

**FACULTY OF SCIENCE
MEETING OF FACULTY
21 May 2019 at 3:00 p.m.
Leacock Building, Room L232**

ATTENDANCE: As recorded in the Faculty Appendix Book

DOCUMENTS: S-18-36 to S-18-45

Dean Lennox called the meeting to order at 3:00 p.m. and welcomed members to the last Faculty of Science meeting of the 2018-2019 academic year. The three winners of the 2019 Faculty of Science Excellence Award will be announced at the end of the meeting to coincide with the Faculty of Science End-of-Term Reception.

1. Adoption of Agenda

Prof. Gyakum **moved**, seconded by Prof. Damha, that the Agenda be adopted.

The motion carried.

2. Candidates for Degrees

a) Bachelor of Arts and Science	S-18-37
b) Bachelor of Science	S-18-38
c) Diploma in Environment	S-18-39
d) Diploma in Meteorology	S-18-40

Director Allard said there were 82 graduands for the B.A. & Sc. degree, and currently there were 711 for the B.Sc. degree; a small number of B.Sc. graduands will be resolved by the end of the week. The corresponding figures for 2018 were 98 and 720, slightly more than this year. Director Allard mentioned that there had been 822 B.Sc. graduands in 2014, but the lower number in 2019 may be due to the decrease in the number of new admissions over the years.

There were two candidates for the Diploma in Meteorology, and no candidates for the Diploma in Environment.

Director Allard said that the honorifics cut-offs have steadily increased for the B.A. & Sc. and B.Sc. degrees compared to previous years:

B.A. & Sc.:

- Dean's Honour List – 3.88 CGPA
- Distinction – 3.72 CGPA

B.Sc.:

- Dean's Honour List – 3.95 CGPA
- Distinction – 3.86 CGPA

Director Allard **moved**, seconded by Mr. Barry, that the above degree lists be recommended to the Senate Steering Committee for their respective degrees/diploma.

The motion carried.

Director Allard further **moved**, seconded by Mr. Barry, that the Dean be given discretionary power to make such changes as would be necessary to prevent injustice.

The motion carried.

3. Minutes of 16 April 2019

S-18-36

Prof. Zuroff **moved**, seconded by Prof. Roulet, that the Minutes be approved.

The motion carried.

4. Business Arising from the Minutes

There was no business arising from the Minutes.

5. Reports of Committees

a) Scholarships Committee

S-18-41

Associate Dean Hundemer gave the following report from the Scholarships Committee:

(i) The Scholarships Report, Document S-18-41, included Faculty and departmental awards and medals. For the 2018-2019 academic year, the CGPA cut-off for Faculty awards was 4.00 (up from 3.99 in 2018). There were 25 graduating students with a 4.00 CGPA, compared to 14 students in 2018. The departmental awards are selected by the relevant department.

(ii) Two Moyse Travelling Scholarships are awarded annually (one scholarship awarded by the Faculty of Arts and the other by the Faculty of Science). The Scholarships are tenable for one year of advanced study, preferably abroad (i.e., a British or European university), although North American universities are also considered. The monetary value of the Moyse Travelling Scholarships was \$11,320, which is the highest monetary value of all awards. Students submitted an application for this award, and the Selection Committee chose **Magdalena Schindler, Honours in Biochemistry**, to be the recipient of the 2019 Moyse Travelling Scholarship. Ms. Schindler plans to pursue graduate studies at the University of Cambridge, UK, in the Department of Physiology, Development and Neuroscience. Ms. Schindler's research interest is early primate embryogenesis. Congratulations to Ms. Schindler for being selected to hold the Faculty of Science's Moyse Travelling Scholarship.

(iii) The Governor General's Silver Medal is awarded to a graduating undergraduate student who obtains the highest academic standing in a bachelor's degree program at McGill. There are only two medals given each year for the entire university. The medals were awarded to the Faculty of Science and to the Faculty of Engineering. **Jiakai Li, Honours in Mathematics**, is the 2019 winner of the Governor General's Silver Medal. Mr. Li successfully completed 17 graduate courses while an undergraduate, and he graduated with a 4.00 CGPA. He will be pursuing his doctoral studies at Harvard University, USA. Congratulations to Mr. Li for being the recipient of the Governor General's Silver Medal.

b) Academic Committee

S-18-42

The following proposals were approved at the Academic Committee meeting on 21 May 2019:

**I. New B.A. & Sc. Ad hoc Program for One Student:
- Ad Hoc Major Program in Global Public Health**

AC-18-121

Associate Dean Hundemer introduced a new ad hoc B.A. & Sc. Major Program in Global Public Health for one student only. There is currently no existing major program in global public health at McGill, but in the near future there may be a formal program in global public health in the B.A. & Sc. Degree, given that there is a demand in this area. The courses are divided evenly between arts and sciences, and this ad hoc may serve as the template for an official program in the B.A. & Sc. degree.

