

**FACULTY OF SCIENCE
Meeting of Faculty
22 May 2018
Leacock Council Room - L232**

ATTENDANCE: As recorded in the Faculty Appendix Book

DOCUMENTS: S-17-31 to S-17-39

Dean Lennox called the meeting to order at 3:05 p.m. and welcomed members to the last Faculty of Science meeting of 2017-2018.

(1) ADOPTION OF AGENDA

Prof. Lydon **moved**, seconded by Prof. McKenzie, that the Agenda be adopted.

The motion carried.

(2) RESOLUTION ON THE DEATH OF JOHN BRADLEY LEWIS, PROFESSOR EMERITUS OF BIOLOGY

902.1 Prof. Gregor Fussmann, Chair of the Department of Biology, read the Resolution on the Death of Emeritus Professor John Bradley Lewis.

It is with great sadness that we share the news of the passing of Dr. John Bradley Lewis, Professor Emeritus in the Department of Biology. Professor Lewis was born in Ottawa in 1925 and passed away peacefully in October 2017 at Kamloops Seniors Village, BC.

John (known as "JB" to many of his friends, colleagues and students) was both a naturalist and a scholar. After serving in the Canadian Infantry in Holland in the late stages of World War II, John followed his passion and earned his PhD in Marine Biology at McGill University. Over his career, his research interests took him over a broad range of locations from the arctic to tropical marine environments.

Beginning with his early work at McGill's Bellairs Research Institute in Barbados, John developed an international reputation for his research on tropical coral reefs and their ecology. As a scientist, teacher and mentor, John guided many undergraduate and graduate students in the joys of researching the complexities of marine life and the interactions amongst the abundant and different organisms that inhabit the Caribbean Sea. John is the author of more than 100 scientific publications, including his book "Darwin's Coral Atoll."

John was very much a Montrealer and an esteemed member of the McGill community. From 1954 to 1992 he was first an assistant professor, then associate and full professor in the Department of Biology. John also served as the Bellairs Research Institute's first on-site Director until 1971 and was the Director of McGill's Redpath Museum from 1971 until 1985. Upon retirement, John became Professor Emeritus. While living in Montreal, John shared close to 40 years of love as husband to Virginia Douglas Lewis, Professor in McGill's Department of Psychology.

At the time of his death, John was survived by his wife, Dr. Virginia Douglas, Emeritus Professor in the Department of Psychology, who passed away in December 2017.

With Dr. Lewis's passing, we extend our heartfelt condolences to his children Deborah, Judith and Michael and grandson Eric. In his personal and professional lives, John touched many people. Everyone who knew John felt the joy of his genuine care, warmth and gentle nature.

The resolution was adopted unanimously.

902.2 On behalf of the Faculty, Dean Lennox said that a copy of the Death Resolution will be sent to the family of Prof. Lewis.

(3) RESOLUTION ON THE DEATH OF VIRGINIA DOUGLAS, PROFESSOR EMERITA OF PSYCHOLOGY

903.1 Prof. John Lydon, Chair of the Department of Psychology, read the Resolution on the Death of Emerita Professor Virginia Douglas.

Virginia Isabel Douglas, an internationally renowned researcher and one of the most influential child psychologists in Canadian history, passed away on December 8, 2017. Dr. Douglas had a profound influence on how we conceive of and diagnose Attention Deficit Hyperactivity Disorder, and her support for the scientist-practitioner model was central to shaping the model of psychological training in Canada.

Dr. Douglas received her PhD from the University of Michigan in 1958, and came to McGill the same year and stayed here for her entire career. At McGill, she convinced the Chair, Don Hebb, that to advance our understanding of Clinical disorders, Clinical training had to be provided within a rigorous experimentally-based PhD program in science. She presented this "scientist-practitioner" model at a national conference in 1965 that was convened to determine the direction of professional training in psychology in Canada. This view was widely accepted and was adopted as a model. Professor Douglas became the First Director of Clinical Psychology at McGill, and led the program to become the first clinical psychology training program in Canada accredited by the American Psychological Association. In 1971, at age 43, she was elected President of the Canadian Psychological Association.

