Faculty of Medicine
University of Toronto

Strategic Directions and Academic Plan

International Leadership in Health Research and Education

2000-2004

TABLE OF CONTENTS
Faculty of Medicine
Strategic Directions and Academic Plan
2000-2004

Executive Summary

After nearly a decade of restructuring and downsizing both within the University and its affiliated teaching hospitals, the Faculty of Medicine has emerged in a strong position to develop a new multi-year plan. There are opportunities to leverage new and expanding sources of external funding, rebuild in areas that have been "cut too thin", and challenge the boundaries of health research, creating knowledge from 'genes to populations' and from 'molecules to communities'. In response, the Faculty, in partnership with multiple disciplines, faculties and organizations, has developed innovative plans for both its teaching and research programs. At the same time, the Faculty faces significant challenges with respect to space, infrastructure and student support.

The Faculty's academic planning process was timed to allow for the transition of leadership from Dr. Arnold Aberman, who completed a seven-year term in June 1999 to Dr. David Naylor who assumed the position of Dean of the Faculty of Medicine in August 1999.

The planning process began in December 1999 and had 4 major components: (1) a *Review of Reviews process*, which fulfilled the self-study component required by the Provost and provided an assessment of the internal environment; (2) a *strategic visioning process*, which delivered guiding principles, vision, mission, values, strategic priorities and implementation goals for the Faculty; (3) *decanal and departmental academic planning*, in which the Vice Dean - Research, the Associate Deans and individual departments, developed their plans in the context of *Raising our Sights* and the newly established vision, mission, priorities and goals of the Faculty and (4) a *Request for Proposals to the Academic Priorities Fund*, that produced a short list of outstanding applications which align with the University's and Faculty's vision and are essential to achieving the Faculty's strategic priorities.

Strategic Plan

Vision, Mission, and Values

The new mission, vision, and value statements were developed through a broad and consultative process espoused at the start of the process.

Vision

International leadership in health research and education.

Mission

We prepare future health leaders, contribute to our communities, and improve the health of individuals and populations through the discovery, application and communication of knowledge.

Values

- **Integrity** in all of our endeavours.
- Commitment to **innovation** and **excellence**.
- **Life-long learning** and **critical inquiry**.
- **Diversity** and **social justice**.
- **Partnership** with our academic health science centres.
- Multi-professional, interdisciplinary, and community **collaboration**.
- A **supportive** and **collegial** environment.
- **Accountability** to our community of scholars and to the public.
- **Responsiveness** to our local, national and international communities.

Strategic Priorities and Implementation Goals

Five strategic priorities were identified through the strategic planning process. The first three match directly to the University key priorities. The remaining two priorities reflect the unique imperatives of the Faculty at this time. Implementation goals, actions and measures were established for each. The Faculty's activities over the next four years will be focused on achieving these goals.

❶ Building Our Faculty

1.1 Our Faculty comprises leading scholars from Canada and around the world. New recruits are supported with appropriate start-up funding, competitive compensation and a superior working environment. Leading scholars in our Faculty are retained through ongoing support for their academic endeavours.

1.2 Academic appointments reflect the needs and standards of the Faculty as well as the commitments and contributions of staff. Appointments have defined expectations and benefits that are consistent across the Faculty.

1.3 The composition of the faculty and its senior leadership reflects the diversity of our society.

1.4 Comprehensive faculty development programs are readily available, widely accessed, and targeted to Faculty goals.

❷ Enriching the Student Experience

2.1 The Faculty recruits the most promising students and trainees to its undergraduate, graduate, postgraduate and postdoctoral programs. The diversity of the student body is reflective of our society.

2.2 All full time graduate students are provided funding support at an established minimum level. All PhD students are funded at levels competitive with peer institutions. A minimum level of funding for post-doctoral fellows (PDFs) is established and is competitive with peer institutions.

2.3 Counseling services (career, financial and personal) and mentorship are readily available to all students, trainees and PDFs. Students, trainees and PDFs experience a supportive physical, psychological, and social environment.

2.4 Instructional media are in place to complement and support traditional teaching methods. The Faculty is a leader in introducing instructional technology that improves quality of instruction, improves access for students, and meets the expectations of students.

❸ Strengthening Our Academic Programs

3.1 All professional, graduate and postgraduate programs emphasize the preparation of academic leaders

3.2 New programs and growth in existing programs build on the research-intensive focus of the Faculty.

3.3 The Faculty actively promotes and supports multi-, inter- and trans- disciplinary education[1] and research, while sustaining traditional lines of departmental accountability.

3.4 Doctoral graduate programs are aligned with existing and new priority research programs.

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[1] *Rosenfield, PL, "The potential of **transdisciplinary** research for sustaining and extending linkages between the health and social sciences." Soc Sci Med, 1992; 35:1343-57. **Multidisciplinary**: Researchers work in parallel or sequentially from disciplinary-specific base to address common problems. **Interdisciplinary**: Researchers work jointly but still from disciplinary-specific basis to address common problem. **Transdisciplinary**: Researchers work jointly using shared conceptual framework drawing together disciplinary-specific theories, concepts and approaches to address common problems*

3.5 Undergraduate Arts and Science teaching is aligned with existing and growing strengths, promoting strategic enrolment expansion within the undergraduate specialist streams, and supplying the Faculty's graduate and professional programs.
3.6 The Faculty's CE program is strongly evidence-based, grounded in translating research into practice, and contributory to the scholarly base of CE.
3.7 Distance Education programs are offered in select areas.
3.8 Faculty are supported in efforts to attract research funding and to produce significant research.
3.9 The Faculty, fully affiliated teaching hospitals, and research institutes have a coordinated plan for research to optimize joint efforts for recruitment and proposal development, share infrastructure and address new opportunities.
3.10 The Faculty and fully affiliated hospitals have a joint strategy to address Canada Research Chairs.

❹ Enhancing Our Relationships and Extending Our Reach

4.1 The Faculty of Medicine exists on numerous sites. The Faculty is an integral part of the Toronto Academic Health Science Complex. Academic activities of the various institutions are harmonized for maximum synergy and complementarity.
4.2 The Faculty has relationships with a number of organizations on campus, locally, provincially, nationally and internationally, public and private, to advance its missions in education and research.
4.3 The Faculty maintains strong connections with graduates for continuing education, outcomes review, measuring impact and supporting development activities.
4.4 The Faculty has established a prominent role in health research and education on a global basis.

❺ Strengthening Our Infrastructure and Resource Base

5.1 The Faculty has a comprehensive development strategy that successfully attracts significant ongoing funding.
5.2 The Faculty has adequately addressed short-term space priorities, and is actively pursuing its long-term space plan.
5.3 The Faculty is well supported by administrative personnel and infrastructure resources.
5.4 The Faculty continually upgrades and invests in information technology.

Academic Plan

The academic plan has been developed in the context of the strategic plan and the planning framework laid out in *Raising our Sights.* The objectives of linking teaching to research, multidisciplinary and interdisciplinary collaboration and academic leadership are evident throughout the plan. The Faculty's academic programs have embraced the goals developed through our strategic planning process and have reflected these goals in their own priority goals and actions that are summarized below.

Research

The research environment in and around the Faculty of Medicine has never been more promising. The landscape for government funding of research is changing for the better. Granting agencies such as the Canadian Foundation for Innovation(CFI) and the Ontario Innovation Trust (OIT) continue to provide funding for the infrastructure required to support our research platforms. The Ontario Research and Development Challenge Fund provides operating funds to complement CFI

and OIT. In addition, the Faculty of Medicine is expecting a minimum of 120 Canada Research Chairs, based on its success in achieving MRC, SSHRC, and NSERC funding. The recently announced R. Samuel McLaughlin Centre, funded jointly through the McLaughlin Foundation, the Ontario Innovation Trust and four partner teaching hospitals, will also have a major impact on the way we do research and train clinician scientists of the future.

The Faculty has revisited its five research platforms originally established in 1997 and redefined them as follows:

- Molecular Health and Applied Genomics
- Models and Mechanisms of Human Disease
- Improvement of Health and Function
- Health Information Technology and Knowledge Transfer
- Comprehensive Program in Imaging

Priority Goals and Actions

1. Identify research clusters for the allocation of the Canada Research Chairs.
2. Resolve the immediate (next one to two years) wet laboratory space need and dry research space needs.
3. Increase the internal funding available for start-up, and meet matching requirements of external agencies (including the match for Canada Research Chairs).
4. Encourage and assist Principal Investigators in all sectors to access the health research funding from the Canadian Institutes of Health Research (CIHR), through the submission of research proposals that are cognizant of the broad health research scope and the interdisciplinary approach embraced by CIHR.

Education

Each of the academic programs are sharpening their focus, strengthening their curriculum and looking to recruit the highest calibre students and faculty. Future plans include enhancing educational technology, improving infrastructure and providing an environment which fosters the discovery, application and communication of knowledge.

Undergraduate Medical Education

Priority Goals and Actions

1. Determine primary areas and degree of specialization of undergraduate program, and identify and implement appropriate changes in curriculum content and pedagogical process. Specify relevant measurable outcome variables, and enhance forward planning with MD/PhD Program for overall program specialization, growth, and improved integration.
2. Re-examine the roles of Course Directors, Academies and Departments in the recruitment of tutors, lecturers, and other teachers. Enhance faculty development in keeping with evolving pedagogical methods, and identify and provide appropriate resources for faculty members' teaching and administrative roles.
3. Develop a rational base budget-funding model for present enrolment. Extend this to accommodate a class size of 200 with an increasing MD/PhD complement of up to 15%, with possible incorporation of up to 20 international "full-fee" students.
4. Complete needs assessment of required changes in basic science curricular content currently being offered (particularly pharmacology, molecular biology, and genomics content). Incorporate additional curricular content as required within existing courses or as coordinated themes, as appropriate.
5. Define appropriate variables and methods for tracking interim, short- and long-term curricular outcomes, in relationship to extant program objectives. In consultation, develop and deploy appropriate data collection instruments for comprehensive and effective evaluation of program outcomes.

6. With the support of the *Division of Educational Computing* and relevant central University resources, migrate appropriate curriculum components to the web. Develop means for all relevant faculty and staff to upload and revise curriculum data.
7. Assure ongoing compliance with evolving LCME guidelines, with particular sensitivity to *hot topics*[2]. Twenty-four months prior to next accreditation, appoint Senior Academic Accreditation Coordinator and Accreditation Secretary, and secure necessary resources to prepare for site survey.

Occupational Therapy

Priority Goals and Actions

1. Institute the professional master's entry level program (the MSc OT), while phasing out the professional undergraduate program.
2. Work with PT, through the Graduate Department of Rehabilitation Science structure, to introduce a PhD program.
3. Review and revise, as appropriate, all aspects of the professional program, including: curriculum structure, flow, content and delivery, academic policies and procedures, and student support services.
4. Recruit the best and the brightest students.
5. Enhance student support and services.
6. Secure new physical, financial and human resources to support the institution of the MSc OT and PhD programs.

Physical Therapy

Priority Goals and Actions

1. Implement graduate professional program (MScPT) in the Year 2001 with both a regular stream of students and an advanced standing stream of students.
2. Initiate Doctoral Stream Program in Rehabilitation of Science with a field of Physical Therapy. The program will be targeted to commence 2002.
3. Sharpen the focus of our academic activity and educational programs in the area of impairment and disability impact and determinants of disability impact.
4. Build human capacity for Canada. The focus of our educational programs will be to create academic practitioners as well as rehabilitation scientists to supplement the academic faculty base of physical therapists in Canada.

Radiation Science

Priority Goals and Actions

1. Continue to expand the program, but not beyond the steady state maximum of 450 students (150 in each of three years). There are no plans to add other technological programs.
2. In collaboration with the Michener Institute and the other second-entry professional programs, make a concerted effort to increase recruitment of students from the University of Toronto. Continue to obtain assistance from the Provincial Cancer Centres in recruitment of applicants for the Radiation Therapy stream.
3. Pay special attention to the research methods and research project courses with a view to encouraging students to proceed to graduate education.
4. Modify the scope of the Radiological Technology stream to include more of the recent advances in imaging technology while maintaining the curriculum and standards necessary for accreditation of the program.

[2] Topics defined by the LCME to be of particular and important current relevance.

Postgraduate Medical Education

Priority Goals and Actions

1. Publicize program expansion. Increase resident positions by 5% over next 5 years.
2. Develop targeted promotional materials to attract international medical graduates and foreign sponsors. Target 15% increase over next 5 years.
3. Work with clinical departments to financially support residents during graduate degree component of specialty training.
4. Develop range of workshops and mechanisms to enhance faculty and resident development.
5. Prepare for April 2001 Royal College of Physicians and Surgeons on-site survey.
6. Work with University and Faculty to develop website and "virtual" IT campus.
7. Participate and lead initiatives to ensure that the unique needs of the University of Toronto are known to academic, licensing and government bodies.

Graduate Studies

Priority Goals and Actions

1. Over the next 5 years seek all potential sources of funding to ensure all MSc/PhD students receive full funding for the duration of their degree programs.
2. Improve and sustain funding of the professional degree programs as a priority in the Faculty of Medicine.
3. Recruit outstanding students from the undergraduate Arts and Science programs at U of T and other major universities into MSc/PhD and professional graduate programs.
4. Consolidate and centralize graduate student information management to improve the cost-effectiveness of graduate administration in the Faculty.
5. In partnership with the University, improve access to housing services, financial counseling and career development opportunities for students in all graduate programs.
6. Double enrolment in the MD/PhD program and other conjoint graduate programs (e.g., MD/MHSc, MD/MBA, MD/MSc).
7. Sustain administrative support and enhance funding for MD research trainees as a top priority for the Faculty and Clinical Departments.
8. Enhance the support for Clinician-Scientists trainees, and early stage Clinical Scientist faculty members, through increased base-budget allocations, fund-raising and partnering with the affiliated hospital research institutes.

Basic Medical Sciences Teaching – Arts and Science

Priority Goals and Actions

1. Establish appropriate funding to support future increased enrolment in undergraduate Arts and Science courses.
2. Ensure that the partnership between the Faculties of Arts and Science and Medicine in undergraduate teaching takes into consideration differences in planning and budgeting of the divisions and programs.
3. Break down traditional departmental barriers both within and outside the Faculty of Medicine to promote innovative undergraduate (and graduate) education opportunities strongly linked to research.

Continuing Education

Priority Goals and Actions

1. Ensure that the Faculty's CE program is strongly evidence-based, grounded in translating research into practice and contributory to the scholarly base of CE.
2. Establish clear principles, goals, targets and mechanisms for providing continuing education.

3. Transform CE into a knowledge transfer program, linked to health outcomes. (See APF - Knowledge Translation Program)
4. Enhance use of web-based and point-of-care technologies, to keep pace with changing technology and learners' expectations.
5. Increase national and international CE program participation by 50% by 2003.

Building the Faculty

For the period 2000-2004, relatively few faculty members are retiring; most will be replaced, but some retirements will be used to cover departmental re-allocation levies. We anticipate only limited and selective growth in the faculty complement within the tenure-stream. This will occur from five sources: APF positions funded but still unfilled from the last planning cycle; additional positions requested in this planning cycle; endowed funds (chairs and professorships); Canada Research Chairs; and enrolment expansion in the rehabilitation sector, with concomitant growth in Basic Income Units and tuition revenues. A few areas face special challenges in academic recruitment. In the Rehabilitation disciplines, there is a shortage of academically-qualified personnel, particularly those with strong research records. In some of the clinical departments eg. Radiation Oncology, Medical Imaging, Anaesthesia and Laboratory Medicine and Pathobiology, there are shortages of specialists and sub-specialists in general which exacerbate the recruitment of academic leaders.

More generally, international recruitment is made difficult by regulatory and immigration restrictions and barriers. In the coming year we intend to work with the College of Physicians and Surgeons (CPSO) and Royal College of Physicians and Surgeons (RCPSC) to address the latter issues as they arise for clinical appointees. We also intend to review criteria for part-time and full-time non-tenured academic appointments to ensure that these appointments better reflect the needs and standards of the Faculty as well as the commitments and contributions of staff.

Priority Goals and Actions

1. Work with the Royal College of Physicians and Surgeons of Canada and the College of Physicians and Surgeons of Ontario to develop streamlined mechanisms for licensing of international medical trainees and recruits.
2. Construct all search committees with a view to gender balance and ethno-racial diversity.
3. Intensify efforts to recruit internationally, whenever feasible, and work with University support services to promote the Faculty, University and city as venues where internationally competitive scholars from diverse backgrounds will be welcomed.

Enriching the Student Experience

This academic plan places a strong emphasis on enhancing the educational experience. A top priority of our development effort will be raising funds for student financial support. Greater emphasis will be placed on all aspects of counseling. The critical housing shortage for students will be addressed in collaboration with the University. We are seeking APF support to introduce a wider range of new instructional media. Individual departments also plan to develop customized strategies for enhancing the learner's experience on campus and through web based learning.

Priority Goals and Actions

1. Monitor and review the admissions process and the quality of the students who are permitted entry to the M.D. and other professional programs on a regular basis. Encourage research into impact of various admissions strategies.
2. Disseminate information regarding substantive financial assistance and counseling for needy students to high schools and universities, in order to encourage the ideal applicants regardless of their financial background.
3. Establish a number of full admission scholarships for the M.D. program which will cover tuition, other fees and expenses, plus a greater or lesser portion of living expenses according to a student's need. Secure financial assistance in the upper years of medical school.
4. Secure larger amount of meaningful scholarship and bursary assistance for students in all the second-entry health professions programs. Funds for all programs could be raised through Faculty development initiatives and, additionally, for the medical students, in fundraising partnership programs with the Medical Alumni Association.
5. Take an active role with the University in assisting its students to find suitable housing—through the maintenance of a permanent housing registry and, possibly, the establishment of a residence for health professional students.

Enhancing our Relationships and Extending our Reach

The Faculty has a strong history of partnering through its close relationships with University-affiliated teaching hospitals and hospital based research institutes. The changes in research funding and organization will demand even greater collaboration and partnership in the future. We therefore anticipate more joint planning on all fronts, with a specific emphasis on recruitment, space and infrastructure. The changing nature of health care delivery also requires changes in sites and experiences for professional training. New and enhanced relationships are being cultivated with our partially-affiliated hospitals and with community organizations.

The most ambitious program to extend the reach of the Faculty of Medicine is the creation of the Centre for International Health, which is expected to coordinate and facilitate international health research activities of students and faculty for the University of Toronto community. This is the subject of an APF request.

Strengthening our Infrastructure and Resource Base

Shortages or deficiencies in space and infrastructure are foremost among the challenges facing the Faculty today. Similar to the rest of the University, the Faculty on campus has a physical infrastructure that is deteriorating with age and not designed for today's science. All the hospitals face pressures for new or better space to house their research enterprises.
There is accordingly a serious shortage of space for wet and dry laboratories and offices. Finding or creating temporary space must be the top priority in research planning in the Faculty.

For the campus-based component of Faculty activities, long-term space planning has the following key elements: 1) availability of the Best and Banting sites or their equivalents to the Faculty and 2) in addition to **the Centre for Cellular Biology Research** (CCBR), construction of new laboratory space to the addition of two floors to the two west blocks of MSB. Further, a proposal has been submitted to CFI for the building of a new **Centre for Improvement for Health and Function** which would be shared by the Rehabilitation and Community Health sectors.

The hospitals until recently have planned autonomously their own research space needs. Commencing in December 1999, the Hospital University Research Coordinating Committee --- with the full support of the Dean and all eight hospital CEOs --- began exploring possible in-common space and infrastructure solutions. The rationalization of infrastructure and research space across multiple institutions is a pillar of capital planning for the Faculty in this academic cycle.

Development and Advancement

A key enabler to supporting the growth of our academic enterprise is an effective Development Office. With at least two major capital projects described above, and the urgent requirement to increase student funding support, there will be great pressure for the Faculty to raise funds from industry, private benefactions and other sources during this planning cycle. This is accordingly the subject a special funding request.

Budget

From 2001-01 through 2003-04 there will be both "base" and "OTO" budget cuts. The 2000-01 relevant base budget is $53.9 M giving rise to base and OTO cuts of $0.81 M and $0.3 M respectively. The total base budget cut or "reallocative levy" over the four years is approximately $ 3.2 M. The Faculty's requests to the Academic Priorities Fund have been closely aligned to the reallocative levy over the four-year period. The base budget and OTO reductions have been applied on a uniform basis across the Departments. The reductions are being addressed by a variety of strategies, including reduction of academic and administrative staff, reduction of non-salary budgets and replacing operating budget with increased income (e.g., salary recoveries).

Requests to Academic Priorities Fund (APF)

Eleven proposals are submitted to the APF. Collectively, the proposals provide enormous capability to strengthen the research and teaching capacity within and across the Faculty, supporting key priorities in basic sciences, clinical sciences, community health and rehabilitation. The proposed initiatives represent outstanding examples of interdisciplinary, multidisciplinary and inter-faculty collaboration, innovative approaches to linking education and research as well as experimentation with new information and scientific technology modalities that are the keys to academic leadership in the 21st century. These initiatives will strengthen the foundation on which the Faculty can grow its academic programs and provide administrative capacity building to equip the Faculty for new challenges and opportunities.

Investments and support of the 11 APF proposals are expected to yield the following for the Faculty of Medicine and the University of Toronto:

- The *Centre for Cellular and Biomolecular Research* will advance the research enterprise in the 'new biology', and will define and lead the development of an innovative teaching and research program crossing multiple faculties and disciplines;
- The *Program in Clinical Evaluative Sciences* establishes the University in a lead role in coordinating a broad range of health services research and teaching activity across the University, its affiliated teaching hospitals and external agencies;
- The *Institute for Drug Research*, as a new EDU, will transform the basis of drug research at the University, drawing together faculty from the Department of Pharmacology and Faculty of Pharmacy as well as other departments,

- The *Joint Centre for Bioethics*, with its many internal and external partners, will continue to provide international leadership in bioethics research, education and clinical care.
- Enhanced *educational computing and teaching space* provides support to all sectors of the Faculty, enriching the educational experience of our students, supporting enrolment growth in several areas, fostering research into innovative educational methods, and creating greater synergy among educators throughout the Faculty and elsewhere in the University;
- Establishing a *Centre for International Health* brings together the many emerging and disparate activities already underway in international health and advances the University's position as a global leader in international health research, education and policy.
- Sustaining and providing for the expansion of *the Surgical Skills Centre* secures North American leadership in a highly successful, innovative educational and research initiative by broadening its base to include more clinicians, educators and scientists from within and beyond the Faculty;
- The *Knowledge Translation Program* proposes a new cross disciplinary, multi-departmental initiative, that has already drawn the interest of private and public sector partners, with its plans to transform the Continuing Education functions of the Faculty.
- The *Rehabilitation Sector* APF request meets certain core needs of the Sector, in regards to its enhancement and realignment of its doctoral stream program, and the development of its professional masters programs, thereby advancing both the educational and research endeavours of the sector.
- The *Administrative Restructuring* proposal will equip the Dean's Office for many emerging challenges, including program planning for The McLaughlin Centre, CCBR, and the Canada Research Chairs. It will improve handling of the Faculty's massive academic complement, increase the efficiency of the Education Deans, and enhance the management of graduate student data.
- The *Neurosciences Network* proposal gives the Faculty a mechanism to pull together its widely varied neuroscience research and education activities. In time, the Network will be extended to other Faculties, securing a University-wide thrust that will integrate neuroscience activities at the three University campuses and the eight fully-affiliated teaching hospitals.

We believe that these are all essential initiatives. Their budgets have been carefully aligned with the reallocation levy to facilitate full funding of all base budget requests. The net effect of full base funding is still a modest reduction in the Faculty's base budget at the end of four years. We have deliberately undershot full return of the reallocative levy because of the accompanying OTO requests. We believe that the requested investments will have long-term benefits for the Faculty and the University.

Extraordinary Funding Requests

There are two additional funding requests to the Provost, which fall wholly or partly outside of the standard reallocation levy. They are: A. Support for Arts and Science Teaching by our Basic Medical Science departments; and B. Support for our expanded Development Office. Funding of the first initiative will enable sustained commitment to excellent teaching in Arts and Science programs in the Faculty of Medicine. This is critical as we introduce the new specialist programs in Human Biology, the Life Sciences Major and the specialist programs in Basic Medical Science. The request for special consideration reflects the extra-Faculty nature of these programs, and was discussed with the Deputy Provost when these joint programs were re-tooled.

The need to expand our Development Office is outlined above. Previously the Chief Development Officer has flowed funds from endowment income 'holdbacks' to support the Faculty's Development Office. These funds are now accessed through the academic planning process. Given the proliferation of granting opportunities that require matching funds, targeted benefactions and our ambitious fundraising goals, there is an immediate need to increase our development capacity.

Departmental Planning

The academic plan concludes with a one-page profile of each department, highlighting the key research priorities, planned innovations and changes in academic programming and key challenges of this next planning cycle. Detailed departmental plans are appended separately. All the departmental plans have been aligned with the Faculty and University planning principles. We believe the departmental reviews show that the Faculty of Medicine is already nationally pre-eminent and internationally competitive in health education and research; their plans for the next academic cycle underscore the Faculty's potential to become a global leader. With the Provost's support of our APF requests, continued collaboration with our teaching hospital partners and further success in obtaining research awards through existing and new granting opportunities, we envision a future of unparalleled achievement by all of our departments.

Section 1: Strategic Plan

1.1 Introduction

The Faculty of Medicine at the University of Toronto is Canada's preeminent School of Medicine and one of the leading Faculties in the world. It ranks second worldwide to Harvard Medical School in peer review publications, and places among the top North American schools in attracting research funding. Over 4,700 faculty members span the University campus and the eight fully affiliated teaching hospitals, Toronto Public Health, and a number of partially affiliated hospitals and community health organizations. The Faculty's education and research programs serve more than 4,000 students in undergraduate and graduate programs and postgraduate clinical training. In student numbers and budget, the Faculty is the second largest division of the University, following Arts & Science.

The Faculty is entering a new phase of challenge and opportunity as it charts its directions for the next four years and beyond. The University and all of its divisions, including the Faculty of Medicine, have weathered a series of cumulative budget cuts from 1994 to 2000 resulting from two deep withdrawals of public funding in 1994 and 1996. The Faculty has emerged strong and enterprising with faculty, students and programs recognized nationally and internationally for their excellence. There have been many achievements during this period, including:

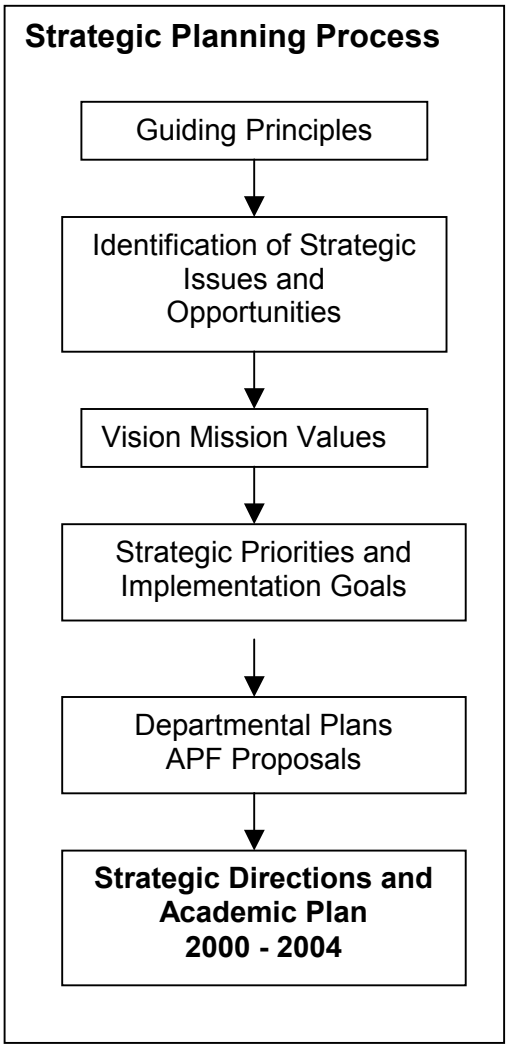
- Development of five multidisciplinary research platforms, enhancing the Faculty's success in attracting external funding, including, most recently, the announcement of the R. Samuel McLaughlin Centre;
- Growth in collaborative, inter-departmental and inter-Faculty programs, i.e., initiation of academic programs in Molecular Medicine and Proteomics and Bioinformatics, and the creation of the Joint Centre for Bioethics;
- Strengthened relationships between the Faculty and the affiliated teaching hospitals and research institutes;
- Establishment of Academies associated with three teaching hospital sites, providing an academic "home" for undergraduate medical students and fostering interprofessional education across the health sciences;
- Commitment to research in medical and health education with the establishment of the new Centre for Research in Education; and
- Faculty and departmental organizational restructuring including several departmental mergers.

After nearly a decade of restructuring and downsizing within both the University and the teaching hospitals, which are its key partners, the Faculty is well positioned to plan its future. There are opportunities to leverage new and expanding sources of external funding, rebuild in areas that have been 'cut too thin', and challenge the boundaries of health research, creating new knowledge from "genes to populations" and from "molecules to communities".

In June 1999, Dr. Arnie Aberman completed his seven-year term as Dean of the Faculty of Medicine, and Dr. David Naylor assumed this position in August 1999. The Faculty accordingly began its planning process under new leadership in the Dean's position, with close attention to the University's vision and key priorities.

Raising Our Sights: The Next Cycle of White Paper Planning Key Priorities for 2000 – 2004 articulates the University's planning priorities and divisional requirements for the current planning cycle. Academic planning at the University of Toronto, guided by the *White Paper*[1] of 1994, places emphasis on three key priorities – renewing our faculty, enhancing the quality of the educational experience of our students, and improving the structure and content of our academic programs. The University's priorities and corresponding objectives have been used as the overarching planning framework for the Faculty's current planning process.

1.2 Strategic Planning Process



In the fall of 1999, the Faculty initiated its strategic planning process. A cross section of faculty was called together to "*Plan the Plan",* making recommendations for the key elements and timelines of the project. The planning process benefited from the ongoing cycle of external departmental and program reviews within the Faculty. Professional programs in undergraduate medicine, postgraduate medicine, Physical Therapy, Occupational Therapy, Speech-Language Pathology, Radiation Science, and Health Administration undergo accreditation reviews by their respective professional bodies. All graduate programs receive regular review through the Ontario Council on Graduate Studies (OCGS). Continuing Education is also an accredited program. The Faculty requires an extensive external review of each Department prior to the end of each term of the Chair, i.e., every five years. In addition, as a routine process at the end of a Dean's term, there is an external review of the entire Faculty by the Provost. The Provostial review for the Faculty of Medicine was conducted early in 1999.[2]

The Faculty Strategic Planning Process was fully engaged in December 1999 with the development of the Faculty **Guiding Principles**, a guide for deliberations throughout the planning process. An assessment of the internal environment was completed through a departmental and sectoral review process. Departmental External Reviews and individual statements prepared by all

[1] *Planning for 2000: a Provostial White Paper on University Objectives and Strategies,* University of Toronto, February 1994.
[2] *Report of the Provost's Committee to Review the Faculty of Medicine, March 1999.*

departments were considered during the *Review of Reviews* phase. This included a Sector by Sector review of **strategic issues and opportunities** within each of the four sectors in the Faculty. The *Review of Reviews* process, building on the extensive external assessment process, met the Provost's requirements for self-study outlined for divisional planning in *Raising Our Sights.*

A Strategic Planning Committee[3], made up of representatives from across the Faculty was established to guide the revision of the Faculty **Vision, Mission, and Values**, and the development of **the strategic priorities** and **implementation goals**. A Faculty Retreat[4] was held in March 2000, with participation of over 100 faculty members, students and representatives of affiliated organizations. The retreat provided broad consultation and feedback on the key elements of the emerging strategic plan.

The next stage of the process engaged the Departments a second time. Each Department developed individual **departmental plans** that ultimately formed the basis of the **Strategic Directions and Academic Plan**. Departments also participated in the call for Letters of Intent for **proposals to the Academic Priorities Fund (APF)**. The Faculty planning for its APF submission to the Provost included strenuous efforts to match the scope and timing of the requests to the budget reallocation levy. The outcome of this process is included in the Summary of Requests to the Academic Priorities Fund (Section 3). The Dean, Vice Dean, and Associate Deans contributed extensively to the Academic Plan, providing an overview of key strategic issues, priority goals and actions for their portfolios. The **Strategic Directions and Academic Plan** was reviewed through the Dean's Executive and All Chairs Committee and will be presented to the Faculty Council in September 2000.

Considerable effort went into ensuring that the strategic plan and final Strategic Directions and Academic Plan were comprehensive and inclusive of all areas of the Faculty of Medicine. Faculty, students, alumni, and representatives of other Faculties and affiliated organizations participated in the extensive deliberations throughout the process. Consultation was broad through committees and task forces, the Faculty retreat, and relevant communications vehicles (eg., Med E-Mail and medicine.plan - the e-mail address created specifically for the planning process). We believe that the breadth of involvement and level of discussion and review has led to a plan that genuinely reflects the aspirations and priorities of the Faculty.