Associate Dean Hundemer **moved**, seconded by Associate Dean Western, that the ad hoc program be adopted.

The motion carried.

II. New Courses

- (1) **McGill School of Environment**
 ENVR 614 Mobilizing Research for Sustainability **AC-18-103(Rev)**
 3 credits

Associate Dean Hundemer said that ENVR 614 focuses on developing communication strategies concerning environmental issues and leadership skills in order to convince organizations the necessity of implementing changes. ENVR 614 will be included in the graduate Option in Environment in 29 graduate programs at McGill.

Associate Dean Hundemer **moved**, seconded by Prof. Roulet, that the course be adopted.

The motion carried.

Associated Programs

- (2) **Biology**
 - M.Sc. in Biology (Thesis); Environment **AC-18-105**
 - Ph.D. in Biology (Thesis); Environment **AC-18-106**
- (3) **Geography**
 - M.Sc. in Geography (Thesis); Environment **AC-18-107**
 - Ph.D. in Geography (Thesis); Environment **AC-18-108**

Associate Dean Hundemer said the above graduate program revisions in Biology and Geography were made due to the newly approved course ENVR 614 (above), as well as the addition of the new course, ENVR 615, which was previously approved at the Faculty of Science meeting held on 16 April 2019.

Associate Dean Hundemer **moved**, seconded by Prof. Roulet, that the above program changes be approved.

The motion carried.

M.A. and Ph.D. (Arts) Program Changes (for information):

- M.A. in Geography (Thesis); Environment
- Ph.D. in Geography (Thesis); Environment

- (4) **Mathematics & Statistics**
 MATH 308 Fundamentals of Statistical Learning **AC-18-130**
 3 credits

Associate Dean Hundemer introduced a new course, MATH 308. The course covers multivariate data and how to extract useful information via statistical means, which is not

offered in other existing courses in Statistics. MATH 308 may be taken in the Winter of the U2 year.

Associate Dean Hundemer **moved**, seconded by Prof. Neslehova, that the course be adopted.

The motion carried.

III. Courses and Program Revisions

(1) **Microbiology and Immunology**

MIMM 465	Bacterial Pathogenesis	AC-18-96(Rev)
	Change in course description	
	3 credits	

Associate Dean Hundemer said that the course description for MIMM 465 was being revised due to the unfortunate death of the previous instructor. The new instructor has modified the course and now the first half will be lecture-based and the second half will be based on student presentations.

Associate Dean Hundemer **moved**, seconded by Prof. Watt, that the changes be approved.

The motion carried.

(2) **Physics**

PHYS 320	Introductory Astrophysics	AC-18-122
	Changes in number [from -214], subject, course term, description, prerequisites, restrictions	
	3 credits	

Associate Dean Hundemer explained that PHYS 320 was renumbered from PHYS 214, which was previously taken by Physics and non-Physics students. The aim of PHYS 320 is to introduce astrophysics to students in U1 in the Major and Honours Programs in Physics. Consequently, the prerequisites will now be at the 200-level and are included in the Major and Honours programs. Non-Physics students interested in astrophysics will be served by taking the existing 100-level general interest course, PHYS 186, Astrobiology.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

PHYS 346	Majors Quantum Physics	AC-18-124
	Changes: number [from -446]; subject/course/term, restrictions	
	3 credits	

Associate Dean Hundemer said that the reason for the change in course number from PHYS 446 to PHYS 346 was to introduce students to quantum physics, one of the fundamental areas of physics, in U2 instead of U3.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

PHYS 434 Optics **AC-18-123**
Changes in prerequisites, corequisites, supplementary
calendar info
3 credits

Associate Dean Hundemer said that PHYS 434 is currently offered in the Winter semester but it is now being proposed as a Fall course in order to introduce a lab component to the course. The prerequisites will need to be taken as corequisites, but this should not be problematic because the material covered in the prerequisite courses is not significant.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

PHYS 479 Physics Research Project **AC-18-125**
Changes in course title, course description, restrictions
3 credits

Associate Dean Hundemer explained that, with the proposed changes, PHYS 479 will be open to Major and Honours students. Major students will have the opportunity to take two research project courses.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

PHYS 521 Astrophysics **AC-18-126**
Changes in course description, restrictions
3 credits

Associate Dean Hundemer said that the restriction allowing only Honours students to take PHYS 521 has been removed. Therefore, the course is open to Major students as well. Also, the description has been updated.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

B.Sc. Program Changes:
- Major in Physics

AC-18-127

Associate Dean Hundemer described the changes to the Major in Physics. He said that the revised program includes some of the above course changes, but, most importantly, the program gives students more options with a list of Complementary courses and enables students to focus on different areas of physics.

Associate Dean Hundemer **moved**, seconded by Prof. Jeon, that the changes be approved.