In her research at the Montreal Children's Hospital, Dr. Douglas was one of the first researchers to employ standardized neurological batteries and formal cognitive testing to characterize hyperactive children and to assess treatment effects. Her research showed that the central deficits in hyperactive children were poor attention and impulse control. She presented this view in a seminal paper "Stop! Look! Listen!" which became a citation classic. In 1980, the Diagnostic and Statistical Manual for Mental Disorders changed the diagnosis name from childhood hyperactivity to Attention Deficit Disorder based on her work.

Dr. Douglas received the Distinguished Contribution to Child Clinical Psychology Award from the American Psychological Association and the Gold Medal for Lifetime Contributions to Psychology from the Canadian Psychological Association. She was also the first (and thus far only) female Chair of the Department of Psychology.

Virginia Douglas passed away just weeks before her 90th birthday, after an evening out for dinner and a movie with her grandchildren. She was predeceased by her second husband, Emeritus Professor John Lewis, to whom she had been happily married for 40 years, and is survived by her son Don, a marine biologist at the National Research Center Canada, and two grandchildren, Heather and Roby Douglas.

Ginny Douglas was the grand dame of Canadian Psychology. She was a force to be reckoned with—whether it was breaking down gender discrimination at the Faculty Club or taking on controversial issues about the etiology of debilitating hyperactivity and evaluating the potential of drug treatments for children. She was also the sage mentor to all psychology chairs who have succeeded her in the past 30 years. She was characterized by enormous intellectual curiosity, energy and positivity. Ginny Douglas represented the best of McGill and of McGill psychological science. Her impact continues today.

The resolution was adopted unanimously.

903.2 On behalf of the Faculty, Dean Lennox said that a copy of the Death Resolution will be sent to the family of Prof. Douglas.

(4) Faculty of Science Excellence Awards

904.1 Dean Lennox said that, as of the 2017-2018 academic year, the Faculty is offering one award in each of the Clerical, Technical and Management categories to acknowledge outstanding performance by members of the administrative and support staff. Each award brings with it a \$2,000 monetary award.

904.2 Prof. Jacques Hurtubise, Chair of the Faculty of Science Excellence Award Committee, said that the Committee members were:

- Prof. Jacques Hurtubise (Chair)
- Ms. Martine Dolmière, Science Internship & Field Studies Office (M category)
- Ms. Lucy Nunez, Department of Atmospheric & Oceanic Sciences (M category)
- Ms. Faygie Covens, Tomlinson Project in University-Level Science Education (C category)
- Ms. Angela White, Department of Mathematics & Statistics (C category)
- Ms. Anne-Marie L'Heureux, Department of Biology (T category)
- Mr. Richard Talbot, Department of Physics (T category)

904.3 Prof. Hurtubise read the following citations for the 2017-2018 Faculty of Science Award winners.

(i) Clerical Category - Laurena Deligny from the School of Computer Science

Laurena Deligny joined the School of Computer Science in 2012, where she now holds the position of Assistant to the Director. In this role she has handled a great variety of tasks, including editing, proofreading, organizing activities and scheduling interviews, and has demonstrated a constant willingness to go the extra mile, often working into the evening to get things done. Her referees mention the crucial role she plays in recruiting staff, as she is often the early contact for eventual hires.

(ii) Managerial Category - Julie Thériault from the Dean's Office in the Faculty of Science

Ms. Thériault joined the Faculty in 2014 as a Financial Administrator. She has had two promotions since then and is now Senior Financial Officer. Faculty finances are complicated matters, and Ms. Thériault stepped in early on in a year-end crisis, immediately bringing calm and reason to the situation, and managing to get the necessary documents in on time. As such, she has become the person of reference not only within Dawson Hall, but also for Chairs of the various departments, where her extensive knowledge of Faculty finances comes into play as an invaluable resource. One of her letters of recommendation, from a Chair, recounts in detail the difference she has made for the Chair's department. She has helped the Faculty transition to a state of financial clarity; another of her referees describes her contributions as moving from wearing five-inch-thick glasses to having 20-20 vision.

