

**FACULTY OF SCIENCE  
Meeting of Faculty  
Tuesday, May 19, 2009  
Redpath Museum Auditorium**

**ATTENDANCE:** As recorded in the Faculty Appendix Book.

**DOCUMENTS:** S-08-29 to S-08-35, S-08-38

Dean Grant welcomed members to the final Faculty meeting of the year. He called the meeting to order at 3:00 p.m.

**(1) ADOPTION OF AGENDA**

Prof. Moore **moved**, seconded by Prof. Burns, that the Agenda be adopted.

**The motion carried.**

**(2) RESOLUTION ON THE DEATH OF PROFESSOR KEITH WORSLEY, DEPARTMENT OF MATHEMATICS & STATISTICS**

**802.1** Prof. David Wolfson, on behalf of Prof. Hurtubise, Chair of the Department of Mathematics & Statistics, read the Resolution on the Death of Prof. Keith Worsley.

Faculty of Science members,

It is with great sadness that we report to the Faculty of Science the untimely passing of our colleague, Professor Keith Worsley, a statistician in the Department of Mathematics and Statistics on February 27, 2009. Keith was 57. He had been on leave at the University of Chicago since July, 2008. In November he was diagnosed with islet cell carcinoma.

Keith came to McGill in 1978 from the University of Auckland in New Zealand. He moved through the ranks from Assistant to Full Professor and then James McGill Professor, before taking a leave of absence to assume a position at the University of Chicago in the late summer of 2008. He was inducted as a Fellow of the Royal Society of Canada and as an Honorary Fellow of the Royal Society of New Zealand, and was awarded a Killam Foundation Fellowship. He also won the Statistical Society of Canada Gold Medal in 2004 for his outstanding contributions to many areas of statistics, including the geometry of random images in astrophysics and brain mapping. This is the highest honour bestowed on a Canadian for contributions in the field of statistics.

Keith made his name by being a pioneer in the statistical analysis of brain images. But this had not always been his interest. When he first arrived at McGill his research was in change-point problems, and in multiple comparisons. His work on change-point problems was original and often cited. Keith was a fearless researcher who did not have the patience to spend months or years doing background reading before starting out on his own. Since his intuition and willingness to think obliquely was exceptional, his approach was to leap into the middle of the pool and see what happened. The result of his creativity was, of course, his seminal and internationally recognized work---started in 1991---on the statistical analysis of brain images, which also has applications in oceanography and astrophysics. Early on Keith exploited ideas from differential geometry to determine places of activation in the brain from MRIs and PET scans.

Much of Keith's work was done in collaboration with researchers at the McConnell Brain Imaging Unit of the Montreal Neurological Institute. In later years his work went much further afield into the analysis of the very structure of the brain. Quite simply, he became one of the top three world experts in the field. Indeed, only days before he passed away, Keith and the two other world experts, Robert Adler and Jonathan Taylor, sat with Keith in his bedroom at home working together.

As a member of the Department of Mathematics and Statistics, Keith preferred compromise to confrontation. He was willing to teach any course that was assigned to him. Graduate students who worked with Keith were enthusiastically tossed ideas one after another for he was an inspirer rather than a task master. Given the tremendous subsequent success of his graduate students this approach clearly worked. He was also generous with his grant money---always willing to fund students.

Many remember Keith's famous, very dense, Christmas puddings, which he distributed every year to his friends. Also etched in our memories are his early days at McGill when his shirt tails were always out, and his legendary practice of riding his bicycle to work even on the worst days of winter.

The Faculty of Science at McGill and the broader academic community, express their heartfelt condolences to Kimiko Hinenoya-Worsley and son Seiji Worsley, to Chuanhong Liao and son Nico Worsley, to Keith's parents Peggy and Cec Worsley and to his siblings, Jane Langford and David Worsley. Your mourning is shared by us all.

**The Resolution was adopted unanimously.**

**802.2** Dean Grant thanked Prof. Wolfson for reading the Resolution.

**(3) REPORTS OF COMMITTEES**

**a) Faculty of Science Excellence Award**

**803.1** Prof. Anthony Williams-Jones, in place of Prof. Andrew Hynes, Chair of the Faculty of Science Excellence Award Committee, said that the Faculty of Science Excellence Award provides an opportunity to recognize the outstanding contributions of the Faculty's administrative and support staff. The award is rotated yearly among "M," "C," and "T" classifications. For the current year, the award was being given to a "T."

