## UNIVERSITY OF TORONTO

THE GOVERNING COUNCIL

## REPORT NUMBER 118 OF THE COMMITTEE ON

## ACADEMIC POLICY AND PROGRAMS

December 7, 2005
To the Academic Board, University of Toronto.

Your Committee reports that it held a meeting on Wednesday, December 7, 2005 at 4:10 p.m. in the Council Chamber, Simcoe Hall, at which the following were present:

Professor J. J. Berry Smith
(In the Chair)
Professor Cheryl Regehr (Vice-Chair)
Professor Edith Hillan, Vice-Provost, Academic
Mr. Navine K. Aggarwal
Professor Derek Allen
Professor Gage Averill
Professor Luc De Nil
Dr. Raisa B. Deber
Ms Linda B. Gardner
Mr. Christopher Goode
Professor Wayne K. Hindmarsh
Professor Ronald H. Kluger
Professor Ian R. McDonald
Professor Douglas McDougall
Ms Vera Melnyk
Mr. Matto Mildenberger
Professor Janet Paterson
Regrets:
Professor Rona Abramovitch
Mr. Blake Chapman
Dr. Inez N. Elliston

Professor Andrea Sass-Kortsak
Professor John Scherk
Professor Anthony Sinclair
Miss Maureen Somerville
Non-Voting Assessors:
Professor John R. G. Challis, Vice-
President, Research and Associate Provost
Professor Susan Pfeiffer, Vice-Provost, Graduate Education and Dean, School of Graduate Studies

Secretariat:
Mr. Neil Dobbs
Mr. Henry Mulhall

Professor David Farrar
Professor Linda McGillis Hall
Mr. Andrew Pinto

In Attendance:
Professor Robert L. Baker, Chair, Department of Zoology
Ms Judith Chadwick, Director, Government Research Infrastructure Programs and Director of the Connaught Programs
Ms Aytan Farrokhyar, Research Information Analyst, Office of the Vice-President, Research and Associate Provost
Professor Susan Howson, Vice-Dean, Undergraduate Education and Teaching and Acting Dean, Faculty of Arts and Science

In Attendance (Cont’d)
Mr. Paul McCann, Assistant Dean and Director of Human Resources, Faculty of Arts and Science
Professor Shahrzad Mojab, Director, Institute for Women’s Studies and Gender Studies
Professor Rowan Sage, Chair, Department of Botany
Ms José Sigouin, Manager, Research Information Analysis, Office of the VicePresident, Research and Associate Provost

ITEMS 3 AND 4 CONTAIN RECOMMENDATIONS TO THE ACADEMIC BOARD FOR GOVERNING COUNCIL APPROVAL. ALL OTHER ITEMS ARE REPORTED FOR INFORMATION.

## 1. Report of the Previous Meeting

Report 117 (October 26, 2005) was approved.

## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force

The Chair stated that the Report was before the Committee at this time for discussion. Assuming continued support for the recommendations of the Graduate Education Task Force Report, proposals to implement it would follow. Those proposals requiring governance action would include amendments to the School of Graduate Studies Statute, amendments to other divisional constitutions, and amendments to this Committee's terms of reference, which would, of course, be considered initially by the Committee.

Professor Pfeiffer reported that consideration of governance with respect to graduate programs had been initiated at least two years ago. It had arisen from the review of the School of Graduate Studies coincident with the completion of the term of the past-Dean, Professor Michael Marrus. That review had identified a number of issues for consideration, leading to the formation of the Graduate Education Task Force. The recommendations contained in that report had led to the formation of two working groups, an Administration Working Group and a Governance Working Group. The subject of Professor Pfeiffer's report represented one part of the overall outcome of the Task Force's work. Considerable thought had been given to matters other than governance, and the environment for implementation activities now included factors related to graduate enrolment expansion. The governance proposal would be considered by the School of Graduate Studies Council at its meeting in January. The highlights of Professor Pfeiffer's report include the following.

- Principles underlying the proposal. The University's Faculties were to be more involved in making decisions about graduate programs. Because the Faculties were responsible for funding graduate as well as undergraduate activities, it was essential


## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

that decisions about programs be linked with decisions about funding. It was also crucial that other decisions be linked with funding decisions. For example, the guaranteed funding program for graduate students was managed by the Faculties. It would be necessary, therefore, that the University's structures exclude a situation where Deans could find that changes had been made without their involvement that would have a substantial effect on their budgets. It also would be important that the new structures provide links to facilitate communication and discussion among all interested parties. A significant part of the consultation process now took place within the four divisional executive committees of the School of Graduate Studies: Humanities, Social Sciences, Physical Sciences and Engineering, and Life Sciences. The proposed structure would encourage interdisciplinary discussions, across the current divisions.

- Overall reporting structure. At the present time, the Chair of each graduate department reported directly to the Dean of the School of Graduate Studies. It was possible for the reporting to exclude the Dean of the Faculty, particularly in the case of a multi-departmental faculty. To link governance and financial aspects of decisionmaking, it would be essential to avoid such a situation in a new reporting structure. In the realigned structure, the graduate Chair would report directly to the Dean of the Faculty, perhaps through a Vice-Dean responsible for graduate education. The Faculty Dean or Vice-Dean would in turn have the relationship to the Dean of Graduate Studies, who was now also the Vice-Provost, Graduate Education. The Faculty Dean would also continue to have a reporting relationship to the VicePresident and Provost.
- Minor program changes. The current arrangement for minor program changes was as follows. The Graduate Chair would (for example) propose a new course or a new program-delivery option to the Associate Dean and the Divisional Executive Committee of the School of Graduate Studies Council. Subject to approval, the change would then be reported for information to the School of Graduate Studies Council and to the Vice-President and Provost, and it would be implemented by the School's posting the change on the student-records system, the Repository of Student Information (ROSI). There was no provision for the Dean of the Faculty to be involved in the decision-making.