(iii) Technical category - John Smeros of the Department of Physics

University labs do not function well without highly-skilled technicians, and, thanks to John Smeros, the Center for Physics of Materials functions very well indeed. Equipment is delicate, faculty and students need help and there is a constant need for organization, for ensuring that the laboratory functions safely, and for having the various requests from research groups handled in a timely manner. John Smeros does all this in a friendly way, with the end user in mind. He recently stepped up to the plate during the dreaded HVAC renovation, ensuring the survival of the laboratory despite the presence of contractors, and garnered uniform praise for his role in this.

Dean Lennox congratulated all three winners for their accomplishments. He presented Julie Thériault with a framed certificate commemorating her receipt of the Faculty of Science Excellence Award in the Managerial category.

Due to other engagements, the winners in the Clerical and Technical categories, Laurena Deligny and John Smeros respectively, were not present at the current meeting.

Dean Lennox thanked Prof. Hurtubise and the members of the Committee for their valuable work. He said that the Faculty has long understood that staff members play important roles in contributing to the success of faculty members and students, and it is really important to validate their contributions.

(5) LEO YAFFE TEACHING AWARD

905.1 Prof. Edith Zorychta, Chair of the Leo Yaffe Teaching Award and Principal's Prize for Excellence in Teaching Committee, introduced the Leo Yaffe Teaching Award for the Faculty of Science.

For the 2017-2018 year, the Committee consisted of:

- Prof. Edith Zorychta (Chair)
- Prof. Hanadi Sleiman (Chemistry)
- Prof. Henri Darmon (Mathematics & Statistics)
- Prof. John Orlowski (Physiology)
- Prof. Nikolas Provatas (Physics)

Student Members:

- Cynthia Yu Feng (Biochemistry)
- Ricky Tran (Chemistry)

905.2 The winner of the Leo Yaffe Teaching Award was **Professor Gary Brouhard** from the Department of Biology.

Prof. Zorychta read the following citation for Prof. Brouhard:

The Leo Yaffe Award is given each year to recognize a faculty member for superior teaching at the undergraduate level in the Faculty of Science. The recipient for 2018 is **Professor Gary Brouhard** from the Department of Biology. He has influenced thousands of students to appreciate the relevance of cell biology in everyday life, while stimulating them to think for themselves and solve problems using scientific principles. In summary, he changes their lives in the process of teaching them Biology.

Dr. Brouhard is universally recognized for his exceptional ability to captivate a room filled with up to 600 students during a challenging course in cell biology and metabolism. His philosophy of teaching has three clear goals – to ignite a lifelong interest in biology, to promote logic and creative problem solving, and to expose students to the history of cell biology and to contemporary research. In his own words, *“This approach serves the greater interests of society by cultivating independent thinking, the freedom to question, and a scientific approach to problems, all of which empower us well beyond the classroom.”* He has succeeded by perfecting a style of teaching and a format for his lecture material that generates intense interest and makes complex mechanisms easy to understand. Students describe him as passionate about the subject and they appreciate his eloquence, humor and his ability to continually relate to them, even in a large class. His lectures are superbly organized with phenomenal slides, and he incorporates anecdotes on the challenges of research, including his own adventures in studying the composition and function of microtubules.

A colleague and former graduate student summarized Professor Brouhard's abilities by stating *“..he is an outstanding teacher and communicator. His passion for basic science magnetizes both students and colleagues.. He asks the most important questions about a given subject, which can be deceptively difficult to do in science.”*

In summary, Gary Brouhard is an outstanding teacher and student evaluations of his performance are uniformly excellent, for reasons that are best illustrated by a few representative comments:

“Prof. Brouhard is the most engaging and thoughtful professor I have ever had. Even in a lecture hall as large as Leacock 132, he is able to connect with his students both personally and academically.” “Dr. Brouhard is the professor that has had the single most positive influence on my learning since I started my studies at McGill.” “His Powerpoint slides are practically works of art: everything is organized so clearly and neatly, making it super easy to follow in class.” “His slides are perfection, his explanations are crystal clear, and he knows how to make his course entertaining.” “I could listen to him lecture for ages and not get bored.” “His passion for science is contagious! He is pure inspiration.” “he is an exceptional Prof not only because he's funny and his bowties are adorable. He is somehow able to present every single topic in an approachable and understandable way.” “He made it a joy just coming to class and listening/learning about the subject while also showing us the importance of research and how it led us to what we know today.”