[3] The membership of the Strategic Planning Committee is outlined in Appendix I.
[4] The Faculty Retreat participants are identified in Appendix II.

1.3 Faculty of Medicine

The Faculty of Medicine is much more than a medical school as it comprises departments of basic science, community health, and rehabilitation, in addition to clinical science. The Faculty is also responsible for teaching students in other Health Science Faculties and in the Faculty of Arts and Science.

The Faculty[5] exists on many sites. It is the nucleus of the Toronto academic health science complex, which includes the University campus and the eight fully affiliated teaching hospitals, and linkages to 12 partially affiliated hospitals, Toronto Public Health, and numerous community agencies. The Faculty's education and research enterprise extends across the full academic health science complex.

Faculty Facts

Number of Departments (Cognate)

Basic Sciences	10
Clinical Sciences	12
Community Health	2
Rehabilitation Sciences	3
Centres, Divisions, Units	19

Fully Affiliated Teaching Hospitals

Baycrest Centre for Geriatric Care
Centre for Addiction and Mental Health
Hospital for Sick Children
Mount Sinai Hospital
St. Michael's Hospital
Sunnybrook and Women's College Health Sciences Centre
Toronto Rehabilitation Institute
University Health Network

Faculty (99/00)

Total Academic Faculty	4,790
Faculty Full -Time	1,812
Tenured/ Tenure Stream	206
% Female	36%

The faculty members represent one of the largest pools of intellectual and academic talent in North America. Over 4,700 academic faculty span the University campus and affiliated hospitals, and community agencies. Approximately 1,800 are engaged full-time in academic activities (designated faculty full-time), including 206 tenured/ tenure stream appointments. The remaining faculty contribute in a part-time capacity to the academic enterprise. Of the faculty, only a small number are paid entirely by the University. While many faculty receive some stipendiary income from the University, the majority are remunerated primarily through the affiliated hospitals, clinical practice plans, community agencies, or career awards.

The Faculty offers an extensive range of educational programs within its undergraduate, graduate, postgraduate clinical training, and continuing education mandate. These educational programs undergo continual development and improvement, examples of which include:

- Successful transition to small group teaching and problem-based learning in the professional programs;
- Introduction of second-entry formats for undergraduate physical therapy and occupational therapy programs;

[5] The term 'Faculty' (capitalized) refers to the Division of the University, while the term 'faculty' (not capitilized) refers to the academic members of the division.

- Introduction of new programs: second-entry B.Sc. program in Radiation Sciences, jointly offered with the Michener Institute, and PhD program in Speech-Language Pathology;
- Increasing emphasis on alternative teaching/learning formats, e.g., web-based methods;
- Growing success of the Clinical Investigator Program, receiving approval of the Royal College of Physicians and Surgeons of Canada;
- Increasing enrolment in the MD/PhD program; and,
- Establishment of graduate specialist programs, collaborative programs and inter-departmental programs in many areas.

The Faculty is recognized internationally for its research excellence and is among the top schools in North America in attracting research funding. The large and growing number of post-doctoral fellows and clinical research fellows is a tribute to the strength of the Faculty's academic enterprise. The Faculty's extensive research endeavours support five major platforms of inquiry:

- Molecular Health and Applied Genomics
- Models and Mechanisms of Human Disease
- Improvement in Health and Function
- Health Information Technology and Knowledge Transfer
- Comprehensive Program in Imaging

The Faculty continues to benefit from philanthropic support. There are 70.5 endowed chairs currently in place. Moreover, the Faculty has received generous support from benefactors to establish various professorships, graduate student awards, research trust funds, and a range of scholarships for students in professional programs.

The Faculty has a solid financial record that has been seriously challenged in recent years. Since 1996, the Faculty has experienced a 5.6% net reduction in operating budget to a total of $52.9M in 1999/00.

Faculty Facts

Students (1999/00)

Medical Students	697
Occupational Therapy	126
Physical Therapy	189
Radiation Sciences	97
Postgraduate Clinical Trainees	1,655
Postgrad Clinical Visa Trainees	510
Masters – MHSc	255
MSc	760
PhD	725
Continuing Education Registrants (99/00)	5,852

Graduate Degrees awarded 1999

MHSc	109
MSc	202
PhD	101

Research 1998/99

Total Research Funding	$232.9M
Campus-Based	$55.4M
Combined Hospital Research Institutes	$177.5M

Number of Awards 4,551

(incl. research grants, contracts and personnel awards)

Endowed Chairs

University-based	24.5
Hospital-based	46

Total Administrative Staff* 483

(1999/00)

Total Net Operating Budget **$**52.9 million

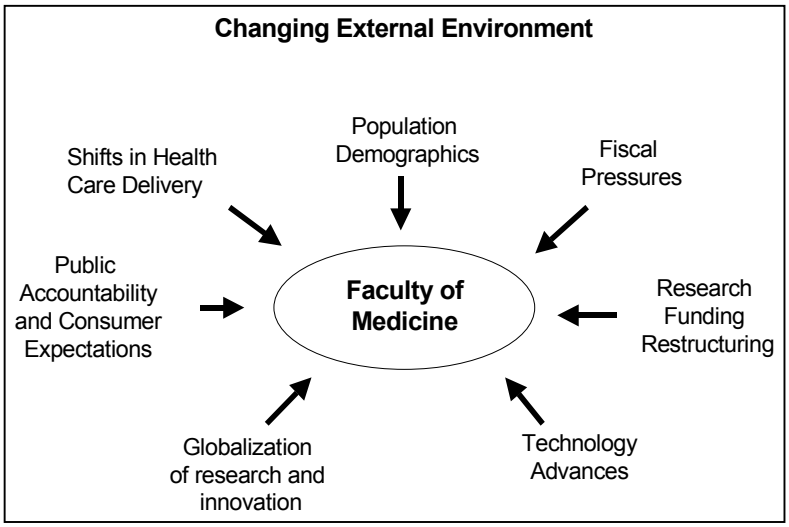
(1999/00)

* Effective January 2000 the Administrative staff count includes staff formally categorized as 'casual' who were not previously included in staff counts.

1.4 Changing External Environment

As the Faculty considers its directions for the next four years, it is sensitive to a number of critical influences in the external environment that present both challenges and opportunities to its academic enterprise.

- ***Health care delivery*** continues to undergo significant change: continuing emphasis on prevention and health promotion; a shifting hospital landscape resulting from consolidations and restructuring; further transition to providing care in the community setting; and, reform in mental health, long-term care and primary care sectors. The Faculty has modified its educational programs and established relationships with community-based providers and agencies to ensure student exposure to community practice settings and emerging health care delivery environments and priorities.



- Shifting ***population demographics*** will challenge all Ontario Universities over the next decade. Changes in the Ontario high school curriculum will yield a temporary large increase in the number of students graduating from high-school – the "double cohort"- which is expected to spread over the years 2002-2004. This is in addition to the steadily increasing size of the university-age population resulting from the "echo" of the baby boom. These changes will impact the Faculty at both the graduate level and in its undergraduate Arts and Science teaching.

- Continuing ***fiscal pressures*** associated with reduced public funding will increase the importance of private fund-raising. The Faculty must improve its ability to attract private donations on a continuous basis, directing those funds to priorities such as student financial support and capital projects.

- Increased ***research funding*** is expected over the next few years with the establishment of the Canadian Institutes of Health Research (CIHR). With double the funding of the former Medical Research Council, CIHR will open up numerous opportunities for generous funding of innovative research. In addition to CIHR other research funding programs offer exciting opportunities for the Faculty. New programs include the Canada Research Chairs and Genome Canada. Continuing infrastructure programs include Canada Foundation for Innovation, the Ontario Research and Development Challenge Fund, and the Ontario Innovation Trust.

- ***Technological advances*** are changing the face of communication and education at a speed unparalleled in the experience of most educators. There are increasing opportunities and expectations for multimedia- and web-based modes of instructions, where the quality, convenience, and range of educational programs can be enhanced.

- ***Technology transfer*** is now vital to augment the impact of university research and to raise funds. As "wealth creators", universities need to build capacity in effectively managing and commercializing the intellectual property derived from the research of faculty members and students. The Faculty must develop its partnerships and links with industry, while protecting the autonomy of its scientists.

- Increasing ***globalization of industry*** is challenging Canada's research and innovation performance. Universities play a vital role in supplying knowledge, knowledge workers and innovative technologies. The Faculty's researchers must continually find opportunities to form partnerships across disciplines and sectors, between institutions, across the country, and throughout the world to secure their position in an internationally competitive environment.

- ***Public accountability*** is expected, and ***consumer expectations*** are high. Organizations must monitor and account for their performance, while being more responsive to expectations and demands of a range of external stakeholders. The Faculty recognizes the need to measure its performance against national and international benchmarks. It must also continually improve its teaching and research enterprise to meet student and industry expectations.

1.5 Changing Internal Environment

The Strategic Planning Process examined the internal environment of the Faculty through the "Review of Reviews" Process. This was completed within each of the four sectors[6]:

- Basic Sciences
- Clinical Sciences
- Community Health
- Rehabilitation Sciences

The findings of each of the sectoral reviews were compiled to form a *Synthesis of Strategic Issues and Opportunities(Appendix III)*. Detailed summaries of each Sector were also completed and can be found in Appendix IV.

Overall, the internal environment assessment revealed significant strength across the Faculty, as well as a number of areas that would benefit from focused attention.

- The academic ***strength and depth of the Faculty*** is impressive. The Faculty is increasingly diverse, recruits high calibre faculty from around the world, and fosters interdisciplinary and inter-faculty scholarship. Areas requiring attention include: definition and recognition of the voluntary contributions of status-only faculty,

[6] A listing of the departments in each sector is included in Section 4.

infrastructure support for new faculty, and a renewed emphasis on faculty development in light of new pedagogical modalities and expectations.

- The Faculty attracts ***high calibre students*** nationally and internationally, and continues to improve its strategies to target and recruit top students. With higher tuition fees, students expect more from our Faculty. A number of student supports are in place. However, improved support is needed in selected areas, especially housing and, to some extent, financial and personal counselling. The Faculty has introduced instructional technology in several areas but must meet student expectations and seize new opportunities in instructional media.

- The Faculty continues to introduce ***new educational programs,*** many on an inter-departmental and collaborative basis. New programs are aligned with the research-intensive goal of the University and Faculty. Many additional opportunities exist to develop new programs in response to industry and consumer demand. The Faculty could further strengthen its role in continuing education and distance education.

- An abundance of opportunities exist in ***biomedical, clinical, population health and health services research***. Increasing inter-departmental and inter-faculty collaboration is critical to address the full spectrum of health research, maximize investment in resources and infrastructure, and compete successfully for external funding. The Faculty and hospital research institutes are in an excellent position to access growing research resources in Ontario, Canada and further afield.

  One of the most exciting initiatives underway in the University is the creation of the Centre for Cellular and Biomolecular Research (CCBR). It brings together biological, physical, computer and engineering scientists in five programs that span key areas of biomedical research. The CCBR will be a major driving force in biological investigation nationally and internationally for the next 50 years.

- The Faculty and its partner teaching hospitals will be the nucleus of the new ***R. Samuel McLaughlin Centre***, created to translate the basic biomedical sciences of genetics and molecular biology into new strategies for disease diagnosis, treatment and prevention. The *McLaughlin Centre* provides an important vehicle for advancing the Faculty's priorities in research, recruitment of outstanding scholars, and integrative medical and health science education.

- The Faculty has ***strong relationships*** with the eight fully affiliated teaching hospitals. Greater synergies are expected through coordinated planning across the Academic Health Science Complex in recruiting top students and faculty, establishing research priorities, optimising and leveraging resources and fund-raising and development. The Faculty has relationships with numerous other organizations and agencies. Its role in international health could be greatly enhanced[7].

- The Faculty has a ***balanced budget***. However, base budget reductions have significantly strained the flexibility of many Departments and the Dean's Office to address emerging issues and plans. Philanthropic support (benefactions,

[7] See APF Proposal for Centre for International Health, Section 3

endowments, bursaries, scholarships) must be enhanced and directed to student financial support and capital priorities. More secure funding is required to support academic activities and operations, e.g., graduate student stipends, teaching assistant (TA) positions, and start-up packages for new faculty.

- The Faculty is facing critical and ***urgent space needs*** across all sectors. In many areas, space and infrastructure are barriers to maintaining and expanding the academic enterprise. The Centre for Cellular and Biomolecular Research will be housed in a new structure to be built over the next four years. This capital initiative will address some of the laboratory space issues that are currently being experienced. The Centre for Improvement in Health and Function, proposed by the Community Health and Rehabilitation sectors in an application to CFI, is to be sited in a new building, which should provide the space required for the Community Heath and the Rehabilitation Sectors. However, in the interim, there is an acute shortage of both "wet" and "dry" laboratory space.

- In all areas, ***administrative staff*** have been significantly strained through a combination of lay-offs in the last budget cycle and decentralization of administrative functions. In some areas, additional staff are urgently needed. In others, there may be opportunities to consolidate or share functions, with "recentralization" at a multi-departmental or divisional level. There are specific needs for computer technical support and web page development support.

- During the 1990's, the Faculty closed down some of its in-house computer-based ***information systems***, opting to use the University's new AMS systems where possible. However, the undergraduate medicine and graduate programs have data management needs that are not adequately addressed by the University's current systems. The Faculty continues to develop information technologies for educational computing, research computing, distance learning, clinical research, administrative systems and digital library services.

The Faculty is proud of its accomplishments during recent years, particularly its ability to strengthen many key areas of its academic mission during a period of severe fiscal constraint. With the refocusing of several academic programs and organizational restructuring in selected areas, the Faculty is well prepared to advance its academic enterprise at the start of the 21st Century.

1.6 Strengths, Weaknesses, Opportunities, and Challenges

The review of both the Faculty's external environment and the internal assessment conducted through the *Review of Reviews* and the *Strategic Planning Committee* provided the Faculty with a clearer perspective of its strengths, weaknesses, opportunities and challenges, as it developed its new strategic plan.

Strengths

- Reputation as a research-intensive Faculty
- Breadth, depth and diversity of academic achievement and programs
- Relationship with affiliated teaching hospitals and research institutes
- Extraordinary group of faculty members
- Base in a strong University
- Ability to attract research funding
- High calibre of students
- Quality of education programs from undergraduate through to continuing education
- External reviewer validation of performance of most programs as leaders in Canada and North America.
- Many programs ranked as world class.
- Strong Faculty and departmental leadership
- Demonstrated collaboration across disciplines, departments and faculties

Weaknesses

- Limited profiling of achievements nationally and internationally
- Deficiency in physical space, both the amount and configuration of space for contemporary and future academic activities
- Limited fiscal flexibility due to continuing and cumulative base budget cuts
- Insufficient infrastructure to support growth in research and education
- Slow adoption of emerging electronic and instructional technologies
- Lack of consistent student support across programs (e.g., financial, housing, instructional media, learning environment)
- Insufficient ethno-cultural diversity and lack of gender balance in the faculty population

Opportunities

- Growth in health sciences associated with demographics, biotechnology, and advanced communications technologies
- Positioned to access increased funding across the full spectrum of health research
- Globalization presents opportunity to expand international health focus
- Technological advances in e-health and e-education
- Commercialization and technology transfer can be enhanced
- Major funding opportunities and programs (CIHR, CCBR, McLaughlin Centre, Canada Research Chairs, etc..)

Challenges

- Declining proportion of funding from University; increasing proportion from hospitals, practice plans and research institutes
- Recruiting leaders in an environment of rapid change and limited base budgets
- Competing for highest calibre students and faculty
- Managing demand for academic programs stimulated by environment, demographics and double cohort year
- Fostering interdisciplinary and collaborative endeavours in an environment of departmental structures and individual-focused incentives
- Competition for philanthropic support
- Continuous need to renew investments in infrastructure to match the pace of change and expansion
- Increasing clinical services pressure in clinical and rehabilitation sectors threaten academic mission
- Government control and restrictions on size of professional education programs

With these insights into its strengths, weaknesses, opportunities and challenges, the Faculty has set demanding, yet realistic goals to achieve its preferred future. The Strategic Planning Committee specifically undertook to:

- Revise the Faculty Vision, Mission, and Values
- Identify Strategic Priorities
- Develop Implementation Goals, including proposed actions, and expected outcomes and measures.

1.7 Vision, Mission, and Values

The following statements were developed through a broad, participative process.

Vision

International leadership in health research and education.

Mission

We prepare future health leaders, contribute to our communities, and improve the health of individuals and populations, through the discovery, application and communication of knowledge.

Values

- **Integrity** in all of our endeavours.
- Commitment to **innovation** and **excellence**.
- **Life-long learning** and **critical inquiry**.
- **Diversity** and **social justice**.
- **Partnership** with our academic health science centres.
- Multi-professional, interdisciplinary, and community **collaboration**.
- A **supportive** and **collegial** environment.
- **Accountability** to our community of scholars and to the public.
- **Responsiveness** to our local, national and international communities.

1.8 Guiding Principles

Early in the planning process, the following guiding principles were established in consultation with the All Chairs Committee:

1. The creation of knowledge to improve human health underpins everything the Faculty does. The Faculty's activities will embrace and integrate the full spectrum of health research, from molecules to populations and from cells to communities.

2. The Faculty's core educational mission is ultimately expressed through its graduate, professional, postgraduate programs and continuing education programs. The Faculty promotes life long learning for its community of learners. Educational activities outside of this core mission must be related to its achievement.

3. Faculty leaders should seek at all times to build disciplinary linkages and programmatic partnerships that will strengthen our academic mission.

4. The Faculty's programs must not only be nationally preeminent and internationally competitive; they should, as a corollary, establish our presence in global health research and education. They must attract graduate students, clinical and research trainees and visiting faculty around the world.

5. In developing their plans, all departments and programs are expected not only to raise their sights but also to sharpen their focus by setting priorities and concentrating efforts on a limited number of strategic directions.

6. The Faculty's academic staff and student population do not yet reflect the gender balance or ethno-cultural diversity of our surrounding communities. Recruitment plans and processes should be sensitive to these imbalances.

7. The Faculty's strategies for enhancing the student experience should include comprehensive student support, initiatives to improve the quality of instruction and the learning environment and plans to measure educational outcomes.

8. All departments and programs already seek external support from a multiplicity of sources. As part of the planning process, Faculty leaders are expected to delineate how they will improve their level of support from sources such as peer-reviewed funding agencies, foundations, government infrastructure and related programs, positions funded through the new Canada Research Chairs program and industrial contracts. As appropriate, Faculty leaders are also asked to develop and bring forward plans for fund-raising through private benefactions.

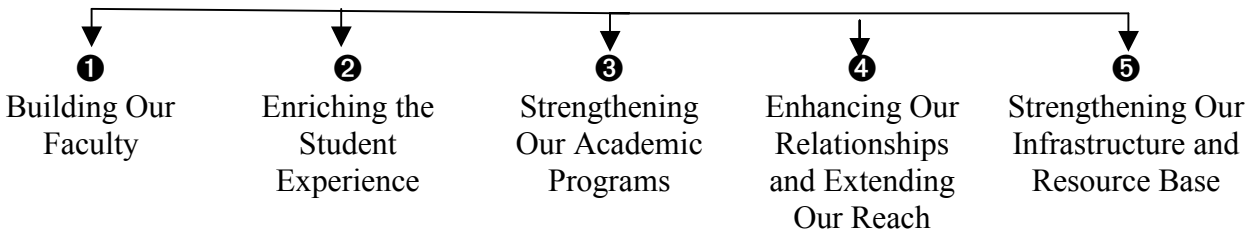
9. In developing their plans, *and before seeking support from the APF*, Faculty leaders are also expected to consider a broad range of internal strategies, including, but not limited to:
   - reallocation within the department by elimination of weaker programs for investment in stronger, higher priority areas;
   - use of positions vacated by senior faculty as an opportunity to revisit the optimal staffing complement;
   - consideration of strategic alliances or mergers with related programs, including affiliated teaching hospitals, research institutions, and other community partners;
   - restructuring, where feasible, the complement of academic and support staff.

10. Non-academic staff have been the major targets of budget reductions in previous planning cycles. At this time, Faculty leaders are encouraged to reassess and, where appropriate, redress the balance of administrative, support and academic staff.

1.9 Strategic Priorities and Implementation Goals

With agreement on the Vision, Mission, and Values and after identifying key opportunities, the Strategic Planning Committee articulated five Strategic Priorities and developed Implementation Goals for each. The first three strategic priorities align directly to the University key priorities. The remaining two strategic priorities reflect the unique imperatives of the Faculty at this time. The strategic priorities and goals were further refined following extensive discussion at the Faculty Retreat in March, 2000.[8]

Strategic Priorities



Implementation Goals

The Faculty's activities over the next four years and beyond will be focused to achieving the following goals.

Building Our Faculty

1.1 Our Faculty comprises leading scholars from Canada and around the world. New recruits are supported with appropriate start-up funding, competitive compensation and a superior working environment. Leading scholars in our Faculty are retained through ongoing support for their academic endeavours.

1.2 Academic appointments reflect the needs and standards of the Faculty as well as commitments and contributions of staff. Appointments have defined expectations and benefits that are consistent across the Faculty.

1.3 Composition of faculty and senior leadership reflects the diversity of our society.

1.4 Comprehensive faculty development programs are readily available, widely accessed, and targeted to Faculty goals.

[8] *See Appendix V for a complete presentation of implementation goals, proposed actions, and expected outcomes and measures.*

Enriching the Student Experience

2.1 The Faculty recruits the most promising students and trainees to its undergraduate, graduate, postgraduate and postdoctoral programs. The diversity of the student body is reflective of our society.

2.2 All full time graduate students are provided funding support at an established minimum level. All PhD students are funded at levels competitive with peer institutions. A minimum level of funding for post-doctoral fellows (PDFs) is established and is competitive with peer institutions.

2.3 Counselling services (career, financial and personal) and mentorship are readily available to all students, trainees and PDFs. Students, trainees and PDFs experience a supportive physical, psychological and social environment.

2.4 Instructional media are in place to complement and support traditional teaching methods. The Faculty is a leader in introducing instructional technology that improves the quality of instruction, improves access for students, and meets the expectations of students.

Strengthening our Academic Programs

3.1 All professional, graduate and postgraduate programs emphasize the preparation of academic leaders

3.2 New programs and growth in existing programs build on the research-intensive focus of the Faculty.

3.3 The Faculty actively promotes and supports multi-, inter- and trans-disciplinary education[9] and research, while sustaining traditional lines of departmental accountability.

3.4 Doctoral graduate programs are aligned with existing and new priority research programs.

3.5 Undergraduate Arts and Science teaching is aligned with existing and growing strengths, promoting strategic enrolment expansion within the undergraduate specialist streams, and supplying the Faculty's graduate and professional programs.

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[9] *Rosenfield PL. The potential of transdisciplinary research for sustaining and extending linkages between the health and social sciences. Soc Sci Med. 1992; 35:1343-57.* ***Multidisciplinary****: Researchers work in parallel or sequentially from disciplinary-specific base to address common problems.* ***Interdisciplinary****: Researchers work jointly but still from disciplinary-specific basis to address common problem.* ***Transdisciplinary****: Researchers work jointly using shared conceptual framework drawing together disciplinary-specific theories, concepts and approaches to address common problems*

Strengthening our Academic Programs

3.6 The Faculty's CE program is strongly evidence-based, grounded in translating research into practice, and contributory to the scholarly base of CE.

3.7 Distance Education programs are offered in select areas.

3.8 Faculty are supported in efforts to attract research funding and to produce significant research.

3.9 The Faculty, fully affiliated teaching hospitals, and research institutes have a coordinated plan for research to optimize joint efforts for recruitment and proposal development, share infrastructure and address new opportunities.

3.10 The Faculty and fully affiliated hospitals have a joint strategy to address Canada Research Chairs.

Enhancing Our Relationships and Extending Our Reach

4.1 The Faculty of Medicine exists on numerous sites. The Faculty is an integral part of the Toronto Academic Health Science Complex. Academic activities and policies of the various institutions are harmonized for maximum synergy and complementarity.

4.2 The Faculty has relationships with a number of organizations on campus, locally, provincially, nationally and internationally, public and private, to advance its missions in education and research.

4.3 The Faculty maintains strong connections with its graduates for continuing education, measuring downstream outputs of its programs, and supporting development activities.

4.4 The Faculty has established a prominent role in health research and education on a global basis.

Strengthening Our Infrastructure and Resource Base

5.1 The Faculty has a comprehensive development strategy that successfully attracts significant ongoing funding.

5.2 The Faculty has adequately addressed short-term space priorities, and is actively pursuing its long-term space plan.

5.3 The Faculty is well supported by administrative personnel and infrastructure resources.

5.4 The Faculty continually upgrades and invests in information technology.

1.10 Proposed Next Steps

The framework that has been established through our strategic planning process will be used as a guide for the Faculty over the next four years and beyond. Progress against targeted goals and actions will be monitored on an annual basis. Pace and course of action will be adjusted to reflect changes in the internal and external environment.

Detailed actions and expected outcomes for each of the implementation goals are included in Appendix V. As part of the strategic planning process, every department took into consideration the new vision, mission, strategic priorities and implementation goals when developing its individual departmental plans. It is evident from the plans that are profiled in Section 4, and included in their entirety in Appendix XI, that the Chairs have used this planning framework to determine how their efforts can best be focused to achieve the Faculty-wide strategic priorities and implementation goals outlined in the previous section. As well, the proposals that are being submitted to the Academic Priorities Fund,[10] both individually and collectively, will move the Faculty and University forward in achieving their shared mission, vision, and goals.

A number of initiatives, task forces and committees currently underway at either the Faculty or University level will advance the Faculty's strategic priorities and implementation goals. Recommendations arising from these fora will be considered as the Faculty develops its operational plans for the next year.

Notwithstanding the activity ongoing or planned on a variety of fronts, there are a number of pivotal actions that the Faculty must undertake during the first year of this new planning cycle.

Priorities for Action by The Faculty of Medicine - Year 1

Building our Faculty

- To advance goal 1.2, strike a Task Force on Clinical Academic Appointments to examine appointment categories and associated benefits, requirements, responsibilities and criteria for review. The Task Force should begin in Fall 2000 and would be expected to report by June 2001.
- Begin planning for a comprehensive faculty development program

[10] See Summary of APF Requests, Section 3.

Priorities for Action – Year 1, continued

Enriching the Student Experience

- Follow up on the Orchard Task Force on Graduate Student Support and implement recommendations as applicable to the Faculty.
- Develop strategies to implement full student funding through internal and external sources.
- Develop strategies to address student housing and counselling requirements, including financial, academic and personal counselling.
- Follow up on recommendations from the Faculty Task Force on E-based education and E-communication, including support of APF request for Educational Computing and Teaching Space.

Strengthening our Academic Programs

- Enhance collaborative planning with teaching hospitals and research institutes, including principles and process for allocating Canada Research Chairs.
- Develop criteria and guidelines for the development of new programs and increasing enrolment in current programs, linking to the research mission of the Faculty.
- Develop clear principles, targets and mechanisms for providing both continuing education and distance education.
- Enhance all of our "learning environments".

Enhancing our Relationships and Extending our Reach

- Continue planning with TAHSC. Develop better mechanisms for joint planning and governance.
- Complete research "harmonization".
- Strengthen relationships with community and social services agencies as teaching sites and research partners.
- Support establishment and start up of Centre for International Health.
- Establish Task Force on Strategic Partnerships and Relationships to develop criteria, goals and guidelines for assessing and developing Faculty relationships. Begin by winter 2001.
- Enhance communications and outreach to alumni.
- Optimize relationships with provincial and other external funders.

Strengthening our Infrastructure and Resource Base

- Address short-term and long-term space requirements.
- Retain key staff for Development Office; develop fund-raising and marketing strategy. Undertake branding study.
- Enhance Faculty communications and marketing strategies, including web-site development.

Section 2: Academic Plan

2.1 Introduction

The academic plan that follows has been developed within the framework of *Raising our Sights* and in keeping with the requirements for divisional planning. The plan has received its inspiration and focus from the new vision, strategic priorities and implementation goals presented earlier in this document.

The following section includes an overview of each of the academic programs within the Faculty of Medicine: Research, Undergraduate Medical Education, Occupational Therapy, Physical Therapy, Radiation Sciences, Postgraduate Medical Education, Graduate Studies, and Continuing Education. These overviews provide insights as to how the vision and strategic priorities of the Faculty will be achieved, with a particular emphasis on *strengthening our academic programs* and *enriching our student educational experience*. A brief summary and highlights of each department and its key priorities are included in Section 4 of this report. Complete departmental plans are included in Appendix XI.

The academic plan includes further detail as to how each of the other strategic priorities of the Faculty can be achieved. For *building our faculty*, we include complement planning projections and recruitment strategies. For *enriching our student experience,* this plan includes innovations in program content and delivery and student support. For *enhancing our relationships and extending our reach*, we consider future plans for collaboration and partnership drawn from the multitude of alliances identified in the individual department plans. Finally, for *strengthening our infrastructure and resource base,* we include our development plans, space requirements, changes in administrative support and investments in information technology. We also include the four year budget plan, and a detailed description of where the Faculty will be taking its 1.5% per annum reallocation levy for each of the next four years.

2.2 Research Enterprise in the Faculty

The University of Toronto's vision is to be among the world's leading research intensive universities. The Faculty of Medicine has already achieved that position in the realm of health science faculties. Together with the affiliated hospitals, and after adjustments for Canadian funding policies, its research enterprise measured by competitive research funding ranks among the top four, after Harvard, UCSF, and UCLA, and similar to Johns Hopkins. Its research income, accounting for more than 20 percent of the national total received by the 16 faculties of medicine in Canada, is by far the largest in the country. In 1998-1999[11], its total research funding was approximately $ 233 million from external sources, compared to approximately $ 120 million ten years ago. A broad and inclusive continuum of research flourishes in the Faculty. It begins with the molecular and genetic dissection of biological processes, and extends to the development of population health policy. In-between it includes the diagnosis, treatment and the prevention of diseases, the improvement of function and the prevention of disability, and health promotion**.**

Total Research Funding - 1986 - 1998

The Guiding Principles of Research Planning in the Faculty

During the past seven years, the Faculty has identified and developed thematic programs crossing disciplinary boundaries. Excellence being the overriding consideration, the development of these inter- and multi- disciplinary programs has also been grounded on the following criteria established in 1992:

- The program is in tune with major opportunities and challenges in health science research, and has the potential to attain international competitiveness.
- The program is multidisciplinary in perspective, and as much as possible encompasses the disciplines, the interests, and the objectives of the multiple-sector nature of the Faculty in research and education.

[11] Research tables illustrating the research funding by Department are included in Appendix VI.

- The program, initiated and led by faculty members with acknowledged scientific credentials, should be based on relevant research strength and foster future capacity.
- The program has the potential to attract external resources, particularly to facilitate the recruitment of new faculty.

Over the years, these criteria have served the research enterprise of Faculty well as exemplified by research programs in molecular medicine, cardiovascular physiology, neurodegenerative disease, and proteomics and bioinformatics.

The Five Research Platforms

In 1997, in response to the funding opportunity presented by the establishment of the Canadian Foundation for Innovation (CFI), the Faculty consulted with Chairs of departments, who in turn consulted widely with their campus-based and hospital-based faculty members to identify five research platforms. The five research platforms were: 1). *Proteomics and Bioinformatics,* 2). *Models and Mechanisms of Human Disease,* 3). *Promotion, Preservation, Restoration, and Adaptation of Function and Behaviour,* 4). *Information Systems in Health Care Research,* and 5). *Comprehensive Program in Imaging*.

The five research platforms formed the basis for six successful CFI institutional proposals from the Faculty:

1. Functional Genomics, Proteomics & Bioinformatics,
2. Bio-Imaging Facilities,
3. Functional Imaging Research Network,
4. Initiative in Mammalian Models of Human Disease,
5. 800 MHz Nuclear Magnetic Resonance Spectrometer, and
6. The Centre for Cellular & Biomolecular Research.

Each proposal had partnership with one or more affiliated hospitals, including University Health Network, Hospital for Sick Children, Sunnybrook and Women's College Health Sciences Centre, Baycrest Centre for Geriatric Care, Centre for Addiction and Mental Health, and Mount Sinai Hospital. Together with matched funding from the Ontario Innovation Trust, the total funding received from the two levels of government was about $100 million. The partnership with the affiliated hospitals was a clear indication of the "buy in" to these research platforms by the hospitals and their institutes.

The five original research platforms have since evolved into the following corresponding five platforms[12]:

Five Research Platforms

1. Molecular Health and Applied Genomics
This platform recognizes the emerging need to derive as much information about the function of as many genes as possible and as rapidly as possible. It will also focus on questions of protein-protein interaction, protein sub-cellular localization, protein function and the analysis of protein complexes. It encompasses the deciphering of the rules of protein folding and domain assembly, and ultimately the reconstruction of entire cellular pathways and networks. Included on the 'applied' end of this platform are investigations into the role of genes with other factors (environmental, behavioural, nutritional, psychosocial) in human health and disease, and the ethical and social issues derived from analysis of genes and their products.