**803.2** The members of the Faculty of Science Excellence Award Committee were:

- Prof. Andrew Hynes (Chair), Department of Earth & Planetary Sciences
- Mario Della Neve, Department of Physics (T)
- Giovanna LoCasio, Department of Psychology (C)
- Raffaella Bruno, Department of Mathematics & Statistics (M)

**803.3** The nominees for the award were:

- Lang Shi, Department of Earth & Planetary Sciences
- Evelyn Rubin, Department of Biology
- Richard Rossi, Department of Chemistry
- Michel Beauchamp, Department of Physics

**803.4** Prof. Williams-Jones said that it was his pleasure to announce that the winner of the 2008-2009 Faculty of Science Excellence Award was **Mr. Richard Rossi** from the Department of Chemistry.

**803.5** Prof. Williams-Jones read the following citation for Mr. Rossi, written by Prof. Andrew Hynes:

The Faculty of Science wishes to recognize Mr. Richard Rossi, Chief Electronics Technician in the Department of Chemistry, with the Excellence Award for support staff. Mr. Rossi has been an electronics specialist in the Department of Chemistry since 1994. He is now responsible for the instrumentation of 34 active research groups, 6 undergraduate laboratories and 4 major, high-end instrumentation facilities. Representations from members of the Department of Chemistry make it abundantly clear that he discharges these responsibilities with aplomb and remarkable ingenuity, while at the same time preserving an astonishing degree of good humour. He is a highly valued, and highly valuable, member of his department, and a much-appreciated asset to both the Faculty and the University.

**803.6** On behalf of the Faculty of Science, Dean Grant congratulated Richard Rossi, and presented him with a certificate commemorating the award.

**803.7** Mr. Rossi thanked the Department of Chemistry, and the Faculty of Science.

**b) Leo Yaffe Award Committee**

**803.8** Prof. A. Williams-Jones said that the Leo Yaffe Teaching Award was the highest award for teaching in the Faculty of Science.

**803.9** For 2008-2009, the Leo Yaffe Award Committee consisted of:

- Prof. Anthony Williams-Jones (Chair)
  - Prof. D.N. Harpp (Chemistry)
  - Dr. A. Hundemer (Mathematics & Statistics)
  - Prof. R. Koestner (Psychology)
  - Prof. M. Lechowicz (Biology)
  - Prof. C. Mandato (Anatomy & Cell Biology)
  - Prof. R. Sengupta (Geography)
  - Prof. E. Zorychta (Pathology)
- Students:
- Maya Kaczorowski (B.A. & Sc. Joint Honours Mathematics & Economics)
  - Hayat Ahmed Hashim (Pharmacology [ad hoc])

**803.10** The current year's nominees were:

- Christopher Barrett, Department of Chemistry
- Fred Genesee, Department of Psychology
- Vojkan Jaksic, Department of Mathematics & Statistics
- Laura Nilson, Department of Biology
- Carlos Morales, Department of Anatomy & Cell Biology
- Kenneth Ragan, Department of Physics
- John Stix, Department of Earth & Planetary Sciences

**803.11** Prof. Williams-Jones said that all the candidates were outstanding, and that the Committee had had a difficult time deciding on the winner. He said that he was pleased to announce that **Prof. Christopher Barrett** of the Department of Chemistry was the winner of the 2008-2009 Leo Yaffe Award.

**803.12** Prof. Williams-Jones read the citation:

Faculty of Science members, the Leo Yaffe Award for Excellence in teaching honours professors who make an outstanding and long-lasting impact on undergraduate education in the Faculty of Science. Christopher Barrett is such a professor.

Professor Barrett was appointed an Assistant Professor in the Department of Chemistry in 2000, after completing a Ph.D. at Queen's University and a post-doctoral fellowship at MIT. He soon demonstrated that he was going to be a gifted teacher with an evaluation of 4.5 on 5 in 2001 for his course, Chem 204, Physical Chemistry for Biologists and followed it up the next year with a spectacular 4.7 on 5. It should be noted that this is a required course which historically the students have found extremely difficult and would have avoided if they could. As one student noted "normally I cannot stand Physical Chemistry but within a couple of classes I became enthralled – it became everyone's favourite class". The reason for this about-face is not difficult to find. He captivates the students with his infectious enthusiasm and has them spell-bound with practical demonstrations of the applications of physical chemistry to everyday life. Trying to understand the complex chemistry behind the burning of fossil fuels and the production of "acid rain" can be difficult but when demonstrated by the lighting of a match over a beaker containing a "cloud" and "ocean" and seeing the ocean suddenly turn dark, the chemistry becomes easy and unforgettable.