A final quote beautifully captures the powerful impact of Gary's teaching: *“This course made me fall in love with science.” “Professor Gary Brouhard is an ideal recipient of the Leo Yaffe Award.”*

905.4 Dean Lennox congratulated Prof. Brouhard for having been selected as the successful winner of the 2017-2018 Leo Yaffe Teaching Award. He added that Prof. Brouhard has made a huge impact on his students' educational experience. Prof. Brouhard said that the Award could not have come at a better time in his teaching career, and he was very honoured to have received it.

905.5 Dean Lennox said that the Leo Yaffe Award comes with a certificate, which will be presented to Prof. Brouhard at Convocation on 1 June 2018, and a monetary award.

905.6 Dean Lennox thanked Prof. Zorychta and her Committee for their diligent work. The task in selecting a winner is never easy given the number of outstanding teachers in the Faculty.

(6) Candidates for Degrees

- a) Bachelor of Arts and Science **S-17-32**
- b) Bachelor of Science **S-17-33**

906.1 Director Allard said there were 97 graduands for the B.A. & Sc. degree, and 716 for the B.Sc. degree. The corresponding figures for 2017 were 86 and 736.

906.2 Director Allard said that the honorifics cut-offs for the B.A. & Sc. and B.Sc. degrees were:

B.A. & Sc.:

- Dean's Honour List - 3.84 CGPA
- Distinction – 3.71 CGPA

B.Sc.:

- Dean's Honour List - 3.94 CGPA
- Distinction – 3.81 CGPA

Director Allard **moved**, seconded by Prof. Lydon, that the candidates for the B.A. & Sc. and the B.Sc. be approved for their respective degrees.

The motion carried.

- c) Diploma in Environment **S-17-34**

There were no candidates for the Diploma in Environment.

- d) Diploma in Meteorology **S-17-35**

Director Allard **moved**, seconded by Prof. Paquette, that the candidate for the Diploma in Meteorology be approved.

The motion carried.

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

The motion carried.

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

(7) MINUTES OF 24 APRIL 2018 **S-17-31**

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

The motion carried.

(8) BUSINESS ARISING FROM THE MINUTES

There was no business arising from the Minutes.

(9) REPORTS OF COMMITTEES

a) Scholarships Committee **S-17-36**

909.1 Associate Dean Nilson, Chair, Science Scholarships Committee, gave the following report from the Scholarships Committee:

(i) The Scholarships Report, Document S-17-36, included Faculty and departmental awards and medals. For the 2017-2018 academic year, the CGPA cut-off for Faculty awards was 3.99. The departmental awards are selected by the relevant department.

(ii) The Governor General's Silver Medal has been awarded to **Frédéric Genest, First Class Honours in Mathematics and Physics**. 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. This year, Associate Dean Hundemer was the Science representative on the university-wide Governor General's Silver Medal Selection Committee. There are only two medals given each year for the entire university. The medal will be presented by Principal Suzanne Fortier at the Science Convocation ceremony on 1 June 2018.

(iii) The Moyses Travelling Scholarship has been awarded to **Miles Donald Cranmer, First Class Honours in Physics**. Out of 11 applications received, the Moyses Selection Committee (Associate Deans Nilson and Hundemer, Professors Jacques Derome and Gillian O'Driscoll) invited four candidates to an interview. Two Moyses 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. Mr. Cranmer will be pursuing his doctoral studies at Princeton University.

b) Academic Committee **S-17-37**

The following proposals were approved at the Academic Committee meeting on 24 April 2018:

I. New Courses

(1) Biology
BIOL 414 Invert Brain Circuits & Behav. **AC-17-88**
3 credits

909.2 Associate Dean Hundemer introduced a new biology course, BIOL 414. The course will explore the neural and molecular underpinnings of animal behaviour. BIOL 414 will serve as a Complementary course in the Neurobiology stream in the Biology programs, as well as the Major and Minor Programs in Neuroscience.

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

The motion carried.