2. Models and Mechanisms of Human Disease
This platform recognizes the advance in the development of in vivo animal and in vitro models that are required in an integrative approach in the study of human diseases: the development of the disease phenotypes, their prevention, and their treatment. It envisages the development and the use of animal models as transgenics and knockouts, and other models, such as isolated cells, tissue culture, and computer modelling, that are appropriate for the study of gene functions in health and disease in an integrative approach.

3. Improvement of Health and Function
This platform brings together basic and applied research from all sectors.Its primary focus is on improvement, including development and testing of new modalities of diagnosis and management of disease, approaches to promote maximum function among those who develop disease and disability, strategies for sustaining and transforming the health system, and strategies to promote health and wellness for large populations

4. Health Information Technology and Knowledge Transfer
This platform acknowledges the shaping force of health information technology on fundamental and applied research, as well as delivery of clinical care. It reflects the Faculty's commitment to developing, refining, and applying a range of information technologies, so as to generate and disseminate knowledge. This platform includes novel technologies and methodologies that integrate and support activities on all other platforms.

5. Comprehensive Program in Imaging
This platform encompasses innovative approaches to visualize molecules, cells, tissues, organs and whole body, with emphasis on relating and interpreting images obtained in the context of biological and physical function in normal and disease conditions. In addition to the application and use of current state-of-the-art technologies in imaging, the platform includes the development of advanced imaging technology.

The Faculty's five research platforms may evolve over time toward a clearer alignment with the four "themes" of CIHR. At present, however, we believe that these five platforms not only encompass all four CIHR themes, but promote integration across the themes while highlighting the technologies that may play a shaping role in the health research enterprise. The platforms are mutually reinforcing. For example, a major study of gene-environment-nutritional interactions in human health might be built on platforms 1 (Molecular Health and Applied Genomics) and 3 (Improvement of Health and Function), and be supported by platform 4 (Health Information Technology and Knowledge Transfer). We similarly expect considerable "cross-walk" between platforms 2 (Models and Mechanisms of Human Disease) and 5 (Comprehensive Program in Imaging), as imaging modalities are used to strengthen our understanding of models and mechanisms of human disease. Indeed, the Faculty's research plans presuppose and encourage collaboration among scientists whose activities are based primarily on different platforms, with a view to both "horizontal" and "vertical" integration of our research enterprise.

[12] The Five Research Platforms were revised June 2000 as part of the Strategic and Academic Planning Process.

The Future

The future of our research enterprise is what we, as a Faculty with its broadest constituency, can make of the present which is the product of the past. The principles laid down by the Faculty eight years ago serve well. As a product of the principles, the 5 research platforms have begun to transform the research scene in the Faculty, as evident from the impressive outcome of our proposals to CFI and OIT.

Of particular significance is the successful proposal to create the **Center for Cellular and Biomolecular Research (CCBR)** as a multi-Faculty, multi- and interdisciplinary research unit. Creation of CCBR is the top priority research initiative, not only of the Faculty but also of the University. With researchers from the biological sciences side by side with researchers from other disciplines such as computer science, engineering, mathematics, and chemistry, CCBR represents a new approach to biomedicine. By placing a selected group of faculty members from different academic departments for a fixed but renewable period of time in a totally research-oriented environment not unlike that of a Howard Hughes Medical Research Institute, CCBR will create a paradigm for research that truly transcends departmental structures. And by virtue of the interaction and collaboration between researchers located in the building and those in the participating departments and affiliated research institutes, CCBR will be larger than the physical structure on campus.

The creation of CCBR represents primarily the "basic" end of a continuum of health research. The community health sector and the rehabilitation science sector have submitted a proposal to CFI, modeled after CCBR, for the creation of a **Centre for Improvement of Health and Function (CIHF)** covering the more applied end of this research continuum. CIHI not only meets the "dry" research space requirments of these two sectors; it embodies a novel synergy between the rehabilitation sector with its focus on function, and the community health sector with its focus on health systems and determinants.

Using a similar approach, creating a centre that focuses on translational "genes to populations" research would complete this continuum. Our clinician/scientist faculty will be encouraged and supported in initiating such a centre through the new McLaughlin program.

While CCBR and CIHF are large-scale projects that require infrastructure support in the tens of millions of dollars, the Faculty will continue to encourage the development of research programs that meet our established principles and mesh with the 5 existing research platforms. Two broad research themes that will be pursued in the Faculty are neurosciences and gene-environment interactions in health and illness (where environment is understood to encompass the full range of environmental, occupational, behavioural, nutritional, and psychosocial factors). We elaborate on these two themes below.

First, the Faculty should make a new start to create a functional interdisciplinary research and educational program in neuroscience, building on existing strength and foci. The School of Graduate Studies terminated the Collaborative Program in Neuroscience, and no new program or structure is envisioned as its replacement. The Faculty is well positioned to initiate such a program, with its great strength in neuroscience, and broad spectrum of foci and approaches, ranging from the molecular to the cognitive and behavioural. The creation

ultimately of a University "Centre" of neuroscience, to be initiated by leaders in the Faculty, is worthy of serious consideration. Our APF proposal (see Section 3) for a Neurosciences Network is a step in this direction.

Second, through the creation of the Program in Molecular Medicine, Program in Proteomics and Bioinformatics and the CCBR, the broad question of gene regulation and gene function at the molecular and cellular level is being addressed. The rapid advances in these areas enable the Faculty to develop a program to study the complex interactions between the genetic makeup of a population or individuals and the external environment. The program would broadly involve the basic science, clinical science and community health sectors in a multidisciplinary approach that would have social and ethical dimensions, and include, for example, genotyping, sensitivity to environmental factors (medications, chemical and biological agents, etc.), health behaviour (eg., diet, physical activity, and smoking), and disease risks.

There will be other research initiatives that may be more narrowly focused than those mentioned above. Some could well fit within existing programs. Some would be more suited as group proposals for external funding. Directly or indirectly they will draw on Faculty resources.

Opportunities and Constraints

New Research Funding Opportunities

Canadian Foundation for Innovation (CFI) – *provides infrastructure support*
Ontario Innovation Trust (OIT) – *provides infrastructure support*
Ontario Research Development Challenge Fund (ORDCF) – *provides operating support*
Canada Research Chairs program (CRC) – a blend of personnel and operating support for faculty retention and recruitment
Canadian Institutes for Health Research (CIHR)
Premier Research Excellence Award (PREA) – *provides graduate student and postgraduate stipends.*

The landscape of government funding of research is changing for the better. It began in 1997 with the creation of the Canadian Foundation for Innovation (CFI) with a budget of $800 million to support infrastructure at 40% of the total project cost. CFI has received an additional $900 million from Budget 2000 of the federal government. At the provincial level, the Ontario Innovation Trust (OIT) established by the government of Ontario plays a crucial role in optimizing the competitiveness of the universities and affiliated hospitals in the province by matching the CFI awards. As mentioned above, the Faculty of Medicine has had great success in taking advantage of this new resource to create much-needed infrastructure to support its research platforms. The recent matching of The R. Samuel McLaughlin Foundation funds by OIT, is an indication of how critical this funding resource is to the Faculty and University. CFI and OIT are therefore the major source of funding for new infrastructure. Our faculty must continue to be creative and innovative to take the maximal advantage of this funding source.

The establishment of the Ontario Research Development Challenge Fund (ORDCF) by the Province of Ontario to provide operating funds complements CFI and OIT, which fund only infrastructure cost. The constraint is its requirement for one-third industrial matching funds. Nonetheless, in its short span of operation, it has demonstrated a degree of flexibility to accommodate the needs of the research community in the province. For example, it has committed to support a province-wide Ontario Genome Initiative with a proposed budget of about $45 million, much of which would be awarded to group proposals originating from the Toronto academic health science complex. It is a source of funding to develop innovative and cutting-edge research technology platforms. The Faculty has the expertise and potential to obtain funding from this source to develop a photonic and molecular imaging technology, including, for example, the development of functional protein chips.

Direct support of investigators is also changing for the better. At the provincial level, the Ontario Premier's Research Excellence Award (PREA) funds graduate student and post-doctoral stipends. At the federal level, the New Opportunity Awards from CFI provide infrastructure support to attract new faculty back to Canada.

The newly established federal Canada Research Chairs program is closely linked to CFI and deserves particular consideration. A total of 1880 Chairs will be awarded over a 5-year period. They are allocated to the three general areas of research: the health sciences, the humanities and social sciences, and the natural and engineering sciences, based on the budget of the three federal granting Councils: MRC (now CIHR), SSHRC and NSERC. Each university will receive its allocation based on its research funding (3-year rolling average) from each of the three Councils. Each Chair is awarded through a peer-review process. The University of Toronto has been allocated a total of 251 slots. Of this total, 132 are based on research funding received from MRC. Based on its shares of funding from all three Councils, the Faculty of Medicine expects an allocation of about 130 slots for which to compete. The Chairs are divided equally into Tier 1 (senior) and Tier 2 (junior) categories. For the first year (2000-2001) of the program there would be about 10 in each Tier allocated to the Faculty. This is relatively a small number at our disposal, considering the number of departments and hospitals. The program expects the University to take into consideration the contribution of its affiliated hospitals. In our case, this is significant. The program directs each University to show how its Chairs fit with an institutional research plan. It is important that the Chairs be chosen through joint planning and partnership with the affiliated hospitals. Clustering of the Chairs around multi-institutional and multi-departmental programs is mandatory.

This year, 2000, sees the transformation of MRC into the Canadian Institutes of Health Research (CIHR), a funding structure that spans the full spectrum of health research, from basic biomedical to population health. CIHR will continue the tradition of MRC to support investigator(s)-initiated and peer-reviewed research projects. It encourages research that crosses disciplinary boundaries. It will have an annual budget of more than $ 500 million, doubling that of MRC. CIHR has thus greatly improved the health research-funding environment in Canada. It opens up new funding opportunities for researchers who are not in the biomedical areas. Our faculty members will vigorously engage themselves in the competition for CIHR funding, by collaborating across disciplines.

CFI, OIT, ORDCF, PREA, Canada Research Chairs, and CIHR present a rich menu of research funds. However, except for CIHR and the Canada Research Chairs, the others require matching funds from either institutional or non-government sources. The Faculty is constrained by a lack of resources to provide matching or start-up funds for new faculty. The Faculty will pursue several avenues in garnering matching funds. Possible sources include University support, philanthropic support, and partnership with industry and non-government funding agencies.

Lack of physical space prevents us from realizing our full potential to take advantage of the funds available. Like the rest of the University, the Faculty on campus is faced with a physical infrastructure that is deteriorating and not designed for today's science. The Faculty has entered a renewal phase accompanied by growing space needs resulting from department restructuring, new academic priorities and programs, the success of our new recruits, growth in numbers of graduate students and postdoctoral fellows, and endowed Chairs. Currently, the Faculty has a total of about 259,000 sq.ft. of space assigned as research space on campus. There is a serious shortage of space for wet and dry laboratories, and offices. Based on a survey of all departments this spring, approximately 40,000 sq.ft. of additional space will be needed in the next two years to accommodate growth and new recruitment on campus. This is expected to double in 5 years. A further discussion of space issues and planning is found in Section 2.8.

Priority Goals and Actions:

1. Identify research clusters for the allocation of the Canada Research Chairs.

2. Resolve the immediate (next one to two years) wet laboratory space need and dry research space needs.

3. Increase the internal funding resources for start-up, and meet matching requirements of external agencies (including the match for Canada Research Chairs).

4. Encourage and assist Principal Investigators in all sectors to access health research funding from the Canadian Institutes of Health Research (CIHR), through the submission of research proposals that are cognizant of the broad health research scope and the interdisciplinary approach embraced by CIHR.

2.3.1 Undergraduate Medical Education

Program Background and Structure

The four-year undergraduate medical program at Toronto was among the largest in North America (252 entry positions) prior to its reduction in 1993 to 177 students per year. It remains the largest in Canada, and attracts a stable pool of some 1,700 high-calibre applicants. Enrolment decreased when the province mandated a 10% reduction of entry positions for all Ontario medical schools (75 positions). This was accommodated entirely by Toronto.

In its first two years (Preclerkship), the program emphasizes acquisition of the knowledge, skills and attitudes fundamental to the practice of medicine. It also provides an understanding of the broad determinants of health, and an introduction to both clinical methods and the community as a context for clinical practice. Courses are interdisciplinary. Most are offered as curricular "blocks" lasting from 8 to 21 weeks. The Art and Science of Clinical Medicine, and the Determinants of Community Health are taught as longitudinal, half-day-per-week courses over the entire two years.

A transitional period of 1 month begins the third year. Students then embark on a 78-week clerkship. In the first year the class is divided into 6 groups which rotate successively through specific clinical disciplines for 6-week periods. In the second year clerkship, more specialized rotations are offered. Eighteen weeks are allotted to electives that students choose from a web-based catalogue of clinical and research experiences.

Recent Changes in Undergraduate Medical Education

In adapting to various pedagogical and social forces of the 1980's, the curriculum underwent radical structural change, and a new curriculum was implemented in 1992. In 1994, the Faculty also introduced an Academy system to enhance curriculum delivery, and to improve the quality of student life. A shift occurred from a fact-loaded, discipline-based, lecture-intensive program, to one that invoked the principles of small-group, student-centered, life-long learning, with special emphasis on case-supported, problem-based learning (PBL). Increased emphasis was placed on graduating physicians who are more community sensitive, and better prepared to work in an interdisciplinary team environment. Simultaneously, applicants were accepted from a much wider range of educational backgrounds. This diminished emphasis on biomedical science as the preferred route into the medical profession occurred at a time when the biomedical sciences themselves were producing relevant discoveries at an exponentially increasing rate. The curriculum has achieved stability, and its graduates continue to excel in the national licencing examinations (MCCQE) and the residency match process (CaRMS).

The current undergraduate medical program is labour intensive, and, by design, its learning process places great emphasis on self-directed, evidence-based learning, rather than on simple fact acquisition. However, a byproduct of small group size has been a manifold increase in the number of tutors required to guide the learning process in the preclerkship

(years 1 and 2). At the same time, a PBL group leader is typically an expert *facilitator* rather than a discipline or content *expert*, and significant content expertise may now be under-utilized, or its impact limited to smaller groups. The current block structure in preclerkship also places intense, albeit intermittent, demands on teaching faculty. Some departments would find it easier to accommodate a lower level of week-to-week engagement, sustained continuously, and have argued for longitudinal parallel courses, rather than adjacent blocks. The latter, however, would present its own difficulties relating to content coherence (integration) and timetabling – especially in a PBL environment.

There is now growing evidence that there are too few active medical practitioners in the province, and that maldistribution of both primary care practitioners and specialists requires active intervention on the part of government. As a consequence, the Ministry of Colleges, Training and Universities has indicated that it is seriously considering increasing the number of entry spots into the M.D. programs at the five Ontario medical schools. Subject to appropriate provincial funding being made available to the University, this Faculty has discussed increasing its enrolment to as many as 200 entry positions.

Independent of these events, there is a growing awareness that the omnibus role of the school in producing an undifferentiated graduate may be increasingly at variance with the research intensivity of the Faculty, and of the University as a whole. The incredible and growing richness of the scientific environment in which the medical school is imbedded, the tight linkages with world-class teaching hospitals and their research institutes, and the remarkably diverse urban environment of the Greater Toronto Area, all argue that it is appropriate for Toronto to begin a process of "differentiation". Generous funding of the McLaughlin Centre and the McLaughlin Scientists will support this move, allowing increased emphasis on molecular biology and genetics as they relate to the diagnosis, treatment, and prevention of a diversity of human diseases.

This process of differentiation will have implications for our admission criteria, curricular outcomes and pedagogical methods. In time it should permit a strengthening of the national and international leadership roles of our graduates. A further, and desirable outcome will be a more intensive engagement in novel curriculum design, delivery, and evaluation processes by the myriad leaders in basic biomedical, social, evaluative, and pedagogical sciences who populate the Faculty, its teaching hospitals and their research institutes, and the University as a whole. The anticipated outcome in the next decade is significant innovation in the integration of the undergraduate curriculum, and the training of the clinical scientists and educators who will be tomorrow's leaders.

Further details on undergraduate medical education enrolment and recruitment strategies are provided in Section 2.4*, Enriching the Student Educational Experience.*

Recent Initiatives in the UME Portfolio

The late-1999 devolution of the Vice-Decanal portfolio to the Associate Deans has added several new areas of responsibility to the UME portfolio, including relations with the Centre

for Research in Education, the Division of Educational Computing, and the Medical Council of Canada. Several task forces have completed, or nearly completed, their work. Of note, are those which examined issues related to *Basic Science in the Curriculum* (including Pharmacology), *Curriculum Objectives* (including curriculum evaluation), the *Foundations of Medical Practice* course; *Professionalism*; and, *E-based Education and Communication* (the latter Co-Chaired with the Associate Dean of Inter-Faculty Affairs and Graduate Studies).

Common themes in these initiatives have been increased course integration, efficiency and cost-effectiveness of curriculum delivery; and the enhancement of measurable outcome objectives. Virtually complete, systematic turnover of Course Directors has been effected. Course structures have been re-examined and re-design is taking place to address the need for enhanced basic science content (particularly in pharmacology, molecular biology, and genetics). An enhanced role for medical informatics (e-based education and evaluation) is also anticipated.

Program evaluation has provided unique challenges, both in terms of revising curriculum objectives so that they are expressed in term of measurable outcomes, and in accommodating evolving strategic directions and pedagogical methodologies. In response to these concerns, the *Program Evaluation Committee* has been provided with revised terms of reference. In consultation with the *Centre for Research in Education,* the Committee will define the appropriate integration of student, course, and program evaluations. It will assess the curriculum by integration of student, course and program evaluations with appropriately designed instruments, as well as optimal approaches to measurement of these components. In consultation with the Education Deans, and with the support of the *Division of Educational Computing*, the Committee will develop appropriate data collection instruments, where feasible, web based. The Medical Alumni Association has indicated that it will provide considerable assistance in maintaining contact with all graduates to facilitate career follow-up.

An integral component of any program evaluation system is an up-to-date curriculum mapping database. For this purpose, we have adopted CurrMIT[13], a web-enabled curriculum database maintained by the AAMC in Washington, which was designed to provide all US and Canadian schools with mapping capability. We have completed data entry and keyword indexing for all courses in the preclerkship, and are presently working on clerkship rotations. A process is being established for ongoing review, validation, and updating of course information by Course Directors, and links are provided within the database to relevant web-based curricular materials on our own servers. A process for quality assurance and sustainable database management is also being established.

Matters Relating to Resources

We have made necessary adaptations to progressively decreasing fiscal resources, but not without compromise and increasing staff burnout. Growing concern exists regarding recruitment of teachers/tutors and the provision of tangible "rewards" for teaching , especially among basic and clinician scientists, and part-time clinical faculty. Widespread cutbacks in personnel, and devolution to the Faculty of formerly central responsibilities, have

[13] Curriculum Management and Information Tool

made the provision of adequate administrative support for existing courses problematic. The UME portfolio is spending more on course director and other teaching stipends, as departmental ability to contribute is attenuated. As a result, we have increased our use of trust fund interest, and, recently, of expendable trust fund capital, to supplement operating budgets. Our move to adopt web-based technology for presentation and evaluation of curriculum elements has been driven to some extent by the reduction of operating budgets which has made providing innovative course materials problematic. Nonetheless, in addition to linked textual material, we are preparing histological, pathological, and radiographic images for web-based presentation and updating.

Strategic Priorities

Governing principles include ongoing curriculum improvement and quality assurance, incorporation of the results of pedagogical research, anticipation of LCME/CACMS accreditation in 2004, recognition of the changing fiscal climate (reduce cost, increase recovery; combine functions), and enhanced use of information technology. In building for the future, the following occur: ongoing renewal of course directors; new initiatives relating to program evaluation (including mapping); the addressing of perceived/real program deficits (basic science, including pharmacology); efforts to anticipate and drive program differentiation and narrowing of focus (admissions, curriculum design, MD/PhD enhancement); an increased role for international students of quality; and accommodation of additional Canadian students if appropriate support is forthcoming. Curriculum evaluation should be based on defined pedagogical principles, detailed curriculum mapping, and measured outcomes, in collaboration with Postgraduate, Continuing Education, and Medical Alumni officials.

Plans for enhancement of the curriculum include: review, and increase as appropriate, of basic science content (a theme); enhanced vertical and horizontal integration of course content, utilizing fewer and better lecturers (faculty development); more efficient and valid (computer-based) examination processes; enhanced rural engagement; and, a re-examination of the role, structure and evaluation of problem-based learning (PBL). There has been some discussion regarding more seminar-style learning, with greater and earlier exposure of undergraduate medical students to clinician scientists to foster interest in careers in academic medicine.

Clarification and improvement of the CaRMS[14] process is required to address the increasing stress it causes, and the time and energy it extracts from academic pursuits. The UME portfolio will be addressing the changing expectations of the Postgraduate Program Directors, the timing/extent/method of interviewing, and the changing role of electives.

Additional matters requiring attention include recruiting and retaining excellent teachers and deciding how best to "sharpen" our focus for the selection, fostering, and sustaining of leadership qualities.

[14] Canadian Residency Matching Service

Priority Goals and Actions

1. Determine primary areas and degree of specialization in undergraduate program, and identify and implement appropriate changes in curriculum content and pedagogical process. Specify relevant measurable outcome variables, and enhance forward planning with MD/PhD Program for overall program specialization, growth, and improved integration.
2. Re-examine the roles of course directors, academies and departments in the recruitment of tutors, lecturers, and other teachers. Enhance faculty development in keeping with evolving pedagogical methods, and identify and provide appropriate resources for faculty members' teaching and administrative roles.
3. Develop a rational base budget-funding model for present enrolment. Extend this to accommodate a class size of 200 with an increasing MD/PhD complement of up to 15%, with possible incorporation of up to 20 international "full-fee" students.
4. Complete needs assessment of required changes in basic science curricular content (including pharmacology, molecular biology, and genetics content). Incorporate additional curricular content as required within existing courses or as coordinated themes, as appropriate.
5. Define appropriate variables and methods for tracking interim, short- and long-term curricular outcomes, in relationship to extant program objectives. In consultation, develop and deploy appropriate data collection instruments for comprehensive and effective evaluation of program outcomes.
6. With the support of the *Division of Educational Computing* and relevant central University resources, migrate appropriate curriculum components to the web. Develop means for all relevant faculty and staff to upload and revise curriculum data.
7. Assure ongoing compliance with evolving LCME guidelines, with particular sensitivity to *hot topics*[15]. Twenty-four months prior to next accreditation, appoint Senior Academic Accreditation Coordinator and Accreditation Secretary, and secure necessary resources to prepare for site survey.

[15] Topics defined by the LCME to be of particular and important current relevance.

2.3.2 Occupational Therapy

Admissions

In 1999/ 2000, 489 applications were received, a minimal decrease over the previous year's application number of 491. Of the 489 applicants, the Department admitted 64. Approximately 97% come from Ontario, with the remainder from the rest of Canada. Approximately 6% are male.

Program Changes

Over the next few years the **B.Sc. (OT)** will be phased out and replaced by a professional master's program. The last year of BSc (OT) intake will be 2000 – 2001. The **MSc OT** will have two entry routes. One, the entry-level program, for individuals who do not hold any occupational therapy credentials, will be the majority of the class. The other, the advanced standing program, is for individuals who hold a BSc (OT) from U of T, or equivalent. In keeping with the vision of the Faculty of Medicine, the MSc (OT) will focus on the education of leaders in the field with a strong emphasis on research and its contributions to practice. The program will focus on those aspects of "cell to community" research that concern occupational therapy, and to which occupational therapy can make a particular contribution, i.e., the reduction of impairment and disability and the enablement of optimal participation.

The **MSc OT** program will be similar in structure (i.e., 24 consecutive months) to that of the undergraduate professional program being phased out, but will place much greater emphasis on research driven practice, necessitating much more indepth research training, a better student/faculty ratio and a larger number of highly qualified faculty. The enrolment targets for the program will be an intake of 52 for the first 3 years and 66 thereafter, assuming appropriate resources can be identified. These targets were set in keeping with the wish to align the sector, meet societal enrolment demands, and have a phase-in that will match existing and planned resources.

In addition to the MSc OT, the Department of Occupational Therapy will continue to work with Physical Therapy, through the Graduate Department of Rehabilitation Science structure, to introduce a PhD program.

A number of changes are planned to support these new programs. The professional curriculum and all aspects of curriculum delivery will be reviewed and revised to support the introduction of a research-intensive professional master's entry program. The professional curriculum has been heavily PBL-based for the last five years. While this approach to teaching has specific advantages, it also has some disadvantages. The department has undertaken to review this approach and all aspects of curriculum delivery with a view to identifying positive alternatives and adapting the curriculum and our methods of delivery accordingly. Fieldwork experiences will continue to expand into new emerging areas. Through funding for two projects from the Provost's office, the department is launching a special Diversity/Ethno-cultural Initiative over the next year.

The department will undertake a number of recruitment initiatives to ensure these programs attract the best and brightest students, who are representative of our community. We will improve current promotional materials; provide information sessions for potential applicants, particularly targeting under-represented groups, and participate in recruitment visits, both local, national and international, that are planned by the central Student Recruitment office.

The Department will implement several steps to reorganize and improve student services. We will review and revise the policies and procedures for grading, marking, appeals, petitions, deferrals, withdrawals, and progression, to reduce discrepancies, clarify expectations, and raise standards. The roles of staff will be realigned to have a single person dedicated to students, the student Liaison Officer. The roles of faculty advisors will be reexamined to ensure better support for students. We are seeking APF funding in collaboration with PT and Speech-Language Pathology[16]. We intend to establish an Administrative Assistant position to support the development and expansion of the doctoral stream programs of the sector, and to establish a Clinical Placement/Affiliation Administrator position to streamline the clinical placement process across the sector and reduce redundancies. The APF proposal also includes a development plan that will be created to secure increased funding to students.

Priority Goals and Actions

1. Institute the professional master's entry level program (the MSc OT), while phasing out the professional undergraduate program.

2. Work with PT, through the Graduate Department of Rehabilitation Science structure, to introduce a PhD program.

3. Review and revise, as appropriate, all aspects of the professional program, including curriculum structure, flow, content and delivery, academic policies and procedures, and student support services.

4. Recruit the best and the brightest students.

5. Enhance student support and services.

6. Secure new physical, financial and human resources to support the institution of the MSc OT and PhD programs.

[16] See Summary of Rehabilitation Sector APF proposal, Section 3.

2.3.3 Physical Therapy

Admissions

In 1999/2000, 732 applications were received. This is a reduction from the previous year's number of 896. Of the 732 applicants, the Department admitted 66. Approximately 80% of applicants came from Ontario with another 20% from the rest of Canada. Approximately 35% of applicants were male. Currently we do not have international students in the evidence-based curriculum.

Program Changes

Professional Program

Beginning 2001, the current undergraduate BSc (PT) Program is to be phased out and replaced by the MScPT Program. Initially, enrolment will be reduced to 52 and the program will be condensed to two years. The MScPT Program will have an expanded clinical research component, a practice management module, and emphasis on academic leadership for practitioners.

Once the MScPT Program is approved from OCGS, a proposal internal to the University will be developed for a combined MHSc in Health Administration, MScPT/MSc Rehabilitation Science and enrolment will be increased to 62. The programs will align the education of physical therapists with the projected requirements of practitioners as a consequence of health reform.

The following initiatives are in progress in support of the introduction of the new Masters level program. We will work with the private sector to establish a "Consortium of Private Rehabilitation Providers" for clinical education initiatives. This will help us increase the number of private sector training sites. In order to enhance student learning, we will be assigning a faculty advisor to each MScPT student, and we will repeat the Graduate Supervision Scenario Workshop used in the Masters of Rehabilitation Science in the new Masters Professional Program, to train faculty in their new roles. We will use the Knowledge Translation Program[17] for training the clinical educators in advanced approaches to evidence-based practice. This is outreach to our academic clinical community to enhance their skill sets in mentoring students at a graduate level. Finally, we will continue to incorporate our writing activities using the writing laboratory facilities in conjunction with our new research faculty and to enhance the research component. We will appoint a new group of clinical faculty with graduate degrees who are trained at a graduate level, with expertise in practice management as well as physical therapy.

[17] See summary of APF proposal for Knowledge Translation Program included in Section 3.

Doctoral Stream Program

We will be submitting a proposal for a new Doctoral Stream Program in Rehabilitation Science in the 2000/2001 academic cycle. This new Doctoral Program in Rehabilitation Science will have a field in physical therapy research. APF funding is sought for an administrative assistant position to support the development and expansion of this doctoral stream program in conjunction with Occupational Therapy and Speech Language Pathology[18]. As part of the development of this doctoral stream program we await the results of the CFI application for the Centre for Improvement of Health and Function that will provide the research infrastructure.

Curriculum

The Evidence-Based Curriculum has been implemented successfully. The Commission on Accreditation of Physical Therapy Education commended the Department for the success of the new curriculum in the Accreditation Site Team Report. The most challenging issue is the availability of teaching/laboratories/seminar rooms for instruction. This must be addressed in 2000/2001 to meet the required accreditation standards.

Student Recruitment

The Physical Therapy program continues to attract a high number of superior applicants, and will therefore continue to utilize its current recruitment strategies. We have enhanced our website and program brochure over the spring 2000. We will be doing a targeted mailing to select undergraduate educational programs in Canada from which we draw most of our applicants. We will use the International Health Initiative[19] to advertise the new Masters Professional Program to foreign applicants. We are going to develop an improved recruitment strategy on the St. George Campus with a focus on the Faculty of Arts and Science. Finally, we will maintain our quota for an aboriginal student.

Priority Goals and Actions

1. Implement graduate professional program (MScPT) in the Year 2001 with both a regular stream of students and an advanced standing stream of students.
2. Initiate Doctoral Stream Program in Rehabilitation of Science with a field of Physical Therapy. The program will be targeted to commence 2002.
3. Sharpen the focus of our academic activity and educational programs in the area of impairment and disability impact and determinants of disability impact.
4. Build human capacity for Canada. The focus of our educational programs will be to create academic practitioners as well as rehabilitation scientists to supplement the academic faculty base of physical therapists in Canada.

[18] See summary of Rehabilitation Sector APF, included in Section
[19] See summary of Centre for International Health APF, included in Section 3.

2.3.4 Radiation Science

The Faculty, in collaboration with the Michener Institute of Applied Health Sciences, developed this self-funded program to address changes in the educational requirements for Radiography, Radiation Therapy and Nuclear Medicine. Those who work with these technologies require a strong background in mathematics, physics, chemistry, biology, physiology, anatomy, pharmacology, pathophysiology, health care administration and human behaviour. Beginning in the year 2004 certification as a radiation technologist will require a university degree. The combined Radiation Science BSc and Diploma program provides the students with a broad-based theoretical and analytical foundation for their discipline specific professional responsibilities and enables them to complete the requirements for a B.Sc. and a Diploma in 5 years. Students are admitted to the 3-year program after successfully completing a minimum of two years of university education in the physical and life sciences with a B average. The program is fully accredited by the Canadian Medical Association and the Canadian Association of Medical Radiation Technologists and meets the educational and clinical training competencies required to apply for certification.

Relation to Arts & Science and Graduate Studies.

The program opens a new route to advanced study and employment for students who have completed the first two years of the prerequisites for a B.Sc. in Human Biology or basic medical science. The format of this second entry program is similar to that currently used for the Bachelor's degree in Occupational Therapy. The emphasis on research is highlighted by a methodology course and a research project provided by the Department of Health Administration. Graduates who achieve the required academic standing are qualified to enter graduate studies or other second-entry professional degree programs at the University of Toronto. Graduates will have the option to pursue graduate studies in areas such as, Health Administration, Community Health/Epidemiology/ Medical Decision Making, and Management Studies.

Student Enrolment and Recruitment

The program is designed to accommodate 150 students per year: 70 Radiation Therapy, 40 Radiological Technology and 40 Nuclear Medicine. Students take the same core curriculum of broadly based courses but different sets of discipline-specific courses and clinical training activities. Each student is required to complete 48 weeks of approved full-time clinical practice organized by the Michener Institute.

The Radiation Therapy component of the Radiation Science program was added early in 1999. As the program started in September 1999, this left little time to recruit suitable students to fill the 75 positions mandated by the Government. Recruitment for the Nuclear Medicine and Radiological Therapy programs was also delayed. Nonetheless 104 students who met the prerequisite requirements entered the program in September. Application rates are 30% higher for the class that will enter in September 2000, but more attention must be paid to recruitment of suitable students.