In the proposed structure, the Graduate Chair would make the proposal to the Faculty Dean or Vice-Dean. It would be received and considered by the Faculty. It would also be posted to a new consultation area of the Graduate Studies web site and publicized to interested members of the University, and all members of the University would be invited to comment. The web site would include a mechanism to facilitate feed-back and discussion, to be moderated by the School of Graduate Studies. The feed-back would be provided to the Faculty Dean for consideration and the proposal

## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

would, with support, be approved at the Faculty level. The proposal would then be reposted to the web as confirmed and it would be implemented.

- Major program changes. The first step for major program changes would be the initiator's consulting with the Vice-President and Provost and the Vice-Provost, Graduate Education. The proposed major change would then, as with minor changes, proceed to the appropriate Faculty for consideration. It would be posted on the Graduate Studies consultation web-site and publicized, and members of the University would be invited to provide feed-back. Following Faculty Council endorsement, the proposal would then proceed to the Graduate Education Council (the proposed new name for the School of Graduate Studies Council) for its consideration and endorsement. With endorsement, the proposal would proceed to the appropriate committees of the Governing Council for approval.
- Administration and governance of graduate studies. The School of Graduate Studies Council would (as noted above) be renamed the Graduate Education Council. Its four Executive Committees, one for each of the divisions, would be replaced by two interdisciplinary committees formed of members of all divisions: a Committee for Student Matters and a Committee for Program Matters. As with the Executive Committees, membership would include graduate faculty, and elected student members of the Graduate Education Council. The committees would be "think tanks" to consider trends, to develop ideas and to examine policy proposals, which proposals would be submitted to the Graduate Education Council.

The administrative structure would also change. At present, there were six deans in the School: the Dean, the Vice Dean who was responsible for the Centres and Institutes (whose administrative work was $0.75 \%$ of full time) and the four Associate Deans - one for each division (whose administrative duties represented one half of their time). It was proposed that there be three deans in the future: the Dean, a ViceDean for Program Matters and a Vice-Dean for Student Matters (with the Vice-Deans’ administrative work being 0.8 of full-time, allowing some time for graduate teaching). There were several reasons given for the planned changes in the decanal structure. First, it would lead to increased consistency in administrative matters. Second, it would provide more flexibility to accommodate programs and initiatives that cross divisional boundaries. Third, it would provide a broader net for communications. Fourth and very importantly, the new position of Vice-Dean for Student Matters would provide an institutional driver for the University's stress on improving the quality of the graduate student experience. Finally, it would avoid half-time administrative appointments, which often did not provide sufficient time to do justice both to important administrative duties and academic work. All three School of Graduate Studies Deans would have regular interactions with the Faculty officers responsible for

## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

graduate matters - Associate Deans or Vice-Deans in the multi-departmental Faculties and other officers in the smaller Faculties.

The smaller number of deans would require the development of a slightly expanded pool of graduate-school assessors to tenure committees. That would be a helpful step in any event; the current Associate Deans in the larger divisions required a great deal of time for this duty.

- Vice-Dean for Student Matters. The new Vice-Dean would: chair the Graduate Education Council's Committee for Student Matters and co-chair the School's Admissions and Programs Committee. The Vice-Dean would be responsible for fellowships and bursaries; recruitment, diversity and community-relations (the first time that such duties would be specified as part of a graduate dean's responsibilities); and matters related to international students. The Vice-Dean for Student Matters would be responsible for student services based in the School of Graduate Studies, including Graduate House and the English Language Writing Service. Finally, the Vice-Dean would also be the School's representative on some tenure hearings and search committees.
- Vice-Dean for Program Matters. The new Vice-Dean would: chair the Graduate Education Council's Committee for Program Matters and co-chair the School's Admissions and Programs Committee. The Vice-Dean would also: assist the Dean with the development of new programs; co-ordinate work for appraisals of existing programs (particularly those by the Ontario Council on Graduate Studies); co-ordinate consideration of proposals for program modifications (using, inter alia, the consultation area of the Graduate Studies web site); oversee the process of doctoral candidates' final oral examinations; and carry responsibility for the centres and institutes located in the School of Graduate Studies. Finally the Vice-Dean for Program Matters would be the School's representative on some tenure hearings and search committees.
- Reasons for the changes. The new arrangements would mean that local changes would be decided locally. The decisions would be made with the participation of those centrally concerned with them; there would be no surprises. Major issues would be discussed broadly. Finally, the new arrangements would lead to the development of more expertise and a broader sense of ownership through a broader net of engagement.
- Timing. It was planned that Faculties would accept their new responsibility for changes to graduate programs as at July 1, 2006. Before that time, it would be necessary to make changes: to the constitutions of the various Faculties, to the School of Graduate Studies Statute, and to the terms of reference of the Committee on Academic Policy and Programs.


## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

- Proposed changes to the terms of reference of the Committee on Academic Policy and Programs. It was proposed that the Governing Council delegate to the Graduate Education Council authority to approve changes to admission requirements to graduate programs (which were always in the direction of more rigorous requirements) and changes permitting direct admission to PhD programs. Those matters were not of substantially more weight than the items that currently proceeded to the Committee on Academic Policy and Programs for information. The approvals given under the proposed delegated authority would be included in an annual report to the Committee from the Dean of Graduate Studies and Vice-Provost, Graduate Education. It would be proposed secondly that the matters now reported to the Committee for information be reported collectively in the annual report rather than individually at each meeting. That would enable the Committee to assess patterns and formulate any recommendations arising from that assessment.

The Chair said that the report was intended to provide an opportunity for discussion and feedback before the formal proposals were brought forward. Among the matters that arose in discussion were the following.
(a) Risk of organizational complications. A member observed that the Faculties differed vastly in their size and administrative sophistication. Some, like Arts and Science, represented a substantial portion of the University and had a Vice-Dean for Graduate Education and Research. Other Faculties, however, were much smaller and lacked staff devoted to supporting graduate education. The member was concerned that the proposal could lead to the growth of more bureaucracy.

Professor Pfeiffer agreed that the Faculty of Arts and Science had an exceptional breadth of depth and experience. Nonetheless, the single-department faculties had also developed expertise, which was needed (for example) with respect to accreditation reviews of their programs. While it was true that the level of expertise might currently be higher in some Faculties than others, Professor Pfeiffer hoped that all Faculties would become expert in the care and nurturing of graduate programs.

Another member was concerned that the proposals would not reduce the level of bureaucracy and that, on the contrary, the new division of responsibilities between the School of Graduate Studies and the Faculty would increase confusion. For example, when students had concerns, to which dean would they take them: The Dean of the Faculty or the Dean of Graduate Studies? Which would have responsibility and control? The member questioned the continued need for the School of Graduate Studies.

Professor Pfeiffer replied that the Faculties currently had full financial responsibility for all aspects of their graduate programs, apart from the emergency bursary program (which was administered by the School of Graduate Studies). This proposal (along with related

## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

administrative changes) would place control of non-financial aspects of programs with the Faculties. The outcome should be reduced bureaucracy and confusion. It was not deemed to be wise or feasible to discontinue the School of Graduate Studies. The continuation of the School was in part linked to external requirements: all Ontario universities were required to have a graduate school and a graduate dean for purposes of submissions to the Ontario Council on Graduate Education. Professor Pfeiffer invited the member to speak with her about his concerns about the level of bureaucracy with respect to graduate education matters.
(b) Tri-campus arrangements. A member noted that the Faculty of Arts and Science and its Departments were not three-campus entities. While there were some professional master's programs that were unique to the Mississauga and Scarborough campuses, the faculty from those campuses now participated actively in graduate education in tri-campus graduate departments. Which Faculty / Dean would be responsible for the many graduate programs in which there was tri-campus participation?

Professor Pfeiffer replied that the Governance Working Group was giving active consideration to the question. It was considering arrangements through which the University of Toronto at Mississauga and the University of Toronto at Scarborough would be responsible for campus-based professional master's degree programs. Professor Pfeiffer would report on the proposal from the Governance Working Group when a discussion paper was available.
(c) Web-based consultation process. A member asked whether there was information concerning any web-based consulting processes used elsewhere. Another member expressed concern that the process might not yield sufficient responses to make the consultation process effective. Under current arrangements, there was lively discussion in the divisional executive committees. Useful information concerning related programs was often forthcoming. With a web-based system, there would be less incentive for feed-back, with members of the University already receiving a great deal of information. Without a specific duty of service arising from membership on a committee, members of the University would have little interest in responding to proposals from other departments. Professor Pfeiffer replied that she knew of no studies of web-based consulting at other institutions. The School of Graduate Studies would monitor the proposed consultative process. Among other things, it would send an e-mail notification to targeted audiences with an interest in the proposal, including a link to the consultation web-location. That location would in turn include a link to facilitate feedback. Many proposals would have an interdisciplinary effect, and faculty and students from other departments would have an interest in responding. The Vice-Dean for Program Matters would monitor the process and act to promote appropriate consideration. Any significant issues would be taken to the Committee for Program Matters for discussion. While there was a risk that members of

## 2. School of Graduate Studies: Report on the Implementation of the Recommendations of the Graduate Education Task Force (Cont'd)

the University might ignore invitations to participate in the consultation, Professor Pfeiffer anticipated a broad discussion.
(d) Graduate Studies assessors to tenure committees. A member observed that the decanal assessors played an important role on tenure committees, and with a reduced number of graduate-school deans, it would be necessary to expand the pool of tenurecommittee assessors. Professor Pfeiffer replied that it was intended that a small number of highly qualified professors would be asked to take on this responsibility along with the Dean and the two Vice-Deans. The designated tenure assessors would be asked to undertake several files each year of a multi-year term to assure the development and availability of their expertise.