The motion carried.

- (3) **Psychology**
 PSYC 341 The Psychology of Bilingualism **AC-18-128**
 Changes in prerequisites, restrictions
 3 credits

Associate Dean Hundemer said that the changes to PSYC 341 consisted of removing the prerequisite course, PSYC 340, since it was no longer necessary because the two courses had evolved in parallel over the years. Also, a restriction has been added to allow U2 students and above to take the course.

Associate Dean Hundemer **moved**, seconded by Prof. Zuroff, that the changes be approved.

The motion carried.

- (4) **Computer Science**
 COMP 558 Fundamentals of Computer Vision **AC-18-129**
 Changes in credit weight [from 3], course description,
 prerequisites, restrictions
 4 credits

Associate Dean Hundemer explained the changes to COMP 558. The description has been updated to reflect the current course content; the credit weight has been increased to 4 credits (from 3) to justify the workload required to successfully complete the course; the prerequisites have been updated to specify the requirements; and the restriction has been removed since it is no longer valid.

Associate Dean Hundemer **moved**, seconded by Prof. Kemme, that the changes be approved.

The motion carried.

IV. OTHER

- **Program Submissions to the SCTP** **AC-18-132**

Associate Dean Hundemer informed members that if units are planning to propose new program proposals or major revisions to programs, they should first contact the Associate Dean (Academic) because the SCTP will be requesting that supporting documentation (2-3 pages) be appended to new program proposals or to major program revisions. New programs are first submitted to Analysis, Planning, and Budget (APB) prior to submission to the SCTP. For example, some of the supporting documentation should include the following information: **(i)** the reason for a new program; **(ii)** the demand for the new program; **(iii)** how the program fits in the University's or Faculty's Strategic Plan; **(iv)** how the program compares potentially with other universities in Canada and North America.

Dean Lennox strongly recommended that members first reach out to Associate Dean Hundemer to discuss new programs.

Dean Lennox commended the Department of Physics for opening up course PHYS 479 (discussed above) to Major students as well, where previously it had been offered to Honours students only. This will give Major students the opportunity to take more undergraduate research courses. He said that the Faculty of Science has for many years been dedicated to giving undergraduate students meaningful research experience, and he encouraged other units to follow suit.

6. **Notice of Motion to Amend the Constitution of the Faculty of Science** **S-18-43**

Vice-Dean David Stephens gave notice of Motion to amend the Faculty of Science Constitution. The changes involve renaming the position of the Director of Advising Services (from the Associate Dean [Student Affairs]) on the Committee on Student Standing; administratively reorganizing the Scholarship Committee (to be renamed the Scholarships, Fellowships and Awards Committee); and removing the Animal Committee, which has been defunct for many years. The actual Motion will be considered at the Faculty meeting of 10 September 2019.

7. Dean's Business

a) Dean's Multidisciplinary Undergraduate Research List (DMURL) S-18-44

Director Nicole Allard described the DMURL. She said that the DMURL provides recognition for students who have completed at least 9 credits of graded research-based courses in at least two different units, and who have a minimum GPA of 3.00 on these courses. She said that there were 72 B.Sc. students and nine B.A. & Sc. students listed in Document S-18-44 who would be graduating with this honour. February and June graduates were also included in this document. In reply to Director Allard, Mr. Victor Chisholm said that the number of students graduating with the DMURL is the largest it has ever been.

Director Allard thanked Mr. Victor Chisholm, Undergraduate Research Officer, for his diligent work in identifying the DMURL students and compiling the list (Document #S-18-44).

b) B.Sc. Global Designation S-18-45

Director Nicole Allard said that the B.Sc. Global was a designation being given at graduation. Students must have at least three credits of a second language course, at least three credits of an independent research project course, plus a third component, chosen from various preselected options. She said there were 17 candidates who would graduate with the B.Sc. Global designation in Document S-18-45. The number of students graduating with this designation is also the largest it has ever been.

Director Allard thanked Ms. Martine Dolmière, Science Internship & Field Studies Officer, for her dedicated work on the list (Document #S-18-45) of students graduating with a B.Sc. Global designation.

c) Announcements

(1) Awards

i. Governor General's Silver Medal

Dean Lennox announced that Principal Suzanne Fortier will be presenting the Governor General's Silver Medal to **Jiakai Li**, an Honours student in the Department of Mathematics & Statistics, at the Science Convocation ceremony on 31 May 2019.

ii. Carrie M. Derick Award for Graduate Supervision and Teaching

Dean Lennox was pleased to announce that **Professor Johanna Neslehova** from the Department of Mathematics & Statistics was the recipient of the 2019 Carrie Derick Award for Graduate Supervision and Teaching. Dean Lennox said that the Award is one of only two graduate supervision awards at McGill, and will be presented at Convocation on 31 May 2019.

iii. Centre de recherches mathématiques (CRM) and the Statistical Society of Canada (SSC)

In addition to winning the Derick Award, **Professor Johanna Neslehova** was recently awarded the prestigious 2019 CRM-SSC Prize in recognition of her outstanding research.