Faculty Resource Implications

The Faculty of Medicine and The Michener Institute provide the teaching faculty and teaching facilities. Key faculty from Michener have status-only appointments in the Departments of Radiation Oncology, Medical Imaging, Public Health Sciences and Health Administration. Faculty in the Department of Radiation Oncology have taught the technologists in Radiation Therapy through hospital-based programs for many years. The Departments of Radiation Oncology and Medical Imaging provide academic oversight for the program. The program provides new funds for the division of Anatomy and the Departments of Health Administration, Medical Imaging, Pharmacology, Physiology, Public Health Sciences and Radiation Oncology. The funds cover costs and overhead to support non-tenure stream faculty, TA's, and ancillary program costs including development of information technology resources that will be used for a variety of other programs. The costs to the Faculty and the University are covered by overhead levies of 20% and 26% respectively.

The program will operate with a diminishing deficit until 2002/2003. Thereafter there will be a positive balance once all running costs and overhead for the Faculty and University have been paid. This budget forecast is based on a 5% increase in fees and a steady state enrolment of 338 to 360 students. This enrolment number is significantly below the capacity of the program. Additional students will increase the positive balance of the budget.

Priority Goals and Actions

1. Continue to expand the program to at least 360 students, but not beyond the steady state maximum of 450 students (120 to 150 in each of three years). There are no plans to add other technological programs.

2. In collaboration with the Michener Institute and the other second-entry professional programs, make a concerted effort to increase recruitment of students from the University of Toronto. Continue to obtain assistance from the Provincial Cancer Centres to recruit applicants for the Radiation Therapy stream.

3. Pay special attention to the research methods and research project courses with a view to encouraging students to proceed to graduate education.

4. Modify the scope of the Radiological Technology stream to include more of the recent advances in imaging technology while maintaining the curriculum and standards necessary for accreditation of the program.

2.3.5 Postgraduate Medical Education

Program Background

The University of Toronto Faculty of Medicine offers 63 postgraduate (post-MD) training programs accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC). The Family Medicine program, accredited by the College of Family Physicians of Canada (CFPC), offers a two-year program as well as additional one-year programs in emergency medicine, anaesthesia, and care of the elderly. Teaching facilities for the programs are spread across 8 fully affiliated, 12 partially-affiliated hospitals, and multiple off-campus teaching sites.

Apart from clinical training, the Faculty also offers an academic training stream in the form of the MD Scientist programs. Residents enroll in the School of Graduate Studies to undertake a M.Sc., Masters of Health Science, or Ph.D. degree program in various specialties. Trainees may also pursue a Clinician-Teacher graduate degree through OISE/UT. In 1996, the Faculty launched the first Royal College Clinician Investigator Program in Canada. As MD Scientist trainees must "step out" of clinical work to engage in full time graduate research and course work, they are supported by their clinical departments. Despite this financial obstacle, enrolment in this academic stream has increased by over 67% between 1994/95 and 1998/99, as illustrated below:

Year	Graduate Unit					Total Postgraduate Students
	IMS	Other	Community Health		OISE/UT	
			Family	*Clin Epi*		
1994-95	82		6	36		124
1995-96	80	1	6	51		138
1996-97	85	1	6	52	1	145
1997-98	116	4	6	66	1	193
1998-99	120	3	6	78	1	208

Trainee Complement Facts: 1999

Toronto has the largest postgraduate medical education program of the 16 Canadian medical schools, accommodating over 20% of Canada's 8,222 postgraduate trainees, and just over half of the total Ontario postgraduate training complement. In November 1999, there were 1,655 postgraduate trainees – 1,137 residents and 518 fellows – registered at the University of Toronto Faculty of Medicine. Of the 1,137 residents, 68% (779) have MDs from Ontario medical schools and 19% (221) have MDs from other Canadian schools. The remainder are international graduates. This

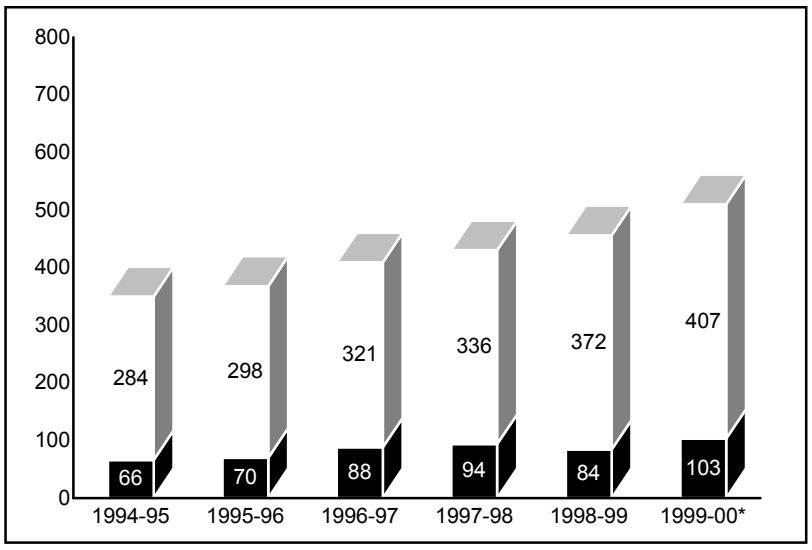
PROGRAM	Residents	Fellows	TOTAL
Anaesthesia	66	56	**122**
Clin Investigator	49	2	**51**
FamMedicine	174	2	**176**
Lab Med	13	12	**25**
Medicine	259	125	**384**
Pediatrics	91	83	**174**
Psychiatry	116	18	**134**
Radiology	47	38	**85**
Surgery	188	116	**304**
Other Programs	134	66	**200**
TOTAL	**1137**	**518**	**1655**

preference for Ontario grads (with a high proportion from the University of Toronto) is a reflection of the Canadian Residency Matching Service (CaRMS) match results for the past five years.

CaRMS PG1 Match Data: 1995/96 – 2000/01

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	% Change
# of applicants	n/a	1911	1763	1738	1805	1807	
last rank used	n/a	n/a	n/a	n/a	n/a	n/a	
# Accepted:							
from U of T	139	131	111	108	96	101	*-27%*
from other Ont	55	58	64	56	65	66	*20%*
from other Cdn	53	48	36	46	47	43	*-19%*
from U.S.	2	2	0	0	3	1	*-50%*
TOTAL Accepted:	249	239	211	210	211	211	*-15%*

Postgraduate Medical Education Visa Trainees: Enrolment Statistics



1994 - 2000

RESIDENTS
FELLOWS

510 of the trainees noted above are visa trainees – 103 residents and 407 fellows, originating from 58 different countries. The 1999/2000 registration figure represents a 33.1% increase over 1995/96 registration of visa trainees.

The above statistics do not include the registration of elective or exchange residents. Includes projected registration for month of June, 2000

Recent Developments/Trends and Future Plans

Ministry-funded training

The vast majority of residency positions are determined by the Ministry of Health. Although government-funded first year postgraduate intake was reduced by 16% at Toronto (250 to 211) beginning in 1997/98, the total number of Ministry-funded positions has only decreased approximately 7% (from 1048 to 971) over the last 5 years. This is due to Toronto's high specialty vs family medicine intake ratio (70:30) which requires additional training years, and an increased share of the Ministry's IMG and re-entry programs. The government has recently announced expansion of the Ontario IMG program and establishment of a repatriation program for Canadians in U.S. residency programs. A 5% increase (approx. 50) in Ministry residency positions is projected at Toronto over the next 5 years as a result of this program expansion

International Medical Graduate Training

At present, the Faculty has agreements with several foreign governments to train residents in family medicine and specialty programs. New recruitment approaches have been implemented, including specialized teaching packages, integration of videoconferencing equipment, and individualized training programs. With these innovations, our visa trainee enrolment is projected to increase by over 13% in the next 5 years resulting in additional income to fund needed postgraduate medical education programs.

Clinician Scientist Graduate Scholarship Program

The graduate scholarship program was begun by PGME (Postgraduate Medical Education) in 1998/99 to financially assist trainees undertaking research during residency training. As many of the research grants provide less than the PAIRO (Professional Association of Interns and Residents of Ontario) salary, the PGME office funds half of the difference between the trainee's award/grant and the salary; the department funds the other half. The PGME office awarded approximately $200,000 to 15 trainees. Awards over the next 5 years are expected to remain at the same level.

Educational Programs

Over the last four years, the PGME office has organized or hosted workshops for faculty development in the areas of bioethics, quality assurance/quality improvement, communication skills, a series on resident evaluation, and teaching research skills to residents. A resident stress survey was also undertaken. For residents, communication skills, teaching-to-teach sessions, and a practice management workshop were also organized. Future plans include a workshop for faculty to evaluate residents' communications skills, interviewing techniques, exploration of a mentoring system for residents, and how to incorporate the Royal College CANMEDS 2000 roles into a training program's goals and objectives.

Internal Reviews

Since April 1998, the PGME office has been co-coordinating internal reviews of the 64 training programs in preparation for the RCPSC and CFPC accreditation survey to take place in April 2001. The Internal Review Committee of 10 faculty members and the postgraduate dean held monthly meetings for over two years to examine the internal review reports and make recommendations/comments to help programs meet College training standards. Four workshops were held to assist program directors to prepare documentation and for faculty to write the internal review reports. When complete, the process will have involved approximately 120 faculty members and 60 PAIRO representatives in surveying, report writing, and reviewing reports. Future plans include follow-up workshops with program directors, chairs, and hospital representatives to prepare for the review, collection of documentation to forward to the RCPSC and scheduling.

Information Technology

At present, the PGME office maintains a database holding all postgraduate trainee records from 1980, with data on training program, rotations, licensing, insurance, prior training, and immunization record. Residents' email addresses were collected for the first time this year, and a List Serve to communicate electronically with trainees collectively has been initiated. Future plans include development of a PGME website to accommodate multiple enquiries, establishment of electronic communication with licensing and accreditation bodies to better meet their requirements, and links to offsite training and research to facilitate creation of a "virtual campus".

Liaison with Hospitals/Government/Licensing Authorities

The Toronto postgraduate dean has regular meetings with his Ontario counterparts through the Council of Ontario Faculties of Medicine and, at the national level, the Association of Canadian Medical Colleges. Teaching hospital representatives attend the Postgraduate Medical Education Advisory Committee meetings. With the potential expansion of Ministry programs and introduction of evaluation/assessment programs, it is important to maintain communication and relationships with the federal and provincial governments, the CPSO, and the accreditation bodies.

Priority Goals and Actions

1. Publicize program expansion. Increase resident positions by 5% over next 5 years.

2. Develop targeted promotional materials to attract international medical graduates and foreign sponsors. Target 15% increase over next 5 years.

3. Work with clinical departments to financially support residents during graduate degree component of specialty training.

4. Develop range of workshops and mechanisms to enhance faculty and resident development.

Priority Goals and Actions, Cont'd

5. Prepare for April 2001 Royal College of Physicians and Surgeons on-site survey.

6. Work with University and Faculty to develop website and "virtual" IT campus.

7. Participate and lead initiatives to ensure that unique needs of the University of Toronto are known to academic, licensing and government bodies.

2.3.6 Graduate Studies

Graduate studies in the Faculty of Medicine represent a broad spectrum of academic training in biomedical research and health professions. Our graduate programs exemplify integration of research and education at the highest level of scholarship. Therefore, strengthening the links between graduate studies and the major research programs throughout the Faculty, including those within the affiliated hospital research institutes, is crucial. The platform to establish international leadership in graduate studies is in place. To create nationally and internationally competitive doctoral and professional graduate programs, the Faculty of Medicine must provide multi-year, full funding packages for student recruitment (including tuition and cost of living), improve its infrastructure (for professional programs), and market its programs more effectively.

The Graduate Units in the Faculty of Medicine are divided among 4 sectors including: *Basic Medical Sciences* (Biochemistry, Immunology, Medical Genetics and Microbiology, Nutritional Sciences, Pharmacology, Physiology); *Rehabilitation* (Rehabilitation Sciences, Speech-Language Pathology); *Community Health* (Community Health, Health Administration); and, *Clinical* (Institute of Medical Science, Laboratory Medicine and Pathobiology). The graduate units in all sectors have a doctoral stream (MSc/PhD research thesis programs) and professional or course masters degrees (Biomedical Communications, Bioethics, Community Health, Health Administration, Speech-Language Pathology, Genetic Counseling, Family and Community Medicine, Nutritional Science). As well, the Faculty participates in Collaborative Programs, including: Developmental Biology, Bioethics, Cardiovascular Sciences, Health and the Environment, Biomedical Engineering and Toxicology. Overall, there has been moderate but steady growth in graduate enrolment. While most Graduate Units have maintained constant enrolment, the Institute of Medical Science and the Community Health Sector, i.e., Health Administration and Public Health Sciences, have tripled their student number. This growth is due, in part, to the rapidly increasing enrolment of postgraduate MD trainees in the Clinical Departments who engage in research training in the context of graduate studies. ***The Faculty of Medicine***

Graduate Enrolment: Full-time Graduate Students

	1995-96	1996-97	1997-98	1998-99	1999-2000
Ph.D.	583	584	606	664	722
M.Sc.	573	642	691	682	684
M.H.Sc.	184	201	210	211	238
Total	**1340**	**1427**	**1507**	**1557**	**1644**

leads Canada and most of North America in the success of MD Scientist training in graduate programs. Growth is also evident in the expansion of existing and development of new professional masters programs, many of which are unique in Canada, e.g., MHSc in Bioethics.

Over the last 5 years, Graduate Units have assumed full responsibility for all the administration of their programs and are much less dependent on the School of Graduate Studies (SGS). The Chairs and Directors are now fully responsible for: faculty appointments and re-appointments to SGS; student application, admission and registration; all elements of progress to degree completion; thesis defenses, including final PhD defense; governance of all policies relevant to faculty and students; management of all student data including funding. As of January 2001, they are also responsible for complete management of student awards, including accounts; and, annual reporting of student enrolment and funding. The establishment of new graduate degree programs and evaluation of existing programs are under the jurisdiction of the Ontario Council of Graduate Studies (OCGS) which interacts with the University through SGS. Devolution of SGS administration over the past 5 years has greatly increased the administrative work within Graduate Units without an increase in funding to the latter. The funding for graduate program administration, with the exception of the Institute for Medical Science[20], resides within the base budgets of the Departments. The continual decline in the Faculty of Medicine budget and consequently the departmental budgets with simultaneous devolution of SGS administrative responsibilities, necessitates evaluation of the management of graduate programs within the Faculty. ***Improved efficiency and cost-effectiveness may be achieved by centralization of some tasks, alignment of administrations of smaller units with joint staffing and improved student data management capability***. Although the Chairs and Directors of Graduate Units are accountable to the Dean of SGS for academic programs and degree requirements, they are accountable to the Dean of the Faculty of Medicine for budget management, student funding and enrolment quotas. Effective partnership between SGS and the Faculty of Medicine is necessary to sustain and promote graduate studies. Recognizing the need for decanal leadership in the Faculty, the Dean created the new position of Associate Dean, Inter-faculty Affairs and Graduate Studies in 1999.

The following describes key areas for strategic planning and *Raising Our Sights* in graduate studies.

Graduate Student Funding and Enrolment Quotas

Full-time doctoral students in the basic and clinical medical science Graduate Units in the Faculty of Medicine generally receive full funding for multiple years (MSc - 2 years, PhD - 4 to 5 years) at the MRC or NSERC studentship level. The funding policies of these Graduate Units automatically limit enrolment. The funding sources include U of T Open Studentships, OGSST awards, Connaught studentships, external awards from MRC/CIHR, NSERC, SSHRC, NHRDP, OGS, many external foundations, e.g., Heart and Stroke, National Cancer Institute of Canada, and internal studentships from affiliated hospital research institutes, e.g., OSOTF studentships at the Hospital for Sick Children Research Institute. However, the

[20] The budget of the Institute of Medical Science is shared between the Faculty of Medicine and SGS.

majority of funding is from the research grants of MSc/PhD student supervisors. By contrast, MSc/PhD students in the Community Health and Rehabilitation sectors are not fully funded. Generally, supervisors in these Graduate Units do not have access to as much external research funding as supervisors in the basic and clinical medical sciences. The level of doctoral student funding in the Community Health and Rehabilitation sectors is similar to, or below funding in the Social Sciences[21]. Nevertheless, to date, the allotment of U of T Open Studentship funding has been almost identical among all sectors in the Faculty of Medicine.

In those Graduate Units without a specific full funding policy, enrolment is limited by the complement of faculty and education resources. In the professional degree programs, student funding is very limited and the fees are approximately $1,000 higher than in the MSc/PhD programs. Part-time professional graduate students have almost no access to internal or external funding. Therefore, the resources of the Graduate Unit and complement of teaching faculty limit enrolment in professional programs.

The Orchard *Task Force on Graduate Student Funding* recommends that the University establish a multi-year full funding policy ($12,000 plus tuition) for all doctoral students in their first 4 to 5 years. To implement this policy over the next 5 years, the Faculty of Medicine must analyze the capability of each Graduate Unit to generate sufficient funding for all MSc/PhD students. The Faculty must address the shortfall in current funding for MSc/PhD students in Community Health, Rehabilitation Sciences, Speech-Language Pathology, Nutritional Sciences and Bioethics. Improved competitiveness for internal and external studentships must be part of the recruitment strategies of the Graduate Units. The Faculty must partner with the University to seek new funding through fundraising, APF proposals, joint requests to the Ministry of Training, Colleges and Universities and application for external funding from the federal and provincial governments and all relevant agencies. Since the Faculty of Medicine handles the U of T Open Studentship funds independently from SGS, Graduate Units now have the opportunity to identify creative ways to leverage an increased number of studentships, e.g., match for studentships in programmatic research grant applications (CIHR, Heart and Stroke Foundation). ***Over the next 5 years all potential sources of funding must be sought to ensure all MSc/PhD students receive full funding for the duration of their degree programs.***

Professional graduate students (and part-time students) receive less funding than MSc/PhD students, or no funding. This occurs despite their higher fees, and despite the fact that 30% of those fees allocated for student aid within the University. It is essential that professional graduate students continue to receive U of T Open Studentships in proportion to the contribution of their fees (deregulated) to student aid. ***Improved and sustained funding of the professional degree programs must be a priority of the Faculty of Medicine***.

Promotion of Graduate Studies in the Faculty of Medicine

Faculty who supervise doctoral students are nationally and internationally recognized for their research. In the Faculty of Medicine, 70% of graduate students are supervised in the affiliated hospitals and research institutes and 30 % are supervised on campus. Although full

[21] See- SGS Divisional Academic Performance Report, Feb 2000.

funding for students is necessary for recruitment, it must be accompanied by effective communication about the opportunities for research supervision. This can be accomplished through more effective e-based communication. The Graduate Units in collaboration with the Associate Dean, Graduate and Interfaculty Affairs must examine all means of communication including a new Faculty of Medicine Graduate Studies Website with links to all the Graduate Units and student awards' information. Although some programs are oversubscribed, e.g., MHSc in Speech-Language Pathology, a larger pool of highly qualified applicants would allow many Graduate Units to raise the standards for entrance into their MSc/PhD and professional programs, and increase the number of students eligible for external and internal awards. ***Recruitment into both MSc/PhD and professional graduate programs of outstanding students from the undergraduate Arts and Science programs at U of T and other major universities must be promoted***.

Graduate Student Data Management

In 1999-00, ROSI was implemented for graduate student registration, course enrolment and demographic data collection. In the Fall of 2000, the financial module for ROSI will be implemented. The needs of the Graduate Units include day-to-day management of student information, the annual reports, and, once every 5-7 years, all the information required for decanal review and the Ontario Council of Graduate Studies (OCGS) accreditation review. All the Graduate Units in the Faculty have established their own computer-based data management systems that now operate as shadow systems for ROSI. Unless ROSI is specifically modified for use in the Faculty of Medicine, it is not evident that it will effectively replace the individual data management systems. To facilitate the management and reporting of student financial support, in conjunction with implementation of full funding policies and more equitable distribution of U of T Open studentship support, it was recommended by the Decanal Advisory Committee on Graduate Studies and the Basic Science Chairs that the Associate Dean hire an expert ROSI data manager. Therefore, this request is incorporated in an APF proposal[22]. This individual will consolidate the student financial data entry system in the Faculty, and ensure accuracy and uniformity of all data entered into the ROSI financial module among all the Graduate Units. Working with SGS and the ROSI personnel, this individual will enter into ROSI all the 1999-00 and 2000-01 financial data for all the Graduate Units, and function as the resource and backup person, to train the administrative assistants and business officers in the use of the ROSI financial module and to set up student awards accounts. ***Strategies to consolidate and centralize graduate student information management will be explored to improve the cost-effectiveness of graduate administration in the Faculty.***

Graduate Student Services

The Graduate Units in the Faculty of Medicine provide outstanding service to their students through the tireless efforts of committed Graduate Coordinators and administrative staff. Nevertheless, some aspects of university support services are insufficient. The housing service is unable to serve our students adequately. This is coupled with an extreme shortage of affordable housing for graduate students in the GTA, and makes student housing a serious

[22] See Summary of APF Proposal on Administrative Restructuring, included in Section 3.

matter for national and international recruitment. As well, severe cutbacks in the awards office at SGS have significantly diminished the availability of expert financial counseling. Student housing, financial counseling and career development opportunities are the joint responsibility of the Faculty and the University***. Strategies to improve these services for students in all graduate programs must be initiated in partnership with the University.***

MD/PhD Combined Degree Program

The combined MD and PhD program was established in 1985 by Professor Mel Silverman and is now the leading program in Canada. The 25 to 30 students in this program are fully funded during research training (PhD stipends for up to 5 years) and complete both the MD and PhD degrees in 7 to 8 years. The sources of funding include studentships from the MRC MD/PhD national training program, OSOTF, external agencies and foundations, endowment funding, support from the affiliated hospital research institutes and industry. The McLaughlin Centre is expected to support 15 McLaughlin Scientists who will lead the development of curricular innovations, and act as supervisors, mentors and role models for students in the MD/PhD program. This program trains international award-winning students and exemplifies the linkage between research and education in the Faculty of Medicine. Since the applicant pool is large, and PhD supervision in outstanding research programs is immediately available, expansion of this program will be easily accomplished if sufficient funding for student stipends is secured. The level of funding must include full tuition including both medical school and SGS tuition, as well as a PhD stipend during research training. ***To strongly promote the mission of the Faculty and University, enrolment in the MD/PhD program and other conjoint graduate programs (eg. MD/MBA, MHSc/MD, MD/MSc) must double in the next 5 years.***

MD-Scientist Training Programs

The Faculty of Medicine has the largest enrolment of MD research trainees in graduate programs in North America. This tradition was established by the Surgical-Scientist training program and has been adopted by many of the major Clinical Departments including Medicine, Pediatrics, Psychiatry, Anaesthesia, Ophthalmology and Family and Community Medicine. Currently, 120 MD trainees from the postgraduate clinical training programs are registered as full time students in the Institute of Medical Science, Health Administration (Clinical Epidemiology), Community Health (Family and Community Medicine), and OISE/UT. The Clinical Departments provide funding and mentoring and the Graduate Units provide the academic research training. The McLaughlin Centre will also help to produce clinician-scientists at the cutting edge of medical research. In 1996-97, the Royal College Clinical Investigator Program was established in the Faculty, and now enrolls over 80 postgraduate MD trainees who are concurrently engaged in full time graduate studies. This certificate program is a career development option that provides a curriculum focused on acquiring skills specific for Clinician-Scientists who must balance research and clinical careers. Many of these trainees will complete their initial research training in the Faculty of Medicine obtaining either a MSc or PhD degree and then train outside of U of T, usually in a prestigious center in the USA or Europe, and return to Canada as highly skilled researchers. The graduates of these programs are the future academic and research leaders in Medicine

across Canada. Currently, between 80 to 90% of these graduates over the past 10 years have been recruited into academic research positions in Canada (approximately 50 to 60% at U of T). ***Sustained administrative support and enhanced funding for MD research trainees must be a top priority for the Faculty and Clinical Departments***.

These outstanding MD research-training programs face two major problems in the next 5 years. First, the increasing personal financial debt of clinical trainees due to high tuition fees in medical school will deter many from spending the extra time to train as scientists during or following postgraduate clinical training. Second, the erosion of university-based salary support for Clinician-Scientists makes academic employment less competitive with the plentiful non-academic community practice positions. These two factors in concert may erode the Faculty's ability to train and retain outstanding Clinician Scientists.
The Faculty of Medicine must enhance the support for Clinician-Scientists through increased base-budget allocations, fund-raising and partnering with the affiliated hospital research institutes, in order to train and* retain *the next generation of researchers in the Clinical Departments.

Priority Goals and Actions

1. Over the next 5 years seek all potential sources of funding to ensure all MSc/PhD students receive full funding for the duration of their degree programs.

2. Improve and sustain funding of the professional degree programs as a priority in the Faculty of Medicine.

3. Recruit outstanding students from the undergraduate Arts and Science programs at U of T and other major universities into MSc/PhD and professional graduate programs.

4. Consolidate and centralize graduate student information management to improve the cost-effectiveness of graduate administration in the Faculty.

5. In partnership with the University, improve access to housing services, financial counseling and career development opportunities for students in all graduate programs.

6. Double enrolment in the MD/PhD program and other conjoint graduate programs (eg. MD/MHSc, MD/MBA, MD/MSc).

7. Sustain administrative support and enhance funding for MD research trainees as a top priority for the Faculty and Clinical Departments.

8. Enhance the support for Clinician-Scientist trainees, and early stage Clinician-Scientist faculty members, through increased base-budget allocations, fund-raising and partnering with the affiliated hospital research institutes.

2.3.7 Basic Medical Sciences Teaching - Arts and Science

The Basic Medical Science Departments and Divisions in the Faculty of Medicine engage in undergraduate Arts and Science teaching within the Life Sciences curriculum. Teaching is divided between generalist teaching in the Life Science major and Human Biology programs, and nine basic medical science specialist programs. The Faculty has renewed its commitment to teaching in the new specialist programs in Human Biology commencing September 2001. Laboratory course instruction occurs exclusively in the Division of Teaching Labs, where each Basic Medical Science Department utilizes the infrastructure and management provided by the Director. Formerly under the decanal authority of the Vice Dean Education, Arts and Science teaching is now in the portfolio of the Associate Dean Graduate and Interfaculty Affairs. The latter meets monthly with the Decanal Advisory Committee on Basic Medical Science Teaching composed of the Arts and Science course directors, and the Human Biology Program Director. As well, the Associate Dean represents the Basic Medical Sciences Departments on the Science Chairs Committee (Arts and Science), the Program Committee for Human Biology and the Arts and Science Curriculum Committee. The Associate Dean will represent the Faculty of Medicine in all inter-Faculty planning for new courses and programs in Arts and Science.

Commitment to Arts and Science undergraduate teaching serves multiple ends. It is mandated, both by the University and the need of the Faculty, to recruit excellent students into specialist streams, which feed the basic medical science graduate programs. Currently in the Faculty of Medicine, 50% of the faculty members teaching in Arts and Science are non-tenured and located in the affiliated hospital research institutes. The Chairs of the Basic Medical Science Departments recruit the best teachers from their tenured and non-tenured faculty to engage in undergraduate teaching in a curriculum that strongly links research and education, particularly in the 4th year specialist courses. However, these Departments are at the limit of their budgets and cannot increase teaching load without enhanced resources. The request for extraordinary funding,[23] submitted by the Faculty of Medicine for Arts and Science Teaching, reflects the immediate need for modest resources necessary for full engagement in the new specialist programs in Human Biology. This funding proposal takes into consideration increased enrolment in core courses in the new specialist program in Human Biology, e.g., BCH 210. These courses are either established or will be implemented in 2000-01. They have been approved by the Curriculum Committee in Arts and Science, on the understanding by the Chairs of the Departments putting forward these courses that increased base budget funding required. ***Increased enrolment in undergraduate Arts and Science courses must be accompanied by an appropriate and equitable increase in base budget to the Basic Science Departments and Division of Teaching Labs.***

The spectrum of education, including undergraduate medicine, postgraduate clinical training and continuing education, is unique to the Faculty. Teaching commitments to graduate

[23] The request for extraordinary funding for Basic Science Departments, Arts and Science Teaching focuses on the Human Biology Program, included in Section 3. Deputy Provost Carolyn Tuohy agreed during negotiations with Arts & Science that this request receive special consideration and would not be taken as a 100% charge against Medicine's internal APF envelope, given the fact that this represented an extra-Faculty teaching initiative.

programs, with the exception of professional graduate studies, are similar to Arts and Science. Therefore, the budgetary management of education in the Faculty differs from that in the Arts and Science Departments. Nevertheless, the Faculty should engage in careful budgetary planning for basic medical science undergraduate teaching, based on course enrolments where quotas are set not only by the academic qualifications of the students but also by budgetary limitations. ***Partnership between the Faculties of Arts and Science and Medicine in undergraduate teaching must take into consideration their differences in planning and budgeting of these programs.***

Opportunities for innovation in development of educational programs are abundant at the University of Toronto. Exploration of linkages in teaching and research between the Faculty of Medicine and Departments in other Faculties must not be hindered by budgetary constraints. Indeed, the development of trans-Faculty and interdisciplinary programs may be both cost-effective and highly desired by undergraduate and graduate students at the University and within our Faculty. Enhanced communication among educators and researchers in biomedical sciences about shared or complementary interests and expertise in mathematics, computer science, physics, chemistry, engineering, botany, zoology, psychology, social sciences and many more disciplines must be explored proactively. The role of the Associate Dean and Basic Medical Science Chairs is to seek out and promote these opportunities. ***Breaking down traditional departmental barriers both within and outside the Faculty of Medicine will promote innovative undergraduate (and graduate) education opportunities strongly linked to research***

Priority Goals and Actions

1. Establish appropriate funding to support future increased enrolment in undergraduate Arts and Science courses.

2. Ensure that the partnership between the Faculties of Arts and Science and Medicine in undergraduate teaching takes into consideration differences in planning and budgeting of the divisions and programs.

3. Break down traditional departmental barriers both within and outside the Faculty of Medicine to promote innovative undergraduate (and graduate) education opportunities strongly linked to research.

2.3.8 Continuing Education

The office of Continuing Education (OCE) in the Faculty of Medicine provides one of the largest academic health sciences continuing education programs in the world. It attempts to achieve leadership in developing, implementing and evaluating health outcomes-linked continuing education strategies for health professionals. These strategies include short courses, distance education methods, and other innovative interventions described more fully under Research and Development. Activities are geared to the maintenance of competence enhancing the performance of health professionals in Ontario and beyond, and ultimately impacting on patient and public health outcomes.

Products and Services

Continuing Education activities bearing the U of T name must be approved by the Faculty Council CE Committee. The OCE coordinates the approval process and, when requested, manages many of the approved courses.

The Short Course

The short course, which is still the main method for delivering CE, has become more interactive through the use of touch pads, workshops and small group sessions. Other adult learner-centered approaches are now being used (e.g. sequential courses in Medicine and Psychiatry held over several weeks). The number of short courses provided by the U of T has doubled over the past 6 years with over 15,000 participants in 1998/99. Most of these courses are generated by departments.

Total Course Statistics, 1992/93-1998/99

Year	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
CE Office-Administered Courses*	50	51	45	46	48	48	44
Non-Administered	26	60	57	59	69	88	89
Total U of T Sponsored Courses	76	111	102	105	117	136	133
Total Enrolment in CE-Administered Courses	4,607	5,102	5,959**	4,996	4,684	4,827	5,445
Total Enrolment in All Courses (estimate)	11,400	13,764	13,974	12,075	12,285	15,776	15,561

* Saturday at the University is counted as one course

** includes 1300 registrants at a single course (7th International Congress in Obesity)

Comparison of Annual Course Attendance, 1992/93-1998/99

Year	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Numbers of Annual Courses	8	15	21	27	27	31	35
Total Attendees	1,206	1,861	2,880	3,126	2,833	3,602	4,096
Average Attendance	150	124	137	115	105	116	117

Saturday at the University is both directed and run by the OCE. Held six times yearly, this large family-practice program highlights several trends in CE, such as web-based learning, regular knowledge testing by multiple choice questions, practice-enabling materials, hands-on demonstrations, and focus groups used to determine needs and to provide ongoing feedback and assessment. The OCE has also mounted a series of Internet training sessions for university and community-based clinicians.

Distance Education

With the demise of the audio conference-mediated *Telemedicine Canada* program in 1998, the Faculty's OCE turned its attention to other, more sophisticated CE delivery systems to enable access to learning resources at a distance. These include establishing a relationship with *HealthSAT-PrimeNet*, to provide video satellite broadcast of programs containing content and speakers from the Saturday at the University programs, Department of Medicine rounds and other activities to a wide variety of health professionals across the country. The OCE has approved several web-based interventions, for example, the Department of Family and Community Medicine's evidence-based care CME program, a workshop in atrial fibrillation, among others. Other modalities have been used to increase the 'reach' of programming - e.g., audiotapes and academic detailing. Finally, the OCE has developed an extensive website, www.cme.utoronto.ca used by practitioners, researchers and faculty members in CE: over 10,000 'hits' were registered in the first 6 months of operation of this new communication initiative.

