# FACULTY OF SCIENCE Meeting of Faculty Tuesday, May 24, 2011 Redpath Museum Auditorium

ATTENDANCE: As recorded in the Faculty Appendix Book.

## DOCUMENTS: S-10-27 to S-10-36

Dean Grant called the meeting to order at 3:04 p.m.

Dean Grant welcomed members to the last meeting of the academic year. He said that this meeting was always the best attended, perhaps because of the reception in the Redpath foyer that would follow the meeting.

## (1) ADOPTION OF AGENDA

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

The motion carried.

## (2) (a) <u>RESOLUTION ON THE DEATH OF EMERITUS PROF. JAL CHOKSI, DEPARTMENT OF</u> <u>MATHEMATICS & STATISTICS</u>

902.1 Prof. Niky Kamran from the Department of Mathematics & Statistics, read a formal re(ad 09f0d738009f51[6t)?-2(20t)-0(s) 1(M)22(n)f6(29f)2h3(892)-8(s)26(d)r)[8(29(1)-8(s)/24(1)2)(0)]a8(s)/20(s).)9(i)3( theory, an abstraction of problems arising in statistical physics, whose concern is what happens to physical systems as they are allowed to run for a long time. This is a deep and difficult area of mathematics, where the significant questions are often formidably difficult to tackle. The development of this subject during the 20

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century was shaped by the contributions of Poincare, Birkhoff, Von Neumann, Kolmogoroff, Sinai and Kakutani. Jal's work was well respected by the leaders in the field. In particular, he was invited to Yale by Kakutani, with whom he had a successful research collaboration. Jal's knowledge of classical analysis was broad and deep, and his scholarship was exemplary. His last paper, written after he became an Emeritus Professor and published in l'Enseignement Mathematique, is a masterly account of Vitali's Convergence Theorem on term by term integration, in which he untangles the precise nature of the contributions made by Lebesgue, Beppo Levi, Fatou and Riesz, bringing to light some facts which were not captured in Hawkins' otherwise excellent treaty on the history of Lebesgue integration. It is a sign of the esteem in which he was held by his colleagues that he was the person chosen in 1979 to replace Edward Rosenthall as Chair. Rosenthall started as Chair in 1962, occupied the position for 17 years, and was the Department's father figure, and so Jal's tenure as Chair was a major transition. His time marked the beginning of the Department's program of academic renewal, after the mid-seventies doldrums. He continued, after his stint as Chair, as a valued advisor on the Department's academic development.

If one should describe Jal's way of being in a few words, it is one of calm wisdom, combined with amusement at the world's follies, with the odd sign of irritation showing through. He cared deeply about his job, and in particular about students; they often confided in him, and he was mentor to more than one. Jal supervised four Ph.D. students over the course of his career, and he kept close relations with each of them. His breadth of knowledge was wide, and not only of mathematics, but also of literature, and in particular of music, in which his knowledge was encyclopaedic, and deep; a passion that went all the way back to his youth. An anecdote amongst many that reveals the depth of his knowledge of music concerns the coda of the first movement of the Beethoven violin concerto, where Jal knew the precise differences in the orchestral score between the various versions composed by Beethoven, and could comment with authority on the choices made by the main interpreters of this concerto since the early recordings of Fritz Kreisler, issued in the 1920's.

The Faculty of Science extends its condolences to Jal Choksi's beloved wife, Shernaz, his children Rustum, Anjali and Jahangir, their partners and his grandchildren.

#### The resolution carried unanimously.

### (b) <u>RESOLUTION ON THE DEATH OF EMERITUS PROF. ANDREAS P. CONTOGOURIS,</u> <u>DEPARTMENT OF PHYSICS</u>

**902.2** Prof. Jean Barrette, Department of Physics, read a formal resolution on the death of Emeritus Professor Andreas P. Contogouris.

Faculty of Science members, it is with regret that I inform you of the death of Emeritus Professor of Physics Andreas P. Contogouris in Montreal, on March 18, 2011 at the age of seventy-nine. After his PhD in theoretical physics at Cornell University, he held positions in Athens, at CERN (Geneva, Switzerland), and at the Université de Paris-Sud (Orsay, France). Andreas arrived at McGill University in 1968 as a tenured associate professor. He rose through the ranks, and retired as a Full Professor in 1993. He was made Professor Emeritus on September 1<sup>st</sup>, 2009.