On behalf of the Faculty of Science, Dean Lennox congratulated the above winners for their accomplishments and wished them continued success.

(2) Outgoing/Incoming/Reappointment Chairs

Dean Lennox announced the following Chair changes:

- Department of Atmospheric & Oceanic Sciences

Professor Daniel Kirshbaum has been appointed Chair of the Department for a four-year term, replacing Professor John Gyakum, who served as Chair for the past 16 years.

On behalf of the Faculty, Dean Lennox thanked Prof. Gyakum for his service over the years. He said that under the leadership of Prof. Gyakum, the Department has come to the fore. The Department has diversified in terms of its research platform and its teaching and is now a very important part of the sustainability initiative at McGill.

- Department of Physics

Professor Sangyong Jeon has been appointed Chair of the Department for a five-year term, replacing Professor Peter Grütter, who served as Chair for the past six years.

Dean Lennox, on behalf of the Faculty, thanked Prof. Grütter for serving, and thanked Prof. Jeon for taking up the chairmanship.

- Department of Geography- Reappointment

Professor Nigel Roulet has been reappointed Chair of the Department for a further five-year term. During this term, Prof. Roulet will take a well-earned sabbatical leave for one year.

On behalf of the Faculty, Dean Lennox thanked Prof. Roulet for agreeing to serve as Chair of the Department for the next five years.

Dean Lennox said that leading in a collegial governance environment, a department chair plays an important and critical role in the university. It is a very complex role, and the Faculty is incredibly fortunate to have people come forward to take on these positions because they are very demanding, but also very rewarding.

(3) Science A Convocation Ceremony – 31 May 2019 at 10 a.m. and 3 p.m.

Dean Lennox said that there were close to 1,000 undergraduate students graduating, plus the Masters and PhD degrees.

This year's honorary doctorate recipients are:

(i) Professor John Michael Kosterlitz, 2016 Nobel Laureate in Physics, is a mathematical physicist and professor at Brown University.

(ii) Professor Emmanuelle Charpentier, Director of Regulation in Infection Biology at the Max Planck Institute in Berlin, Germany. Prof. Charpentier is the co-discoverer of the CRISPR-Cas9 gene-editing technique.

(iii) Faculty of Science Convocation Awardees

- **Leo Yaffe Teaching Award, Professor Melanie Dirks**, Department of Psychology
- **Principal's Prize for Outstanding Emerging Researchers, Professor Rowan Barrett**, Redpath Museum and Department of Biology

- **Governor General's Silver Medal, Jiakai Li**, Honours student in the Department of Mathematics & Statistics
- **Carrie M. Derick Award for Graduate Supervision and Teaching, Professor Johanna Neslehova**, Department of Mathematics & Statistics

8. Reports of Director & Associate Deans

a) Director (Advising Services) Nicole Allard

Director Allard thanked both departmental advisors and SOUSA advisors for their diligence and hard work in preparing the graduation lists.

Director Allard was pleased to announce the winners of the Dean of Students Award for Excellence in Undergraduate Academic Advising. She said that the award aims to recognize the integral and valuable contribution that academic advising makes to undergraduate student life at McGill. This year there were two winners, and both recipients were from the Faculty of Science. They are:

- (i) Jane Hawes, Student Advisor from the Science Office of Undergraduate Student Services**
- (ii) Michelle Maillet, Undergraduate Program Advisor from the Department of Geography**

Director Allard added that the two awards had been announced on 15 May 2019 at the 4th Annual Reception for the Dean of Students Award for Excellence in Undergraduate Academic Advising, where some great student testimonials were read out. Both recipients were nominated by their students. Director Allard thanked Jane and Michelle for their dedication and valuable contributions to their students.

b) Associate Dean (Academic) Axel Hundemer

There was no report for the current meeting.

c) Associate Dean (Education) Tamara Western

Associate Dean Western gave a presentation on the initiatives of the Office of Science Education (OSE) for the 2018-2019 academic year. The members of the OSE are the Associate Dean (Education), Marcy Slapcoff, Director, and Anita Parmar, Innovation Advisor.

The priorities of the OSE are learning, collaboration, and inquiry, and these are very much intertwined in the Faculty of Science because Science is a collaborative process. It is a collaboration between different fields, different faculty members, students, and postdoctoral fellows. The goals of the OSE are to acquire knowledge about the natural and physical world and share the knowledge not only with students, but also with the greater community.

The OSE has been working on a number of projects, ranging from assisting with student learning in large classes such as organizing FRezCa, consultations with various professors in departments, lab pedagogy for the redesign of BIOL 301, the Physics Education Group, and the new research project course, FSCI 396.