Faculty Development

The OCE undertakes needs assessments of faculty members for CE skills in presentation, needs assessment, evaluation and other competencies, and mounts a series of faculty development sessions in response, on a yearly basis. This activity is assisted by the *Centre for Research in Education* (CRE). The OCE funds the extensive *Research and Development Resource Base in CE* (RDRB-CE). The latter is a unique database, maintained at the CRE, that drives much of the research in CE internationally and locally, has links to the Cochrane Collaborative, is searchable on the website and is an integral part of the academic nature of the CE programs of the Faculty. Finally, other faculty development activities included a graduate course (in CE design, delivery and evaluation via the Graduate Department of Community Health), individual consultation and web-enabled resources.

Research and Development

Research projects are funded by an internal granting process or external funders, and exemplify the academic nature of the CE operation of the Faculty of Medicine. Driven by department members, facilitated by faculty development and other supportive activities of the OCE, and referencing the large RDRB database, these projects reflect the strong academic R&D presence of the Faculty of Medicine in CE.

Boundary Functions

There are a number of critical linkages necessary to achieving the goals of the Faculty of Medicine to CE. The OCE has forged collaborative relationships with several national bodies, notably the Royal College of Physicians and Surgeons of Canada, whose recent Maintenance of Certification Program has been a major landmark in specialty CE in the country. The office has developed a working relationship with many national specialty societies, and - on a North American basis - with the Alliance for CME and the Society for Academic CME - the two major CME provider organizations. Examples of international relationships include efforts in CE in the Department of Otolaryngology, the CISEPO initiatives, and on an individual basis with the World Health Organization among others.

Infrastructure

Providing these products and services and maintaining boundary functions requires a large and flexible infrastructure. This is exemplified by a diverse and industrious conference office staff, strong academic personnel, a comprehensive budget planning and management process (necessitated by the sizable business nature of the operation), an energetic and volunteer Faculty Council CE Committee and the time and energy of many faculty members, including the directors of CE or their equivalents within departments. An important piece of infrastructure - derived from course approval fees - is the *Academic Development Fund in CE*. This special fund supports much of the academic work of the Faculty, faculty development workshops and travel, awards for excellence, fellowships and internal R&D projects.

Future Directions

Future directions for CE at the University of Toronto will be driven by sizable forces for change in the environment of health practitioner education and health services. First, the content of CE will shift toward more evidence-based medicine (EBM). Second, the delivery of CE is evolving from the traditional didactic, one-time-only events, to more interaction, with small groups and follow-up reminders, e.g., academic detailing and longitudinal courses. Faculty development to support these shifts will require increased funding and support, captured in the APF, 'A Knowledge Translation Program'[24]. Third, external regulatory forces such as those of the RCPS will operate to increase attention to CE on the part of participants, licensing bodies, employers and others. Fourth, changes in technology and learner expectations will necessitate the increased use of web-based CE, new video and other broadcast methods, and point-of-care technologies such as reminder systems. Resources to meet this burgeoning demand are captioned in by the education deans' APF on academic computing. Finally, achievements to meet the demands of these forces are predicated on the enabling capacity of funding agencies, linkages to CQI needs within health care systems and institutions, faculty resources in technology and research - and most of all - on the energy and creativity of the faculty and staff of the Faculty of Medicine. The energies and competencies of these individuals make the goal of a unique health outcomes-linked CE operation - already clearly necessary and desirable - achievable in the next 5 years.

[24] See summary of APF Proposal, Knowledge Translation Program, included in Section 3.

Priority Goals and Actions

1. Ensure the Faculty's CE program will be increasingly evidence-based, grounded in translating research into practice and contributory to the scholarly base of CE.

2. Establish clear principles, goals, targets and mechanisms for providing continuing education.

3. Transform CE into a knowledge transfer program, linked to health outcomes. (See APF – Knowledge Translation Program)

4. Enhance use of web-based and point-of-care technologies, to keep pace with changing technology and learners' expectations.

5. Increase national and international CE program participation by 50% by 2003.

2.4 Building the Faculty

The Faculty of Medicine comprises 4,790[25] academic faculty spanning the University campus and affiliated teaching hospitals and agencies. These faculty members represent one of the largest pools of intellectual and academic talent in North America. A total of 1,812 are engaged full-time in academic activity and designated "faculty full-time", while the remainder are involved in academic activities in a part-time capacity. Of the faculty full-time, 206 are tenured/tenure stream. Of the total faculty, only a small number are fully paid by the University. While some receive stipends from the University, the majority are remunerated through the affiliated hospitals, clinical practice plans, community agencies, or career awards.

The academic staff of the faculty in May 2000 includes:

Rank	**Faculty Full-time**	**Other faculty**	**Total**
Professor	465	144	609
Associate Professor	515	187	702
Assistant Professor	709	896	1605
Other Ranks (Lecturers, Instructors, Tutors)	123	1751	1874
Total	**1812**	**2978**	**4790**

University-based core faculty are critical to the leadership and growth of the academic enterprise, providing both the glue and the leverage to engage and coordinate the participation of a large and diverse faculty in the affiliated teaching hospitals and agencies. The core faculty provides the administrative oversight to the academic enterprise.

[25] Academic Staff count as of May 2000.

For the period 2000 – 2004, relatively few faculty members are retiring; most will be replaced, but some retirements will be used to cover departmental re-allocation levies. We anticipate only limited and selective growth in the faculty complement within the tenure-stream. This will occur from five sources: APF positions funded but still unfilled from the last planning cycle; additional positions requested in this planning cycle; endowed funds (chairs and professorships); Canada Research Chairs; and enrolment expansion in the rehabilitation sector, with concomitant growth in Basic Income Units and tuition revenues. The complement plan for three sectors of the Faculty, namely Basic Sciences, Community Health and Rehabilitation Science is included in Appendix VII.

The Faculty employs a broad range of strategies to recruit new faculty, addressing both national and international sources for high calibre scholars. Examples of approaches to identifying potential recruits include:

- Contacting chairs of cognate departments in Canada and around the world
- Contacting qualified individuals who were recent post-doctoral fellows
- Visiting professors and speakers
- Interacting with graduate students and postdoctoral fellows at conferences and speaking events
- Participating actively in interdepartmental, collaborative research programs
- Advertising widely in newspapers and professional journals.

One department is planning to establish a Program for Junior Fellows, providing salary, research space and some operating funds to recruits. The aim is to identify and recruit promising young scientists early in their postdoctoral training. This program will give the Fellow the opportunity to launch a competitive program without the immediate pressures of writing grants.

Recruitment strategies recognize the importance of diversity and there has been increasing success in recruiting women and members of under-represented groups to faculty positions. In many areas, the pool of candidates for academic positions itself contains increasing numbers of women and members of ethno-racial minorities.

The Faculty enjoys considerable success in attracting the interest of top candidates. The prime attraction to Toronto is the scope and depth of the research and academic programs. Recruitment challenges include access to sufficient resources for start-up support and access to appropriate physical space for new recruits.

In the Clinical Departments, efforts are being made to achieve a balance in recruitment of clinical scientists, investigators and clinical teachers. Hospitals, in their efforts to strengthen basic and bench research, are recruiting basic scientists into clinical departments and linking them with clinical leaders. In some instances, service demands in the hospital setting are driving the recruitment and selection of clinicians over research-focused candidates. There are a number of opportunities for the University and the affiliated teaching hospitals to collaborate with respect to recruitment of outstanding scholars to academic positions.

A few areas face ongoing challenges in academic recruitment:

- In the Rehabilitation disciplines, e.g., Speech-Language Pathology and Occupational Therapy, there is a shortage of academically-qualified personnel, particularly those with strong research records;
- In some of the clinical departments (e.g., Radiation Oncology, Medical Imaging, Lab Medicine and Pathobiology), there are shortages of specialists and sub-specialists in general. This exacerbate the problem of recruiting academic leaders. International recruitment is made difficult by the regulatory and immigration restrictions and barriers.

Overall, the Faculty of Medicine is in a strong position to attract and recruit top scholars to its faculty. The continued investment by the University in leading academic programs and in newly developing or emerging programs contributes enormously to the appeal of Toronto's Faculty of Medicine.

Priority Goals and Actions

1. Work with the Royal College of Physicians and Surgeons of Canada (RCPSC) and the College of Physicians and Surgeons of Ontario (CPSO) to develop streamlined mechanisms for licensing of international medical trainees and recruits.

2. Construct all search committees with a view to gender balance and ethno-racial diversity.

3. Intensify efforts to recruit internationally, whenever feasible, and work with University support services to promote the Faculty, University and city as venues where internationally competitive scholars from diverse backgrounds will be welcomed.

2.5 Enriching the Student Educational Experience

For Discussion on Graduate Student Funding and Services – see Section 2.3.6 Graduate Studies

Student Recruitment and financial support

Province-wide and nation-wide recruitment of applicants will continue to the second entry undergraduate educational programs in the Faculty. These professional programs include M.D. studies, Occupational Therapy, Physical Therapy and the collaborative program between the Faculty and the Michener Institute of Technology in Radiation Science, which started in September 1999.

Recruitment - Undergraduate Medicine

The Faculty has the largest Canadian Doctor of Medicine and MD/PhD program without active recruiting, and attracts applications of highly qualified students from across Canada. Detailed admissions information exists on the Web, but as a public service we continue interactive educational presentations on the MD program, its requirements, and the

application process to groups of interested students at colleges in the University and at universities in and near Toronto. In keeping with the mission of the University as a national resource, qualified students from across the country are encouraged to apply. In addition, many Canadians who have attended university in other countries, especially the US, apply to the MD program. Their applications are processed in the same manner as Canadian university applicants.

The Faculty outreach to ethno-cultural groups deemed underrepresented among the medical student body will continue to include special recognition, and efforts to recruit applicants of aboriginal (First Nations and Inuit) origin. In addition, the Office of Student Affairs will continue to sponsor and collaborate in providing special mentoring programs for underrepresented high school students, to encourage completion of postsecondary education and careers in health science/ medicine. These unique mentoring programs, in conjunction with Boards of Education, reach out to aboriginal students, those of Black African origin, and students from lower socioeconomic backgrounds.

With the increasing costs of medical education, specific efforts that address the perceived and actual financial barriers to recruitment are essential. This effort must include the development of adequate ongoing financial assistance and the dissemination of accessible information on financial support on a country-wide basis. Currently, a large number of needy medical students receive financial assistance for their studies and living expenses from the Province, the University and the Faculty. This financial support comes in a combination of loans, bursaries, and scholarships. With higher tuition fees and increased costs of living, a greater proportion of financial aid will need to be in the form of bursaries, grants-in-aid or scholarships, so that students can pursue their studies without undue anxiety and without incurring overwhelming debt load. Only with this type of financial support can the best and brightest medical students be recruited, regardless of their financial status.

As a means of decreasing undue medical student anxiety, both financial management counseling and individualized financial assistance counseling will continue to be provided by dedicated counselors with expertise in these areas.

Academic and personal counseling, essential services in any student support effort, are key components that enhance the educational experience of students in the Faculty's health professions programs and obviously must continue. The PASS Program, a counseling service at arm's length from the confidential counseling available in the Student Affairs office will continue to be offered as an alternative source of confidential assistance. Students from all four professional programs have availed themselves of this confidential service.

Student stress regarding career choices must be addressed with particular sensitivity. Career counseling, in large and small group focus sessions, such as the Career Nights series in September and the Glaxo Pathway decision-making analysis program, are important in preparing medical students to make informed career decisions. Individualized career counseling is also essential. Sessions on personal career decision strategies, the overall application process, and the interview process enable each medical residency applicant to be well informed as they choose their lifelong career.

The housing situation has become a critical problem as the university is no longer able to provide adequate housing for most of its students. Most of the safe accommodations available in downtown Toronto are expensive and not geared to a student market. The Faculty must become more active in assisting its students to find suitable housing—through the maintenance of a permanent housing registry and, possibly, the establishment of a residence for its students.

Guiding Principles

1. Improvement of the admissions process, to seek the most qualified applicants according to the mission of the Faculty.

2. Ensure accessibility to an excellent medical education for all qualified MD program applicants.

3. Enhance, in a major way, the financial assistance possibilities for needy professional students in all programs.

4. Continue the multifaceted counseling and referral capabilities, in terms of academic, personal, financial, and career counseling, for students in the M.D program, the Occupational Therapy and Physical Therapy programs and the Radiation Science program.

Priority Actions and Goals

1. Monitor and review the admissions process and the quality of the students who are permitted entry to the M.D. program on a regular basis. Encourage scholarly research that promises to improve the admissions process.

2. Disseminate information regarding substantive financial assistance and counseling for needy students to high schools and universities, in order to encourage the ideal applicants regardless of their financial background.

3. Establish a number of full admission scholarships for the M.D. program which will cover tuition, other fees and expenses, plus a greater or lesser portion of living expenses according to a student's need. Secure financial assistance to students in the upper years of medical school.

4. Secure larger amount of meaningful scholarship and bursary assistance for students in all the second-entry health professions programs. Funds for all programs could be raised through Faculty development initiatives and, additionally, for the medical students, in fundraising partnership programs with the Medical Alumni Association.

5. Assume an active role with the University of Toronto in assisting its students to find suitable housing—through the maintenance of a permanent housing registry and, possibly, the establishment of a residence for health professional students.

2.6 Enhancing our Relationships and Extending our Reach

The Faculty of Medicine exists on numerous sites. The Faculty is an integral part of the Toronto Academic Health Sciences Complex. Academic activities of the various institutions are harmonized for maximum synergy and complementarity.[26]

One of the key strengths and distinguishing features of the University of Toronto Faculty of Medicine is its relationship with its eight fully affiliated teaching hospitals and their respective research institutes. Hospital restructuring in the late 1990's resulted in a strengthened configuration of teaching hospitals which include: University Health Network, Sunnybrook and Women's College Health Sciences Centre, Toronto Rehabilitation Institute, Baycrest Centre for Geriatric Care, The Hospital for Sick Children, St. Michael's Hospital, Mount Sinai Hospital and the Centre for Addiction and Mental Health.

The Faculty and teaching hospitals continually seek out opportunities to better integrate the campus-based and hospital-based faculty and academic activities. Joint planning is evident on an ongoing basis. Together, the hospital-based research units and Faculty are developing standardized policies on research reviews and ethics. Principles for allocation of Canada Research Chairs that will be awarded to the Faculty of Medicine are being established jointly with the teaching hospitals. The recently announced McLaughlin Centre will provide further opportunities for collaboration and integration of research and teaching activities. Joint recruitment of new faculty is occurring on a more regular basis. As well, given the greater emphasis on multi-institutional and interdisciplinary collaboration, most applications to provincial and federal granting agencies are being developed jointly with teaching hospitals, research institutes and Faculty.

> *"Scientists on the campus and the four partner hospitals put together a compelling vision of how the genetic revolution could transform clinical care research and education, in a virtual center located on multiple sites--hence the creation of The McLaughlin Centre." Dean David Naylor, at The McLaughlin Centre announcement, June 5, 2000.*

In this next planning cycle, we envision joint infrastructure projects as well as several multi-departmental and multi-institutional programs. The majority of our APF applications demonstrate strong collaboration with our teaching hospitals and research institutes either as partners actively involved in the initiatives, or as strong supporters of the proposals.

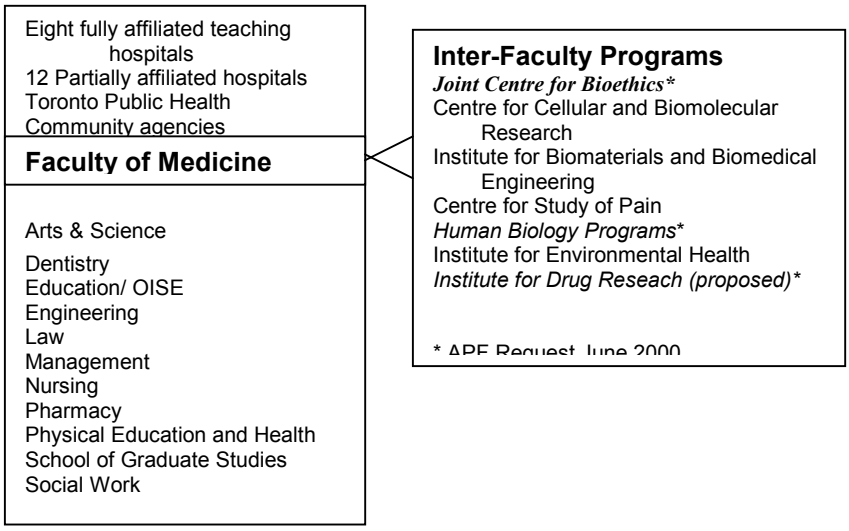
The changing nature of health care delivery also requires changes in the sites and experiences for our professional training. New and enhanced relationships are being cultivated with our partially affiliated teaching hospitals and with community organizations that can enrich the student educational experience. The Department of Paediatrics has fostered strong relationships for teaching and service with community hospitals, which are part of the Child Health Network of the Greater Toronto Area. The Rehabilitation sector identifies approximately 100 agencies as teaching sites for its professional training programs, and participates in the newly created GTA Rehabilitation Network.

[26] Goal 4.1, Enhancing our Relationships and Extending our Reach, Section 1.

The Community Health sector has developed a breadth of relationships to extend the impact of its activities in community and population health. In its new strategic plan, the Department of Health Administration has established a priority goal to "sustain our health system through community service", by providing expertise, information and assistance to health related organizations and expanding interaction between the Department and the practice of health management and policies through partnerships. The Department of Public Health Sciences espouses a goal of "working collaboratively to advance health through community action."

Perhaps the most ambitious program to extend the reach of the Faculty of Medicine is the creation of a Centre of International Health, which is a high priority request to the APF. The Centre is expected to coordinate and facilitate international health research activities of students and faculty for the University of Toronto community. It will facilitate multi and interdisciplinary research in various areas of international health, including health system change, global bioethics, surgical disease management, child health, infectious disease and poverty. The Centre will attract visiting scholars and researchers and facilitate international cooperation and collaboration. Twinning with universities in other countries is planned, eg. South Africa, to advance our global presence in health education and research.

Interdisciplinary and inter-faculty collaboration across the University is expected to continue and grow. Our new Associate Dean, Inter-Faculty and Graduate Affairs, will explore partnerships in teaching and research, to decrease the duplication and overlap in courses and programs and enhance opportunities and outcomes for achieving our academic mission. The illustration below lists the inter-Faculty and key external relations of the Faculty of Medicine.



We will also be looking to strengthen communications and outreach to all of our alumni. In their individual plans, departments have identified a variety of approaches from enhanced websites, to newsletters, to continuing education strategies to keep connected with alumni. Our expanded Development Office, as outlined in the next Section, 2.7, and in our request

for extraordinary funding,[27] will work with departments and their alumni associations, to enhance fund-raising and donor support.

In this fast-paced and changing world of emerging and converging technologies, opportunities for local, national and global relationships with public and private organizations are expected to increase. In the next year, the Faculty of Medicine will establish a task force to develop criteria, goals and guidelines for assessing and developing Faculty relationships and alliances.

2.7 Development and Advancement

The Office of Development works collaboratively with the Dean, faculty, alumni, the University's Development Office and others, to raise funds to support the academic priorities of the Faculty of Medicine, its departments and affiliates. Its primary goal is to develop strategies to maximize the funds raised for specific needs and initiatives rooted in a vision of international leadership in research and education. The work with The McLaughlin Foundation to secure $50 million dollars, which was then matched with funding from the OIT, is an example of the potential for fund-raising within the Faculty.

Fundraising Achievements

This section highlights some of the major fundraising successes over the past five years.

The Campaign, Faculty of Medicine
Achievements - May 1, 1995 to April 30, 2000.

1995-2000 Pledges (May 1, 1995 to January 31, 2000)	**1995-2000 Payments (May 1, 1994 to January 31, 2000) (Received)**
$124,459,159* (*$3,799,454 pledges to *The* Campaign before May 1, 1995 start date)	$117,655,781

Donation Highlights

Endowed Chairs *(includes funding for 25.5 Chairs)*	$36,100,000
Ontario Student Opportunity Trust Fund (OSOTF) *(Undergraduate and Graduate Student Aid – matched by the University and the Government of Ontario to create a total endowment of $86,462,283.66)*	$28,820,761.22
Planned Giving *(includes Bequests and Annuity Gifts)*	$21,096,069.43
Heart & Stroke/Lewar Research Funds	$13,000,000
Centre for Research in Neurodegenerative Diseases	$10,800,000
Ontario Graduate Scholarships in Science and Technology (OGSST) *(72 scholarships allocated to the Faculty of Medicine; $50,000 per scholarship)*	$3,600,000 (gifts) $7,200,000 (total endowment)
Annual Giving *(includes Annual Fund, Special Annual Giving, Gratitude, Faculty/Staff Appeal, Corporate Matching Gifts)*	$2,141,930

[27] Development Office, request for extraordinary funding, included in Section 3.

The Campaign

The Campaign was established to raise $300 million toward the highest academic priorities of the University by 2002. To date, *The* Campaign has raised more than $550 million. The Faculty of Medicine has been a major benefactor of this overwhelming success. Total pledges for the Faculty of Medicine are $124.5 million, with total payments to date of over $117 million. If *The* Campaign is extended, we shall continue to fundraise within *The* Campaign toward the Faculty's future priorities. Even if *The* Campaign is temporarily suspended or re-tooled, the Faculty intends to press on with a much stronger divisional commitment to fund-raising.

Endowed Chairs

Appendix VIII provides a listing of Chairs at the University of Toronto Faculty of Medicine. VIII.1 is a listing of chairs at the Faculty that have been funded since 1995. VIII.2 includes endowed chairs where funding is held at our affiliated teaching hospitals. This list represents multi-million dollar investments made by individuals, families, foundations, and corporations, and is a reflection of their confidence in our research capabilities and scholarly leadership. There are nine additional endowed chairs in the Faculty of Medicine since the report included in the 1997 academic plan. Endowed chairs in our affiliated teaching hospitals have increased by 41, with particularly active and successful campaigns at The Hospital for Sick Children and The University Health Network. Total endowed chairs in the Faculty of Medicine are presently 70.5.

Several departments have identified opportunities for augmenting the number of endowed Chairs. These opportunities will need to be pursued in this planning cycle. The Canada Research Chairs, which we describe more fully in the Research Section (2.2), outline the opportunity for at least 120 new Chairs in the Faculty, which would be supported through Federal funding. The Canada Research Chairs offer an extraordinary opportunity for new matching programs that should pique donor interest.

The Ontario Student Opportunity Trust Fund (OSOTF) Program

The one-to-one matching program established by the Ontario Government was used as a means of encouraging the public to donate monies to establish awards at universities that have a financial need component as their primary criteria. The University of Toronto chose to further match these awards on a one-to-one basis creating a 2:1 match. The monies for these awards needed to be pledged between May 1, 1996 and March 31, 1997, with full payment on the pledge to be received by March 31, 1999.

This program has attracted strong donor interest. As of March 31, 1999, the Faculty of Medicine has received OSOTF matched payments totaling more than $28.8 million.

Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research

In 1999, two generous gifts totaling $13 million, made it possible to establish the Heart and Stroke/Richard Lewar Centre of Excellence for the prevention and cure of atherosclerosis, heart failure and congenital heart disease. The Centre aims to take advantage of the Human Genome Project to investigate the fundamental causes of heart disease. Support is being sought from government sources as well as the private sector to build on the resources in the Centre.

Centre for Research in Neurodegenerative Diseases (CRND)

In response to the urgent need for advances in neurodegenerative disease research, the University of Toronto, in partnership with the Alzheimer Association of Ontario and a group of key private supporters, established the Centre for Research in Neurodegenerative Diseases (CRND) in 1991. The CRND's objectives are to identify the causes, develop effective treatments, and ultimately, prevent and cure neurodegenerative diseases, including Alzheimer's disease, Amyotrophic Lateral Sclerosis (Lou Gehrig's disease), Creutzfeld-Jacob ("mad cow" disease), and Parkinson's disease. To date, the Campaign has successfully raised more than $10.8 million, including Chairs in Alzheimer Disease Research, Neurodegenerative Diseases and Parkinson's Disease Research.

Graduate Scholarships in Science and Technology (OGSST) Program

The OGSST program was established by the provincial government in 1998 to create 173 new awards allocated to graduate students in the applied science, information technology, management field and the life, biological and medical sciences. Every gift of $50,000 toward a Faculty of Medicine graduate scholarship was endowed and matched by the university, to create a $100,000 endowment. The endowment generates $5,000 a year to start, and the province has matched this income twice to generate $15,000 a year. When the program ends in 2008, the university will continue to provide the annual $10,000 top-up, enabling OGSST to continue in perpetuity. OGSST pledges needed to be made by December 31, 1999 and fulfilled by December 31, 2001.

This program was well received by our donors. The Faculty of Medicine has successfully filled its 72 allotted scholarships, representing an endowment fund of more than $7.2 million.

Future Directions

The Office of Development is excited by the successes of the Faculty of Medicine to date, and by the incredible fundraising potential for the future. Grounded in the Faculty's vision, mission and values, strategies will be developed to fund current and future priorities as set by the Dean of Medicine and his faculty.

Work will carry on with department chairs, faculty and teaching hospitals, to identify natural partners and evaluate past, current and new donors in terms of their likelihood to support a given initiative. Central assistance will be required for prospect clearance. The cultivation

and solicitation of new gifts is obviously a key area of activity. Volunteer recruitment will be vital to these efforts, especially for the identification and solicitation of prospective donors. An additional function will be to steward past and current donors to keep donors informed, engaged and excited about their gifts. These strategies will stress accountability and appreciation, building donor loyalty to the programs they support, and to the Faculty.

Two general fund-raising priorities for the next five years are capital and student aid. A major initiative is *The Centre for Cellular and Biomolecular Research (CCBR)*. This is also the Faculty's highest priority APF application. A capital campaign of approximately $25 million toward the construction of the new building is underway. The CCBR will house up to 70 lead investigators and faculty members, along with their research teams and graduate students. A second priority capital project for fundraising is The Centre for Improvement in Health and Function. Departments in the Community Health Sector and the Rehabilitation Sector have submitted an application to the CFI to help fund this new center. The application requests funding, both for a new building to house departmental research, and for research infrastructure to support the Centre's activities. The related fund-raising requirement of the Departments and Faculty is approximately $15 million.

Preliminary discussions are underway to develop a marketing and branding exercise that will increase the profile and visibility of the Faculty of Medicine. The goal is to enhance the public's awareness of the Faculty as one of the best research hubs in the World.

Currently, the Development base budget funding supports only three FTE positions, i.e. fully partly outside the Faculty's reallocative levy, The Faculty's share of fund-raising, including the recent McLaughlin gift, contributes back to support of *The* Campaign through the standardized 4-month holdback on the first year's endowment income. In the past, these campaign funds have been generously re-invested in both the Central and divisional campaign offices. Accordingly, we are making an "extraordinary" request, to increase the Faculty's fund-raising capability for the next four years. Based on our extensive capital and student funding support requirements, the proliferation of granting opportunities which require matching funds, targeted private benefactions and enhanced outreach to our alumni, we see the need to expand The Development Office and its activities significantly.

The Development Office will continue to work closely with the University and Faculty to exceed the annual fundraising goals. In addition, the vision of The Development Office is to become a centre of excellence in donor relations, demonstrating exemplary practices in stewardship and donor acquisition. While the competition for donor funds continues to increase, we see the Faculty of Medicine well positioned, in terms of its leading edge research focus, to capture the interest and support of public and private donors.

2.8 Infrastructure

Space

The campus-based component of the Faculty currently occupies 10 buildings located north of College Street, between Elizabeth Street on the east and Spadina Avenue on the west. The on-campus activity of the Faculty must surmount serious space problems in this next era of growth and development. First, like the rest of the University, the Faculty on campus is faced with physical infrastructure that is deteriorating with age, and not designed for today's science. The "youngest" building, the Medical Sciences Building (MSB), was opened 34 years ago. The Departments of Occupational Therapy and Physical Therapy are in a converted warehouse at 256 McCaul, with a physical plant in such a deplorable condition that it cannot be seriously improved without gutting it. A similar issue of sub-standard quality of space exists in other buildings (the Banting, the Best, the FitzGerald, and the McMurrich). Second, the Faculty has entered a renewal phase accompanied by growing space needs resulting from department re-structuring, new academic priorities and programs, the success of our new recruits, growth in numbers of graduate students and postdoctoral fellows, and endowed Chairs (including the Canada Research Chairs). Currently, the Faculty has a total of about 259,000 sq.ft. of space assigned as research space on campus. There is a serious shortage of space for wet and dry laboratories, and offices. Based on a survey of all departments this spring, approximately 40,000 sq.ft. of additional space will be needed in the next two years to accommodate growth and new recruitment on campus. This would double in 5 years.

Solving the space problem is therefore the first priority. A long range (3-5 years) space plan will be based on the decisions already made by the University to retain ownership of the land occupied by the Best Institute and the Banting Institute on College Street, and to continue to assign the land use to the Faculty of Medicine. Such a plan would have the following elements:

1. *The Banting Institute*: A new building would be constructed on the site of the Banting Institute with sufficient space to meet the present need and future growth of the departments in the Community Health sector and the Rehabilitation Science sector. These cognate departments include Public Health Sciences, Health Administration, Occupational Therapy (OT), Physical Therapy (PT), and Speech-Language Pathology (SLP). This would free up the entire McMurrich building, 256 McCaul, laboratory and office space used by SLP in the Tanz building, as well as other office space in MSB and the FitzGerald building used by Public Health Sciences, and Health Administration. The McMurrich and the office space freed up in the FitzGerald could accommodate the Office of Postgraduate Medical Education and the Department of Family and Community Medicine (both at present in rental space at 600 University Avenue), and the Department of Surgery administrative office currently in the Banting Institute. This would also accommodate the Department of Medicine office, which is slated to move from University Health Network (UHN) in the next 6 months.

In the interim, there is an acute need for "dry" office space for administrative purposes (e.g., Department of Medicine) and for the academic activities of the PT and OT departments. The

Department of Medicine will need over 4000 square feet of office space by December 2000. Both clinical accreditors and OCGS reviewers have criticized the quality of the space available to the Departments of OT and PT. It is increasingly untenable for these departments to occupy the McCaul Street site while awaiting the still-uncertain reconstruction of the Banting site into the Centre for Health and Function. Transitional space, such as the Board of Education building on the south-west corner of McCaul and College, must be explored as a matter of urgency.

2. *The Best Institute*: The Banting and Best Department (BBDMR) has been the only tenant of this building since 1967. Over the years the Department has frequently renovated and updated the laboratories in the building. The building should be kept as a "wet" laboratory building after renovation of its physical plant (e.g. HVAC). With the closing of Medical Distribution Centre (MDC) East and the planned closing of the Department of Comparative Medicine operation in the building, more space will be available to be renovated and used for research. The renovated building could be the campus facility for the Department of Laboratory Medicine and Pathobiology (LMP). Currently, LMP has laboratory and office space in the Banting Institute, and a laboratory in MSB.

3. *Additional Laboratory Space*: Construction of the Centre for Cellular and Biomedical Research (CCBR) is expected to begin in late 2001 or early 2002 on the Taddle Creek Road site. Bearing in mind that CCBR is a research centre for multiple Faculties (Medicine, Pharmacy, Arts & Science and Engineering) and that it has not much more than 90,000 sq.ft. assignable space, it cannot completely meet the Faculty's need for additional space in the long term. Program-based and merit-based assignment of existing investigators currently in MSB and of those in BBDMR to CCBR would free up a good portion of space in MSB, but not enough to meet the long-term need of 80,000 sq.ft or more. This need would be met only by building more space. The building site between FitzGerald and the Tanz (the "College Street" site as opposed to the Taddle Creek Road site for CCBR) is no longer assigned to the Faculty and will be the site of the new Pharmacy Building. The remaining alternative to create more laboratory space would be to build on top of the western two blocks of MSB. As mentioned above in Section D, the creation of a centre focusing on translational "bench-to-bedside" research would complete the continuum beginning with CCBR. This could be the research base for a CFI proposal to obtain funding for the construction. Alternately, this "translational centre" could be developed jointly with UHN and other hospitals on the south side of College Street (between Elizabeth Street and University Avenue).

4. *Institute for Drug Research:* The proposed Institute for Drug Research[28] would draw together the bench research and lab space for both Departments of Pharmacology and Pharmaceutical Science. There are two possible locations for siting the integrated laboratory space: 1) in MSB where Pharmacology is now located, taking up additional space vacated by laboratories moving to the CCBR, and 2) in the new Pharmacy building to be constructed. The space planning for the Institute for Drug Research is still under discussion.

To sum up, long-term space planning has the following two key elements: 1) availability of the Best and the Banting sites or their equivalents to the Faculty, and 2) in addition to CCBR,

[28] APF Proposal for Institute for Drug Research, see Section 3

construction of new laboratory space equivalent to the addition of two floors to the two west blocks of MSB.

