will carry on with upcoming virtual information sessions for prospective graduate students, including a session for students from Africa on March 15. To date, registration to this event has reached 450, a record for prospective graduate information sessions.

On March 8th, a collaborative venture between the John Molson School of Business and FOFA brought together external professionals for a panel on <u>Art-Driven Entrepreneurship</u>. The next day, 4<sup>th</sup> Space will be transformed into a living lab examining the role of the <u>artist and cultural worker in 2023</u> via art and activities developed by a group of 40 studio arts students.

A live recording of the <u>Women in Engineering podcast</u> on March 10, featuring Jorge Daniel Taillant, executive director of the CEC and global advocate for environmental justice and protection, segued into a week of activities developed the <u>annual Sustainability Across Disciplines events</u>, many of which are happening at 4<sup>th</sup> Space.

Following another banner year, <u>Gina Cody School Day</u> returned on March 15 with a packed program of exciting events and activities. Launched in 2021 as a way to take pride in the outstanding students, alumni, faculty and staff of the <u>Gina Cody School of Engineering and Computer Science</u>, the annual celebration also serves as an opportunity for community members to reconnect and tell the world what the school means to them. With more than 10,000 students and 38,000 alumni globally, the Gina Cody School is one of the largest engineering and computer science schools in Canada and consistently ranks among the country's best.

And finally, plans for the transition to 12-week term to accommodate a fall break in 2023 are well underway with ongoing meetings with the three working groups. Academic dates for the 2023-24 terms have been posted on the Concordia website for both graduate and undergraduate students. E-blasts and announcements in NOW newsletters will be sent out throughout March and April to remind the community about the upcoming changes. For information, resources, and the 2023-2024 schedule please consult the website.



### SENATE OPEN SESSION Meeting of March 17, 2023

**AGENDA ITEM:** Tribunal Pool/Committee Appointments

**ACTION REQUIRED:** For approval

**SUMMARY:** Senate is being asked to approve the following Committee appointments:

<u>Committee</u>	<u>Appointee</u>	<u>Term</u>
Research	Liangzhu Wang (GCS)	2023-25
Steering	Leslie Barker (Part-time)	2023-24

#### **DRAFT MOTION:**

That the Committee appointments be approved.

### PREPARED BY:

Name: Karan Singh Date: March 9, 2023



### ACADEMIC PROGRAMS COMMITTEE REPORT OF APPROVED DOSSIERS Sandra Gabriele, PhD December 9, 2022

# The Academic Programs Committee has approved following changes for the Undergraduate and Graduate Calendars.

Following approval of the Faculty Councils, APC members reviewed the undergraduate and graduate curriculum submissions listed below. As a result of discussions, APC resolved that the curriculum proposals listed below be finally approved. The report of approved dossiers is provided to Senate for information purposes.

All curriculum change dossiers listed below are available for consultation online in the <u>APC-2022-7</u> Sharepoint folder.

#### **Undergraduate Curriculum Proposals (Changes for the 2023-24 Calendar)**

#### **Faculty of Fine Arts**

FA-CINE-5249; **APC-2022-7-D1** (For May 2023 Implementation)

• Addition of C.Edge Option to Film Animation, Film Production and Film Studies programs.

#### **Graduate Curriculum Proposals (Changes for the Summer 2023 Calendar)**

#### Faculty of Arts and Science

Department of Education

AS- EDUC-3261; **APC-2022-7-D2** (For May 2023 Implementation)

- Requirements
- Courses

Department of Mathematics and Statistics

AS- MATH-4681; **APC-2022-7-D3** (For May 2023 Implementation)

- Courses
- Requirements

Department of Political Science

AS-POLI-4241; **APC-2022-7-D4** (For May 2023 Implementation)

- Courses
- Requirements

#### Gina Cody School of Engineering and Computer Science

Department of Building, Civil, and Environmental Engineering GCS-BCEE-4161; **APC-2022-7-D5** (For September 2023 Implementation)

- Requirements
- Courses

Department of Computer Science and Software Engineering GCS-COMP-3802; **APC-2022-7-D6** (For May 2023 Implementation)

- Requirements
- Courses

Department of Electrical and Computer Engineering GCS-ELEC-3761; **APC-2022-7-D7** (For September 2023 Implementation)

- Requirements
- Courses

Department of Electrical and Computer Engineering GCS-ELEC-3762; **APC-2022-7-D8** (For May 2023 Implementation)

- Requirements
- Courses

Centre for Engineering in Society

GCS- CES-3462; APC-2022-7-D9 (For September 2023 Implementation)

- Requirements
- Courses

#### **John Molson School of Business**

MSc in Decision Sciences and Management Information Systems Option JMSB- DESC-4183; **APC-2022-7-D10** (For May 2023 Implementation)

- Requirements
- Courses

Supply Chain Management MSCM

JMSB- MSCM-4181; **APC-2022-7-D11** (For May 2023 Implementation)