(3) **Physics**
PHYS 519 Advanced Biophysics **AC-17-92**
Change in prerequisites
3 credits

909.7 Two prerequisite courses for PHYS 519 were being updated in order to rectify hidden prerequisites in two interdisciplinary biophysical programs (i.e., Major in Physiology & Mathematics Program, and Honours Program in Physics: Biological Physics Option)

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

The motion carried.

(4) **Mathematics & Statistics**
MATH 466 Honours Complex Analysis **AC-17-94**
Changes in number [from -366]; restrictions
3 credits

909.8 The course level for MATH 466 was raised (from MATH 366) to align it with other courses, i.e., Honours Analysis 3 & 4, Honours Algebra 3 & 4, and Honours Differential Geometry, in the Department of Mathematics & Statistics.

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

The motion carried.

(5) **Geography**
GEOG 351 Quantitative Methods **AC-17-98**
Changes in prerequisites
3 credits

909.9 The Department of Geography proposes that Geography students take GEOG 202 (or equivalent) as a prerequisite course for GEOG 351, instead of MATH 203, since GEOG 202 offers a better preparation for GEOG 351.

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

The motion carried.

(6) **Psychology**
PSYC 328 Health Psychology **AC-17-102**
Change in course activities, prerequisites
3 credits

909.10 The changes in the proposed prerequisite courses for PSYC 328 were required because PSYC 328 requires a background in Social Psychology and Cognition.

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

The motion carried.

(7) **Physiology**

PHGY 515	Blood-Brain Barrier: Hlth & Dis	AC-17-110
	Changes: title, description, prerequisites	
PHGY 516	Physiology of Blood	AC-17-111
	Change in title	

909.11 The changes in title and description better reflected the course content of PHGY 515. In addition, the change in prerequisites will offer students more appropriate course content to successfully complete PHGY 515. The title change in PHGY 516 was necessitated by the course title change in the previous course, PHGY 515.

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

The motion carried.

(8)	Computer Science		
	COMP 499	Ugrad Bioinformatics Seminar	AC-17-116
		Course retirement	
		3 credits	

909.12 COMP 499 is being retired since it is no longer part of any program, and it has been replaced with BIOL 395 (Quantitative Biology Seminar 1).

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

The motion carried.

III. Program Revisions

(1)	Mathematics & Statistics		
	Honours in Mathematics		AC-17-95
	Honours in Applied Mathematics		AC-17-96
	Honours in Mathematics & Computer Science		AC-17-97

909.13 MATH 222 was being added to the above programs to explicitly state that it is a Required course for students who have not previously taken a course equivalent to MATH 222.

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

The motion carried.

(2)	Biochemistry		
	Honours in Biochemistry		AC-17-103
	Major in Biochemistry		AC-17-104
	Liberal – Core Science Component in Biochemistry		AC-17-105

909.14 The change was the addition of COMP 204 (Computer Programming for Life Sciences) to provide students in the field of biomedical sciences a more appropriate course than COMP 202. Also, to offer U1 students more options, MIMM 214 has been moved from U3 to U1 in the list of Complementary courses.

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

The motion carried.

(3) Physiology

Honours in Physiology	AC-17-112
Major in Physiology	AC-17-113
Liberal – Core Science Component in Physiology	AC-17-114
Major in Physiology & Mathematics	AC-17-115

909.15 In the above four programs, the proposed revisions were to replace COMP 202 with COMP 204 (Computer Programming for Life Sciences) for students in the biomedical sciences. Other changes were merely housekeeping in nature.

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

The motion carried.

IV. Other - For Information Only

- Faculty of Engineering, Electrical & Computer Engineering

- Program Changes:

B.Sc. Minor in Electrical Engineering **AC-17-106**

- New Courses:

ECSE 206 Intro to Signals and Systems **AC-17-107**

ECSE 331 Electronics **AC-17-108**

ECSE 335 Microelectronics **AC-17-109**

909.16 The changes were the result of curriculum revisions made in 2015 to the Electrical Engineering programs, but the changes to the Minor in Electrical Engineering were inadvertently omitted at the time. New courses were introduced and will replace the old courses in the program.