Associate Dean Western said that in terms of collaboration, the OSE has started to establish learning communities within departments, by setting up a larger learning community and celebration with people involved across the Faculty, and by integrating

with other resources that are available both within, and outside of, the university. With regard to inquiry, the OSE is working on holding an undergraduate research event in January 2020, and on introducing and promoting the scholarship of teaching and learning within the Faculty.

With respect to the undergraduate project course FSCI 396, Associate Dean Western said the course was first offered in Winter 2019 and there were six research projects, and four projects for Summer 2019. Students work in partnership with professors and staff to look into the pedagogical literature and:

- assess the effectiveness of teaching and learning strategies
- research discipline-related misconceptions
- research and apply innovative teaching and learning strategies
- engage in in-reach or outreach within our courses or with projects related to the Redpath Museum

Associate Dean Western said this could be an opportunity to expand research endeavours with students into the scholarship of teaching and learning. As a result, this will bring people together from different disciplines with different topics. Associate Dean Western said that, as the coordinator of FSCI 396, she is involved with some co-supervision of projects but she also brings together students and faculty/staff into a diverse learning community through cohort meetings. The first Summer cohort meeting that recently took place was an interesting and exhilarating experience.

Associate Dean Western said that, for those members who would be interested in course development or course redevelopment but are not ready to take on an undergraduate research project with a student, the OSE has partnered with the Tomlinson Project in University-Level Science Education (T-PULSE) to create the Tomlinson Education Award for Change (TEACH). Like the TEAM (Tomlinson Engagement Award for Mentoring), which is for undergraduate students to engage with other students in course delivery, TEACH is for course development or redevelopment. A TEACH award is an opportunity for professors to engage an undergraduate student, who has recently taken a course, to assess the course at the pedagogical level, and/or in the development of new, innovative strategies and/or material to enhance course/curriculum delivery or assessment. The T-PULSE Graduate Fellows are also involved, along with TEAM and TEACH members.

Dean Lennox thanked Associate Dean Western, Marcy Slapcoff and Anita Parmar for their work. He said that these are great initiatives from the OSE this year, and he is really looking forward to the coming year.

d) Associate Dean (Graduate Education) Laura Nilson

There was no report for the current meeting.

e) Associate Dean (Research) John Stix

(i) Fessenden Professorship Awards and Fessenden Innovation Awards

- a) Further to the announcements of the two Fessenden Professorship recipients at the Faculty of Science meeting on 16 April 2019, Associate Dean Stix said he would like to announce the titles of their research.

The winners were **Professor Audrey Moores** from the Department of Chemistry and **Professor Bradley Siwick** from the Department of Physics.

Research Title - **Professor Audrey Moores**

ChitoDry: Producing biodegradable plastics from crustacean shells

Research Title - Professor Bradley Siwick

The LockBox: High-performance RF-laser Synchronization for Time-Resolved Electron Microscopy and Beyond

Associate Dean Stix congratulated Prof. Moore and Prof. Siwick for their accomplishments. He said there would be another competition in the 2019-2020 academic year.

b) Wares Science Innovation Prospectors Fund

Associate Dean Stix informed members that the initial Wares Science Innovation Prospectors Fund competition will be announced shortly to all professors in the Faculty of Science.

- The goal of the Wares fund is to support innovative, high-risk research by funding up to four projects a year from researchers across the Faculty of Science.
- Each project will be receiving approximately \$40,000
- Due date: 15 July 2019

c) Canada Research Chair – Open Call

The latest CRC open call competition has just recently been announced. Associate Dean Stix said that the competition will be very small for the Faculty of Science because it involves only CIHR-related disciplines. There will be no NSERC or SSHRC for this competition, and most likely, the next open call will be in November 2019, which may involve a larger competition. All professors in the Faculty will be receiving a formal announcement shortly.

9. Reports on Actions of Senate

a) Senate Meeting of 17 April 2019: Senator Masad Damha

1. In her remarks from the Chair, Principal Fortier spoke about her decision to change the Redmen team name, which was met with applause. She mentioned that in the coming months, a consultative process for selecting a new team name would be established and encouraged Senators to participate. [During question period, Senators thanked the Principal for her decision to change the varsity team and for being transparent and detailing the process in the communication issued to the McGill community].

Regarding Spring 2019 Convocation, the Principal reminded everyone that the ceremonies would take place from May 28 to June 4 under the tent on the lower field and on June 5 at the Macdonald campus. She invited Senators to read the announcement published in the McGill Reporter regarding the honorary degree recipients. We have two Doctor of Science, honoris causa being awarded on May 31:

Science A – May 31 at 10 a.m.

Emmanuelle Charpentier. She is best known for her role in deciphering the molecular mechanisms of the bacterial CRISPR-Cas9 immune system and repurposing it into a tool for genome editing.