Another member stressed the importance of ensuring consistency in the work of tenure committees - in particular of ensuring that candidates did not carry out their pre-tenurehearing work on the basis of their being advised of one set of expectations only to find that their work was being judged on the basis of a different set of expectations.
(e) Administrative support. A member observed that the proposal would have the effect of moving a considerable administrative burden from the School of Graduate Studies to the Faculties. The Faculty offices were already under a great deal of stress because of limited resources. For the proposal to succeed, it would be important to ensure that the Faculty officers responsible for graduate studies had adequate administrative support. Professor Pfeiffer said that the point was well taken.
(f) Role of the Committee on Academic Policy and Programs. The Chair recalled that two aspects of the plan would affect the work of the Committee: the report for information on minor changes to graduate programs would become an annual communication; and authority to approve increases to admission requirements and direct entry to PhD programs would be delegated to the Provost. Two members expressed support for the proposals, one suggesting that the changes would avoid micromanagement by the Committee. Another member supported the current arrangements, which had frequently led to valuable discussions of matters that were not routine. It was appropriate for the Committee to monitor the proposed changes on a regular basis to ensure that they were given another level of discussion and that uniform standards were maintained.

The Chair saw merit to both the current and the proposed arrangements. The current monthly monitoring gave the Committee the opportunity to discuss each change and to question the dean responsible for the program. On the other hand, the annual report on approved changes provided the opportunity to monitor trends. He suggested that the Committee might well find it best to try out the new arrangements, monitor the outcome, and, if necessary, revert to the current practice.

## 3. School of Graduate Studies: Proposal for a Master's Program in Women and Gender Studies

Professor Hillan noted that the Institute for Women’s Studies and Gender Studies was classified as an Extra-Departmental Unit, type 1 (EDU 1) with the authority to appoint its own faculty and to make graduate appointments. It was proposed that the Institute offer a twelve-month, course-based Master of Arts degree program to students who had completed a four-year undergraduate degree or equivalent in women's studies or gender studies with at least a B+ average. The proposal was backed by very full information. It had been developed through extensive discussion in the Faculty of Arts and Science and in the Institute for Women's Studies and Gender Studies. That discussion had included both faculty members and students. The proposal had been endorsed by the Council of the School of Graduate Studies. The Planning and Budget Committee, at its meeting of December 6, 2005, had examined the proposal from the point of view of its planning and budget implications, and it too had endorsed the proposal.

Among the matters that arose in discussion were the following.
(a) Male participation and gender studies. A member observed that all of the faculty listed in the proposal were women. Was there an implication that only women should carry out scholarship in this field? Invited to reply, Professor Mojab said that the matter had been the subject of extensive discussion, and the naming of the Institute and the proposed program to include gender studies as well as women's studies was meant to convey the inclusiveness of men who might wish to participate in the area. That all current faculty in the field were women simply reflected the fact that all of the scholarship in the area at this University had, to date, been carried out by women. Professor Mojab noted that a new position in the Institute, with a cross-appointment to the Department of History, had attracted a significant number of male applicants.
(b) Market demand for graduates from the program. In response to a member's question about the likely demand for graduates from the proposed program, Professor Mojab said that the question had been taken into account in the planning for the program. Market demand was supported by the fact that gender analysis was a very important component of many national and international public-policy programs. Surveys of graduates from the current collaborative programs in women's and gender studies had provided very useful information about the career opportunities likely to await graduates of the proposed program.
(c) Graduate enrolment expansion: fit of the proposal. In response to a member's question about the fit of the proposal with the overall plan to expand graduate enrolment, Professor Mojab said that it was very fortunate that the proposal for the new program was being put forward at the same time as the plan to expand graduate enrolment; the two plans were entirely complementary.

## 3. School of Graduate Studies: Proposal for a Master's Program in Women and Gender Studies (Cont'd)

(d) Student supervision. A member observed that a significant proportion of the faculty listed for the proposed program were not full professors and had not supervised large numbers of graduate students. The faculty as a group had not attracted a substantial amount of research funding. Because it was important that students have seasoned supervisors, the member hoped that a strong mentoring program would be put into place for the more junior faculty. Two members and Professor Mojab responded. The matter of supervisory experience was not a factor in this case because the proposed program was a course-based rather than a research-based program. More importantly, the information concerning supervision and research grant support was misleading. Until July 2004, when the Institute for Women's Studies and Gender Studies had been made an EDU 1 with the right to appoint its own faculty, all of the faculty members had been crossappointed, and their research support and their supervisory duties could have been credited either to their department or to the Institute. In addition, it had not been until July 2004 that the Institute could sponsor grant applications to the Social Sciences and Humanities Research Council.

In the course of discussion, a member had observed that the proposed program, and the paper proposing it, were both very impressive.

On motion duly moved and seconded,

## YOUR COMMITTEE RECOMMENDS

THAT the proposed Master of Arts in Women and Gender Studies at the Faculty of Arts and Science, the description of which is attached hereto as Appendix "A", be approved, effective September 2006.

## 4. Faculty of Arts and Science and School of Graduate Studies: Disestablishment of the Department of Botany and the Department of Zoology and Creation of the Department of Ecology and Evolutionary Biology and the Department of Cell and Systems Biology

The Chair said that the Planning and Budget Committee was responsible for the "consideration of plans and proposals to establish, disestablish, or significantly restructure academic units," including departments. Because of the importance of this proposal, however, the Provost had thought it important that it also be considered and supported by the Committee on Academic Policy and Programs, which was being asked to concur with the recommendation of the Planning and Budget Committee to the Academic Board. The matter would ultimately proceed to the Governing Council.