In the short term the need for space (some 40,000 sq.ft) in the next 1-2 years is not being met. In fact, the establishment of CCBR with its recruitment of new researchers and a director, has made the need to identify space more urgent before the completion of the new building. One possible solution is to immediately renovate portions of the Banting Institute and the freed up space (from the closing of MDC East and the DCM operation in the building) in the Best Institute at minimal cost to provide temporary laboratory space for at least 2-3 years. This would provide sufficient time for the completion of CCBR, while awaiting the final development of the Banting site. Another transitional option, this one for 'dry' space, would be to locate PT and OT, plus the above noted administration offices, on one of the two Hydro buildings or the Board of Education Building (on College Street). This does not preclude the Faculty from exploring other developing opportunities in the vicinity of the campus. Finding or creating temporary space must be the top priority in research planning in the Faculty.

Computing Support Division

The mandate of the Computing Support Division (CSD) is to develop and maintain the communication backbone throughout the Faculty of Medicine and to enable the connectivity of all members of the Faculty to the backbone. To this end, over the past 5 years, the staff of CSD (3 FTE) has worked with departments and units upgrading their wiring and connective devices so that all offices and labs across the Faculty are connected via conventional wiring to the backbone. Most offices currently have 10MHz connectivity. A few offices are linked via 100MHz speeds. The Faculty's infrastructure is such that this latter speed of connectivity is now available to any department upon request. Members of the Faculty are located in 10 buildings on the University campus as well as in the fully affiliated hospitals. CSD has arranged connectivity for Faculty members in the hospitals through liaison with hospital officers either by hard wiring (e.g. the University Avenue hospitals) or high-powered ISDN lines or wireless transmission for offices further away, e.g., Toronto Western Hospital and Sunnybrook and Women's College Health Sciences Centre. The staff of CSD also assist (primarily) administrative staff members in setting up and maintaining their access to the University's Administrative Management Systems (AMS) and ROSI, provide an emergency consultation service to all Faculty members should their computer systems crash or otherwise suddenly fail, and operate an examination scoring service.

Human Resources

The Faculty of Medicine's decentralized Human Resources Office was established in 1993 with a staff of 4 FTE. The mandate of the Office is to assist staff members and managers. In the past 3 years, the workload of the Office has increased significantly owing to three major changes: a) the implementation of HRIS by the University, b) the downloading of services from central HR Offices to the divisions, and c) the unionization of the administrative staff by USWA. With the administrative complement of the Faculty just under 500 staff and the academic staff complement at approximately 4,800, additional resources have been needed. The staff complement of the Office was increased to 5 FTE in 1997, and in 2000 increased to

6 FTE with 1 FTE in addition for the year 2000 only. The latter position has been added because the implementation of HRIS has been far from smooth, and has resulted in the staff of the Office having to spend many hours assisting departmental business officers with their HR work. The two continuing positions have been added because the work passed down from central offices is very time-consuming, notably staff benefits orientations, and because the unionization of the administrative staff meant more assistance and support to managers and staff. Careful review of all job descriptions is crucial for the Faculty of Medicine in this transitional phase.

Materials Distribution Centre/MedStore

Since the mid-1970's, the Materials Distribution Centre (MDC) provided researchers of the Faculty of Medicine with in-house research supplies ordering, receiving, delivery and store-front services. At its peak in 1996-7, MDC's sales totaled more than $10 million per annum. In 1997-98, two major factors began to bring change to MDC's environment. First, different methods of ordering and buying goods and supplies were developed. Researchers could order from vendors through a website and pay for their goods using the Purchasing Card (MasterCard). Slowly, these methods gained support from MDC's customers and MDC sales began to slip. Second, in May, 1998, as part of the University Rethinking Administration program, the Sales & Distribution (S&D) module of the SAP R3 administrative systems was introduced by the University, with MDC being the first store in the University to use it. The implementation did not go well and from the first day, the efficiency of MDC in providing service to its customers was seriously compromised. Both of these factors have grown over the past two years – the one feeding off the other. As MDC was less and less able to meet customers' needs through the difficulties of S & D, so more and more customers turned to the Purchasing Card and vendor websites to meet their research supplies needs. MDC sustained an operating loss in 1998-99. By December 1999, it was plain that it would operate at a loss again in 1999-2000. Thus, reluctantly it was decided that MDC had to be closed as of April 30, 2000.

Because faculty members highly valued the presence of a research supplies store in the Faculty, it was agreed to maintain a small storefront operation under a much simpler business model than that of MDC. Thus, on May 1, 2000, MedStore opened - offering a limited number of research supplies at a storefront only and accepting payment only using a credit card. It is the beginning to show excellent sales volumes and is clearly meeting a need.

Occupational Health & Safety

The Faculty maintains a small office (0.5FTE) dedicated to the safety of staff and students in the ways in which they carry out their work in the Faculty. Aside from supporting the Faculty's 4 Joint Health & Safety Committees, this Office holds safety seminars for all staff and students as they begin work in laboratories, maintains WHMIS and MSDS information, gives advice on protocols and procedures for handling issues and investigates incidents as they arise. Frequent communication occurs with staff of the University Office of Environmental Health and Safety.

Personal Safety and Security

The Faculty also runs a small office (0.5FTE) that concentrates on assisting members of the Faculty to work in as safe and secure a personal environment as possible. Safety seminars are given to students and staff, and advice is given to Department and Unit heads about improving security in their areas. The Office operates a card-entry security system which controls access to certain of the Faculty's buildings out of normal working hours and to some facilities within buildings at all times. Liaison with the University Police is an ongoing function of this Office.

2.9 Organizational Changes

The Faculty has successfully implemented a number of organizational changes in recent years. Several of the organizational changes have achieved improved reporting channels and streamlined administrative functions. Other changes, such as departmental mergers, have provided the foundation for strengthening academic capacity and critical mass, bolstering academic programs and attracting high calibre scholars to faculty positions. That said, there are continuing concerns that the administrative infrastructure is now too thin, and that capacity must be enhanced to deal with some of the major projects and programs now on the horizon.

The Faculty is organized as follows:

- the Dean's Office, including the Dean, Vice Dean Research, 5 Associate Deans, Office of Development, and Faculty Administrative Services
- Departments and Institutes organized in four sectors – Basic Science, Clinical Science, Community Health and Rehabilitation
- Extra-departmental Units (EDUs).

Dean's Office

The Dean has introduced several changes with respect to the organization of the Dean's Office. The position of Vice Dean, Education has been eliminated. A new position of Associate Dean, Inter-Faculty and Graduate Affairs was created. The position evolved from the need for managing the increasing administrative responsibility of the Faculty for graduate programs. Devolution of the School of Graduate Studies administration over the past 5 years has greatly increased the administrative work with Graduate Units. This new position will ensure effective partnership between SGS and the Faculty of Medicine and assist in managing the increasing administrative load. The Associate Deans have formed a group to coordinate education policies across all programs of the Faculty. This is functioning well.

The APF for Administration Restructuring proposes further changes to the Dean's office, with the appointment of an Associate Dean, Academic Affairs. Two new administrative

positions, Director of Planning and Programs, and a Graduate Student Data Manager are also proposed.[29]

Departments

Basic Sciences Sector

Organizational restructuring in recent years has included:

- Creation of the Institute of Biomaterials and Biomedical Engineering (IBBME) from the merger of the Centre of Biomaterials, the tissue engineering group in the Dept. of Chemical Engineering and Applied Chemistry, and the original Institute of Biomedical Engineering.
- Cell Biology (of Anatomy and Cell Biology) is in discussion with other departments in pursuing a new organizational arrangement

Future plans include establishment of the **Institute for Drug Research (**IDR)[30] through a functional merger of Department of Pharmacology (Faculty of Medicine) and the Department of Pharmaceutical Sciences (Faculty of Pharmacy). This inter-faculty institute will be responsible to and supported by the Faculties of Medicine and Pharmacy. The current members of the Department of Pharmacology will join the IDR. Discussions continue with respect to graduate programs and governance.

Clinical Sciences Sector

One of the key organizational changes of recent years includes the formation of the new Department of Laboratory Medicine and Pathobiology from the merger of Clinical Biochemistry and Medical Microbiology.

While there have not been other divisional or departmental reorganizations in the Clinical Sciences Sector, there are plans underway regarding extra-departmental units (EDU). The Departments of Medicine, Paediatrics, Surgery and Anaesthesiology, are planning to expand the existing Critical Care Training Program into an EDU with a full range of academic responsibilities, supported by the "parent" departments.

Community Health Sector

Organizational changes have included the formation of the Department of Public Health Sciences (PHS) in 1997 through the merger of the Department of Preventive Medicine and Biostatistics, and the Department of Behavioural Science. The Centre for Health Promotion joined PHS in 1998. In 1999, the two health administration graduate programs (MHSc, MSc/PhD) were transferred from Community Health to the newly-created Graduate Department of Health Administration. Also, the Program in Clinical Epidemiology and Health Care Research joined the Graduate Department of Health Administration. These

[29] See summary of Administrative Restructuring APF, Section 3.
[30] See APF Proposal for Institute for Drug Research, Section 3

changes have significantly strengthened what constitutes Canada's only 'school' of public health.

No additional changes are planned at this time.

Rehabilitation Sector

The Departments of Occupational Therapy, Physical Therapy, Rehabilitation Science and Speech-Language Pathology have only recently been brought together in a separate sector. This is an important step in promoting sector development. The rehabilitation departments are working to create a rehabilitation council that will be composed of the departments, fully and partially affiliated teaching hospitals, departments of OT, PT, SLP and/or rehabilitation at the various agencies in the city, and other disciplines concerned with rehabilitation. The rehabilitation departments are also addressing opportunities to consolidate departmental administrative functions and share administrative and technical support staff.

EDUs

The Dean has the support of the Committee of All Chairs for shifting the future reporting relationships for the EDUs away from direct reporting to the Dean. EDUs that are multi-departmental are to be governed by a Committee of Departmental Chairs and, wherever possible, administered through a single department. EDUs that are multi-faculty (e.g., Centre for Bioethics, IBBME) are to be governed by a Committee of Deans, with day-to-day reporting to a single "most responsible" Dean.

New EDUs in development include the Institute of Drug Research (multi-Faculty), Centre for Cellular and Biomolecular Research (multi-Faculty), and the Critical Care Training Program (multi-departmental). The Interdepartmental Division of Oncology is being wound down, and the future of the Interdepartmental Division of Geriatrics is under review.

2.10 Budget Plan

Long Range Budget Plan Report: 1999-2000 through 2003-2004

Overview of Funding Sources

The funding of Faculties of Medicine is far more complex than that of other University Faculties because, as noted previously, the “campus” for Faculties of Medicine includes not only the academic area of the University but also the applied area of the teaching hospital, board of health and community agency. Thus, just as the teaching of health professional students moves between the university campus and the health care agency, so the funds that support academic health science activity move between the university and health care institutions. The funding of many of the Departments of the Faculty of Medicine at the U of T, include some financial arrangements with external health care organizations. Those arrangements are the most diverse in clinical departments, viz:

(i) the U of T Operating Fund (includes net operating support, divisional income, salary recoveries and the MOH T&R budget – although not all clinical departments receive T&R funds)
(ii) research grants (particularly personnel awards)
(iii) support from fully-affiliated hospitals and their research institutes and
(iv) clinical earnings through physician practice plans.
(v) interest income from endowed trust funds

To obtain a perspective on this, please see Appendix X.1 which shows Sources of Funds by department for the Operating Fund ($120.1M), Restricted Funds (Expendable $66.7M and Endowed $115.7M) as well as University ($70.3M) and Hospital Administered Research Grants ($162.6M). Funds referred to in (iii) and (iv) above do not "flow through" the University and are thus "off-budget". In the past several years, all of these sources have been under significant financial pressure; however, only the Operating Fund will be discussed in the remainder of this report.

Operating Fund

The charts and table below show a comparison of, and the composition of operating fund support to the Faculty for 1993-94 and 1999-2000. Each of these four sources is described below

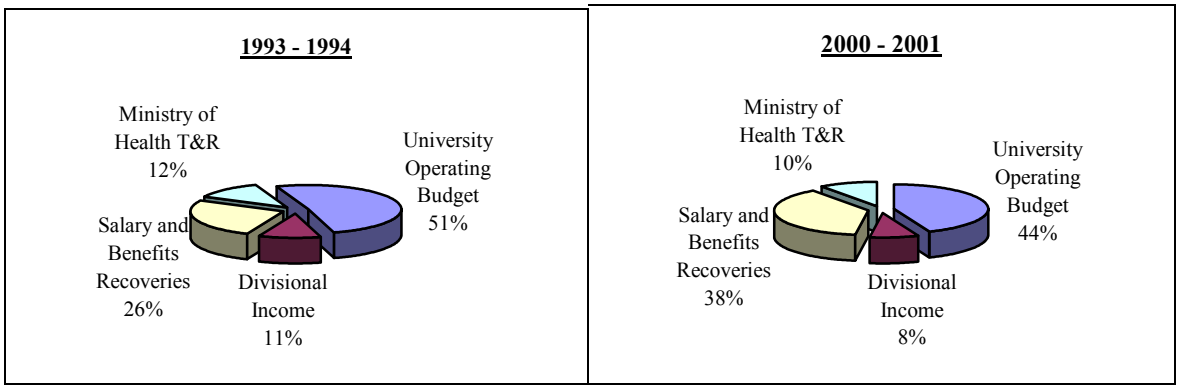


Table 1: Comparison of Sources of Funding 1994 – 2000 (millions of dollars)

	1993-94	1999-2000	%Change	Applying CPI %Change *
University Operating Budget	57.6	52.9	- 8.11	- 18.22
Budgeted Divisional Income	12.9	11.8	- 8.63	- 18.68
MOH T&R	13.8	12.0	-13.06	- 22.62
Budgeted Salary & Benefit Recoveries	31.6	45.3	44.33	27.56

*Applying the CPI index over this period, the % change in terms of constant dollars is observed.

University Operating Budget

These funds are provided by the University to support the Faculty's teaching and research programs. In 1999-2000 this net operating support amounted to $52.9M (1993-4: $57.2M).

Divisional Income

This includes revenue from services and externally (mainly Ministry of Health) funded program operating grants. This source has also been subject to budget cuts.

Ministry of Health T&R salary funding

This provides salary support for physicians engaged in clinical teaching and in 2000-01 it will make up 10% of the Faculty's operating budget.

It is anticipated that the level of T & R funding will remain at $12.03M this year (2001) as it has for the past five years. By comparison, in 1993-94 the Ministry provided the Faculty with $13.84M. This amounts to a 13% decrease in funding from the Ministry over this period.

Externally Funded Salary and Benefit Recoveries

In 2000, salary and benefit recoveries amounted to $45.2M. These are indirectly funded by the Ministry of Health as well, either as hospital global budget funding or as OHIP payments to physicians through their practice plans.

The charts show a shift from 1993-94 to 1999-2000, as planned, towards more externally funded salary recoveries. In absolute percentage terms, there has been an increase in externally funded salary and benefit recoveries over this period in excess of 44%. This has resulted from clinical teachers assuming a greater share of the financial burden of delivering medical education.

Budget Cuts

From 2000-01 through 2003-04 there will be two kinds of budget cut, "base" and "one-time-only" (OTO). Both base and OTO cuts are determined as a percentage of the *relevant base budget* of the Faculty. In simple terms, the relevant base is Faculty's prior year net base budget adjusted for prior year salary and benefit increases, and reversal of the prior year's research overhead. The base budget cut assigned by the University over this period is 1.5%, and the OTO cut is 0.6%. The 2000-01 relevant base budget is $53.9M giving rise to base and OTO cuts of $0.81M and $0.3M respectively (Appendix X.2). By comparison, for the 1999-2000 fiscal period, the base cut was 4.5% and the OTO cut was 1.3% on a relevant base of $54.6M resulting in base and OTO cuts of $2.4M and $0.67M respectively.

The Faculty considers the 1.5% base budget cut each year over 2000-2001 to 2003-2004 as the "reallocative levy" and has planned its' request to the Academic Priorities Fund accordingly.

Distribution of Budget Cuts

In the previous planning cycle (1994-2000), base budget and OTO reductions were distributed differentially to Departments in accordance with the Faculty's Strategic Directions. For 2001 through 2004, following discussions between the Dean and Departmental Chairs, base budget and OTO reductions are to be applied on a uniform basis. This is a strategic response to the excessive attenuation of the University component of clinical department budgets, and to the fact that the last round of APF reinvestments went primarily to the Basic Science and Community Health sectors. Departments were given the option in this cycle of deferring the base budget reduction by utilizing any surplus carry forward. This would entail taking a cumulative OTO reduction against the surplus. It is important to note that this alternative only provides departments with a deferral to the end of the current planning cycle – at which time they must make an ongoing contribution or take an opportunity cost (eg forego budgetary increments) thereafter.

The total Faculty base budget reduction over the five year period (2000-2004) will be $5.7M, of which $71K will be taken as cumulative OTO reductions against surplus. The OTO amount over this same period will be $1.96M. The Appendices show these reductions in greater detail as follows:

- Appendix X.3: Summary of Base, OTO and FTE Reductions by Sector
- Appendix X.4: Summary of How Reductions Taken By Year
- Appendix X.5: Summary of Base, OTO and FTE Reductions by Department
- Appendix X.6: How Reductions Taken By Departments
  A variety of strategies are being employed by Departments to cope with these base budget reductions consistent with each Department's goals and objectives. The Faculty's long range plan provides for a total reduction of 37.45 FTE's of which 21.30 FTE's are Academic and 14.72 FTE's are Administrative. The more balanced reduction between Academic and Administrative staff is consistent with the Faculty's planning principles for this multi-year cycle. Many departments have elected to achieve these base budget cuts by reducing further their non-salary budgets or by replacing operating budget funds with increased income (e.g., salary recoveries).

Section 3: Academic Priority Fund (APF) Requests

3.0 Summary of APF Requests

This section of the academic plan includes a summary of requests from the Faculty of Medicine to the Academic Priorities Fund. Detailed proposals are included in *Submissions to the Academic Priorities Fund,* a supplementary report to the Faculty Academic Plan. Included in this section are the APF budget requests as approved by the Faculty of Medicine.

The following 11 APF requests and 2 proposals for extraordinary funding have been culled from an outstanding and somewhat overwhelming response to a call for letters of intent held in April 2000, which yielded 34 submissions, totaling over $23 million (cumulative) in base funding and $10 million in OTO funding requests.

The final prioritized shortlist is the outcome of an iterative process of triage, collaboration and refinement. Where other opportunities for funding could be identified, proponents were directed to these sources and will be supported by the Faculty in seeking those funds. Where there were overlaps and possibilities for collaboration and "bundling" of initiatives, faculty members were encouraged to come together and rework their proposals to leverage the resources and talents of a broader pool of faculty and departments. The final proposals have been strengthened and enriched as a result of these dialogues and collaborations.

In determining which proposals should go forward to the Provost, the following criteria were considered:

- alignment with and opportunity to advance the University mission, vision, key priorities and objectives
- alignment with and opportunity to advance the new Faculty of Medicine mission, vision, strategic priorities and implementation goals
- innovation in science, teaching and research modalities
- investments in infrastructure to enable innovation, highest quality teaching and research.

Each of the proposals meets the above criteria. The anticipated benefits to the Faculty and the University are evident upon review of each application. Each proposal has received strong letters of support from colleagues within our Faculty, and many have received support from others in the University, as well as broad support from beyond our walls. Letters of support for each proposal are included in the supplementary report with the detailed APF requests.

Collectively, these proposals strengthen the research and teaching capacity within and across the Faculty in a balanced fashion, supporting key priorities in basic sciences, clinical sciences, community health and rehabilitation. The proposed initiatives represent outstanding examples of interdisciplinary, multidisciplinary and inter-Faculty collaboration, innovative approaches to linking education and research as well as

experimentation with new information and scientific technology modalities that are the keys to academic leadership in the 21st century. These initiatives will strengthen the foundation on which the Faculty can grow its academic programs and provide administrative capacity building to equip the Faculty for new challenges and opportunities.

Investments and support of the 11 APF proposals are expected to yield the following for the Faculty of Medicine and the University of Toronto:

- The *Centre for Cellular and Biomolecular Research* will advance the research enterprise in the 'new biology', and will define and lead the development of an innovative teaching and research program crossing multiple faculties and disciplines;
- The *Program in Clinical Evaluative Sciences* establishes the University in a lead role in coordinating a broad range of health services research and teaching activity across the University, its affiliated teaching hospitals and external agencies;
- The *Institute for Drug Research*, as a new EDU, will transform the basis of drug research at the University, drawing together faculty from the Department of Pharmacology and Faculty of Pharmacy as well as other departments,
- The *Joint Centre for Bioethics*, with its many internal and external partners, will continue to provide international leadership in bioethics research, education and clinical care.
- Enhanced *educational computing and teaching space* provides support to all sectors of the Faculty, enriching the educational experience of our students, supporting enrolment growth in several areas, fostering research into innovative educational methods, and creating greater synergy among educators throughout the Faculty and elsewhere in the University;
- Establishing a *Centre for International Health* brings together the many emerging and disparate activities already underway in international health and advances the University's position as a global leader in international health research, education and policy.
- Sustaining and providing for the expansion of *the Surgical Skills Centre* secures North American leadership in a highly successful, innovative educational and research initiative by broadening its base to include more clinicians, educators and scientists from within and beyond the Faculty;
- The *Knowledge Translation Program* proposes a new cross disciplinary, multi-departmental initiative, that has already drawn the interest of private and public sector partners, with its plans to transform the Continuing Education functions of the Faculty.
- The *Rehabilitation Sector* APF request meets certain core needs of the Sector in regards to its enhancement and realignment of its doctoral stream program, and the development of its professional masters programs, thereby advancing both the educational and research endeavours of the sector.
- The *Administrative Restructuring* proposal will equip the Dean's Office for many emerging challenges, including program planning for The McLaughlin

Centre, CCBR, and the Canada Research Chairs. It will improve handling of the Faculty's massive academic complement, increase the efficiency of the Education Deans, and enhance the management of graduate student data.

- The *Neurosciences Network* proposal gives the Faculty a mechanism to pull together its widely varied neuroscience research and education activities. In time, the Network will be extended to other Faculties, securing a University-wide thrust that will integrate neuroscience activities at the three University campuses and the eight fully-affiliated teaching hospitals.

We believe that these are all essential initiatives. Their budgets have been carefully aligned with the reallocation levy and the additional base budget flow from tuition-related revenue-sharing to facilitate full funding of all base budget requests. As will be shown below, the net effect of full base funding is still a modest reduction in the Faculty's base budget at the end of four years. We have deliberately undershot full return of the reallocative levy because of the request for Arts and Science teaching support and the OTO requests in this plan. We believe that the requested investments will have long-term benefits for the Faculty and the University.

Summary of APF Requests

Below is a brief summary of each proposal. The attached tables summarize financial requirements and proposed academic and administrative positions that will be supported through these APF requests.

1. Academic Programme in the Centre for Cellular and Biomolecular Research

This proposal requests APF base funding for two key leadership positions in the Centre for Cellular and Biomolecular Research (CCBR).

Creation of the Centre for Cellular and Biomolecular Research is a significant development at the University of Toronto. It provides a rare chance to make an extraordinary mark in biomedical research and to make a "world-wide impact on an emerging new science". The University has recognized that CCBR is critical for biological and medical research in the coming decade. It was named as one of the highest University priorities for the Canada Foundation for Innovation (CFI). The Centre has emerged as a vehicle for creating unusual combinations of researchers who stimulate new ways of thinking about biomedical research.

This APF submission proposes an academic program in which "interdisciplinary research is a norm and not merely a term, which will provide students with excellent examples of how to conduct research in the new biology". Education of both graduate and undergraduate students will be an integral part of the research program of CCBR.

The Canada Research Chairs program will be a key source of funds for several of the requested junior and senior faculty members to support the CCBR academic program. This program also offers the required start-up funds for these positions. However, we believe that base funding support is required in the near term to attract two key leadership positions. A permanent director for CCBR is required immediately to be part of setting directions for the new program. A strong leader is required thereafter in Animal Models of Disease, the only one of the five CCBR programs that currently lacks strong leadership and is critical to building strength in this area. The director of Animal Models of Human Disease will be an integral part of the Faculty's matching contribution for the McLaughlin Centre. His/her focus aligns with the translational thrust of the McLaughlin Centre, and the portfolio will bridge CCBR to the McLaughlin program.

	Base Budget Request				
	2000/01	**2001/02**	**2002/03**	**2003/04**	**Total**
Positions Proposed	0.25 Acad. 0.5 Admin.	1.25 Acad. 1.5 Admin.	0.5 Acad.		2 Acad. 2 Admin.
New Funding	$ 75,000	$ 300,500	$ 75,000		**$ 450,500**

2. Program in Clinical Evaluative Sciences

This APF proposal, by the Clinical Epidemiology and Health Care Research Program of the Department of Health Administration, seeks 2 base funded faculty positions and an OTO administrative position for 3 years to establish a citywide Program in Clinical Evaluative Sciences.

The Department of Health Administration is building a world-class program in Clinical Evaluative Sciences. The vision is for a "seamless University-wide network with site-specific foci of research excellence". This program reaches out from the Community Health sector to involve virtually all clinical departments and the Rehabilitation sector. Development of this program will leverage the Faculty's existing strengths in health services/outcomes research and in clinical evaluation, and also capitalize on identified future research directions of the Faculty's clinical departments and hospital-based research institutes. It will anchor the development of a much-needed doctoral program and permit expanded enrolment in the existing MSc program in Clinical Epidemiology. This program will help the University and Faculty to take full advantage of the new breadth of research that will be supported by agencies such as CIHR, and to build research-training programs that will prepare the next generation of academic leaders.

This APF request is for a Senior Program Coordinator (1 OTO) position for 3 years to facilitate the coordination of clinical evaluative research activities across the Toronto academic health sciences complex, with the expectation that revenues from external sources will cover costs at the end of that period. An Associate Program Director (.5FTE) is required to focus on the coordination of existing programs and to work on the development of continuing education. The equivalent of 1.5 faculty positions are

requested to strategically complement positions in hospitals and research institutes in targeted areas.

In addition to the benefits described above to both the Faculty and University, support of this APF request fulfills a commitment made to the new Chair of the Department of Health Administration, as a condition of his appointment, which included the transfer of the Clinical Epidemiology and Health Care Research Program (CEHCRP) from Public Health Sciences to Health Administration.

	Base Budget Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	0.5 Academic	0.5 Academic	1.0 Academic		2 Academic	0.8 FTE X 3 years
New Funding	$ 35,625	$ 35,625	$ 71,250		$ 142,500	$ 231,561

3. Institute for Drug Research

Base funding for four FTE faculty positions is requested to support the creation of an Institute for Drug Researc at the University of Toronto. In addition, base funding for two tutors and teaching assistantships is requested to implement a substantially improved and virtually new undergraduate program.

The Faculty of Medicine and the Faculty of Pharmacy are engaged in an exciting and groundbreaking inter-Faculty initiative to establish an Institute for Drug Research (IDR). The goal of IDR is to be the focus of drug research in Canada and to be at the forefront of pharmaceutical science internationally. The proposed merger offers unusual opportunities in research and education. It leverages the current strengths of both Faculties, and is in keeping with the University and Faculty's guiding principles of restructuring and reorganization as an effective mechanism for strengthening our academic programs.

The extraordinarily rapid advances in genomics and post-genomic research present unparalleled opportunities to create powerful new pharmaceutical agents that will be safer and more effective through selective targeting to specific molecular sites, and by tailoring to individuals rather than to the average patient. The specific mission and vision of the IDR is to use fundamental discoveries in genomic research to drive the process of improved therapeutics and clinical practice. It takes over where the CCBR program leaves off, acting as "the link between basic discoveries in genomic research and exploitation of these discoveries in clinical therapeutics". We believe that research in pharmacology and pharmaceutics can reach high levels of international competitiveness as a result of this merger.

The goals of the new institute can be achieved by combining the existing expertise from the two faculties and by the judicious recruitment of new talent. In order to support the IDR, the appointment of up to 10 new faculty is proposed. The recruits include four new

faculty members from Pharmacy's APF, two currently unfilled positions from Pharmacology, one of which may need to be collapsed for ongoing reallocation levies; and four new faculty positions requested through this APF. Of these four APF-related positions, two will be in the pharmacogenomics and molecular pharmacology area. Both will be designated, if appropriately qualified, as McLaughlin Scientists, helping to fulfill the Faculty's matching requirements in the McLaughlin agreement.

In addition, APF base funding is requested for two lecturers and teaching assistants to support the new undergraduate programs.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	0.4 Acad	1.2 Acad TA funds	1.5 Acad.	2 Acad.	5.1 Acad.	
New Funding	$ 36,000	$ 165,800	$ 126,000	$ 240,000	$ 567,800	

4. Joint Centre for Bioethics

This APF request is for base funding to continue operations of the University of Toronto Joint Centre for Bioethics (JCB).

During the past five years, the University of Toronto Joint Centre for Bioethics has become one of the leading bioethics centres in the world. It is among the very few centres that have been able to pull together a broad range of disciplines and span the spectrum of bioethics from theory to practice. We are not aware of any other bioethics centre in the world that spans a major university and 8 large teaching hospitals.

Over the past five years, JCB has made significant breakthroughs in research including new models of informed consent, advanced care planning and the Tri-Council Policy statement, and CIOMS guidelines on research ethics. JCB members and graduate students have published over 400 papers in scholarly journals, and have attracted over 30 external grants totaling approximately 2 million dollars. In the current climate of industry partnerships and unprecedented biotechnology, it becomes even more critical for the Faculty and the University to have a strong Bioethics thrust. In the future, students in the JCB Collaborative Program working in the ethics of molecular medicine and biotechnology will be included, wherever feasible, as part of the McLaughlin Centre.

From 1995-2000, core funding for the JCB was provided through multiyear OTO funding from the APF and the Faculty of Medicine. The University investment in JCB is highly leveraged through hospital contributions, grant funds and private donations. In this APF request, the Centre is seeking base budget support for core funding to continue JCB.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed						
New Funding	$ 200,000				$ 200,000	

5. Educational Computing and Teaching Space

This APF application seeks base budget and OTO funding to support education infrastructure of the Faculty of Medicine, to enhance the learning by our students and the acquisition of informatic skills by our postgraduate trainees, and to extend the reach of our continuing education programs.

The application of information technology to education, research and education has transformed the Faculty of Medicine. Strong and growing interest is building in all sectors of the Faculty in utilizing the Web for learning and teaching.

This proposal is designed to enhance the support for development and utilization of innovative, cost-effective Web- and computer-based educational tools and programs throughout the Faculty of Medicine. The requirements for educational computing infrastructure include personnel skilled in Web design and education development, hardware and security in the Medical Sciences Building. The predicted outcome of this investment is enhanced, cost-effective and innovative application of information technology and distributed learning within undergraduate medicine, postgraduate medicine, continuing medical education, undergraduate arts and science courses, professional and doctoral graduate programs in the Faculty of Medicine.

One benefit to the University will be the enhanced interaction between the Faculty of Medicine and central computing services. An additional important benefit is the critical evaluation of the cost-effectiveness and efficacy of design and implementation of IT applications to education in the Faculty.

This APF request seeks base budget funding to address immediate infrastructure needs and to build the necessary platform for information technology applications. One Time Only (OTO) budget is requested to renovate space in MSB to modestly increase computer lab capacity in conjunction with the creation of an electronic classroom with breakout rooms (to be funded by the Dean of Medicine and Chair of Health Administration). Together, the latter facilities will provide much need electronic space for flex-time, Web-based curriculum in our professional masters and continuing education program, which currently attracts students nationally and internationally.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	.3 Acad. .5 Admin	.3 Acad. .5 Admin			.6 Acad 1 Admin	
New Funding	$ 85,509	$ 87,995	$ 3,743	$ 2,937	$ 180,184	$ 202,778

6. Centre for International Health

The APF proposal for the establishment of a Centre for International Health seeks support for three faculty members, two administrative staff and operating costs to carry out the educational, research and service oriented activities.

An opportunity exists for the Faculty of Medicine and the University of Toronto to establish a strong global presence in health research and education. Through the establishment of a Centre in International Health at the University of Toronto, we can create a locus for significant activity that is already underway in international health and secure our position as Canadian and global leaders in the area of international health research, education and policy.

The University of Toronto, through the Centre, will be enabled to "make substantial and direct contributions to world health affairs, with a particular focus on countries with developing and transitional economies". The Centre for International Health will attract top visiting scholars and international students, and will further insert the University into worldwide health research, teaching and development networks. A number of teaching hospitals have already expressed interest in participating in the Centre; hence there is the opportunity for significant leverage from the core investment. Moreover, a large number of national and international agencies currently offer funding for international health activities. The Centre will permit greater participation by the Faculty and University in these funding opportunities.