(10) DEAN'S BUSINESS

a) Dean's Multidisciplinary Undergraduate Research List (DMURL) S-17-38

Director Allard 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 47 B.Sc. students and four B.A. & Sc. students listed in Document S-17-38 who would be graduating with this honour. February and June graduates were also included in this document.

Director Allard thanked Mr. Victor Chisholm, Undergraduate Research Officer, for his diligent work in identifying the DMURL students and compiling the list (Document #S-17-38).

b) B.Sc. Global Designation S-17-39

Director 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 two candidates who would graduate with the B.Sc. Global designation in Document S-17-39.

Director Allard thanked Ms. Martine Dolmière, Science Internship & Field Studies Officer, for her dedicated work on the list (Document #S-17-39) of students graduating with a B.Sc. Global designation.

c) Dean's Announcements

(I) Budget

As reported by La Presse on 17 May 2018, after many years of negotiations between Québec universities and the Québec government, a solution was worked out for the funding formula, specifically with respect to the allocation of funds per undergraduate student in different disciplines, and per Master's and Doctoral students. This is the core funding that the University receives and at present generates 49% of McGill's \$1B budget. In the opinion of the Quebec government, different disciplines have different delivery costs at all levels. All departments in the Faculty of Science, with the exception of the Department of Mathematics & Statistics, are assigned the top value per capita per student for undergraduates and for doctoral students, i.e., \$37,450 per student for 3.6 years. This is the origin of the funds, for example, that faculty salaries are paid from. This new funding formula makes a small number of positive changes for the Faculty of Science. Other positive changes that will affect McGill include the doctoral degree in the Faculty of Arts – McGill will receive approximately \$37,000 per student for 3.6 years. The net revenue coming into McGill is thus significantly greater. Some Québec institutions, such as HEC and Polytechnique, are very vulnerable to funding changes. Across the province, funding per student in Engineering has been reduced significantly, because they are “all-Business” or “all-Engineering” in mission. This is really good news for McGill and for the Faculty of Science.

(II) Faculty Event

- **Dr. Leonard Pinchuk**, a McGill Faculty of Science alumnus, will be giving a one-hour talk at 7 p.m. on 5 June 2018 at the IEEE Montreal Keynote Event: Inventors and Entrepreneurs to be held at McGill in Room 112 of the Otto Maass Chemistry Building. The talk will be on his inventorship and his development of life-saving devices, including 104 patents on heart stents. He will discuss his successful invention of the angioplasty balloon, heart stents and his latest invention for glaucoma treatment devices. Dr. Pinchuk's devices have saved millions of people's lives worldwide. Prof. Harpp, who was Dr. Pinchuk's mentor as an undergraduate Chemistry student, will be giving the opening remarks. Dean Lennox said that Dr. Pinchuk is an inspirational speaker for students and faculty, and encouraged members to attend the talk.

(III) Awards

- **Professor Joelle Pineau, School of Computer Science**, received one of NSERC's six prestigious E.W.R. Steacie Memorial Fellowships at the NSERC Awards Ceremony in Ottawa.

- **Professor Derek Ruths, School of Computer Science**, will be presented at the Science Convocation Ceremony on 1 June 2018 with one of the three Principal's Prize for Outstanding Emerging Researchers.

(IV) Philanthropy Awards

The Faculty of Science has benefited from the generous contributions of a number of individuals in philanthropy, but two in particular:

(1) Dr. Richard Tomlinson, who passed away in Winter 2018, contributed about \$100 million. The first gift by Dr. Tomlinson was \$63 million to create the Tomlinson Fieldhouse, plus a number of awards and professorships. One of the really interesting awards created by Dr. Tomlinson and former Dean Martin Grant is the Tomlinson Science Awards. The awards are valued at \$40,000 each for one-year seed funding for

developing high-risk projects which could potentially be high-impact research projects. Out of 29 applications received, the following six professors have been granted a Tomlinson Science Award for 2017-2018:

- **Professor Karine Auclair**, Department of Chemistry

Project title: Replacing antibiotics with bacterio-modulators to break the vicious cycle of resistance

- **Professor Henri Darmon**, Department of Mathematics & Statistics

Project title: Towards a solution of Hilbert's Twelfth Problem

- **Professor Paul Francois**, Department of Physics

Project title: Computational model for the evolution of the gene network underlying morphological division of labour in ants