- Requirements
- Courses

Statricle

Sandra Gabriele, PhD

Vice-Provost, Innovation in Teaching and Learning December 9, 2022

# ACADEMIC PLANNING AND PRIORITIES COMMITTEE REPORT TO SENATE Dr. Anne Whitelaw February 17, 2023

#### The Academic Planning and Priorities Committee met on December 14, 2022

The Academic Planning and Priorities committee (APPC) met on December 14, 2022. Dr. Whitelaw welcomed new student representatives to the meeting. She also welcomed the guest, Dr. Jason Ens, Executive Director, Strategic Initiatives, Office of the Provost & Vice-President, Academic. Dr. Ens provided a presentation on the University's program of engagement with the UN's Sustainable Development Goals (SDGs). Dr. Ens described the 17 Rooms exercise, undertaken last year, designed to bring faculty, staff and students into a conversation on each of the 17 SDGs and the actions Concordians could contribute. He also presented the results of those discussions and a list of the top eight activities that participants wanted to see the university undertake. After the presentation, APPC members discussed brand structure, student engagement, co-teaching opportunities, the relationship with the Indigenous Directions Action Plan, experiential learning, and micro-programs, all in the context of the SDG and the 17 Rooms exercise. Dr. Ens agreed to meet with one of the undergraduate student representatives to determine ways of improving student participation in sustainability projects at Concordia.



### SENATE OPEN SESSION Meeting of March 17, 2023

**AGENDA ITEM:** Concordia University's draft Strategic Research Plan 2023-2028 (the "Plan")

**ACTION REQUIRED:** For information

**SUMMARY:** Senate is being presented the Plan for information

**BACKGROUND:** The Plan, a requirement for Canada Research Chair and Canada Foundation for Innovation funding, is a framework for the focused growth of research activities over the next five years. It serves to outline a series of principles and commitments to support and enhance existing and emerging clusters of research and research-creation activities across the University.

As per approval process, the Plan was presented to the Senate Research Committee in December 2022 for the purposes of launching the consultation phase, which included faculties, the School of Graduate Studies, research institutes and units, and concluded on March 9th, 2023.

Following the completion of the consultation process, the Plan will be revised and presented to the Senate Research Committee on March 24th, 2023, for recommendation to and approval by Senate in April or May 2023.

#### PREPARED BY:

Name: Karan Singh Date: March 9, 2023

#### STRATEGIC RESEARCH PLAN 2023-2028

As a next-generation university, Concordia University seeks to reimagine the future of higher education. Our innovative approach to cross-functional research, research collaboration and experiential learning has cemented our place among the <u>top-ranked universities in North America under 50</u>. Located in vibrant Montréal, on the traditional lands of the Kanien'kehá:ka, Concordia University seeks to be socially responsible and create a more equitable and sustainable world through its research and training of the next generation of researchers and innovators.

Concordia University's *Strategic Research Plan 2023-2028* (the Plan) is a guide for the focused growth of research activity over the next five years. It describes a framework of renewed commitments to support and enhance existing and emerging clusters of research and research-creation activities across the university. Research at Concordia happens in a wide variety of fields and the university will continue to foster a vibrant and supportive research environment that values the diverse nature of research carried out by Concordia researchers. In this Plan, we have opted to focus on major existing and emerging research *themes* where research expertise, research units, and facilities are currently concentrated. These themes enhance the strategic vision and capacity of the university to leverage its strengths and its position in the socio-environmental, cultural, and economic fabrics of Montréal, Québec and Canada, to address pressing local, national, and global challenges through research, collaborations/partnerships with diverse stakeholders, innovation, and knowledge mobilization activities. The Plan is also used to inform strategic level resource allocation for high-profile initiatives such as Canada Research Chair (CRC) nominations, Canada Foundation for Innovation (CFI)-funded projects, and other major institutional research grants and commitments.

#### STRATEGIC OBJECTIVES

The Plan identifies three strategic objectives, each of which will contribute to increase Concordia's research excellence in a wide array of fields, including – but not limited to – the areas of research identified as strengths in this plan. These objectives are informed by our vision for, and commitment to, a diverse and inclusive environment where researchers, scholars, and students dare to push the frontiers of knowledge, pursue different ways of knowing and learning, embark on high-risk, high-reward research endeavours and embrace a collaborative spirit that brings together key actors and mobilizes knowledge in innovative ways to tackle grand challenges and strengthen Canada's position in the world. These objectives will guide Concordia's actions and performance measures in research and innovation over the course of the next five years. The university's success in fulfilling these commitments depends greatly on the supportive partnerships within our research and innovation ecosystem: all relevant units across the university, as well as our numerous governmental and not-for-profit partners, communities, organizations, and institutions.

# Objective 1: Achieve smart, sustainable, and resilient growth and global leadership in research innovation to tackle local, national, and global challenges

Accelerate global leadership in research and innovation, and research-creation, by ensuring that
our funded research and research-creation programs, the number and quality of our research
partnerships, our record in training the next generation of researchers and innovators in research
and research-creation, our innovativeness and creativity in research, and our entrepreneurship,
are up to the highest global standards, and that institutional supports are actively and creatively

mobilized.