Science B – May 31 at 3 p.m.

John Michael Kosterlitz. Theoretical physicist and Nobel Laureate; he is a pioneer of abstract mathematics and its real-world applications in physics.

Regarding external relations, the Principal reported that our own Daryl Haggard (Professor in the Department of Physics and the McGill Space Institute in Montreal) was among the researchers that unveiled the first direct visual evidence of a supermassive black hole and its shadow. She added that Prof. Haggard contributed to two of the

publications released, as a member of the Event Horizon Telescope (EHT)'s Multi-wavelength Science Working Group.

Among her kudos remarks, the Principal congratulated McGill alumnus Dr. Yoshua Bengio (MSc/PhD in Computer Sciences, McGill), Scientific Director of Mila, on being one of three recipients of the 2018 A.M. Turing Award, often referred to as the "Nobel Prize of computing". She also shared that the Canadian Institute for Advanced Research (CIFAR) announced the expansion of the Canada-CIFAR AI Chairs program, noting that two of the new AI Chairs will go to McGill Professors Geoff Gordon and William L. Hamilton (School of Computer Science).

2. Under the agenda point for formal questions, a question was posed regarding support for students and alumni in light of Bill 21. This Bill seeks to prohibit public workers in "positions of authority," including teachers, judges, police officers and public prosecutors, from wearing religious symbols, and, in an added measure that particularly targets Muslim women, requires citizens to uncover their faces when receiving government services. They noted that the proposed Bill immediately impact McGill students and alumni, particularly those from the Faculty of Education and the Faculty of Law, also adding that international students, especially from populations targeted by the bill, are at a greater risk of isolation and marginalization.

In his response, the Provost stated that McGill appreciates that the restrictions proposed by Bill 21 may be cause for concern, but reassured that McGill remains committed to ensuring equity and inclusiveness on our campuses and within the University community. At the same time, the Provost confirmed that while McGill accepts the principles of secularism and religious neutrality underlying the Bill, it does not support any development that could restrict educational and professional opportunities for our students and alumni. He reminded us that The Bill is not yet law, and that it may be rejected by the National Assembly, or may be accepted into **legislation in some** modified form, adding that its ultimate impact on the University community remains to be seen.

(see: https://www.mcgill.ca/senate/files/senate/question_and_response_re_bill_21.pdf).

3. Senate held an Open Discussion on the topic of The Future of the Master's Degree. https://www.mcgill.ca/senate/files/senate/05_d18-55_open_discussion.pdf

McGill currently offers 172 Master's programs of which 71 are non-thesis programs. In Fall 2018, there were almost 2700 students enrolled in non-thesis Master's programs.

The open discussion began by Senators discussing the goals for non-thesis programs, the trend of increasing enrolments, and the flexibility the University has in offering such degrees. Senators agreed that current programs should be reviewed to ensure that programs and the courses within them are relevant and respond to current and emerging needs of prospective students. Senator Nicell indicated that the McCall MacBain International Fellowships would attract a high caliber of students who would be interested in non-traditional programs. Senator Saroyan suggested looking at program outcomes and paying attention to the soft skills promoted by international organizations. She explained that creativity, critical-thinking and problem solving are inherent in all courses but are not always fostered. Others suggested multidisciplinary master programs that are relevant and that respond to needs.

Senator Manfredi noted that other options that could be explored are blended undergraduate-graduate programs, stackable certificates and the development of a Master of Arts and Science Degree (currently being discussed by the Deans of Arts and Science). He also stated that it would be important to reflect on who would be teaching these programs, noting that a) more Professors of Practice may be needed; b) we are

already committed on online programs (not just courses), emphasizing this approach is in line with our Strategic Plan. Senator Manfredi also noted that we “need master programs that bring net revenues, not revenues...so these programs need to be strong academically and financially”, and the importance of making a distinction between governments funded program (which have a more complex approval process) versus self-funded programs (with much simpler government approval process). Senator Nalbantoglu said that we need to change our approach to advance and approve programs, pointing out it takes up to 3 years to go through this process.

4. The annual report from Graduate and Postdoctoral Studies for 2017-2018 was presented by Dean Nalbantoglu
(https://mcgill.ca/senate/files/senate/06_d18-56_gps_annual_report.pdf).

Senator Nalbantoglu highlighted four initiatives aimed at enhancing the graduate student experience at McGill: myProgress, myPath, Graduate Mobility Awards, and the Doctoral Internship Program.

“myProgress” is a web tool that allows graduate students and supervisors to track and monitor progress towards degree. Benefits were listed in her report and included course/program requirements, monitoring of progress towards degree; receiving reminders of upcoming or missed academic milestones in their thesis graduate program; progress tracking form, etc.).

“myPath” is an active network of tools and programming to provide PhD students with ways to identify their goals and to create an individual development plan (IDP). This encourages the iterative process of reflection, defining goals, setting specific objectives, taking action.