Not only is Christopher Barrett a remarkable teacher, he is also an outstanding scientist who has been honoured for his achievements by being named as a Royal Society of Canada "Leader of Tomorrow". He is a teacher-scholar of the very highest calibre and a most worthy recipient of the honour that you are about to bestow on him. On behalf of the Faculty of Science, I am very proud to present Professor Christopher Barrett, the winner of the Leo Yaffe Teaching Award for 2009.

- 803.13** Dean Grant, on behalf of the Faculty of Science, congratulated Prof. Barrett.
- 803.14** Prof. Barrett thanked the Faculty of Science for the award. He said he would like to particularly thank the Department of Chemistry for encouraging a culture of teaching as well as of research.
- 803.15** The Leo Yaffe Award Committee also decides on the nominees from the Faculty of Science for the Principal's Prize for Excellence in Teaching: The nominees were:
- Prof. Michael Petrides (Full Professor, Department of Psychology)
  - Prof. Hanadi Sleiman (Associate Professor, Department of Chemistry)
  - Prof. Andreas Warburton (Assistant Professor, Department of Physics)
- 803.16** On behalf of the Faculty, Dean Grant thanked Prof. Williams-Jones for presenting the Reports of the Faculty of Science Excellence Award Committee and of the Leo Yaffe Award Committee.

**(4) CANDIDATES FOR DEGREES**

- 804.1** Ms. Allard thanked everyone involved in the preparation of the degree lists for their hard and conscientious efforts, and for working to such a tight deadline.
- a) Bachelor of Arts and Science S-08-30**
- 804.2** Ms. Allard said that 78 students were graduating with the B.A. & Sc. degree, and that the GPA cut-off for the Dean's Honour List for B.A. & Sc. students was 3.91.

Ms. Allard **moved**, seconded by Prof. Mysak, that the above degree list be recommended to the Senate Steering Committee for the Bachelor of Arts and Science degree.

**The motion carried.**

**b) Bachelor of Science S-08-31**

**804.3** Ms. Allard said that 603 students were graduating with the B.Sc. degree, and that the GPA cut-off for the Dean's Honour List for B.Sc. students was 3.90.

Ms. Allard **moved**, seconded by Prof. Chmura, that the above degree list be recommended to the Senate Steering Committee for the Bachelor of Science degree.

**The motion carried.**

**c) Diploma in Environment S-08-32**

Ms. Allard **moved**, seconded by Prof. Fabry, that the above list be recommended to the Senate Steering Committee for the Diploma in Environment.

**The motion carried.**

**d) Diploma in Meteorology S-08-33**

There were no candidates for the Diploma in Meteorology.

Prof. GowriSankaran further **moved**, seconded by Prof. Moore, that the Dean be given discretionary power to make such changes in the degree list as would be necessary to prevent injustice.

**The motion carried.**

**(5) MINUTES OF APRIL 7, 2009 S-08-29**

Prof. Moore **moved**, seconded by Prof. Wolfson, that the Minutes be approved.

**The motion carried.**

**(6) BUSINESS ARISING FROM THE MINUTES**

There was no business arising from the Minutes.

**(7) REPORTS OF COMMITTEES (continued)**

**a) Academic Committee S-08-34**

**The Academic Committee approved the following on Tuesday, April 21 and Tuesday, May 5, 2009:**

**SECTION A: NEW PROGRAMS**

None

**SECTION B: MAJOR PROGRAM CHANGES**

**PROPOSED B.Sc./M.Sc. (THESIS) TRACK****AC-08-15(Rev 5)**

**807.1** Associate Dean Hendren said that Document AC-08-15(Rev 5) described the general structure of the proposed B.Sc./M.Sc. (Thesis) Track. This track provided the opportunity for students to obtain an early admission to an M.Sc. program. While the B.Sc./M.Sc. (Thesis) Track was not a program in itself, several units had modified their Masters programs in order to make them compatible with the B.Sc./M.Sc. (Thesis) Track.

**807.2** Associate Dean Hendren said that the following major program changes from the Departments of Mathematics & Statistics, and of Physics, were modifications to the Departments' graduate programs to accommodate the B.Sc./M.Sc. (Thesis) Track.