## 4. Faculty of Arts and Science and School of Graduate Studies: Disestablishment of the Department of Botany and the Department of Zoology and Creation of the Department of Ecology and Evolutionary Biology and the Department of Cell and Systems Biology (Cont'd)

Professor Hillan said that the Departments of Botany and Zoology were two of the oldest departments in the Faculty of Arts and Science, and the proposal to revise the departmental structure was a momentous one. The proposal was comprehensively documented. It followed extensive consultation arising from the Stepping UP planning process and from external reviews of the departments. The proposal had been approved by the General Committee of the Faculty of Arts and Science and by the Council of the School of Graduate Studies. It had been reviewed on December 6, 2005 by the Planning and Budget Committee, which had recommended its approval to the Academic Board. While there would be a restructuring of the departments, their programs would not change at this stage, except for their administrative arrangements, although the new departmental structure might well lead to significant program changes in the future.

Invited to speak, Professor Howson stressed that there was very strong support for the proposed restructuring, both in the two departments and in the Faculty of Arts and Science as a whole. The support in the departments had been demonstrated by strong majorities in a secret ballot held among the members of the two undergraduate departments on the St. George Campus and the two tri-campus graduate departments. The proposal was driven by changes in the academic disciplines, where the old divisions between botany and zoology no longer made much sense. While the changes in the disciplines were well established, the University was leading in establishing the new departmental structure to accommodate those changes. The proposed new Department of Cell and Systems Biology would be the first in North America and the proposed new Department of Ecology and Evolutionary Biology would be among only a few new departments in the area.

Among the matters that arose in questions and discussion were the following.
(a) Alumni views. In response to a question about the involvement of alumni in the decision to restructure the departments, Professor Baker said that he had consulted with alumni who were actively involved in the Department of Zoology, and he had in fact conducted a vote among those alumni. The vast majority had supported the proposed restructuring.
(b) Funding. In response to a member's question, Professor Howson said that it was anticipated that graduate enrolment in the new departments would increase as a part of the general planned increase in graduate enrolment. Funding for graduate student support packages would derive from the increased government funding and tuition fees arising from the enrolment increase. In that respect, the proposal was very well timed. The Chair added that the details of funding had not yet been put into place, and it was anticipated that new funding would arise from a number of sources.

## 4. Faculty of Arts and Science and School of Graduate Studies: Disestablishment of the Department of Botany and the Department of Zoology and Creation of the Department of Ecology and Evolutionary Biology and the Department of Cell and Systems Biology (Cont'd)

(c) Consultation with other academic divisions. A member asked about consultation with other deans whose faculties would be affected by the proposed restructuring, in particular the Dean of Medicine. The member hoped that the University would take advantage of the restructuring to close gaps and that the process would avoid the establishment of silos, where work would be carried out without cooperation with related efforts elsewhere. Professor Howson and another member assured the Committee that there had been extensive consultation on the matter between the Dean of Arts and Science and the Dean of Medicine. The member urged that those consultations continue.
(d) Appropriateness of the new structure. A member observed that both of the proposed departments were to be called departments of biology. He asked about the reason for splitting biology into the two parts. Would the division be clear to the outside world? The Chair and Professor Baker replied that the proposal had a long and complex history. It would clearly be possible to divide the biology area many different ways, and it would also have been possible to amalgamate the Departments of Botany and Zoology. Indeed, there were good academic reasons for doing so, and amalgamation had had some supporters. The problem with that solution would have been a practical one: the resulting department would have been far too large for satisfactory administration. The division was a common one in universities in the United States. Matters having to do with the individual organism and up would be included in the Department of Ecology and Evolutionary Biology, whereas matters within individual organisms would be the province of the Department of Cell and Systems Biology. The techniques used by scientists in the two areas differed, with those in the Department of Ecology and Evolutionary Biology likely to engage in field work and computer modeling, among other techniques, whereas scientists in the Department of Cell and Systems Biology would be more likely to use genomic and proteomic techniques, among others. Each of those areas had different scientific cultures. There were, therefore, philosophical reasons to make the division. Nonetheless, it was clear that there were losses from dividing the biology discipline as well as gains. It had, however, been concluded that the pros outweighed the cons, and the new division should be tried for at least the next few years. In addition, it was clear that in many cases, members of the previous departments of botany and zoology meant to keep open the lines of communication with colleagues who would now be located in the other new department.

## 4. Faculty of Arts and Science and School of Graduate Studies: Disestablishment of the Department of Botany and the Department of Zoology and Creation of the Department of Ecology and Evolutionary Biology and the Department of Cell and Systems Biology (Cont'd)

On motion duly moved and seconded,
YOUR COMMITTEE CONCURS
WITH THE RECOMMENDATION OF THE PLANNING AND BUDGET COMMITTEE

1) THAT the Department of Botany and the Department of Zoology be disestablished coincident with the establishment of the new Department of Ecology and Evolutionary Biology and the new Department of Cell and Systems Biology as of July 1, 2006; and
2) THAT the graduate Department of Botany and the graduate Department of Zoology be disestablished coincident with the establishment of the new graduate Department of Ecology and Evolutionary Biology and the new graduate Department of Cell and Systems Biology as of July 1, 2006.

## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05

Dr. Challis presented the annual report. The highlights of his presentation included the following.