- Enhance and develop areas of research strength that address emerging national and global needs.
- Support bold, high-risk, high-reward initiatives.
- Establish and support institutes, centres, and think tanks as critical tools for the advancement of research and interdisciplinarity.
- Invest heavily, smartly, and sustainably in research infrastructure (space, facilities, equipment)
  and support institutionally prioritized initiatives to secure additional infrastructure funding that
  make cutting-edge research possible.
- Mobilize institutional resources to establish collaborations and partnerships with worldrenowned and/or impactful partners (companies, organizations, researchers) that engage in cutting-edge, innovative, and transformative research locally, nationally, and globally.
- Recognize and support research initiatives that result in tangible benefits for individuals, groups, and communities, and that contribute to sustainability and social justice.
- Provide opportunities for students at all levels (undergraduate, masters, doctoral) to engage in research and innovation activities.
- Encourage research-informed and research-centered pedagogy that will enhance our position and mission, as a preferred destination for future students, researchers, and innovators from across Canada and around the world.
- Develop and enhance experiential learning opportunities (internship opportunities, community-engaged learning) that give students hands-on experience in the real world.

#### Objective 2: Pursue new knowledge and inclusive excellence

- Embrace best practices in Equity, Diversity, Inclusion and Accessibility (EDIA) to build a culture of
  inclusive excellence that recognizes the integral relationship between diversity and excellence in
  research
- Become a leader in defining, applying, and pursuing equity, diversity, inclusion principles and considerations in the research enterprise, in a way that authentically builds diversity and inclusivity.
- Strive to promote and incorporate Indigenous Knowledge and Indigenous ways of knowing throughout the research enterprise in ways that recognize that Indigenous ways of knowing are steeped in a deep reciprocal relation with the land.
- Recognize the rights of Indigenous communities and individuals to be leaders, equal partners and beneficiaries in culturally-appropriate research that addresses their interests and priorities.
- Ensure that research undertaken with Indigenous nations, communities, societies, or individuals
  respects the importance of building reciprocal relationships grounded in meaningful consultations
  and informed consent.
- Support and strengthen the integration of EDIA into research programs, research projects, research environments, recruitment efforts, and all research and innovation activities at the institution.
- Keep abreast of best practices in equity, diversity, and inclusion, and work with relevant units at
  the university to ensure that systemic barriers in the research environment are addressed and
  rectified. In this context, it is important to recognize not only the diversity of identities, but also
  of ways of thinking, learning, and knowing, education and life experiences, and non-traditional
  research outputs including research creation, advocacy, policy, and community-based research.

• Provide students with a diverse, inclusive, and safe learning, research, and work environment, to ensure that they reach their full potential in their studies and future careers.

# Objective 3: Enhance impact and engagement through academic, industrial, and community networks and partnerships

- Encourage and support leadership of and participation in major inter-institutional initiatives, by further enhancing existing relationships and exploring potential avenues for new collaborations.
- Increase and leverage collaborations with other academic institutions (at both institutional and individual researcher levels) by analyzing complementarity of research strengths and existing infrastructure.
- Encourage institutes, centres, and think tanks to engage with the public, community organizations, and other partners, to advance collaborative and participatory research, community engagement, and knowledge mobilization.
- Increase number and scope of local, national, and international NGO, government/public sector, and industry partnerships by intensifying business development activities and support.
- Encourage and support research collaborations and co-creation of knowledge with community groups.
- Promote knowledge mobilization activities and mobilize resources for greater community engagement.
- Enhance the collaborative research funding portfolio through targeted efforts to encourage and support submissions to partnership-centric funding opportunities.
- Increase support for intellectual property and commercialization activities.
- Promote a spirit of entrepreneurship and a start-up culture, by providing mentorship, expertise, space, networks, resources and opportunities for collaboration, to students and faculty engaged in innovation, entrepreneurial, and commercialization activities.
- Encourage and support the participation of researchers from a variety of disciplines and sectors
  in research programs, projects, and initiatives (especially large-scale institutional initiatives), by
  leveraging complementary and diverse research strengths both within and outside of Concordia.
- Identify barriers and provide opportunities for inter-disciplinary, multi-disciplinary, and transdisciplinary dialogue to address complex research questions.

#### STRATEGIC RESEARCH THEMES

Our Plan identifies four thematic areas that engage our research community and our partners in solving fundamental questions and finding innovative solutions to several pressing societal challenges. The clusters of strength that we have identified in this Plan have emerged from the research underway across all disciplines, research units, and Faculties: the Faculty of Arts and Science, the Faculty of Fine Arts, the Gina Cody School of Engineering and Computer Science, the John Molson School of Business, and the School of Health. Through emphasis on these four broad themes and several sub-themes, we will support and enhance our existing and emerging strengths in both disciplinary and interdisciplinary research, with a view to achieving further breakthroughs that will in turn translate into solutions to challenges on local, national, and global scales. The themes and sub-themes are not meant to be exhaustive of all the excellent research happening across the university but rather aim to explore and shape a vision for how Concordia can, in the short and medium terms, pool or distribute its resources in a way that enhances its research

standing, and increases the value of its contributions to the local, national, and international research ecosystems and to society.