“Graduate Mobility Awards” encourage graduate students to study and conduct research abroad and as part of their McGill degree program (not intended to fund travel for conferences). About 300 students take advantage of these awards, and Faculties manage them. There have been some changes to eligibility of award, e.g., they cannot be held at countries of students’ citizenship.

“Doctoral Internship Program”. It funds up to \$2000 per month from McGill’s GPS for a 1 to 3 consecutive months. PhD candidate must be enrolled full time in PhD6 or earlier; must have submitted initial thesis, but not held the oral PhD defense; internship available worldwide. Expected outcomes: valuable learning experience, skills training, raising awareness of PhD students, etc. as outlined in the report.

5. Provost Manfredi presented a report on the University budget for 2019-2020:
(https://mcgill.ca/senate/files/senate/07_d18-57_budget_presentation.pdf).

Due in part to changes in the provincial funding formula for universities, McGill is on track to finish the current fiscal year with a nearly balanced budget rather than with the larger deficit which had been projected: the current forecast for the deficit is \$0.6M, in contrast with the FY2019 budgeted deficit of \$15.4M.

6. A report on the University Master Plan was presented by Provost Manfredi, V.-P. Beauchamp and Dr. Cameron Charlebois, Executive Director, Campus Planning and Development:
(https://mcgill.ca/senate/files/senate/08_d18-58_university_master_plan.pdf).

The report includes a link to the draft Master Plan document itself:
(https://mcgill.ca/senate/files/senate/mcgill_university_master_plan_reduced.pdf).

They described several major new development projects, repurposing of nearby existing buildings, and improvement of the surrounding open spaces; these projects include Fiat Lux (a new vision for the Library); Wilson Hall (to accommodate repatriated Arts departments); Sustainability Systems and Public Policy at 687 Pine (the RVH site); a new Research and Teaching Pavilion on the Powell site; and two developments at the Macdonald Campus: a new Research and Innovation Pavilion and a new facility for Athletics.

7. As the final item of business, Secretary-General Rogowska presented the Senate Calendar of Dates for 2019-2020

(<https://mcgill.ca/senate/senate-2018-2019/senate-meeting-documents-2018-2019/april-17-2019>).

8. The last Senate meeting of the 2018-19 academic year was held on May 15, 2019. This will be summarized next by Senator David Alan Stephens.

Sources for preparation of this summary:

- a) [MAUTFORUM] Senate Meeting Report, 2019-04-17, by librarian senators T. Bedjanian, M. Richard and N. Waters
- b) Minutes of the Senate Meeting of 2019-04-17 (Senate meeting documents)

b) Senate Meeting of 15 May 2019: Senator David Stephens

Prior to the main agenda, memorial tributes for Professors Emeriti Roddy Rogers and Issa Boullata were presented.

The Senate Steering Committee Report was questioned at length by Senator Shapiro due to the rejection of a motion of three Senators concerning matters of Senate's discussion of matters of social responsibility. The motion to adopt the Steering Committee Report was passed, although not unanimously.

In her comments, the Chair commented on the hearings on the Quebec government's Bill 21 – to which Universities were not invited – and also on Bill 9 concerning immigrant integration into the Quebec workforce. In the kudos list, Faculty of Science Professors Dobbs (Killam Research Fellowship), Lumb & Frišćić (Canadian Society for Chemistry awards), and Pineau (Governor General's Innovation Award) were prominent. The Chair also reminded Senate about the upcoming Spring Convocation.

Senate approved the report of the Senate Nominating Committee presented by Associate Provost Campbell, approving appointments to various standing committees and reappointment committees of the University. Two new Assessors under the Policy on Harassment and Discrimination Prohibited by Law were approved. A motion proposing amendments to the academic calendar for 2019-23 was passed. Senate then approved the revised terms of reference of the Faculty of Engineering's Faculty Council.

Associate Provost Campbell presented for information the Biennial Report on Employment Equity: this extensive report identified demographic differences and discrepancies in various aspects of employment data, including salaries and merit assessments. A working group is being struck to investigate these data in more detail.

Professor Bernard, Chair of the Committee on Staff Grievances and Disciplinary Procedures, presented for information the annual report of that committee, and suggested that various changes in the remit and description of this committee were warranted.

Senator Eidelman, Dean of the Faculty of Medicine, presented a preliminary version of his Faculty's 'Project Renaissance' (strategic, structural and governance plan). This plan is extensive, and will necessitate discussions with the Faculty of Science not least with respect to the Biomedical Science Departments.

Reports concerning the Policy on Safe Disclosure and the activities of the Board of Governors were presented.

Senate then moved into confidential session to discuss the report of the Honorary Degrees and Convocations Committee. Senate adjourned at some time later than 16.52 pm (when Senator Stephens had to leave).