- **Professor Yajing Liu**, Department of Earth & Planetary Sciences

Project title: Surface deformation associated with hydraulic fracturing and seismicity in the Western Canadian Sedimentary Basin

- **Professor Anna Weinberg**, Department of Psychology

Project title: Neural development in anemic Bangladeshi infants before and after iron supplementation

- **Prof. Timothy Merlis**, Department of Atmospheric & Oceanic Sciences

Project title: Real-time climate change attribution of extreme weather events

Dean Lennox would like to invite the above recipients to give an update on their very interesting and creative projects at the Faculty meeting on 21 May 2019.

(2) Dr. John Blachford, a generous and devoted philanthropist, is an entrepreneur at heart. Dr. Blachford designated a very large endowment for annual professorships and prizes in the Faculty of Science that would fund pre-commercial activities for ingenious ideas that could be converted into a prototype or be scaled up so that the inventor could then go further and bring the researcher's invention to market. There are two types of Fessenden Awards: (i) The Fessenden Professorship Awards and (ii) the Fessenden Innovation Prizes, which are available to undergraduate and graduate students to support ideas that may develop into technologies or services. The Fessenden Program has funded 20 projects in the last 10 years, resulting in nine start-up companies. For the 2017-2018 competition, there are two recipients of the Fessenden Professorship Awards, and four recipients of the Fessenden Innovation Prizes:

(i) Fessenden Professorship Awards:

- **Prof. David Cooke**, Department of Physics

Project title: Novel particle accelerator platform based on terahertz waveguides

Value: \$70,000 for one year

- **Prof. Theo van de Ven**, Department of Chemistry

A novel process for producing textile from chemical pulp

Value: \$60,000 for one year

(ii) Fessenden Innovation Prizes (Value up to \$5000 depending on the project):

- **Sisi Chen (Atmospheric and Oceanic Sciences) \$3,500**

Project title: SeeClouds: A Machine-Learning Based Cloud Identification Application for Everyone

- **Charles Xu (Biology) \$5,000**

Project title: Using DNA metabarcoding to identify endangered animals used in 泡酒 (steeped alcohol)

- **Alan Garcia-Elfring (Biology) \$5,000**

Project title: PyType: a simple method for genotyping pythons

- **Xiong Ling Yun (Jenny) Long (Physics) \$1,000**

Project title: Harnessing power of AI and mobile phones to provide personalized solutions to patients and physiotherapists

Dean Lennox said that, on behalf of the Faculty, he would like to extend congratulations to all of the above winners for their outstanding contributions and achievements for the 2017-2018 academic year.

(V) Outgoing/Incoming Chair

- Chemistry Department

Prof. Masad Damha will be stepping down and will be replaced by Prof. Dima Perepichka starting on 1 June 2018 for a five-year term.

- Physics Department

Prof. Peter Grütter will continue to serve as Chair for one more year.

- 910.1** Dean Lennox congratulated Prof. Perepichka on his new appointment and looked forward to working with him. Dean Lennox thanked both Prof. Grütter and Prof. Damha for their hard work and support during their terms as Chairs.

(11) REPORTS OF DIRECTOR AND ASSOCIATE DEANS

- a) Director (Advising Services) Nicole Allard
- b) Associate Dean (Academic) Axel Hundemer
- c) Associate Dean (Graduate Education) Laura Nilson

There were no reports for the current meeting.

- d) Associate Dean (Research) Doina Precup

See report of Associate Dean (Research) under Dean's Announcement, Tomlinson and Fessenden Awards.