#### THEME 1: RE-DEFINING/RE-IMAGINING LIFE AND SOCIETY THROUGH DIGITAL TECHNOLOGIES

Concordia's researchers and trainees are working in innovative ways to better understand how the digital revolution is impacting individuals, and transforming organizations, economies, and society at large. They are also at the forefront of the innovation revolution and leaders in the development of emerging and enabling technologies such as artificial intelligence, machine learning, internet of things, information and communications technologies, bioimaging, and the study of how their application(s) can redefine possibilities in areas as diverse as: health care; education; sustainable design, sustainable development, and sustainable living; advanced manufacturing; media, arts, and entertainment; finance and entrepreneurship; and governance and public policy. Concordia researchers are also exploring human interactions with complex technologies, and examining the human, ethical, social, economic, and other implications of how we design, plan, and deploy new technologies.

# Sub-theme 1.1: Computational advances: artificial intelligence + applications, software engineering, and data analytics

Concordia is at the forefront of the push to advance next-generation computing, analytical tools, models, and algorithms. Big data analytics has been transforming industry and science in various domains for the past several years, making it possible to process huge amounts of data daily, aided by the evolution of programming models, data analysis algorithms, and computing infrastructures. The benefits are immense and the possibilities endless: innovation, learning, insight, productivity growth, and major improvements in countless sectors. Concordia researchers are leaders in this revolution, seeking to harness the full potential of big data for applications in healthcare, supply chain management, computational finance, urban planning, logistics, transport systems, and environmental monitoring. Big data comes with big concerns, too. Concordia researchers are also concerned with the privacy and security implications of big data.

Today, artificial intelligence is prominent and central to existing and new technologies. With AI expected to be one of the leading economic drivers of our time and the key to developing solutions to the most pressing challenges facing our society, countries are increasingly vying to position themselves as leaders in the field. Concordia occupies a prominent and increasingly central place in the Québec and Canadian AI innovation ecosystem, through both its research innovation and its start-up culture and supports. Concordia researchers are leaders in research on artificial intelligence, machine learning, deep learning, human-computer interaction, pattern recognition, virtual environments, bioinformatics, and the social and ethical issues associated with AI.

The recently launched *Applied AI Institute* fosters disciplinary and inter-disciplinary collaborations to tackle important problems in fields ranging from telecommunications to human-machine systems, social-cultural studies, and finance. We will tackle pressing challenges such as climate change, health and well-being, sustainable cities, food production and security, and wildlife preservation.

#### **Sub-theme 1.2: Cybersecurity**

Technological innovation has unlocked huge opportunities for economic and business growth and productivity. It has also given rise to new and rapidly evolving cyber risks that are raising the bar on cybersecurity. Cyberattacks have the power to cripple information systems and communication networks

and disrupt our critical infrastructure. Concordia is at the vanguard of this rapidly evolving and strategic field. Our researchers are working to develop innovative processes, methodologies, techniques, and technologies to significantly enhance the security and resiliency of our systems while protecting our privacy in the 21<sup>st</sup> century. From cybersecurity, privacy, digital forensics to cryptography, blockchain technologies and critical infrastructure protection, our researchers are developing innovative approaches to safeguard our digital future.

#### Sub-theme 1.3: Arts, identities, politics, and media through a digital lens

In a context of rapid social, environmental, political, cultural, linguistic, and technological changes, the importance of the arts, languages, literatures, cultures, cultural practices and expressions, democracy and diplomacy, and media, cannot be overstated. How have digitization and our daily reliance on new technologies changed the face of pre-digital cultural production, opened new horizons for artistic expression/creation, shaped identities and narratives, altered politics, changed markets, businesses, entrepreneurship, and consumer behaviour, revolutionized media, engaged, helped or disadvantaged specific groups or communities, and increased resilience to various challenges? The advent of machines, artificial intelligence, algorithms, and the internet have created new challenges and problems, affecting democracy, political legitimacy, and even human rights, and giving rise to the fake news phenomenon and a myriad of privacy and hate speech issues related to the internet and social media. Identifying and critiquing these challenges, and exploring how we can address them, are crucial to our ability to reduce or eliminate the negative or abusive ways in which digital technologies manifest themselves. Concordia boasts a rich community of researchers and research-creators who engage in innovative research and research-creation on all these topics, exploring the underpinnings of creativity and art, the ways in which creativity can be expressed both digitally and otherwise, as well as providing a critical analysis perspective on digital technologies. Our researchers take digital arts outside normal disciplinary boundaries to explore the past, investigate the present, and speculate on the future. The Milieux Institute for Arts, Culture, and Technology, a research unit working at the intersection of design, art, culture, and technology is instrumental in this work. Milieux's mission is to explore new media arts, digital culture, and information technology through interdisciplinary research and research-creation initiatives.