- University research: inputs and outputs. The inputs into university research were funding and the University's great minds. The outputs were: highly qualified personnel; publications and citations of those publications; honours to the University's researchers; commercialization of some of the intellectual property developed by researchers; and social impacts including improvements to healthcare, justice, public policy and culture. Dr. Challis noted that the measures of the outputs were still being developed.
- Research funding. Dr. Challis displayed a graph of the research funds awarded to the University and its affiliates from 1982-83 to 2003-04. The amount of direct funding had increased progressively, especially since 1999-2000, with the introduction of new funding programs by both the federal and provincial governments. The funding from the three federal research-granting agencies (the tri-councils) - the Social Sciences and Humanities Research Council (SSHRC), the Natural Sciences and Engineering Research Council (NSERC), and the Canadian Institutes for Health Research (C.I.H.R.) had all increased over the period - an increase that was consistent with that at other universities. The most sizeable


## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont’d)

increases had been from the C.I.H.R., the funding for which had been increased most substantially in recent federal budgets. The tri-councils provided $31 \%$ of the $\$ 623-$ million of funding for the direct costs of research that had been received by the University in 2003-04. The other sources had been: $26 \%$ infrastructure funding received through the Government Research Infrastructure Programs office; 10\% from other government funding; 15\% grants from not-for-profit organizations; 10\% corporate funding for research contracts and grants; $4 \%$ from other institutions; and $4 \%$ from international sources.

Professor Challis noted that there were opportunities to increase the levels of funding received from the not-for-profit sector and from international sources, and the University would be appointing two people to enhance the University's efforts to win funding from those sources. One would be appointed jointly with the Faculty of Medicine to help maximize support from the United States and elsewhere for health research.

- Research successes: funding. Taking into account direct and indirect costs and faculty salaries, research activity at the University of Toronto amounted to almost \$1-billion per year or \$3-million per day - an amount that ranked third among North American universities, after Johns Hopkins and the University of California at Los Angeles. (Those figures took into account direct research funding plus 40\% of faculty salaries for the portion of faculty time devoted to research and a further 40\% for overhead costs.) The University ranked first in Canada in funding from the three federal research-granting councils, in the number of Canada Research Chairs, and in the funding of research facilities by the Canada Foundation for Innovation. In Ontario, the University of Toronto ranked first in funding from the Ontario Research Fund.
- Share of federal research council funding. The University and its affiliates had received $15.6 \%$ of tri-council funding in 2003-04 - a decline of 0.2 or $0.3 \%$ from the previous year. The University and its affiliates had received $22.2 \%$ of funding from the Canadian Institutes for Health Research, a proportion that had increased over the past ten years. Funding from the Social Sciences and Research Council for 2003-04 represented $12.2 \%$ of the total, a proportion that had declined somewhat over the past few years - a cause of real concern. Funding from the Natural Sciences and Engineering Research Council had remained relatively constant at just under $10 \%$. The University was undertaking special initiatives to assist members of the faculty in applying for research funding from the Social Sciences and Humanities Research Council.

Tri-Council funding was of particular importance to the University. Grants from the Councils represented the gold standard of excellence and credibility in Canada. Moreover, there was a ripple effect from that source of funding. The proportion of
5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont'd)
funding received from the three Councils determined the number of the University's Canada Research Chairs and its share of funding provided for the recovery of the indirect costs of research. It was therefore very important for the University to monitor its share of tri-Council funding.

- Age distribution of tri-council funding. The age distribution of funding from the Canadian Institutes for Health Research, was a normal bell-shaped distribution, with substantial funding for faculty in the younger age cohorts. For the Natural Sciences and Engineering Research Council, there was a significant drop in funding for faculty in the 50-54 and 55-59 year old groups, attributable to a lower proportion of University of Toronto faculty in those age groups. For the Social Sciences and Humanities Research Council, a highly disproportionate share of funding was awarded to faculty in the 60-65 year old group. That distribution was a cause of concern. As those faculty members retired, likely in the next few years, the University would have to work very hard to ensure that younger members of the faculty succeeded in applications for SSHRC funding. If they did not, the University would qualify for fewer Canada Research Chairs in the Humanities and Social Sciences.
- Government research infrastructure funding varied from year to year, but it had amounted to over $\$ 1$-billion cumulatively. Funding had been provided by both federal and provincial programs. In future, the infrastructure funding from various provincial programs would be replaced by funding from the Province's Ministry of Research and Innovation.
- Funding for indirect costs was based on the total of research grants from the three federal research-granting councils. In 2004-05, total indirect-cost funding to the University of Toronto and its affiliated hospitals had amounted to \$29.3million. Of that amount, $\$ 12.9$-million had been for the hospitals and $\$ 16.4-$ million for the University. Of the $\$ 16.4$-million University share, $\$ 4.1$-million had been allocated to the divisions and $\$ 12.2$-million had supported University-wide services. The divisions had used their $25.2 \%$ to pay for the following indirect costs: $8.1 \%$ for facilities, $17.0 \%$ for management and administration, and $0.1 \%$ for intellectual-property services. The University-wide costs paid for by this funding were as follows: $3.8 \%$ for intellectual-property services, $2.3 \%$ for the cost of meeting regulatory and accreditation requirements, $16.6 \%$ for management and administration, and $52.1 \%$ for facilities, including utilities and the renovation and upgrade of research space.