It is proposed that the Centre will maintain an active educational program, both by facilitating current international health teaching and by developing new activities, particularly those with interdepartmental collaboration. It will participate and provide leadership in research in health areas of international and global concern. The Centre will facilitate, enhance and establish networks within the University and with other national and international organizations working in the area of international health.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	.5 Acad. .5 Admin.	1.5 Acad. .5 Admin.	1 Admin.	1 Acad.	3 Acad. 2 Admin.	
New Funding	$ 66,000	$ 164,650	$ 58,550	$ 101,900	$ 391,100	$ 149,500

7. Surgical Skills Centre

This APF application calls for four years of OTO funding to support an expanded effort in surgical skills research. The Centre seeks support for one full time research assistant, a part-time coordinator and three part-time faculty researchers for the University of Toronto Surgical Skills Centre.

The University of Toronto Surgical Skills Centre opened in September 1998. Its vision is to "provide a laboratory setting where surgeons can acquire a higher level of expertise in basic and complex surgical procedures, and to conduct educational research in skills acquisition and evaluation". The Centre is a highly successful collaborative effort between the Faculty of Medicine and Mount Sinai Hospital. It serves as a resource for all of our teaching hospitals, and leverages support from the four general teaching hospitals. The Departments of Obstetrics and Gynaecology and Otolaryngology are active collaborators and participants in the Centre. Strong demand for the skills teaching and research of the Centre is growing. Five additional departments have submitted requests to participate in the Centre.

The Surgical Skills Centre is closely aligned with the Faculty of Medicine Centre for Research in Education and serves as an experimental laboratory for several PhD researchers and educational research fellows. The Centre is continually looking to create new technology for surgical innovation and simulation and will seek interdisciplinary and inter-faculty collaboration with the Faculties of Engineering, Computer Science and Education to advance these efforts.

In just over two years of operation, the Surgical Skills Centre has gained international recognition as the first teaching laboratory to incorporate a full skills curriculum for residency training. Support of this APF request is required to maintain the current level of research and educational programs and to expand the program to additional departments. APF support is expected to assist with securing the Centre's current international leadership position, which is being challenged as more Centres are beginning to open up across North America.

The APF request is for four years of OTO funding to sustain and expand the Surgical Skills research effort. At the end of the four years, the involved departments will assume funding for these positions, without further requests of the Dean's Office. This is part of an overall plan, approved by the former and current Dean, for the Centre to become a self-funding unit.

	Base Budget (Incremental) Request					
	2000/01	**2001/02**	**2002/03**	**2003/04**	**Total**	**OTO Total Requested**
Positions Proposed						1 Acad. X 4 yr PT Admin PT Researchers
New Funding						$ 470,263

8. Knowledge Translation Program

This APF proposal is for base budget funding for full-time faculty and OTO funding for staff members.

Educators in all health professional faculties have become increasingly aware that their task is not complete when learners graduate or complete postgraduate training programs. Given the growing evidence for uneven quality of care and variable performance by health care professionals, the Faculty is determined to launch a new initiative that will transform its continuing education activities into a novel knowledge transfer program. Specifically, this application proposes the development of an innovative, cross-disciplinary academic initiative, linked to multiple departments and directed by the Associate Dean, Continuing Education. It has the strong support of a number of other faculties within the University as well as keen interest and support from a broad array of leading national and international public and private institutions.

The Knowledge Translation Program (KTP) strives to: further the research agenda in information transfer and the implementation of evidence-based care by refining, testing and establishing new educational modalities. These educational strategies will not only be important in the sphere of continuing education. They will also have the capacity to inform and transform undergraduate, postgraduate and other professional education within the Faculty of Medicine.

This APF proposal is for base budget funding for salary support for four clinician-researchers and one administrative position. OTO Funding for two years is sought to support a research coordinator and a half time health information specialist. The funding that is requested at this time will be used to: develop and advance the research agenda relative to knowledge translation; develop or endorse content, curricular and other supporting materials; define and test methods to disseminate and implement high quality evidence; and, to coordinate and support cross-faculty initiatives, including graduate studies and faculty development.

With the breadth of interest and support that has already been generated, it is easy to anticipate significant future revenues emerging from investment in this start up initiative.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	.5 Acad. .5 Admin.	1.5 Acad. .5 Admin.	2 Acad.		4 Acad. 1 Admin.	1.5 Acad. X 2 yrs
New Funding	$ 64,151	$ 133,326	$ 138,352		$ 335,829	$ 183,750

9. Rehabilitation Sector – Teaching and Administrative Support

This APF request is for funding to cover immediate needs with regards to administrative and teaching support and student funding. Two administrative support staff positions are required. Funding for doctoral stream students through the establishment of an ongoing TA budget is requested. Finally, funding is sought to provide tutors to support small group learning in the professional program, many of whom may be doctoral stream students.

The Rehabilitation Sector is positioning itself to meet the mandate of the Faculty of Medicine and University of Toronto to be preeminent in North America with regard to the quality of its graduate, professional and doctoral education. The sector is also anticipating an enrolment expansion over the next few years to address external societal needs. Revenues tied to this expansion will be used to enhance research in the sector and to build capacity for doctoral stream graduate studies. In advance of these shifts in enrolment and funding, however, the sector urgently needs support to enhance its doctoral streams.

Investment in infrastructure is required to enhance the function, productivity and level of education and enrich the research enterprise. This will contribute to elevating the sector to a level of parity with the other sectors in the Faculty of Medicine and other Rehabilitation programs in Canada. The elevation of the professional training to graduate professional level with a significant clinical research component is consistent with the direction of rehabilitation education in the province. The generation of PhD trained rehabilitation scientists is key to Toronto taking its place as a national leader.

Funding of this proposal will result in numerous positive impacts on both the educational and research programs of all four departments in this sector, for the Faculty and the University. Doctoral stream education will be supported and enhanced. These funds cannot be secured from other sources and are essential for success of the academic plan, and for enhancing Rehabilitation Sciences at University of Toronto.

Base budget funding is sought to support two administrative positions, a Clinical Placement/affiliation Administrator and an Administrative Assistant for Doctoral Stream education, teaching assistantships and tutors.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	**2001/02**	**2002/03**	**2003/04**	**Total**	
Positions Proposed	.5 Acad. 1 Admin. TA Funds	.5 Acad. 1 Admin.			1 Acad. 2 Admin. TA funds	
New Funding	$ 98,214	$ 100,803	$ 16,194	$ 1,861	$ 217,072	

10. Administrative Restructuring Initiative

An envelope of base budget funding is requested to support administrative restructuring of the Dean's Office. The proposed configuration includes an Associate Dean- Academic Affairs, Director of Programs and Planning, Graduate Student Data Manager, financial analyst and 3 other administrative/secretarial positions.

With 4800 academic staff, the Faculty of Medicine is by far the largest and, arguably, the most complex faculty in the University. This Faculty-wide strategic planning exercise has identified many unmet administrative challenges. For example, there is a pressing need to rationalize the rapidly growing clinical faculty. This would include clearer criteria for obtaining an academic appointment, tighter annual reappointment processes, a consistent delineation of the pyramid of academic staff across departments and redressing the inter-departmental imbalance in faculty full-time versus part-time appointments. There are also many complex administrative issues that need to be addressed including compliance with harmonized research ethics policies and conflict of interest guidelines.

The Provostial review of the Faculty in 1998-99 highlighted the limits of the administrative capacity in the Dean's Offices as then constituted. In the next two years, the Faculty must launch two major building projects, initiate the McLaughlin Centre with our hospital partners, manage the Canada Research Chairs program and related funding pool, and initiate a substantial fund-raising thrust. The strategic plan set out in this document must also be implemented. Meanwhile, the budgetary flexibility in the Dean's Office has been seriously eroded. During 1997-98 and 1998-99 Dean Aberman transferred over $1.5 million in base budget to Departments, largely to facilitate departmental restructuring. Reserves appear barely sufficient to permit replacement of Department Chairs in 1999-2000 and 2000-2001.

The Dean's Office in the last year has operated without any increased decanal staffing. The Vice-Dean Education was instead restructured in favour of a new Associate Dean for Inter-Faculty and Graduate Affairs. The Education Deans have organized themselves into a working group that deals effectively with a wide variety of issues. However, the "Edu-Deans" group has been unable to maximize its efficiency and output owing to the lack of dedicated administrative support.

To strengthen the capacity in the Dean's Office to address both academic and administrative affairs, we anticipate the appointment of an Associate Dean- Academic Affairs who would work closely with the Educational Deans, Vice Dean of Research and a new Director of Programs and Planning. As well, with major new programs coming on stream, and pressing demands on facilities and divisional funds, we expect to recruit a Director of Programs and Planning who will be a key contributor the Faculty's administrative renewal. Administrative assistance and secretarial support would be required for the new academic and senior administrative staff and would also support the "EDU-deans" group.

Further, as noted above, the Faculty requires support in the management of graduate student enrolment. The Faculty currently enrolls over 1700 graduate students in professional and doctoral programs in 14 Graduate Units. The position of Graduate Student Data Manager is proposed to establish a cost-effective, uniform financial data entry system for graduate students in the Faculty using ROSI. The data manager will: ensure that financial data on all students in all Graduate Units is appropriately, collected and entered into ROSI; work with Central data management personnel to prevent duplication and overlap of data and to ensure optimal student funding data; provide staff development and training for ROSI management in the Faculty; and, work with the SGS in the development and implementation of the ROSI financial module and all other aspects of ROSI.

Last, the Faculty's capacity for forward financial analyses is limited by understaffing. There is inadequate information on the full gamut of student assistance funds and bursaries and even less information on the array of funds internally available to departments and programs. With the new programs described above and increasing fiscal pressures, we anticipate a far larger set of demands on both the Comptroller's Office and the business officer in the Dean's Office. Hence, we intend to recruit a financial analyst to work between the Comptroller's Office and the Dean's Office.

This APF request accordingly seeks a flexible envelope of base funding for the Dean's Office. The envelope has been sized to be roughly equal to the steady-state funding available to the APF from tuition-related revenue sharing, i.e. these funds are effectively drawn from new revenues, rather than from the reallocative levy. At this time, we expect the configuration of positions to include 1 part-time academic administrative position and 6 administrative (non-academic) positions in the Dean's Office to support the overall needs and functioning of the Faculty.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	.5 Acad. 3 Admin.	.5 Acad. 3 Admin.			1 Acad. 6 Admin.	
New Funding	$ 233,344	$ 233,344			$ 466,688	

11. Neurosciences Network

This proposal requests base funding for a Director of the Neurosciences Network, an administrative assistant and OTO funding to support the activities of the Network.

Neuroscience is a key academic area for development at the University of Toronto. However, the Faculty of Medicine does not have a coordinating body to pull together its considerable strengths in the neuroscience field. We accordingly propose the creation of a Neurosciences Network. Such a body could improve collaboration in research and promote the attainment of educational objectives in neurosciences at the undergraduate,

graduate and post-doctoral level. Longer term, it could evolve into a University-wide network, drawing together neuroscientists in Toronto from many Faculties and hospitals. The Network would thereby give Neuroscientists a national and international voice consistent with the strength and breadth of Neurosciences in Toronto. In its absence or in the absence of a similar initiative, Neurosciences in Toronto will continue to lag behind Neurosciences in Montreal and the United States.

The proposed Neurosciences Network would have four major objectives:
1. *Funding* – to attract sufficient financial and human resources to provide the critical seed to the formation of a major Neurosciences Network in Toronto.
2. *Coordinating Activities* – to tie together and coordinate Neurosciences in Toronto.
3. *Communication and Interface* - to become a major interface for internal communication and collaboration and for the interaction with national and international Biomedical Research Agencies and Government.
4. *Training* – to support and complement undergraduate and graduate initiatives in the teaching of Neurosciences. The Network will seek out funds for the support of graduate students, postdoctoral fellows and its scientific programs from private and alternative sources.

Further, the proposed Neurosciences Network would provide a critical interface between academia, government and industry. As such, it could play a clearing-house role in support of technology transfer and commercialization activities currently housed in divisions of the University and in the office of the Vice-President, Research and International Relations.

Base budget funding is sought for a stipend for a Director of the Neurosciences Network, which may or may not be combined with the Directorship of the emerging Centre for Genetic Molecular and Cellular Neuroscience, and for a full-time administrative assistant. Three years OTO funding is requested to fund the administrative costs of the developing network, including visiting speakers series, research forums etc.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	Acad. Stipend 0.5 Admin	Acad. Stipend 0.5 Admin			Acad. Stipend 1 Admin	
New Funding	$ 42,437	$ 42,438			$84,875	$120,000

Extraordinary Funding Requests

There are two additional funding requests to the Provost, which fall outside the core Academic Priorities Fund submission process. This includes support for Arts and Science Teaching by our Basic Medical Science Department and support for our Development Office. The rationale for seeking special consideration for these requests is as follows. For Arts and Science teaching, as noted earlier, the Deputy Provost agreed that Medicine's partnerships in a renewed and expanded commitment to inter-faculty teaching

should be recognized and supported in a way that did not entail a 100% charge against Medicine's reallocative pool. We understand that Medicine's APF pool must take some charge for this initiative. However, it should be noted that these programs are likely to grow over time. In some universities, Medicine's contributions to Arts and Science teaching are incented with per-student transfers, eg. funds loosely analogous to the tuition-related revenue sharing instituted this year by the Provost. There is no analogous teaching by Arts and Science in Medicine. Special consideration for this inter-Faculty effort by Medicine would achieve the same end as per-student funding on a basis that limits financial exposure for the Centre and promotes both high quality teaching and inter-faculty education.

For Development, the Faculty's past support from the Vice President, Development has been approximately $200,000 per annum. These funds are derived in large measure from "holdbacks" on the first year of payouts from funds endowed to the University by benefactors. The Faculty of Medicine intends to strengthen its fund-raising capacity. We believe that base funding for the majority of positions in the Development Office will be important in recruiting top flight individuals who might be concerned about the strength of the Faculty's commitment if offered a contractually-limited position tied to multi-year OTO funding. If over time the Faculty's expanded fund-raising activity does not yield results satisfactory to both the Dean and the Vice President, Development we are fully prepared to reallocate these funds for other purposes.

1. Basic Medical Science Departments' Arts and Science Teaching: Focus on Specialist Human Biology Program

The purpose of this special funding request is to enable sustained commitment to excellent teaching in Arts and Science programs in the Faculty of Medicine.

We seek to improve the administrative, Teaching Assistant and Lecturer support for current courses in Basic Medical Sciences that will be offered in the new specialist programs in Human Biology, the Life Sciences Major and the specialist programs in Basic Medical Sciences, and for the immediate development of a limited number of new courses that will enhance course offerings in these programs.

Over the past decade the base budget of the Faculty of Medicine has declined from $70 million to $52.9 million. During this period, the demography of the Basic Sciences Departments changed from predominantly campus-based to a mixture of campus - and research institute based. Despite the continual erosion of their base budgets, Basic Medical Science Departments have remained committed to and sustained undergraduate teaching.

The new specialist programs in Human Biology represent a combined effort of the Faculties of Arts and Science and Medicine, to jointly address the needs of undergraduate students and the University. *Raising our Sights* seeks increased interdisciplinary, inter-departmental and inter-faculty cooperation in the development and implementation of

educational programs. The combined specialist programs in Human Biology reflect this goal.

The rationale for this special funding request is the commitment of the Basic Medical Science Departments to strongly support teaching in the new specialist programs in Human Biology. This necessitates a modest increase in base funding for each department and OTO funding in one inter-departmental division for the next four years. The benefit to the University will be promotion of effective partnership between the Faculties of Arts and Science, for joint development of outstanding specialist programs in Human Biology and smaller specialized inter-departmental programs. Support for this educational activity is necessarily dependent on base budget funding from the University.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	1.8 Acad. 1.1 Admin. TA Budget				1.8 Acad. 1.1 Admin. TA Budget	
New Funding	$ 223,248	$ 69,716	$ 13,590	$ 9,968	$ 316,522	$ 37,868

2. Development Office

This extraordinary funding request is for support to expand the Faculty of Medicine Development Office.

As noted above, in the past the Vice President, Development has flowed funds to the Faculty's development office to support its functions. These Campaign funds arose, in part, from holdbacks on endowments. These funds are now to be accessed from within the academic planning process.

Under the leadership of a new executive director, the Faculty Development Office is slated for major expansion to support a number of priorities, including the new building projects, increasing new student financial aid and a wide variety of departmental initiatives. Given the proliferation of granting opportunities that require matching funds, targeted private benefactions and our ambitious fundraising goals, there is immediate need to expand our Development Office.

We request base funding for four administrative positions which will enhance donor services, communications and targeted fundraising activities.

	Base Budget (Incremental) Request					OTO Total Requested
	2000/01	2001/02	2002/03	2003/04	Total	
Positions Proposed	1.5 Admin.	2.5 Admin			4 Admin.	
New Funding	$100,000	$185,000			$285,000	$ 350,000

Together, the APF proposals and the two requests for extraordinary funding strengthen the research and teaching capacity within and across the Faculty in a balanced fashion. The first two rounds of APF requests from the Faculty of Medicine were heavily weighted towards investment in the Basic Science and Community Health sectors. In this round, we have deliberately chosen to invest in priority initiatives in each of the four sectors, the Dean's Office and supporting infrastructure which will provide benefit to the entire Faculty. These initiatives will reinforce the foundation on which the Faculty can grow its academic programs and provide administrative capacity building to equip the Faculty for new challenges and opportunities.

The table on the following page summarizes the total base budget and OTO funding requests, as well as the academic and administrative positions to be added to the Faculty as a result of these proposals.

Faculty of Medicine APF Requests June 2000

A. APF Requests

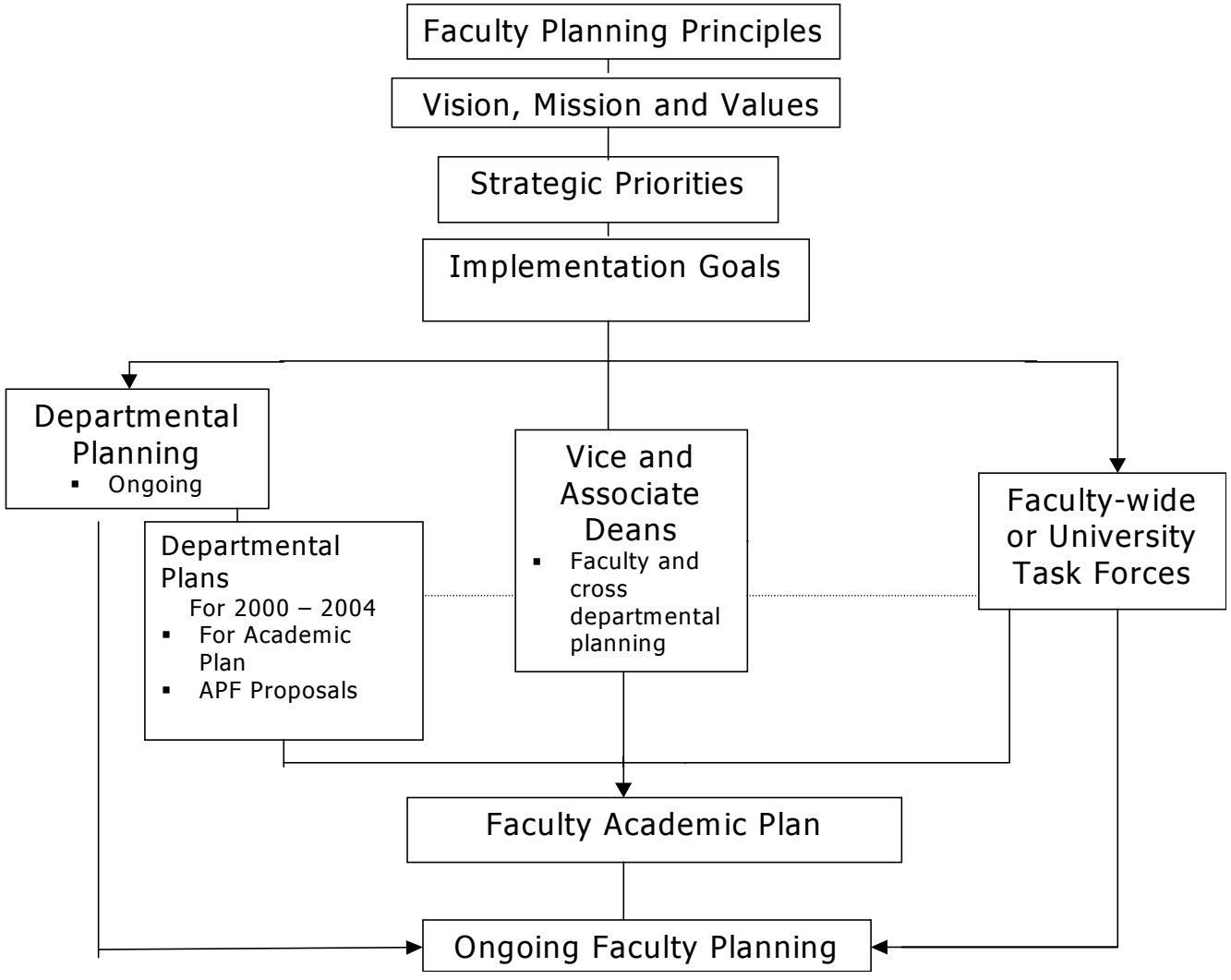
		Base Budget(Incremental) Requested					Base Positions		OTO Budget Requested				
	Topic / Proposal	**2000/01**	**2001/02**	**2002/03**	**2003/04**	**Total**	**Academic**	**Admin**	**2000/01**	**2001/02**	**2002/03**	**2003/04**	**OTO Total**
1	CCBR	$ 75,000	$ 300,500	$ 75,000		**$ 450,500**	**2**	**2**					
2	Pgm in Clin Eval Sci	$ 35,625	$ 35,625	$ 71,250		**$ 142,500**	**2**		$ 77,187	$ 77,187	$ 77,187		**$ 231,561**
3	Institute Drug Research	$ 36,000	$ 165,800	$ 126,000	$ 240,000	**$ 567,800**	**5.1**			in OTO start-up	in OTO start-up		
4	Ctr for Bioethics	$ 200,000				**$ 200,000**							
5	Ed Computing	$ 85,509	$ 87,995	$ 3,743	$ 2,937	**$ 180,184**	**0.6**	**1**	$ 157,103	$ 45,675			**$ 202,778**
6	International Health	$ 66,000	$ 164,650	$ 58,550	$ 101,900	**$ 391,100**	**3**	**2**	$ 35,000	$ 36,500	$ 41,000	$ 37,000	**$ 149,500**
7	Surgical Skills Centre								$ 69,560	$ 111,551	$ 133,561	$ 155,591	**$ 470,263**
8	Knowledge Translation	$ 64,151	$ 133,326	$ 138,352	$ -	**$ 335,829**	**4**	**1**	$ 45,000	$ 90,000	$ 48,750		**$ 183,750**
9	Rehabilitation	$ 98,214	$ 100,803	$ 16,194	$ 1,861	**$ 217,072**	**1**	**2**					
10	Administrative Restructuring Initiative	$ 233,344	$ 233,344			**$ 466,688**	**1**	**6**	$ 25,413	$ 52,620	$ 54,477	$ 56,400	**$ 188,910**
11	Neuroscience Network	$ 42,437	$ 42,438			**$ 84,875**		**1**		$ 40,000	$ 40,000	$ 40,000	**$ 120,000**
	OTO Start -up Funds*									$ 600,000	$ 600,000	$ 600,000	**$ 1,800,000**
	Sub Total	**$ 893,843**	**$ 1,222,043**	**$ 489,089**	**$ 346,698**	**$ 2,951,673**	**18.7**	**15**	**$ 409,263**	**$ 1,053,533**	**$ 994,975**	**$ 888,991**	**$ 3,346,762**
	B. Extraordinary Items												
	Development Office	$ 100,000	$ 185,000			**$ 285,000**		**4**	$ 155,500	$ 75,000	$ 60,000	$ 60,000	**$ 350,500**
	Arts & Sci Teaching	$ 223,248	$ 69,716	$ 13,590	$ 9,968	**$ 316,522**	**1.8**	**1.1**	$ 7,868	$ 10,000	$ 10,000	$ 10,000	**$ 37,868**
	Sub Total	**$ 323,248**	**$ 254,716**	**$ 13,590**	**$ 9,968**	**$ 601,522**	**1.8**	**5.1**	**$ 163,368**	**$ 85,000**	**$ 70,000**	**$ 70,000**	**$ 388,368**
	Total Section A & B	$ 1,217,091	$ 1,476,759	$ 502,679	$ 356,666	$ 3,553,195	20.5	20.1	$ 572,631	$ 1,138,533	$ 1,064,975	$ 958,991	$ 3,735,130

* This is a multi-year pool to be held for the Vice Dean - Research to access in support of new recruits.

Section 4: Departmental Planning

This section includes brief highlights of the departments' academic plans for 2000-2004. Departmental planning is a vital part of the Faculty academic planning process. In each departmental profile, we have highlighted research priorities, planned changes and innovations in academic programs and key challenges for each department as they look to achieving their goals over the next four years. We have also included a statement on resources and where each department will be taking its 1.5% annual levy over the next four years.

Detailed departmental plans are included in Appendix XI. Additional information on each department is included in the *Summaries of Individual Sectors* (Appendix IV) which were prepared as part of the *Review of Reviews* process, conducted at the start of the strategic planning process. The graphic below illustrates the departmental participation in the Faculty Planning process.



In reviewing the individual department plans, it is clear that the Chairs and their faculty support the key priorities and objectives of *Raising our Sights* and have embraced the new vision, mission, strategic priorities and implementation goals of the Faculty of Medicine. The departments have used the framework for divisional planning laid out in Section VI. of *Raising our Sights* and the planning framework developed through the Faculty strategic planning process which was introduced in Section 1. of this report. In both size and talent, the departments of the Faculty of Medicine possess the essential elements to be global leaders in health research and education. With the ongoing support of the Faculty, the Provost's support of our requests to the Academic Priorities Fund, continued collaboration with our teaching hospital partners and further success in obtaining research awards through existing and new granting opportunities, we envision a future of unparalleled achievement by all of our departments, both individually and in collaboration with others.

Faculty of Medicine Academic Departments

Basic Science Sector	**Clinical Science Sector**
• Department of Anatomy and Cell Biology[31] • Banting & Best Department of Medical Research • Department of Biochemistry • Biomaterials and Biomedical Engineering, Institute of • Department of Immunology • Department of Medical Biophysics • Department of Medical Genetics & Microbiology • Department of Nutritional Sciences • Department of Pharmacology • Department of Physiology	• Department of Anaesthesia • Department of Family & Community Medicine • Dept. of Laboratory Medicine & Pathobiology • Department of Medical Imaging • Department of Medicine • Department of Obstetrics & Gynaecology • Department of Ophthalmology • Department of Otolaryngology • Department of Paediatrics • Department of Psychiatry • Department of Radiation Oncology • Department of Surgery
Community Health Sector	**Rehabilitation Sector**
• Department of Health Administration • Department of Public Health Sciences	• Department of Occupational Therapy • Department of Physical Therapy • Graduate Department of Rehabilitation Sciences • Department of Speech-Language Pathology

[31] There have been discussions over the past year about realigning members of Anatomy and Cell Biology with other departments. Anatomy has already become a division of the Department of Surgery. Discussions are continuing to determine the departmental assignation for Cell Biology, with Biochemistry emerging as a strong potential base.

Basic Science Sector

Department of Anatomy and Cell Biology[31]

Banting & Best Department of Medical Research

Department of Biochemistry

Biomaterials and Biomedical Engineering, Institute of

Department of Immunology

Department of Medical Biophysics

Department of Medical Genetics & Microbiology

Department of Nutritional Sciences

Department of Pharmacology

Department of Physiology

[31] There have been discussions over the past year about realigning members of Anatomy and Cell Biology with other departments. Anatomy has already become a division of the Department of Surgery. Discussions are continuing to determine the departmental assignation for Cell Biology, with Biochemistry emerging as a strong potential base.

Banting and Best Department of Medical Research

Sector: Basic Sciences

Chair: Prof. James Friesen

Last External Rev: June 1995

The Banting and Best Department of Medical Research (BBDMR) is made up of 15 faculty members, all of whom are tenured/ tenure stream faculty.

Key Priorities

BBDMR is at the centre of one of the most exciting eras in biomedical sciences. The research objective of the Department is "to study cellular processes at the molecular level". There is particular emphasis on gene expression and signal transduction, however, the methodology used to study these processes is evolving to a strong emphasis on functional genomic and proteomics methods. The Department takes the lead in preparing grants for major pieces of new equipment in the proteomics and bioinformatics area.

A key priority for the Department is fostering collaborations with other basic science departments, hospital research institutes, engineering and science departments in the context of the Centre for Cellular and Biomolecular Research (CCBR). Planning for most, if not all, future faculty recruitment and development will be in the context of joint programs centred on CCBR.

The Department will participate in seeking Canada Research Chairs, primarily in relation to CCBR.

Key Challenges

The focus for the next few years will be in working with other Departments in recruiting new faculty members to the CCBR. The Department also intends to replace at least four retirements anticipated in the next five-year period; many of these will be in areas related to CCBR activities.

Both the recruitment of new faculty members and the expansion of current programs by very active faculty members will require increased space. Recruitment of faculty in the joint programs of Proteomics and Bioinformatics as well as the Canada Research Chair programme will require space prior to the opening of the new CCBR building. Immediate planning for renovations and space expansion is an extremely high priority.

Resources

The Department's net operating budget for 1999-2000 was $1.712 M. Budget cuts for 2000 – 2004 will be met through reduction of non-salary expense and reduction in academic complement. The Department has participated in the APF process with the Departments of Biochemistry, Medical Genetics and Microbiology and IBBME in the proposal for academic leadership positions for the CCBR.

Biochemistry

Sector: Basic Sciences
Chair: Prof. Peter Lewis
Last External Review: May 95

The Biochemistry Department is made up of 33 faculty members, of whom 29 are faculty full-time, including 18 tenured/ tenure stream faculty. There are, as well, 17 cross-appointed faculty bringing the total faculty complement to 50.

Key Priorities

The Department's key research priorities centre around its research strengths in gene regulation, *in vivo* and *in vitro* protein folding, transmembrane signalling in addition to several of the platforms of the Centre for Cellular and Biomolecular Research (CCBR), including proteomics and bioinformatics, protein structure and biotechnology. The Department plans to collaborate with the Department of Physiology in the area of membrane proteins.

In the area of graduate and undergraduate programs, the Department plans to:

- Increase enrolment in the Biochemistry graduate program and increase the ratio of PhD to MSc students from 1:1 to 2:1
- Participate in the Collaborative Graduate Program in Developmental Biology
- Participate in the development of the new Collaborative Graduate Program in Proteomics and Bioinformatics
- Offer a comprehensive undergraduate Biochemistry specialist program beginning in second year
- Expand contribution to undergraduate medical education by presenting seminars of "cutting edge research" relevant to MEDS undergraduates
- Contribute to education of other science students (e.g., Human Biology)

The Department will be working within cluster groups in seeking Canada Research Chairs.

Key Challenges

The Department plans to recruit several more campus-based faculty over the next five years with appointments made to enhance the research strength of the Department.

With the increased teaching and research activity associated with new recruits, as well as the transfer of administrative functions to the Department, the infrastructure support of administrative staff and office and research space will need to be addressed.

Resources

The Department's net operating budget for 1999-2000 was $1.973 M. Budget cuts for 2000 – 2004 will be met through reduction of non-salary expense and non-replacement of retirements in two academic positions (part FTEs). The Department has participated with the Departments of Medical Genetics and Microbiology, Banting and Best Department of Medical Research and IBBME in the APF process through a proposal for academic leadership positions for the CCBR.

Institute of Biomaterials And Biomedical Engineering

Sector: Basic Sciences

Chair: Prof. Michael Sefton

Last External Review: Feb. 1999

The Institute of Biomaterials and Biomedical Engineering (IBBME) is made up of 31 faculty members, of whom 23 are faculty full-time, including 16 tenured/ tenure stream faculty. IBBME is an interdisciplinary organization based in the Faculties of Applied Science and Engineering, Dentistry and Medicine. The Institute provides the academic and administrative resources for an undergraduate biomedical engineering program in Engineering Science, a graduate program in Biomedical Engineering (in collaboration with the cognate graduate departments) and a graduate program in Clinical Engineering. A stand-alone graduate program in biomedical engineering, established with the financial support of the Whitaker Foundation, was approved by SGS in the spring of 2000.

Key Priorities

The Institute has three major research themes:

- Diagnostic and Therapeutic Engineering (with major thrusts in the sensory systems and neuroengineering)
- Technology for Health (with major thrusts in rehabilitation engineering)
- Cellular and Molecular Bioengineering (primarily includes tissue engineering and drug and gene delivery systems and molecular imaging)

The Institute's priorities in the area of educational programs include:

- Establish new courses for the new graduate Program in Biomedical Engineering through the Institute and the Collaborative Program
- Participate actively in the CCBR academic program
- Revise the clinical engineering program to emphasize health technology management issues both in health facilities and in industry

The Department will participate in bioengineering and CCBR cluster groups in seeking Canada Research Chairs.