#### Sub-theme 1.4: Smart, innovative, and entrepreneurial solutions to contemporary problems

Concordia is at the forefront of research on enabling and disruptive technologies and their foundations. From artificial intelligence, cyberphysical systems, cybersecurity, data analytics, and internet of things, to information and communications technologies (ICT – including telecommunications, electromagnetics and antennas, hardware design and verification, signal processing, and control systems), micro- and nanoelectronics, robotics, sensors, software engineering, and supply chains, our researchers push the frontiers of science and innovation. Our researchers engage in research and innovation out of a sense of scientific curiosity while also recognizing its transformative power. Our researchers work extensively and collaboratively with community and industry partners to develop innovative and smart solutions to problems as varied as climate change and sustainability, health and well-being (e.g. medical diagnostics, bioimaging, medical devices, biomedical engineering, wearables, healthy and empowered aging, lab-on-chip solutions, synthetic biology and genomics for health), food production/security, transportation and aerospace (e.g. electric vehicles, sustainable aerospace, traffic congestion, airports), critical infrastructure, telecommunications, and Industry 4.0. In addition to material innovations, Concordia researchers are also studying the role of entrepreneurship, and the different manifestations of entrepreneurship and innovation around the world, as well as their potential to transform society.

#### THEME 2: ENHANCING INCLUSION AND SOCIAL JUSTICE

Concordia's researchers explore the foundations of social and economic organization, the underpinnings of poverty, economic inequality, gender oppression, racism, migration, and other forms of discrimination based on disabilities, sexual orientation, ethnicity, or citizenship. They also explore what motivates and spurs social movements, public protest, uprisings, and political change. It is crucial to explore not only the what, but also the why and how questions of inclusion and social and economic justice. Concordia researchers do exactly that. The exploration of these questions requires not only input from many academic disciplines, but also the public. The lived experiences and voices of various groups/communities/minorities are crucial to understanding the source of grievances and problems, as well as to finding solutions. Through understanding the various underpinnings of these experiences, and how new challenges affect groups within society differently, we better address grievances, enhance social and economic justice, promote inclusion, and tailor solutions in ways that are appropriate, mindful, and inclusive. Our researchers collaborate across multiple disciplines, and partner with a variety of communities, locally, nationally, and internationally, to better understand the contexts and experiences of specific communities, with a view to better understanding the particularities but also the commonalities of experiences and bringing about positive changes. Our researchers prioritize working with communities to build and tailor creative solutions to the socio-economic challenges stemming from historical and/or contemporary injustices.

#### Sub-theme 2.1: Inclusion/exclusion: gender, race, disabilities, and sexuality

Our researchers explore and investigate daily expressions and practices, as well as public policies, of inclusion and exclusion, looking at both contemporary and historical manifestations through a critical lens, with particular attention to gender, race, class, disability, and sexual orientation. In addition to women's studies and feminist scholarship, Concordia has significant strengths in critical disability studies, the study of systemic racism, the study of sexuality, sexual orientation and LGBTQ+ issues, the various manifestations and consequences (e.g. health, access to services, accessibility) of vulnerability and exclusion, and extreme cases of systematic exclusion leading to genocide.

#### Sub-theme 2.2: Indigenous histories, territories, languages, arts, present, and futures

Concordia is committed to reimagining the value that Indigenous leadership and guidance can bring to research, creation of knowledge, and innovation. We believe that Indigenous research should take place by and/or with Indigenous scholars and communities. Our researchers explore Indigenous histories, languages, and arts, with a view to celebrating the richness of Indigenous heritage, preserving Indigenous languages and cultures, and understanding and transmitting to future generations Indigenous stories and histories. Our scholars working with Indigenous epistemologies challenge assumptions about what we think we know and how we know it, and leverage Indigenous philosophies, beliefs, traditions, knowledges, and practices to better understand and find solutions to a variety of challenges including but not limited to: the protection of lands, waters and wildlife, and practices of health, well-being and living well. In addition, Concordia researchers seek to partner with Indigenous and northern communities in the codesign of smart, resilient, net-zero solar buildings and communities, as well as to enhance accessibility and connectivity for northern communities that would result from sustainable, smart, and resilient aerospace technologies and infrastructure. Concordia scholars, with Indigenous partners, are exploring Indigenous futures through narratives, frameworks, and technologies (such as the *Indigenous Futures Research Centre*) that help articulate a continuum between Indigenous histories, present, and futures.

#### Sub-theme 2.3: Social justice, social movements, and public protest

Concordia conducts research to identify the deep causes of grievances or dissatisfaction that lead to social movements, public protest, and in extreme cases, strife — from ideas and ideologies, feelings of injustice and inequality, poverty and disease, to resource scarcity, weapons proliferation, and failures of governance. They seek to understand why/how do some social movements gain traction, adopt appropriate methods, and succeed, while others fail? In an increasingly volatile world, where many groups and societies are facing an uphill battle to obtain or retain basic liberties, the failure of social movements and public protest can have dire consequences for those involved. Forging a just, equitable, and prosperous society requires an understanding of the types of arrangements and solutions that can lead to greater diversity, inclusiveness, and social justice. Our researchers study the causes, dynamics, outcomes, and consequences of social movements, public protest, and social strife, as well as the building blocks of a just society. Through interdisciplinary collaborations and community engagement, our experts explore how technology, improved access to health and public transportation, spatial configuration/urban design, and other elements, can foster greater inclusion, diversity, equality, fairness, and justice.