**(1) MATHEMATICS & STATISTICS**

- M.Sc. in Mathematics &amp; Statistics

**AC-08-110**

Associate Dean Hendren **moved**, seconded by Prof. GowriSankaran, that the program changes be approved.

**The motion carried.****(2) PHYSICS**

- M.Sc. in Physics

**AC-08-111**

**807.3** Associate Dean Hendren pointed out that any changes to Masters programs must ensure that the program is exactly 45 credits.

Associate Dean Hendren **moved**, seconded by Prof. Ragan, that the program changes be approved.

**The motion carried.**

- Ph.D. in Physics

**AC-08-112**

Associate Dean Hendren **moved**, seconded by Prof. Gale, that the program changes be approved.

**The motion carried.**

**807.4** Associate Dean Hendren said she was waiting to hear from two units regarding their responses to the B.Sc./M.Sc. (Thesis) Track. She would be meeting with Graduate Program Studies (GPS) in the near future, and would like to have the responses from the two units by that time.

**SECTION C: NEW COURSES**

**807.5** Associate Dean Hendren said that the new courses from the Departments of Mathematics & Statistics, and of Physics were part of the modifications involved in adjusting Masters programs to accommodate the B.Sc./M.Sc. (Thesis) Track.

**807.6** The new courses from the Department of Microbiology & Immunology were required in order to obtain maximum governmental funding for immunology studies.

**1) MATHEMATICS & STATISTICS**

MATH 599

Master's Research Preparation  
6 credits**AC-08-114**



**The motion carried.**

**807.8** Dean Grant thanked Prof. Friedman for presenting the Report.

**(ii) Dean's Multidisciplinary Undergraduate Research List S-08-38**

**807.9** Associate Dean Hendren thanked Mr. Victor Chisholm for putting together the DMURL.

**807.10** Associate Dean Hendren said that it was interesting to see the type of majors of students who were doing undergraduate research, and to see the type of research being done.

Associate Dean Hendren **moved**, seconded by Prof. Burns, that the DMURL be approved.

**The motion carried.**

**(c) Committee on Student Standing S-08-36**

**807.11** Due to lack of business, there was no Report of the Committee on Student Standing.

**(8) DEAN'S BUSINESS**

**- Research Innovation and Commercialization**

**808.1** Dean Grant said that the recognition of research innovation and commercialization was an initiative in the Faculty of Science begun in 2007. Its aim is to recognize efforts made by faculty members to advance the commercialization of their research. Plaques had been struck to recognize achievements by principal inventors from the Faculty of Science in (1) the first filing of a patent application further to the submission of a report of invention, and (2) the signature of a License agreement for a technology.

**808.2** The following faculty members had earned recognition in the 2008-2009 academic year:

For first filing of a patent application further to submission of a report of invention:

- Prof. Parisa Ariya, Departments of Atmospheric & Oceanic Sciences, and of Chemistry
- Prof. David Burns, Department of Chemistry (two times)
- Prof. Tak-Hang Chan, Department of Chemistry
- Prof. Masad Damha, Department of Chemistry (two times)
- Prof. James Gleason, Department of Chemistry (two times)
- Prof. Allan Hay, Department of Chemistry
- Prof. Hanadi Sleiman, Department of Chemistry

For signature of a License agreement:

- Prof. Isztar Zawadzki, Department of Atmospheric & Oceanic Sciences

**808.3** Dean Grant presented the plaques to those faculty members who were present at the meeting, and thanked them for their contributions.

**808.4** Dean Grant thanked Dr. Erica Besso for her work in organizing the recognition of research innovation and commercialization.

**(9) REPORT ON ACTIONS OF SENATE**

Please note that the entire Minutes of Senate are available on the Web at <http://www.mcgill.ca/senate/minutes/>.

**- Prof. R. Sieber: Senate Meeting of March 4, 2009**

Prof. Moore, in place of Prof. Sieber, said that the two most important items relating to the Faculty of Science from the Senate Meeting of March 4, 2009, were that the University had purchased a former hotel on 475 Sherbrooke Street West, Montreal, to provide additional residence space for students, and that the E.W.R. Steacie Memorial NSERC Fellowships had been awarded to Dr. Andrew Hendry, Associate Professor, Department of Biology and Redpath Museum, and Dr. Karim Nader, Associate Professor, William Dawson Chair, Department of Psychology.