The University had participated fully in the three-year review of the indirect-costs program. The review was, among other things, dealing with the definition and purposes of indirect costs. There were some significant differences of view on those issues between the universities and the Canada Research Chairs Secretariat

## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont’d)

(which administered the indirect costs program). The University of Toronto viewed the distribution formula as perverse, with the most research-intensive institutions receiving the lowest proportion of funding for their indirect costs, amounting to between $19.5 \%$ and $20 \%$ of the cost of federally funded research. The University of Toronto allocation included that for the affiliated hospitals, even though some of the hospital research institutes themselves conducted research programs that were equal in size to moderately sized universities. That fact disadvantaged both the University and the hospital research institutes. If the research institutes of the University Health Network and Mount Sinai Hospital had been treated as separate entities, they would have received significantly more funding. Allocations were based on the average direct funding over the past three years, meaning that indirect-cost funding always lagged the increasing amount of direct-cost grants.

The University was very heartened by the Government of Canada's announcement, in the Minister of Finance's 2005 Economic and Fiscal Update, of a $\$ 250$-million increase in annual funding for the indirect costs of federally funded research. The outcome would be to increase funding for indirect costs to $40 \%$ of direct costs. If the University of Toronto received its previous share of the total funding, it would amount to $\$ 40$-million of additional funding, something that would be the same as the payout generated by $\$ 1$-billion of endowment.

- Other support for outstanding researchers. In 2003-04, the University had received funding of $\$ 62$-million from sources other than provincial operating grants to fund nearly 700 positions at the University and its affiliated hospitals. Those researchers, of course, also made major contributions to the University's teaching mission. Those positions included 281 endowed chairs (176 at the University and 105 chairs established jointly with the affiliated teaching hospitals), 156 Canada Research Chairs (scheduled to increase to 267 Chairs by 2007-08), 153 positions funded by the federal research councils, 48 positions funded by not-for-profit organizations, 40 positions funded by other government programs, and 18 others.

Professor Challis noted that of the 212 Canada Research Chairs as at the end of May 2005, 129 had been appointed from amongst the University's current faculty, 73 had been attracted from outside Canada and only 10 from other Canadian institutions. This outcome had contrasted with fears expressed at the inception of the program that the University of Toronto would use its funding to attract researchers away from other Canadian universities. A significant number of Chairs attracted from outside of Canada were outstanding Canadian researchers who had left Canada but had been attracted back.
5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont'd)

With respect to gender balance, the University's target was to make the proportion of woman Chairs equal to that in the University's faculty pool. The University had appointed $25 \%$ women to its senior, tier 1 Chairs, exceeding its $16 \%$ target. With respect to the junior, tier 2 Chairs, however, the $25 \%$ appointments of women lagged the $34 \%$ target. The proportion of appointments of women was on target in the humanities and social science, but the $25 \%$ of women appointed to tier 2 Chairs in the health sciences lagged the $32 \%$ target, and the $13 \%$ of women appointed to tier 2 Chairs in the natural sciences and engineering seriously lagged the $27 \%$ target. Overall, the $25 \%$ of Canada Research Chairs held by women at the University of Toronto exceeded the $21 \%$ national average.

- Research outputs: publications and citations. Among the public universities in the Association of American Universities (A.A.U.) and the G10 research-intensive universities in Canada, the University of Toronto ranked first in publications in the period 2000-04. In the same group, it ranked third in the number of citations in research publications. Adding in the private institutions, the University of Toronto ranked second behind Harvard in the number of publications and ranked sixth in the number of citations. Among the public universities, the University of Toronto ranked first in the number of publications in the sciences overall and in the health sciences.
- Research outputs: faculty research honours. The faculty of the University of Toronto and its affiliates represented $6.8 \%$ of university faculty across Canada, but its members had received a disproportionate share of international honours between 1980 and 2005, including 68.2\% of the Canadian memberships in the American Academy of Arts and Science, 63.6\% of the Canadian memberships in the National Academy of Sciences, $44.8 \%$ of Canadian Guggenheim Fellowships, and $44.4 \%$ of the Canadian appointments as Fellows of the Royal Society, London.

The University's share of Canadian honours was also disproportionate, but less so than international honours. The University's faculty had won $38.5 \%$ of Steacie Prizes awarded between 1980 and 2005, $32.0 \%$ of the highest prizes of the federal granting councils, $28.8 \%$ of the Killam Prizes, $28.8 \%$ of the Molson Prizes, but only $19.1 \%$ of the appointments as fellows of the Royal Society of Canada.

- Research outputs: Commercialization. Professor Challis noted that the University would soon be implementing many of the recommendations of the Manley Report on commercialization. In 2004-05, the University had received disclosures of 224 inventions and had obtained 28 licenses. A total of 103 active spin-off companies were in operation to commercialize intellectual property developed at the University.


## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont’d)

- Research outputs: Highly qualified personnel. A total of 1,779 students had graduated from doctoral-stream programs in 2004: 1,147 with master’s degrees and 632 with doctoral degrees. A further 1,785 students had graduated with professional master's degrees. In addition, 1,446 postdoctoral fellows had been in training at the University in 2004. The outcome represented a very meaningful contribution to the training of highly qualified personnel.
- Research outputs: social impact. Dr. Challis noted that the University was seeking appropriate measures of research output in the Humanities and Social Sciences in addition to the usual measures of publications. Pending the development of such measures, the annual report cited a number of outstanding examples of the social impact of University research: the research of Professor Usha George of the Faculty of Social Work, whose work had served the needs of immigrant communities; University Professor Janice Stein, the Harrowston Chair in Conflict Management and Negotiation in the Department of Political Science and Director of the Munk Centre for International Studies, who had provided advice to governments and agencies around the world on foreign policy matters; Professor David Hulchanski of the Centre for Urban and Community Studies and the Faculty of Social Work, whose research had contributed greatly to the understanding of homelessness in Canada; and Professor Carl Corter of the Institute for Child Study who had spearheaded an innovative project in Toronto to integrate kindergarten, childcare and family support services in a school setting.
- Strategic re-organization of the Office of the Vice-President, Research and Associate Provost. Professor Challis had re-organized his office into five strategic areas: research-revenue generation; research ethics; research commercialization and contracts; government advocacy; and research coordination. The objective had been to facilitate the work of the University's faculty and to assist the University's research partners to achieve better outcomes.

Among the matters that arose in discussion were the following.
(a) Research productivity per faculty member. A member noted that the University's leading position in many measures of research success was a function of the University's size. A better indicator might be research per full-time equivalent faculty member. Dr. Challis agreed that the University's impact was in part a function of its size, but members of the University should nonetheless be very proud of that impact. Large companies such as Microsoft had a large impact in part because of their size, but that impact was - like the impact of the University's research - still highly valuable. The question of research output per full-time faculty member was frequently raised, but the measurement was less appropriate than it might at first appear. While the University's faculty was very large, so too was the student population, and the teaching responsibilities of the faculty of the University of Toronto were often more burdensome than those at peer

## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont’d)

institutions, especially in the United States, who often had fewer students and fewer teaching contact-hours.
(b) Highly qualified personnel: international graduates. A member asked whether the University had, over the years, been making an appropriate contribution to training highly qualified personnel from countries other than Canada. Professor Challis replied that $12 \%$ of graduates from the School of Graduate Studies in 2004 were international students: including $7 \%$ of the graduates in professional master's programs, $10 \%$ in doctoral-stream master's programs, and $20 \%$ in doctoral programs. Invited to reply to a question about international graduates in earlier years, Ms Sigouin said that the information was not yet available; she had only begun the process of gathering the data.
(c) Other aspects of faculty contributions. A member observed that what was measured was what was rewarded. She was therefore concerned that reports such as one before the Committee that stressed such things as publications, citations and success in research funding. It was important that the University also take into consideration such matters as: the use of publications in teaching syllabi, especially in the Humanities and Social Sciences; service on Faculty committees; service on public bodies; and quotations in the media. For example, a report on Severe Acute Respiratory Syndrome (SARS) that originated in the University was not strictly speaking a research publication, but it had been of enormous help to the community. Dr. Challis replied that the annual report had, for that very reason, gone beyond publications and citations, providing information on the training of highly qualified personnel and on social impact. With respect to media citations, the University subscribed to a service to measure them, and a regular report on the matter was distributed to members of the Governing Council and the Business Board.
(d) Service on peer-review panels. A member expressed concern that members of the University's faculty might have been less successful than they deserved to be in applications for funding by the Canadian Institutes for Health Research because the top scientists in their fields, including those from the University of Toronto, were not serving on peer-review panels. Professor Challis noted that each year the Vice-President, Research communicated with Deans and Chairs to urge nominations. The problem was that this element of service was very time-consuming, and faculty members were aware that the outcome of their detailed review work was the award of grants in only a small percent of applications. While the administration was well aware of the importance of this work, it was difficult to urge colleagues to volunteer for it, given the amount of time they would have to sacrifice. Professor Challis noted that it was also valuable for more junior faculty to serve on peer-review panels; it provided excellent training for making their own grant applications.
(e) Age distribution of tri-council funding. A member referred to Professor Challis's comments on the age distribution of grant funding, especially from the Social Sciences and Humanities Research Council, where a highly disproportionate share of funding was

## 5. Vice-President, Research and Associate Provost: Annual Report, 2004-05 (Cont’d)

awarded to faculty in the 60-65 year old group. She asked the reason for that outcome. The Vice-Chair replied that the Social Sciences and Humanities Research Council, in making grants, gave a great deal of weight to a faculty member’s research record. Older faculty members with long and successful research records were, therefore, at an advantage.

## 6. Reports of the Administrative Assessors

Professor Hillan reported on two matters.
(a) Reviews of academic programs and units. The Committee's June 14, 2005 review of academic programs and units had been considered by the Agenda Committee of the Academic Board at its meeting of November 8, 2005, and that Committee had endorsed the changes to the process for reviews. There had been general agreement that the new process had worked well. The report on reviews would be received by the Governing Council at its meeting of December 12, 2005.
(b) Policy on Academic Appeals within Divisions. The new policy, endorsed by the Committee at its previous meeting, had received the assent of the Academic Board on November 24, 2005. It would proceed to the Governing Council for approval on December 12, 2005.

The Chair congratulated all those involved in the review process and in the development of the proposed new policy.

## 7. Date of Next Meeting

The Chair reminded members that the next regular meeting was scheduled for Wednesday, January 18, 2006 at 4:10 p.m.

The meeting adjourned at 5:55 p.m.

Acting Secretary
Chair
January 9, 2006