#### Sub-theme 2.4: Cultural production and performance in the public sphere

Cultural production can offer valuable insights into injustice and inequity; these insights, by their very existence, enact a form of dissent, resistance, and protest injustice. While in some cases dissent, resistance, and protest are implicit in the work of cultural production and/or performance, in others, works devoid of politics acquire a subversive edge across time, context, or geographical location. Whatever their means of creative expression, production, or performance, producers of culture – writers, artists, performers – have an important role to play in showcasing acts and forms of injustice, in criticizing inequality and exclusion, in inspiring the public and strengthening the voices of the oppressed. Our researchers and research-creators explore the role of artists in making the world a better place, the role of cultural production in the public sphere in encouraging resilience, promoting radical social change, and fostering reconciliation, as well as the role of life stories and storytelling in the public sphere.

#### **Sub-theme 2.5: Mobility and migration**

An important research theme is the study of the changing and increasingly charged political contests about transregional and transnational flows. Our researchers explore movement across spaces, societal perspectives towards refugees and asylum seekers, public policies on (im)migration, policies on integration of (im)migrants, inter-governmental/inter-state collaboration/conflict on irregular border crossing of migrants, sanctuary cities, mobility of immigrants outside large urban centers, and (im)migrants' adaptation to their new environment. They also explore the evolution of state responses to transnational migration.

# THEME 3: UNDERSTANDING THE FOUNDATIONS OF HUMAN HEALTH AND ENHANCING HEALTHY LIVING

Under the auspices of its new *School of Health*, Concordia researchers at the intersection of a variety of disciplines collaborate and conduct fundamental and applied research in a wide array of health-related areas and across the human life span, pioneering new understandings, approaches, technologies, and devices, and engaging citizens, community groups, policy-makers, researchers and innovators, and other stakeholders in the process. The School aims to be a global reference point for next-generation approaches to health research and training focused on enhancing the quality of human life and the innovative design of healthy communities. The three foci of health research and innovation at Concordia

are: clinical research and prevention, biomedical science and engineering, and community health. Within these, research on aspects of physical and psychological health, development across the life span (including but not limited to aging), synthetic biology and applications, and biomedical engineering, can be identified as key.

#### Sub-theme 3.1: Physical health and well-being

Our researchers study underlying mechanisms at the molecular, cellular, and system levels to inform and guide health research, to understand disease and healthy states, to understand the impact of external/environmental factors on health, and to guide the designs and development of treatments, preventive measures, interventions, and diagnostics to improve health. Concordia has extensive expertise in cognitive science (e.g. changes and continuity in cognitive abilities, memory, attention, language and bilingualism, skill acquisition), and behavioural neuroscience, as well as interdisciplinary research to improve and sustain long-term physical health by exploring measures for disease prevention. This includes research on health behaviours and lifestyle (e.g. physical activity, diet, weight management, stress) and their impact on chronic diseases, exercise science, and nutrition (e.g. causes and effects of obesity).

#### Sub-theme 3.2: Psychological health and well-being

Concordia researchers study psychological processes and disorders, as well as the neuro-physiological, biological, and social factors associated with particular behavioural and psychological (mental health) problems and their remediation. Our experts' research with children and adolescents focuses on developmental psychopathology, socio-emotional and cognitive processes, family and peer relations, and sex-role socialization. Our research with adults examines the etiology of anxiety and depression, the effectiveness of therapies, and age-related changes in social functioning, subjective well-being, and personality. We also study the role of stress, coping variables, personality, and attitudinal factors and their impact on health, illness, and perceptions of pain. Our researchers also seek to explore bodies and the benefits to health and well-being of creative arts therapies such as visual arts and creative practices, drama therapy, music therapy, and play therapy. They also examine workforce/workplace health and resilience.

#### Sub-theme 3.3: Synthetic biology and genomics, and their applications

Researchers are actively engaged in using genomic and synthetic biology approaches in a range of areas such as genomic, molecular, cellular, and biochemical approaches for targets screening and characterization; synthetic biology approaches to develop and test new products and cellular pathways; humanizing the post-translational modification systems in yeasts and fungi to facilitate the production of human-derived proteins; and design of microfluidic biosensors for diagnostics. This research has important applications in drug discovery and therapeutics, as well as point-of-care diagnostic devices (which are of particular importance in the fight against infectious diseases). Concordia has several research centres and state-of-the-art facilities related to this sub-theme and is home to the *Genome Foundry*, which houses a suite of instruments for the innovative design and development of organisms used in biomanufacturing.