(12) REPORTS ON ACTIONS OF SENATE

- Senate Meeting of 19 April, 2018 – Senator David Stephens

After one memorial tribute, and brief updates on various aspects of University business and government relations (for example, that Royal Victoria Hospital redevelopment project has been submitted to the government for review) the Chair addressed the topic of sexual misconduct. She reported that senior administration had recently met SSMU and MAUT and reported that all parties are committed to a '*...respectful, safe and inclusive learning environment, as well as procedural fairness*'. She spoke about the importance of striking an appropriate balance between the right to information and the right to privacy of those accused of misconduct. She stressed that the University must work within the legal framework of the *Civil Code of Québec* which protects '*privacy and reputation*'. The Chair reminded Senate of the *Policy against Sexual Violence* which was adopted in December 2016. She then commented that legislating the matter of intimate relationships between members of the teaching staff and students was challenging. She stated that policy work would begin as soon as possible by an ad hoc committee of Senate that would report its findings within six months. She tasked the Provost with developing guidelines on intimate relationships between members of the teaching staff

and students. One main business item was the final presentation of the University Budget for 2018-19. Provost Senator Manfredi noted that salaries are the largest expenditures and their growth must be kept at a reasonable level. He explained that stronger controls would be established with respect to administrative and support staff and the planned growth in academic renewal would be reduced through an annual University-wide cap of 55 new recruitment licenses. In a response to a question concerning mean salary levels for tenure track staff, Senator Manfredi clarified that the goal is to maintain and improve on the progress that has already been made in the past three years. Senator Fussmann then asked how the 55 new recruitment licenses compared to the number of expected retirements. Senator Manfredi indicated that while the number of retirements varies from year to year, the tenure-track complement is expected to remain at a steady state (or 'approaching an asymptote', although this latter version does not appear in the official minutes). The aim is to reach the maximum number of faculty members that could be supported by the University's revenue base more slowly than previously planned) The second main business item was the University Staffing Report for 2016-17, presented by Senator Manfredi and Senator Beauchamp (Vice Principal Administration and Finance). Much attention was paid to the expansion in the numbers of Contract Academic Staff across the University, but specifically in the Faculty of Medicine and the School of Continuing Studies. The Staffing Report (p8) also includes details of plans for Academic Renewal 2012-2023, which lists the number of projected tenure track hires for the next six years to be 68, with the average number of departures projected to be 63 (the average over the period 2012-2017 is 60). The next item involved revisions to the student code of conduct to reflect recent policy developments in the University. Finally the topic of the Joint Board/Senate Meeting was established: *How could McGill transform itself for a world of lifelong Learning ?*

The meeting adjourned at 3.49 p.m.

- Senate Meeting of 16 May, 2018 – Senator David Harpp

After three memorial tributes and the Chair's remarks, a motion regarding Divestment from Fossil Fuel was entertained and then withdrawn for future consideration.

The Provost gave a report on new academic programmes (Continuing Studies, Medicine, Education, Engineering, Science, Arts, Law and FAES) which were all approved. It seemed that only Music and Management were not involved. Further, APC reported in great detail about Tri-Agency funding for the past 15 years. Also, considerable data was presented about staffing trends for the same period.

The Provost then reported on the establishment of an Ad Hoc Committee on Teaching Staff-Student Intimate Relationships as per the terms of reference. In addition, the membership in numerous committees in the university were listed. At this point, 88% of the 163 pages of the Senate report had been covered in well under an hour.

An update on the Implementation of the Policy against Sexual Violence was presented which was followed by a summary of the Final Report of the Principal's Task Force on Respect and Inclusion in Campus Life.

The report went into reasonable detail of the Report and it was clearly indicated that the findings would continue to be discussed during the coming months. It is 35 pages long and deserves careful attention ([this report](#)).

The Annual Report of the Committee on Staff Grievances and Disciplinary Procedures was given and there seems to be very few grievances that are handled by the full committee.

The Policy on Safe Disclosure ("Whistle Blowing") was given followed by a brief summary of the Report from the Board of Governors.

After a summary of Dates for 2018-2019, there was a Report of the Honorary Degrees representative presenting 4 new persons, all of whom were accepted by the House.

The meeting was adjourned at 4:45 PM.

13) MEMBERS' QUESTION PERIOD

There were no members' questions.

14) OTHER BUSINESS

914.1 Dean Lennox reminded members about the upcoming Science Convocation Ceremony on 1 June 2018, and about the two Honorary Degree recipients, Dr. Maria Klawe and Dr. Eli Yablonovitch. Dean Lennox wished a wonderful summer to everyone.

There being no further business, Prof. McKenzie **moved**, seconded by Prof. Lydon, that the meeting be adjourned at 4:20 p.m.

The motion carried.