Andy (as he was known in Physics) Contogouris was a theoretical physicist, and most of his work was in the field of particle physics. His theoretical work has contributed much support and interpretation for the many results that came out of the experimental collaborations working during what now appears as the "Golden Years" of particle physics. He was an expert in the calculation of electromagnetic radiation by strongly interacting systems, an area that requires a combination of precise techniques and physical intuition. Professor Contogouris has written in excess of one hundred and fifty refereed papers and conference proceedings, and several of these contributions have stood the test of time and are now considered classic results. Andreas Contogouris was a passionate man, well known for his total devotion to physics, and for his high research standards. He has continued to train a continuous stream of graduate students and postdoctoral fellows up to his

#### b) Leo Yaffe Teaching Award

- **903.10** Prof. Edith Zorychta, Chair of the Leo Yaffe Teaching Award & Principal's Prizes, introduced the Leo Yaffe Teaching Award for the Faculty of Science.
- **903.11** For the 2010-2011 year, the Committee consisted of:

Christopher Barrett, Department of Chemistry Vojkan Jaksic, Department of Mathematics & Statistics Martin Lechowicz, Department of Biology Craig Mandato, Department of Anatomy & Cell Biology Wayne Pollard, Department of Geography Edith Zorychta (Chair), Department of Psychology Students: Katherine Daignault (Mathematics, Classics) Natalie Talmi (Chemistry)

- **903.12** Prof. Zorychta read out the names of the nominees. She strongly encouraged departments to re-nominate professors who had already been nominated, and to nominate more professors in future years. She added that the nominating process had been streamlined.
- **903.13** The nominees were:

Antony Humphries, Department of Mathematics & Statistics Michael Langer, School of Computer Science John Lydon, Department of Psychology Kenneth Ragan, Department of Physics

**903.14** Prof. Zorychta read the following citation:

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 2011 is **Professor Kenneth Ragan** from the Department of Physics, an exceptional teacher who has had a remarkable influence on thousands of McGill students.

Professor Ragan joined McGill in 1990 and immediately distinguished himself as a highly competent and enthusiastic teacher, redesigning and teaching a range of undergraduate courses from the entry level to the most advanced, while simultaneously establishing a very successful research program in astroparticle physics. Student evaluations of his teaching were consistently high across the entire spectrum of courses, but Kenneth's talent eventually led him to concentrate on one of the greatest educational challenges in his field - teaching physics to large classes of first year undergraduates who are usually obliged to study physics as part of their program, and are often completely intimidated by the subject. He has transformed the intellectual approach of many such individuals, who walk into his first class expecting to be terrified or bored, and walk out at the end of the term with an understanding and appreciation of physics that they could not have imagined possible.

When describing Professor Ragan, students repeatedly emphasize his ability to captivate their attention in the classroom – that he is funny, witty, energetic, entertaining, and a good showman. He is passionately enthusiastic about physics, in a manner that students find contagious, and many are surprised to discover that they look forward to physics classes for the first time in their lives.

- **907.3** Associate Dean Grütter drew members' attention to the Scholarships Committee Report for 2011 graduating students.
- **907.4** Associate Dean Grütter announced that **Alex Jacobson, First Class Honours in Chemistry – Bio-organic Option, Minor in Biotechnology**, was the winner of the Governor General's Silver Medal. He added that there were only two medals given for the entire university, and that in the past 23 years, Science had received the Governor General's medal 22 times.

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Director Allard **moved**, seconded by Mr. Barry, that the course be adopted.

#### The motion carried.

| GEOG 514        |                            | 514   | Clim Change Vulnblty & Adapt<br>3 credits                 | AC-10-70  |  |  |
|-----------------|----------------------------|---|---|-----------|--|--|
| 907.10          |                            | Director Allard said that GEOG 514 had been developed for the B.A. & Sc. Interfaculty Program in Sustainability, Science and Society. |   |           |  |  |
| Director Allard |                            | Director Allard   | moved, seconded by Mr. Barry, that the course be adopted. |           |  |  |
|                 | The motion carried.        |   |   |           |  |  |
| SECTION C:      |                            | Minor Course  | Changes (For Information Only)                            |           |  |  |
| 1.              | Psycho                     | chology   |   |           |  |  |
|                 | - Changes in prerequisites |   |   |           |  |  |
|                 | PSYC                       |   | Intro Behavioural Neuroscience<br>3 credits               | AC-10-72  |  |  |
|                 | PSYC                       | 483   | Sem. in Exp. Psychopathology<br>3 credits                 | MCC-10-31 |  |  |
|                 | - Changes in description   |   |   |           |  |  |
|                 | PSYC 450D1/D2              |   | Research Project & Seminar<br>9 credits                   | MCC-10-32 |  |  |
|                 | PSYC                       | 498D1/D2  | Senior Honours Research<br>9 credits                      | MCC-10-33 |  |  |