With regard to the report on employment equity presented by Associate Provost (Equity and Academic Policies) Angela Campbell, Dean Lennox highly recommended that members read the Biennial Report on Employment Equity. The Senate Minutes and the full report on equity may be found here:

<https://mcgill.ca/senate/senate-2018-2019/senate-meeting-documents-2018-2019/may-15-2019>

10. Members' Question Period

There were no members' questions.

11. Faculty of Science Excellence Awards Winners

Prof. Alanna Watt, Chair of the Faculty of Science Excellence Awards, described the Faculty of Science Excellence Awards. The goal of the Excellence Awards is to acknowledge outstanding performance and contribution by members of the administrative and support staff classified in each category: **Clerical, Technical, and Management**.

The Committee members were:

One academic representative	Prof. Alanna Watt (Chair) Department of Biology
Two representatives from "M" classification	Ms. Sandra Aerssen, Department of Chemistry Ms. Julie Thériault, Faculty of Science
Two representatives from "C" classification	Ms. Angela White, Department of Mathematics & Statistics Ms. Olivia Sanalidro, Department of Physics
Two representatives from "T" classification	Mr. Anthony Howell, Redpath Museum Mr. Richard Talbot, Department of Physics

Prof. Watt read the following citations for the 2018-2019 Faculty of Science Excellence Award winners.

(i) Liette Chin from the School of Computer Science - Clerical Category

Liette Chin has held the position of Senior Administrative and Student Affairs Coordinator at the School of Computer Science for the past 15 years. Her responsibilities centre on undergraduate students and include conducting degree audits, organizing open house

and freshman program fairs, coordinating course developments, and advising students. As Computer Science student numbers have increased, Liette has become busier and busier but has risen to this challenge with a strong work ethic and positive attitude. In addition to being a team player with excellent collaboration and training skills, her referees all mention her dedication to students. Students benefit from her personalized, thoughtful advising, deep knowledge of the curriculum, and calm encouraging attitude. One former student whose degree included several research courses across a variety of topics wrote: "the experiences that Liette enabled were the highlights of my time at McGill".

(ii) Anne-Marie Sdicu from the Department of Biology - Technical Category

Anne-Marie Sdicu became Laboratory Course Coordinator for BIOL 301 in 2005. Initially BIOL 301 had two coordinators, but following a retirement in 2012, she has been the sole coordinator and has managed this extra responsibility extremely well, thanks to hard work and excellent organizational skills. This course serves not just Biology students, but also students from several biomedical departments, and has seen a significant increase in enrollment numbers over the past decade. Anne-Marie Sdicu manages a large workload, which involves overseeing the smooth running of 11 labs per term and training and managing 16 TAs. She ensures that the course's progress by assisting in the design, implementation and troubleshooting of new lab modules and updating the lab manual. Several referees commented that Ann-Marie Sdicu is essential to the success of 301, and that her dedication to this lab course helps provide an optimal educational experience for our students.

(iii) Martin Duval from the Gault Nature Reserve - Managerial Category

Martin Duval has been a part of the Gault Nature Reserve for more than 30 years, having joined as a Patroller in 1984, then working his way up to Manager of Services and Security in 2003. This is a position that requires a varied skill set, as he is responsible for accommodations for researchers and classes, as well as more than 300,000 visitors/year. His commitment and dedication to the Gault is legendary, perhaps best demonstrated by the time he worked more than 24 hours straight assisting on a rescue mission.

In 2018, he temporarily became the interim Operation Manager for the Bellairs Research Institute in Barbados, taking on this role at a critical time of restructuring. He accomplished an astonishing number of things in his 4 months there, including revamping the fee structure for meals and accommodations, establishing an online payroll system for the Bellairs staff, overseeing several infrastructure projects, which also involved navigating laws and regulations in a foreign country, and implementing changes that make the safety of McGill students top priority. His time at Bellairs was described by one referee as "transformational for the Institute, which was set on a new path with a clear future." The committee felt that his strong leadership at Bellairs deserves recognition and that this Faculty of Science Excellence Award is thus particularly timely.

On behalf of the Faculty of Science, Dean Lennox congratulated all three winners, Ms. Chin, Ms. Sdicu, and Mr. Duval, for having been chosen as the 2018-2019 winners of the Faculty of Science Awards. Dean Lennox presented the two winners attending with a framed certificate commemorating their receipt of the Science Excellence Award.

Also, on behalf of the Faculty, Dean Lennox wished to thank Prof. Watt and the members of the Committee for their efforts and hard work. He said that he strongly feels that staff are the backbone of the Faculty and that it is very important to recognize their valuable contributions.

12. **Other Business**

Dean Lennox thanked everyone for a great year in the Faculty of Science, and for the contributions made by the team in Dawson Hall. He said he is looking forward to seeing everyone in September 2019.

There being no further business, the meeting adjourned at 4:20 p.m.