#### **Sub-theme 3.4: Empowered Aging**

Canada is experiencing the opportunities and the challenges of a major aging revolution. Concordia researchers are extremely well-situated to respond to this challenge and boasts a critical mass of experts conducting research on aspects of aging across all four Faculties/Schools. Our engAGE Centre for Research on Aging gathers researchers who conduct research on the social, health-related, and technological dimensions of aging well. For our researchers, aging well entails a multitude of factors and solutions that

are physical, psychological, or socio-economic in nature: finding a purpose in life, establishing meaningful social relationships, possessing sufficient functional health and adequate mobility, having enough financial resources, being respected within society, quality and provision of public services, community cohesiveness, supportive environments, as well as "smart" solutions and technologies to enhance health and well-being and empower older adults. Our researchers explore these different facets of age and aging – physical and cognitive (e.g. diseases and disease prevention, cognitive skills and functioning, physical well-being, sleep, etc.), social, cultural, political, and economic (e.g. social isolation, empowerment, engagement, service provision, public policy, cultural differences in perceptions of aging), psychological (e.g. mental health and well-being, other psychological and behavioural issues), and technological (smart/innovative solutions such as personal devices, advanced biomedical technologies, etc.). They also explore how creative arts therapies and technological innovations can be used and developed to empower older adults and address the many challenges faced by them.

#### **Emerging sub-theme 3.5: Bioprocessing**

Concordia has emerging strengths in bioprocessing; our researchers utilize natural and genetically-modified living cells or organisms (e.g., bacteria, fungi, plants) and parts thereof (e.g., enzymes, DNA) to obtain products or services; they can also design, build and test real or virtual tools, machines (e.g., reactors, software) and procedures used in the development or fabrication of such products and services. Our *Bioprocessing Centre*, located at our *Applied Science Hub*, allows our researchers to conduct large-scale genomics analysis and optimize production strains in large bioreactors.

#### **Emerging sub-theme 3.6: Biomedical engineering**

Concordia has extensive existing research capacity in areas that can have applications in biomedical engineering (e.g. expertise in health conditions, sensors/biosensors, computer vision, human-computer interaction, artificial intelligence, signal processing, image processing, pattern recognition, neuroimaging, computational neuroscience, materials science and nanotechnology). We also have several researchers who already conduct research on medical imaging, medical devices, lab-on-chip, and surgical innovations. However, biomedical engineering remains an emerging area of expertise for Concordia – one that has significant room to develop and evolve.

#### THEME 4: SECURING A SUSTAINABLE FUTURE

Concordia is committed to supporting the United Nations Sustainable Development Goals (SDGs) across all our activities, and this year ranked 5th in the world for Creating Smart Cities and Communities in the Times Higher Education Impact Rankings (20th in the world on Climate Action). Our commitment to multidisciplinary and interdisciplinary sustainability research and innovation is manifested in our diverse and ever-expanding research capacity and infrastructure in a variety of disciplines across all Faculties touching on climate change and biodiversity challenges. The university has made longstanding and significant efforts to support and provide resources to researchers conducting research in topics related to climate change such as: the development of alternative, renewable, and sustainable sources of energy; corporate social responsibility and sustainability; design and support of energy efficient and resilient buildings, communities, and transportation; transportation infrastructures and logistics; decarbonization and resilience of the economy; sustainable aerospace; spill response and remediation; ecological systems; and water resource management. Concordia is home to the Canada Excellence Research Chair in Smart, Sustainable and Resilient Communities and Cities and the Next-Generation Cities Institute, which explore

– through interdisciplinary research and public engagement – how cities can operate sustainably while maintaining necessary services for its citizens.

#### Sub-theme 4.1: Electrification of society

Concordia has prioritized research in disciplines and domains that accelerate progress towards decarbonized and resilient economies, cities, and communities through electrification research. Our research community responds to the urgent need to accelerate and optimize the transition to decarbonized resilient communities – which requires the design and integration of new technologies for smart grids, energy storage, energy management, integration of distributed energy resources and renewable energy, and electrification of transportation and buildings, among others – while emphasizing innovation, affordability, equity, inclusion, and the well-being of society. Indeed, as our society continues to be reshaped by electrification, our policies, laws, social systems, and businesses must also adapt to the profound changes entailed. Canada urgently needs innovation and adoption of new technologies to enable further efficient electrification based on renewable energy sources, as well as incisive research into how society will be further transformed – with respect not only to technology but also to socioeconomic needs. Our expertise in this critical area of scholarship can be grouped into three key topics: 1) Infrastructure and cities (e.g. next-gen cities; net-zero energy buildings; power grids, cybersecurity); 2) Transportation/eco-mobility (e.g. electric vehicles; cybersecurity); and 3) Clean technologies/green chemistry (e.g. batteries).

#### Sub-theme 4.2: Sustainable, smart, and resilient aerospace

From innovations in de-icing techniques to the development of new algorithms that increase access to flight management systems, Concordia is disrupting the aerospace industry and taking an interdisciplinary approach to training for this quickly evolving sector. Sustainable, smart, and resilient aerospace research at Concordia is multidisciplinary in nature and our researchers are focused on ever-evolving approaches, advanced technologies, and novel solutions such as integrated design of sustainable aerospace systems, industry 4.0, artificial intelligence, data cloud sharing, cybersecurity, and advanced battery materials and technologies, to create cleaner green materials, reduce emissions, and increase safety. We have strengths in advanced manufacturing and materials, aircraft configurations and propulsion, autonomous systems and space, aviation management and air transport engineering, avionics, control, and embedded systems, connectivity and autonomy, and product development and supply chains.