- **907.11** Director Allard said that the above minor course changes were to clarify course descriptions (PSYC 450 and PSYC 498), and to make changes in prerequisites to provide proper background (for PSYC 211, addition of freshman biology courses, and for PSYC 483, addition of another 300-level course).
- 2. Microbiology & Immunology

#### - Changes in title and prerequisites MIMM 387 The Business of Science AC-10-71 3 credits

**907.12** Director Allard explained that the changes in title and prerequisite courses for MIMM 387 were in anticipation of the revamping of the Minor in Technological Entrepreneurship for Science Students, which is no longer taught by the Faculty of Management.

#### SECTION D: New Ad Hoc Program

#### - B.A. & Sc. Joint Honours in Earth System Science & Political Science AC-10-51 (Revised)

**907.13** Director Allard briefly described the above ad hoc program, and said that the program contained 42 credits (24 credits required, 18 Complementary credits), plus a further six credits of advanced courses.

Director Allard **moved**, seconded by Prof. Gyakum, that the B.A. & Sc. ad hoc program be approved.

# The motion carried.

## (8) <u>DEAN'S BUSINESS</u>

# a) Dean's Multidisciplinary Undergraduate Research List (DMURL) S-10-35

**908.1** Associate Dean Grütter said that the DMURL recognized undergraduate students who had done research in a field other than their primary area. He congratulated the students named in Document S-10-35, and encouraged other students to undertake multidisciplinary research.

#### b) Research Innovation and Commercialization

**908.2** Dean Grant said that the Faculty wished to recognize members whose inventions merited filing of a first patent application in the previous 12-month period. For the 2010-2011 acad[(m3w-(ad[(m3)+f1(m)+8(ear,(hat)-1(t)-(a)]T9(hos)--8((h pere2010)]TJ 0 Tc 0:011 1 -42.566 0 Td (

**908.8** Dean Grant explained that Fessenden Professorships promote the development of spinoff companies and technologies based on intellectually rigorous research. In 2011, two Fessenden Professorships were awarded to:

Prof. Youla Tsantrizos to further develop novel inhibitors of the human FPPS and GGPPS enzymes, which are implicated in several diseases including cancer and neurodegenerative disorders.

Prof. David Burns to further develop a smart ultrasound sensitive hydrogel sensor platform.

**908.9** Dean Grant, on behalf of the Faculty, congratulated the Fessenden Prize winners and the new Fessenden Professors.

#### (9) <u>RESULTS OF SCIENCE ELECTION FOR SENATE</u>

# S-10-36

**909.1** Dean Grant announced the newly elected Science Senators, who would begin their terms in the 2011-2012 academic year. He said that their terms will end in August 2014.

Prof. Peter Grütter (Physics) Prof. Andrew Hynes (Earth & Planetary Sciences) Prof. Bruce Lennox (Chemistry) Prof. Nigel Roulet (Geography)

**909.2** Continuing Faculty representatives on Senate, and remaining years to serve, are:

| Prof. Gregory Dudek (Computer Science)              | - two years                      |                         |
|---|----------------------------------|-------------------------|
| Prof. Charles Gale (Physics)                        | - two years                      |                         |
| Prof. John Gyakum (Atmospheric & Oceanic Sciences   | b) - two years                   |                         |
| Prof. David Harpp (Chemistry)                       | - one year                       |                         |
| Prof. J TdTd (-)Tj 0f Garu Ss3c 0 Tw 4.241 0 T(u)-1 | l(r)g7(.)-1( J)-8( TdTd (-)Tj 01 | f,j 3.6140p /P < 00</td |

- **912.1** Dean Grant invited members to the end-of-year Celebration, and to Science Convocation, to be held on May 30, 2011. He thanked members, and said he was looking forward to seeing them at the first Faculty meeting of the 2011-2012 academic year, to be held in the Fall.
- **912.2** There being no further business, the meeting adjourned at 3:45 p.m.