**- Prof. I. Butler: Senate Meeting of March 25, 2009**

1. Resolutions of the deaths of Professors Joe Kincheloe (Faculty of Education) and Michael Moss (Faculty of Medicine)
2. Provost Anthony Masi delivered a presentation on the meaning of tenure, tenure's privileges and responsibilities and tenure decisions.
3. Principal Heather Munroe-Blum presented a summary of the current economic status of the university including Campaign McGill. She also gave a brief summary of the significant events during the past month or so, e.g., the launching of the Institute for the Study of International Development.
4. There was a discussion about the additional funding being provided by the Provost for transfer of graduate students from a Master's degree to a Ph.D. degree. This funding could amount to up to \$5,000 depending upon the Faculty concerned.
5. The Provost presented the Budget Considerations Report II. The fees for some international students will probably increase and some concern was expressed that this might have a negative effect on future enrolments.
6. Deputy Provost Morton Mendelson presented a report of enrolment management.
7. Associate Provost William Foster presented reports on both sabbatical leaves and leaves of absence.

**- Prof. K. Franklin: Senate Meeting of April 15, 2009**

The meeting began with a resolution on the death of one of our colleagues - Emeritus Professor William Moser of the Department of Mathematics.

The Principal's remarks outlined the University's response to a security issue that had been provoked by graffiti. She went on to report on the successful outcome of the relations with MUNACA, the publicity surrounding McGill's position on having a single spokesperson for the MUHC project, and the government's proposed legislation on university governance. She then noted a number of recent successes in grant competitions and awards by McGill staff.

Senator Hobbins asked Chief Information Officer to comment on what had happened to a new Code of Conduct for computing to replace the now outdated and disregarded 1994 policy. The response was that a draft policy is still in preparation and expected to be presented in Fall 2009.

Considerable time was devoted to reports, including the Principal's presentation on Priorities which reemphasized familiar themes. The objectives can be summarized as

maintaining McGill's international standing in research and improving student life and learning and trying to do all this on inadequate budgets. Senator's asked for clarification on a number of minor issues but there was no disagreement with the thrust of the policy.

The next business was reports on Faculty program reviews for the centre for Continuing Education and the Faculty of Law which outlined the improvements that might flow from the review exercise.

The report of most interest to Faculty of Science was the report on Graduate and Postdoctoral Studies. Dean Kriesworth showed Senate the new USB key that contains the whole application package. As well as being popular, the new key saves more in postage than additional cost of producing it. Less welcome was the information that in graduate student surveys of the G13 McGill ranks bottom in 6, second from bottom in 2 and 3<sup>rd</sup> from bottom in the remaining 2. In discussion it was noted that the Office of Graduate and Postdoctoral Studies is looking into new ways of getting feedback on supervision, and looking at the space needs of graduate students with a view to improving conditions.

The meeting adjourned at 5:10.

**- Prof. K. GowriSankaran: Senate Meeting of April 29, 2009**

1. Among the remarks of the Chair, the following announcement was included. Our University was invited to submit 9 names for the competition of Canada Excellence Research Chair. Four of these have been selected for consideration in the second (presumably) final round. These four are candidates doing research in the areas of Pain, Green Chemistry, Broadband communications and Alzheimer's. There are, I assume, at least two from our Faculty.
2. There was a motion brought by the Nominating Committee which wanted Senate to reverse nominations made to certain committees (many of them UTC's) dropping Librarians named to such committees. There was a lot of debate on this issue and the motion passed with a vote of 35 to 26.
3. The Principal presented a white paper for discussion on the establishment of a Task Force on Diversity, Excellence and Community Engagement. Such a Task Force is expected to be announced later this year.
4. Vice-Principal (RIR) Denis Thérien presented a Report on Research Performance mainly by comparative figures on research funding from all sources.
5. The Nominating Committee of Senate presented a paper for discussion on review and revision of terms of reference, method of constitution, etc. These issues are on the agenda for adoption at the meeting of Senate scheduled for tomorrow.

**901.1** Prof. GowriSankaran said that if members had any concerns that could be addressed by Senate or should be brought to Senate's attention, they should contact any of the Science Senators.

**(10) MEMBERS' QUESTION PERIOD**

There were no members' questions.

**(11) OTHER BUSINESS**

**- Advisory Committee for the Selection of a Dean**

**811.1** Associate Dean Hendren thanked members for submitting nominations for committee members for the Advisory Committee, and she urged members to vote in the election. She reminded members that the deadline was May 29, 2009.

There being no further business, the meeting adjourned at 3:45 p.m.