#### Sub-theme 4.3: Sustainable design, living, and practices

Concordia is a leader in research touching on sustainable design, living, and practices. In particular, Concordia researchers explore questions of sustainable design for urban living; how collaborative design and implementation of public urban spaces can contribute to a better understanding of sustainable urban, professional, community, and human practices; responsible design practices; sustainable development; corporate social responsibility and sustainable entrepreneurship; and sustainable supply chains.

### STRATEGIC SUPPORT FOR RESEARCH DEVELOPMENT AND MOBILIZATION

Concordia's internal funding programs include seed funding (team and individual), university research units, facilities support, research events, Concordia University Research Chairs, and other Chairs and Professorships. These programs help to position Concordia to support and leverage external funding opportunities and investments. Concordia has also adopted institutes, research centres, and think tanks as critical tools for the development of research and interdisciplinarity, and will continue to do so. The Office of the Vice-President, Research and Graduate Studies provides, in concert with the four Faculties,

institutional funding for major initiatives such as SEPCFI; the Social Sciences and Humanities Research Council Partnership and Partnership Development programs; the Canada First Research Excellence Fund, the Canada Excellence Research Chairs, the New Frontiers in Research Fund Transformation, the Natural Sciences and Engineering Research Council (NSERC) CREATE and Alliance programs; and the Fonds Recherche Québec Regroupements Stratégiques.

### **CANADA RESEARCH CHAIR (CRC) ALLOCATIONS**

#### **Equity, Diversity and Inclusion**

Concordia University recognizes the essential role of diversity in fostering excellence by improving learning, advancing research, inspiring creativity, driving productivity and enhancing the experience and morale of the entire institution. Our Equity, Diversity and Inclusion Action Plan for the Canada Research Chairs Program specifically details key actions by the university for meeting and exceeding the targets for the four designated groups (Indigenous Peoples, Persons with Disabilities, Racialized Minorities and Women). The current equity targets and gaps may found at: https://www.concordia.ca/content/dam/research/docs/CRC/Concordia CRC Equity Target Setting TO OL JUNE 2021 PUBLIC.xls

#### Filling CRC allocations 2023-2028

A current list of CRC allocations, including vacant positions, may be found at:

https://www.concordia.ca/content/dam/research/docs/CRC/Concordia CRC Utilization Table 2022-12-01.pdf

New CRCs will be filled using the process outlined below, while also respecting the EDI Action Plan.

#### **Process, Retention and Recruitment**

The current Senate-approved Policy on Research Chairs (VPRGS-7) stipulates that allotted CRCs be used to recruit new researchers from outside the university, and that a significant portion of CRC funds be invested in the Chairholder's research program. The process starts with a university-wide call for Letters of Intent (LOIs) where the strategic impact of allocating a CRC in a given research area must be demonstrated, including the fit with the Strategic Research Plan and following the recommendations of the EDI Action Plan for CRCs. LOIs are prioritized by Faculty Research Committees and then submitted to the University Research Committee, which will take into consideration Faculty Research Committee rankings and justifications to select the strategic areas for allocation of CRCs. The search process is initiated with the home department(s) of the selected candidates, as per the Concordia University Faculty Association (CUFA) collective agreement. In general, searches are unrestricted with regards to awardees from inside Canada vs outside.

## CANADIAN FOUNDATION FOR INNOVATION (CFI) ALLOCATIONS

All CFI applications must be justified considering the Strategic Research Plan. Concordia holds popen, university-wide calls for the CFI IF program, and strongly encourages both intra- and inter-positivational collaborations. The CFI-JELF program is managed centrally and used in the first positivation commitment that each candidate for a new CRC nomination have an paramount available to request infrastructure that will support the CRC research program (Research Chair Policy VPRGS-7). The second priority is support of other externally-funded institutional research chairs and major projects, and if any

additional funds are available they are allotted strategically to help support the research programs of recent faculty hires.

#### **ALLOCATIONS PER STRATEGIC RESEARCH THEME**

The following table indicates the distribution of major resources amongst the four strategic research themes at the end of 2023.

Strategic Research Theme	Canada Research Chairs	Concordia University Research Chairs	Other Research Chairs	University Research Units & Infrastructure Platforms
Life and society through digital technologies	7	13	8	7
Inclusion and social justice	4	9	5	3
Foundations of human health and healthy	9	16	5	10
living				
Sustainable future	5	21	7	5
TOTAL	25	59	25	25

#### **PLANNING AND APPROVAL PROCESS**

The CRC and CFI Strategic Research Plan was developed through an iterative and collaborative planning process under the leadership of the Vice-President, Research and Graduate Studies in consultation with researchers, all Faculties, and Concordia's Senate Research Committee. The Plan was then approved by Senate and endorsed by the President.