Key Challenges

One of the key challenges for the Institute will be recruitment of new faculty to fill existing and upcoming vacancies with a view to strengthening the discipline mix and supporting all three theme areas.

A further challenge will be developing the appropriate space and infrastructure to support the activity and new recruits for each of the theme areas.

Resources

The Medicine portion of the Department's budget for 1999-2000 was $0.474 M. Budget cuts for 2000 – 2004 will be met through reduction of non-salary expense.

Immunology

Sector: Basic Sciences
Chair: Prof. Michael Julius
Last External Review: Mar. 1997

The Immunology Department is made up of 25 faculty members, of whom 20 are faculty full-time, including 6 tenured/ tenure stream faculty.

Key Priorities

The Department's key priority is the advancement of the Infectious Disease Consortium (IDC), which has been catalyzed by the acquisition of two endowed Chairs within the Faculty: The *Aventis Pasteur Chair in Human Immunology* and the *Ontario HIV Network Chair.* The Department is currently recruiting to two positions that will complement the existing expertise drawn from several Departments to the IDC, including Medical Genetics and Microbiology, Laboratory Medicine and Pathobiology and Medicine.

The Department's strengths provide a solid foundation for the IDC initiative: population based studies of bacterial resistance and pathogenesis, clinical application of experimental therapeutics, epidemiological studies of host susceptibility and immunogenetics of infection, and the molecular epidemiology and pathogenesis of infectious disease.

The Department's plans with regard to educational programs include:

- Curriculum renewal providing expanded teaching platforms in both general and specialist programs
- Reorganization of 4th year Immunology Specialist Program (ISP) to include a new offering in Developmental Immunology
- Introduction of a new 3rd year Introductory Immunology course for ISP students
- Enhancing the educational focus of graduate programs aligned with the IDC

The Department will be working within cluster groups in seeking Canada Research Chairs.

Key Challenges

The key challenge for the Department is putting in place the appropriate space, facilities and infrastructure to support the IDC. Leveraging the resources provided by the two endowments through the CFI will generate infrastructure dedicated to the IDC. Lab space in the MSB and FitzGerald will be renovated and key equipment will be acquired. A second challenge is funding a department Chair for October 2000, when the incumbent leaves to become VP Research at Sunnybrook and Women's College Health Sciences Centre.

Resources

The Department's net operating budget for 1999-2000 was $0.786 M. Budget cuts for 2000 – 2004 will be met through reduction of administrative staffing. The Department has participated with the other Basic Science Departments the APF process through a proposal for teaching and administrative support for Arts & Science Teaching.

Medical Biophysics

Sector: Basic Sciences
Acting Chair: Prof. Sam Benchimol
Last External Review: Sept. 1996

The Medical Biophysics Department is made up of 112 faculty members, of which 62 hold full-time, primary appointment (including 5 emeritus professors) and 50 hold cross-appointment.

Key Priorities

The principal mandate of the Department of Medical Biophysics is to offer a graduate training program in basic and applied research related to human health with a focus on cancer. The Department is currently organized into three streams, *Cell and Molecular Biology, Structural and Molecular Biology* and *Medical Physics.* The Department will continue to build on strength, focussing on emerging quantitative multidisciplinary research in biology and physics, including genomics, proteomics and bioinformatics.

There is a growing emphasis on application and development of new imaging technologies to biological problems. The Medical Physics group at the OCI and Sunnybrook and Women's College Health Sciences Centre (SWCHSC) are developing new laser and ultrasound based imaging systems which have a direct and immediate applications in basic biology, developmental biology and clinical imaging.

Key Challenges

To preserve the historical relationships with the Ontario Cancer Institute and the Sunnybrook and Women's College Health Sciences Centre that have served the OCI, SWCHSC and the Department of Medical Biophysics extremely well.

To develop an outstanding academic and graduate training program in a coordinated manner that reflects the research priorities of the OCI and SWCHSC, and maintains the integrity, focus, high academic standards and collegial atmosphere of the Department of Medical Biophysics.

Resources

The Department's budget for 1999-2000 was $583,426. Budget cuts for 2000 – 2004 will be met through reduction of non-salary expenses.

Medical Genetics & Microbiology

Sector: Basic Sciences

Chair: Prof. Brenda Andrews

Last External Review: Feb. 98

The Medical Genetics and Microbiology Department is made up of 81 faculty members, of whom 47 are faculty full-time, including 22 tenured/ tenure stream faculty.

Key Priorities

The Department has outlined five key research priorities tied to existing departmental strengths or programs and to proposed new graduate programs

1. Model Organism Genetics and Developmental Biology
2. Structural Biology
3. Proteomics, Functional Genomics and Bioinformatics
4. Molecular Medicine and Human Genetic Disease
5. Infectious Diseases

Together with the Departments of Immunology and Medicine, the Department is targeting molecular biology and immunology of infection by microbial pathogens as a major priority, expecting to make U of T a world-class training ground for researchers in the area of infectious disease. Developments in this area include efforts to establish infrastructure resources through application of to the CFI and the establishment of an Infectious Diseases Consortium composed of junior and senior researchers from various Departments across the Health Sciences Complex.

The Department is committed to excellence in graduate education and supports one of the largest PhD training programs in the Basic Medical Sciences. Faculty members also participate in Collaborative Graduate Programs in Developmental Biology and Biomolecular Structure. Both programs are coordinated by MedGen/Micro faculty.

The Department is currently participating in the development of the new Collaborative Graduate Program in Proteomics and Bioinformatics and is developing a PhD Program in Molecular Medicine together with the IMS. A top Departmental priority will be the continued recruitment of excellent graduate students to our Program and targeted recruitment to the Collaborative programs.

The Department will be working within cluster groups in seeking Canada Research Chairs in several priority areas.

Key Challenges

The Department will continue to recruit new faculty to support academic priorities in the areas of Molecular Medicine and Proteomics as well as to meet program and teaching requirements in the growing undergraduate and graduate programs in Microbiology. In collaboration with Immunology and Medicine, the Department is seeking CFI funds to renovate the FitzGerald and provide core infrastructure to support an interdisciplinary program in Infectious Diseases. A genomics /proteomics infrastructure node on campus will ultimately sit in the CCBR, but space in MSB is needed in the short-term for this purpose.

Resources

The Department's net operating budget for 1999-2000 was $2.975 M. Budget cuts for 2000 – 2004 will be met through non-replacement of retirements – an academic position. The Department has participated with the Banting and Best Department of Medical Research, the Department of Biochemistry and IBBME in seeking APF support for key leadership positions for the CCBR.

Nutritional Sciences

Sector: Basic Sciences
Chair: Prof. Michael Archer
Last External. Review: Nov. 1996

The Nutritional Sciences Department is made up of 37 faculty members, of whom 11 are faculty full-time, including 10 tenured/ tenure stream faculty.

Key Priorities

The Department's central research focus is the role of diet in the development of chronic diseases. Major emphases are cancer, cardiovascular disease and diabetes. A research priority is now in the area of molecular epidemiology with an emphasis on diet-gene interactions, an area that brings together investigators in the Departments of Public Health Sciences, Medicine, Laboratory Medicine, as well as investigators at OCI, Lunenfeld Institute and Cancer Care Ontario.

Plans related to educational programs include:

- Introduction of a new collaborative program with the Department of Public Health Sciences in the area of Population Health
- Introduction of a new graduate course on Regulatory Affairs
- Modest enrolment growth in the professional masters program
- Development of a new 2nd year Arts & Science course to streamline teaching to specialist students, Human Biology, and service teaching to Dentistry, Nursing, Physical Health and Education, and Pharmacy

The Department will be working within cluster groups in seeking Canada Research Chairs.

Key Challenges

The Department is small and relies heavily on cross-appointments to maintain a critical mass in research and teaching programs. Plans include the creation of additional cross-appointed positions, drawing on the linkages with the Hospital for Sick Children, St. Michael's Hospital and Baycrest Centre for Geriatric Care. Although there is limited opportunity to strengthen the core faculty, the Department plans to aggressively seek support for career awards and external research funding support.

The planned expansion of staff and student complement will elevate the need for renovation and expansion of current space.

Resources

The Department's net operating budget for 1999-2000 was $1.424 M. Budget cuts for 2000 – 2004 will mainly be met through use of accumulated endowment, which is not the intended use of these funds. The Department has participated in the APF process related to the proposal for teaching and administrative support for Arts & Science Teaching.

Pharmacology

Sector: Basic Sciences
Chair: Prof. Allan Okey
Last External Review: Oct. 99

The Pharmacology Department is made up of 31 faculty members, of whom 17 are faculty full-time, including 8.5 tenured/ tenure stream faculty.

Key Priorities

The Department's key priority is its joint initiative with the Faculty of Pharmacy to create the Institute for Drug Research. This initiative involves the recruitment of several new tenure-stream positions, developing and introducing new graduate and undergraduate programs and seeking additional joint space and facilities. The Institute for Drug Research would aspire to international leadership in the basic science and clinical science of pharmacology and therapeutics, and expand research in the areas of pharmacogenetics and pharmacogenomics. Research would be expected to develop novel strategies for discovering new drug targets and for customizing pharmacotherapy for safety and effectiveness.

Plans regarding educational programs include:

- Enhancing the graduate program in the areas of pharmacogenetics and pharmacogenomics
- Introduce a new laboratory course to serve BSc students in programs in Pharmacology Specialist, Toxicology Specialist and Pharmaceutical Sciences and Drug Development

The Department will be working within cluster groups in seeking Canada Research Chairs.

Key Challenges

The key challenge for the Department is the transition and implementation of the Institute for Drug Research. The Institute will need to increase the core faculty to address areas such as neuropharmacology, cardiovascular pharmacology, and toxicology. Recruitment of new faculty will be the focus of effort in the next few years. The issues of governance and space/ facilities are still to be resolved.

Sustaining the Department's involvement in Arts & Science teaching is also a challenge. Restructuring of courses, consideration of admission requirements to specialist programs and partnering with other departments and faculty will need to be explored.

Resources

The Department's net operating budget for 1999-2000 was $1.18 M. Budget cuts for 2000 – 2004 will be met through non-replacement of a tenure stream position vacancy. The Department has participated in the APF process related to two initiatives: 1) the proposal for the Institute for Drug Research, with the Faculty of Pharmacy, and 2) a proposal for teaching and administrative support for Arts & Science Teaching with the other Basic Science Departments.

Physiology

Sector: Basic Sciences
Chair: Prof. John Challis
Last External Review: Dec. 99

The Department of Physiology is one of the largest of the basic science departments, made up of 53 faculty members, of whom 24 are faculty full-time, including 21 tenured/tenure stream faculty. In addition, the Department has 45 cross appointees.

Key Priorities

The Department has built a large research enterprise, which includes 5 MRC Groups. Ten areas of special research interest have been designated and research groups established across the University and hospital research institutes. Four research foci are highlighted:

- Neurosciences: planning to expand linkages with other neuroscience groups and build an integrated undergraduate and graduate initiative across the Faculty
- Fetal and Neonatal-Developmental Physiology: With three MRC Groups, Toronto is the leading Canadian, if not international centre in this area
- Endocrinology and Metabolism – Beta Cell Group: A leading international centre in the general area of diabetes and metabolism, and gut and metabolic endocrine controls; planning expansion and linkage with colleagues in the Diabetes Centre, and Depts of Biochemistry and Medicine
- Ion Channels & Health and Disease: seeking to link development in this area with other groups at HSC and in the Dept. of Medicine.

The Department will be working within cluster groups in seeking Canada Research Chairs for the four above research fields.

Education program plans include the expansion of Neuroscience programs and joint programs with several areas, building on research themes, e.g, program in Ion Channels and Beta Cell research, in conjunction with Medicine and Biochemistry.

The Department is planning for a **Centre in Genetic Molecular and Cellular Neuroscience** and will work to pull a draw a number of departments and affiliated institutions into a world-leading program.

Key Challenges

The Department will be recruiting faculty over the next four years to replace retirements and strengthen several areas of research – e.g., beta cell physiology, neurosciences, Ion Channel program. The Department needs to restore its undergraduate teaching operating base to an appropriate level, and to reestablish a modest cash flow that will allow special initiatives such as purchase of new equipment, infrastructure or renovations to be conducted as needed.
The Department will focus on aggressively seeking external awards and the Canada Research Chairs program.

Resources

The Department's net operating budget for 1999/00 was $2.258 M. It plans to meet its budget cuts through non-replacement of retirements. It has participated in the APF process through the proposal for Basic Sciences Arts & Science teaching, and the Neurosciences Network proposal.

Clinical Science Sector

Department of Anaesthesia

Department of Family & Community Medicine

Department of Laboratory Medicine & Pathobiology

Department of Medical Imaging

Department of Medicine

Department of Obstetrics & Gynaecology

Department of Ophthalmology

Department of Otolaryngology

Department of Paediatrics

Department of Psychiatry

Department of Radiation Oncology

Department of Surgery

Anaesthesia

Sector: Clinical Sciences
Chair: Prof. Robert Byrick
Last External Review:March 1997

The Department of Anaesthesia is made up of 217 faculty members, of whom 186 are faculty full-time, including 3 tenured/ tenure stream faculty.

Key Priorities

Priority actions for programs include:

- Develop neuroscience research in each affiliated teaching hospital, aligned with priority programs and integrate basic scientists into these programs
- Increase collaborative research in pain management and neurosciences
- Expand clinical epidemiology as applied to anaesthesia/pain
- Develop increased translational research in applied pharmacology and physiology to link basic sciences with clinical anaesthesia and pain management
- Expand academic focus of international fellowship program.
- Develop innovative educational programs (Department is Canada's leading simulation centre)
- Investigate use of simulation in evaluation.

Priority and collaborative research programs:

- Neuroscience; mechanisms of anaesthesia/Physiology; traumatic brain injury/Surgery; geriatric neuropharmacology/Neurology; foetal brain development/Physiology/Obstetrics
- Applied Pharmacology and Physiology;
- Education Research.

The Department will be working in collaboration with affiliated hospitals to seek a Canada Research Chair in Neurosciences.

Key Challenges

National shortage of anaesthetists for clinical services which challenges education and research activities. Department will strive to balance recruiting of clinical teachers and investigators. Retention strategies include improving faculty development program and improving CE for clinician teachers.
Fundraising will be focused on neuroanaesthesia /pain research and on clinician scientist support of postgraduate residents during graduate training.

Resources

The Department's net operating budget for 1999-2000 was $890,650. Budget cuts for 2000 – 2004 will be met through administrative efficiencies and attrition.

Family & Community Medicine

Sector: Clinical Sciences
Chair: Prof. Walter Rosser
Last External Review: April, 1995

The Department of Family & Community Medicine is made up of 603 faculty members, of whom 59 are faculty full-time, including 2 tenured/ tenure stream faculty.

Key Priorities

Education Programs:

- Plan to increase the size and quality of educational programs to address increased national and international need.
- Extend FM clerkship by two weeks; reduce preclerkship teaching load.
- Increase PGY1 residency positions by 20-30 (Positions were reduced from 93 to 63, with excess capacity used to train FMGs)
- Increase MHSc enrolment to 40-50 full and part time.
- Increase academic fellowship enrolment to 30 per year.
- Develop PhD research clinician program in collaboration with Health Administration.
- Develop new graduate studies courses for MHSc program on small clinic management, urban health research transfer and other topics; convert some programs to web based

Priority Research programs:

- Urban health
- Research (knowledge) transfer
- International health
- Primary Care and Family Health Care Research Unit established

Canada Research Chairs will be sought in clusters in three priority research areas.

Key Challenges

Through the 1990's the Department focused on building the strongest academic FCM department in the world. Next decade will be focused on reinforcing these strengths and sharing knowledge and skills internationally, with particular focus on developing countries. Securing permanent and sufficient space is a critical issue which will impact long term development.
Need to address underfunding of clerkship training and pressure to increase volume of teaching. Undergraduate teaching expanded 2.5 times with new curriculum.

Resources

The Department's net operating budget for 1999-2000 was $800,000. Budget cuts for 2000-2004 will be met through a reduction of preclerkship teaching. Department is participating in APF process through the Knowledge Translation Program proposal.

Laboratory Medicine & Pathobiology

Sector: Clinical Sciences
Chair: Prof. Avrum Gotlieb
Last External Review:
(Pathology: 1994)

The Department of Laboratory Medicine and Pathobiology is made up of 227 faculty members, of whom 152 are faculty full-time, including 11 tenured/ tenure stream faculty.

Key Priorities

- New Specialist program in Pathobiology in Arts and Science; MHSc program to end as of September 2000.
- Research and training focus in molecular mechanisms of disease.
- Increase residency positions.
- Promote clinician/scientist activities in training, teaching and research.
- Increased innovative electronic teaching; enhance CME with distance teaching
- Participate actively in Proteomics & Bioinformatics Program; Adult Genetics Training Program and Clinical Genomics Centre as part of focus in Genetic Medicine;
- Assessment of education and research programs against national and international standards.

Priority Research programs:
Molecular mechanisms of disease is focus of 6 APF positions under recruitment.
Research group programs include bone joint arthritis; vascular biology and atherosclerosis; translational research, oncology and microbial pathogenenis. Collaborative research activities in many areas, including: medical microbiology linking more closely with microbiology research initiatives in medicine and medical genetics; joint activities with proteomics group and tissue engineering; perinatal pathology with genetics, obstetrics and paediatrics.
Partnering with hospital departments and research institutes, by developing excellent foci in research and teaching to attract funding from granting agencies and industry.

Canada Research Chairs will be sought in 3 areas : enhance clinician/scientist expertise at teaching hospitals; high profile positions to lead new initiatives; to retain and recruit to campus.

Key Challenges

Underwent major merger in July 1997 of Clinical Biochemistry, Medical Microbiology and Pathology. Department at crossroads of basic science and clinical care. Acute shortage of clinical based faculty due to national shortage of trainees. Need space, administrative support and up-to date computer hardware to bring on new APF positions. Consolidation of hospital restructuring will allow three restructured hospital groups to provide strong leadership in teaching and research.

Resources

The Department's University net operating budget for 1999-2000 was $2,601,374. Budget cuts for 2000 – 2004 will be met through non-replacement of 2 academic positions and through non-salary expenditures.

Medical Imaging

Sector: Clinical Sciences
Chair: Prof. Walter Kucharczyk
Last External Review: May 2000

The Department of Medical Imaging is made up of 136 faculty members, of whom 93 are faculty full-time, including 1 tenured/ tenure stream faculty.

Key Priorities

- Focus on 5 to 6 core areas (see research priorities) where Department can attain international leadership positions.
- Foster closely linked collaborative efforts with related groups such as Medical Biophysics and Neurosciences for CFI and ORDCF grants.
- Work towards formal academic merger with Imaging Research Group currently within Department of Medical Biophysics.
- Continue to increase number of faculty with protected research time, principally funded from clinical practice plans, but with financial incentives from University derived budget.
- Continue to provide improved basic research training and mentoring to residents, fellows and faculty. Working with Public Health Sciences to establish short course in Biostatistics and Epidemiology.

Priority Research programs:

- Image Guided Therapy
- Informatics, Digital Imaging and PACS
- Brain Imaging – Structure and Function
- Cardiovascular Imaging
- Imaging Cancer
- Image Registration, Fusion and Quantitative Image Analysis
- $10 million grant from CFI with matching $10 million from OIT

Canada Research Chairs will be sought jointly with Medical Biophysics and Neurosciences to recruit chair for proposed Image Analysis Centre. The plan is for Chair, who would be program leader, and 3 scientists, one each from Medical Imaging, Baycrest and new ORDCF funds.

Key Challenges

Large shortfall in Canada of medical imaging specialists both in academic and private practice. Largest residency in the country (35 trainees); reduced by 30% over past 4 years. U of T teaching hospitals are about 10 short. Adequate manpower requires changing the licensure rules for foreign medical graduates and expanding the residency program.

Image Analysis Centre will require 3000 square feet of dry lab space with high bandwidth network access and multiple high-end workstations.

Resources

The Department's net operating budget for 1999-2000 was $637,635. Budget cuts for 2000 – 2004 will be met through non-salary reductions. The Department is participating in the APF process through the Educational Computing and Teaching Space proposal.

Medicine

Sector: Clinical Sciences
Chair: Prof. Eliot Phillipson
Last External Review: April, 1998

The Department of Medicine is made up of 804 faculty members, of whom 414 are faculty full-time, including 5 tenured/ tenure stream faculty.

Key Priorities

The Department is active in all levels of medical education. Priorities for changes include:

Postgraduate:

- new *s*ubspecialty training program in Genetic Medicine, with Dept. of Paediatrics
- increased number of research electives for postgraduate trainees
- increasing shift of postgraduate teaching to ambulatory settings
- enhancement of Centre for Evidence Based Medicine

Graduate Programs:

- Clinician-Educator Training Program to be implemented in July 2001
- Enrolment in Clinician-Scientist Training Program to increase, with target for steady state of 10 trainees per year by 2002-03

Priority Research Programs: The major priority programs of the Department are those that span the three scientific domains of basic biology, integrative biology, and clinical evaluative sciences, and in which the Department has a critical mass of principal investigators in both campus-based and hospital-based laboratories. *Established* priority programs include: vascular biology/atherosclerosis/coronary disease; heart failure; diabetes; hematopoesis/gene therapy; neurodegenerative disease; inflammation/multiorgan transplantation; lung injury/respiratory failure; arthritis and autoimmunity; membrane biology. *Emerging* priority programs include: molecular medicine; HIV/AIDS; women's health.

Canada Research Chairs will be sought for key individuals in each of the priority research programs, developed jointly with Hospitals and research institutes.

Key Challenges

Focus of recruitment and fundraising strategies will be to support priority research programs and the clinician scientist and Clinician Educator Training Programs. Need to ensure adequate human, space and financial resources to support these programs. An immediate challenge is to identify suitable space for the Department's administrative offices.

Resources

The Department's net operating budget for 1999-2000 was $5 million. Budget cuts for 2000 – 2004 will be met through reductions in academic salaries. The Department is participating in the APF process through the Knowledge Translation Program proposal. Like all other clinical departments, it will also have a chance to participate in the Clinical Evaluative Sciences APF.

Obstetrics & Gynaecology

Sector: Clinical Sciences
Chair: Prof. Knox Ritchie
Last External Review: June, 1996

The Department of Obstetrics and Gynecology is made up of 118 faculty members, of whom 76 are faculty full-time, including 1 tenured/ tenure stream faculty.

Key Priorities

The Department is active in all levels of medical education.

- Undergraduate: Plans to increase availability and variety of electives.
- Postgraduate: Plans to leverage 3 site training model and improve graduated responsibility. Plans to develop an international training program for externally funded candidates and develop clinical training in Northern Ontario for selected residents.
- Fellowships: The department has 16 funded fellowships, with strong international profile, which it will continue to improve. Plans to develop 3 year fellowships and encourage Masters degree through CIP program. The department will enhance mentoring for MD/PhD in CIP with view to developing academic leaders.

Priority Research programs
Strong research program with research grants more than four times base budget.

- Maternal Fetal Medicine: develop virtual multidisciplinary fetal centre; strengthen placental research; strong links with Physiology and Samuel Lunenfeld Research Institute (SLRI)
- Reproductive Sciences: link with MRC group in fetal health at SLRI
- Gynecological Oncology

The Department will be working in clusters and seeking four Canada Research Chairs to align with research priorities.

Key Challenges

Hospital restructuring in the teaching hospitals has had a major impact on this department over the past 4 years, creating disruption and uncertainty. The opportunities presented by a strong 3 site model, with new facilities, are now evident and attainable. Recruitment is a challenge, with a limited pool of candidates in Canada who have credentials to meet University of Toronto's academic mission. Recruitment will be directed to enhancing strongest divisions by adding clinician scientists (maternal fetal medicine and reproductive sciences). Will need key leadership positions for division heads in maternal fetal medicine, gynaecologic oncology and general gynaecology.

Department is in an unprecedented position to capitalize on its strengths and enhance its position as the top department in Canada, top 10 in North America and to play a greater role on the international level.

Resources

The Department's University net operating budget for 1999-2000 was $698,250. Budget cuts for 2000 – 2004 will be met through faculty retirements. Department is participating in the APF process through the Surgical Skills Centre proposal.

Ophthalmology

Sector: Clinical Sciences
Chair: Prof. Graham Trope
Last External Review: June, 2000

The Department of Ophthalmology is made up of 107 faculty members, of whom 15 are faculty full-time, including 1 tenured/ tenure stream faculty.

Key Priorities

The Department is active in all areas of medical education.

- Its undergraduate program is the most comprehensive ophthalmic training program in Canada.
- With 14 fellows, Department has one of Canada's largest fellowship programs.
- Significant enhancements continue to be made to residency program.
- The Department will continue to focus on producing top ophthalmic surgeons and scientists through teaching and research.

Priority Research programs:

- The Department's research strengths in Ocular Imaging are a collaborative effort with the Department of Medical Biophysics at Sunnybrook & Women's College Health Sciences Centre and Princess Margaret Hospital/OCI. .
- Research funding has tripled since 1992 to almost $30 million.
- Eye Research Institute of Canada, $17.5 million endowment will support 30 postgraduate Masters and PhD positions in the Vision Science Research program.

Canada Research Chairs will be sought in the area of Ocular Imaging and Vision Science.

Key Challenges

Human Resources and base budget cuts are the greatest challenge to this department. 3 vitreoretinal surgeons have been lost to U.S. New recruits are hard to appoint due to constrained operating time at the hospitals. Funding support is required for Chair or Director in Ocular Imaging. A Chair is also required in Vision Science.
A new Departmental Chair will be appointed in January 2001. The Faculty will need to address the base funding cuts when recruiting the new Chairman.

Resources

The Department's net operating budget for 1999-2000 was $429,000. Budget cuts for 2000 – 2004 Budget cuts for 200-2004 will be met through elimination of administrative positions.

Otolaryngology

Sector: Clinical Sciences
Chair: Prof. Julian Nedzelski
Last External Review: Sept. 1996

The Department of Otolaryngology is made up of 77 faculty members, of whom 25 are faculty full-time, including 2 tenured/ tenure stream faculty.

Key Priorities

The Department is active in all areas of medical education.

- Planned change in format of undergraduate teaching; two-week block to be divided with Ophthalmology.
- Revision and expansion of current core postgraduate curriculum from 2 to 3 year cycle.
- Surgical skills laboratory activities in collaboration with Departments of Surgery and Obstetrics and Gynecology.
- Introduction of research rotation in to PGY3 training
- Recruitment of a faculty member with dedicated interest in teaching development.
- North American leader in scope of its clinical fellowship offerings; only Head and Neck Fellowship in Canada.

Priority Research programs:

- Auditory physiology
- Cochlear implants
- Vestibular physiology
- Vestibular applied research
- Psychoacoustics
- Molecular biology
- Voice laboratory

Canada Research Chairs will be sought in areas of coclear implantation and study of the inner ear and its central nervous system connections.

Key Challenges

Recruitment challenges, looking for faculty with expertise in medical education, molecular genetics, and head and neck oncology.
Department needs to maximize opportunities to partner with other initiatives in Faculty, eg. International Health, Surgical Skills Centre.

Resources

The Department's net operating budget for 1999-2000 was $385,000. Budget cuts for 2000 – 2004 will be met through reduction of salary support provided to academic positions. The Department is participating in the APF process through the Surgical Skills Centre proposal.

Paediatrics

Sector: Clinical Sciences
Chair: Prof. Hugh O'Brodovich
External Review: Feb 1995

The Department of Paediatrics is made up of 314 faculty members, of whom 138 are faculty full-time, including 1 tenured/ tenure stream faculty.

Key Priorities

The Department will focus on:

- Becoming the national and international centre for training academic paediatricians.
- Mentorship and career development of its faculty.
- Encouraging clinician scientists and clinician investigators to seek cross appointments in the SGS departments relevant to their research programs.
- Leading in bench to bedside research by capitalizing on excellent faculty, extensive paediatric population and relationship within U of T, HSC Research Institute and CIHR.
- Scholarly delivery of tertiary and quaternary health care, facilitating primary and secondary care through Child Health Network.
- Collaboration with other departments and organizations to foster local, national and international academic programs.

Priority Research programs: Maintain strengths and enhance fundamental, translational and beside research in: developmental biology and related disciplines; solid organ transplantation and related areas; oncology, bone marrow transplant and related areas; patient and population based research.

Canada Research Chairs will be sought for key individuals in each of the priority research programs, developed jointly with hospitals and research institutes.

Key Challenges

Maintain departmental financial stability and enhance career development and compensation program. Challenges in recruiting and retaining faculty, increasing demands, and decreasing university funding. Decrease in MOH funded residency positions threaten viability of several sub-specialty training programs. Increasing restrictions on educational licenses challenge international status of fellowship programs.

Resources

The Department's University net operating budget for 1999-2000 was $961,940. Budget cuts for 2000 – 2004 will be met by seeking alternative funding sources.

Psychiatry

Sector: Clinical Sciences
Chair: Prof. Paul Garfinkel
Last External Review:December, 1999

The Department of Psychiatry is made up of 574 faculty members, of whom 143 are faculty full-time, including 10 tenured/ tenure stream faculty.

Key Priorities

- Educational program changes include expansion in substance abuse, bioethics, teaching residents how to teach, expanded PG5 curriculum.
- Joint program in bioethics and quality assurance.
- Clerkship to add content in areas of developmental disabilities, substance abuse and basic science. Substance abuse in the first year of residency. Inclusion of CANMEDS roles in resident teaching and evaluation.
- Psychiatric Outreach Program will begin recruiting students in northern and rural high schools. Core rotations to begin in underserviced, rural and remote communities in 2001.
- Residency program largest in North America, 125 residents, with 15 training sites.

Priority Research programs: Research funding has more than doubled in past 5 years to $25 million. Plans to build on research capacities in successful programs and develop resources for other programs to achieve potential. Priority programs/division include: Child psychiatry, geriatrics, forensic, general psychiatry, neuroscience, women's mental health, psychosomatics, psychotherapy, culture, mental health systems, addiction, mood disorders and schizophrenia. Continuing emphasis on research into methods of assessing competence in Psychiatry.

Canada Research Chair will be sought for priority programs that are not necessarily amenable to community giving.

Key Challenges

Must maintain a broad conceptual understanding of mental illness and develop depth in areas of excellence. Need to integrate programs across a broad network. Need to balance Ontario's need for generalists and requirements for specialists. Growth expected to continue in research funding, which will put increasing pressure on supporting infrastructure and dry lab space.
A new department chair will be appointed in July 2000. It is expected that the Chair will convene a Strategic Planning Committee to review and address recommendations of the Department's 10-year review document.

Resources

The Department's University net operating budget for 1999-2000 was $2,239,950. Budget cuts for 2000– 2004 will be met through savings realized from the non-salary component of the Department's operating budget.

Radiation Oncology

Sector: Clinical Sciences
Chair: Prof. Bernard Cummings
Last External Review: June, 1995

The Department of Radiation Oncology is made up of 64 faculty members, of whom 21 are faculty full-time, with no tenured/ tenure stream faculty.

Key Priorities

Faculty is organized in groups which have established external collaborations to focus on introduction of leading edge technical radiation treatment for selected cancer types, outcomes research, translational research on radioresistance and continuing education for health professionals. Departmental scope has expanded to included clinical physicists, radiation therapists and radiation oncologists.

Education Programs:

- Postgraduate residency to be expanded from 3 positions to 5 positions per year.
- Clinical and research fellowship training to be expanded from 6, subject to funding from multiple sources.
- Joint program with Michener Institute/Diploma in Radiation Therapy in first year of operation. Will develop according to plans.

Priority Research programs:

Clinical research: Increase entry to formalized clinical trials organized in hospital, or through national and international cooperative groups.

Epidemiological research: Increase health outcomes research and collaborations through ICES and Health Administration.

Translational research: Increase collaborations with Medical Biophysics/Imaging.

Basic Science Research: Increase recruitment of clinician scientists; emphasis on predictors of radiation response/resistance.

Education Research: Increase protected time for education group, collaborations with Centre for Research in Education.

Department research funding has been obtained predominantly through agencies other than MRC. Hopes to access one or more Canada Research Chairs through clusters related to Imaging Research (biological imaging and cancer definition) and/or Molecular Medicine (molecular basis of radiation sensitivity/resistance).

Key Challenges

Recruiting sufficient faculty and related staff to shift emphasis from provision of clinical radiation treatment and the resolution of waiting lists to a more balanced coupling of clinical treatments and academic programs. Expansion of training programs cannot address short-term problem. Recruitment from abroad, with government approval, expected to increase over next 5 years.

Minimal university funding. Bulk of funding through Ministry of Health (MOH) with many restrictions on use of funds. These restrictions limit Department's abilities to contribute most effectively to academic programs.

Resources

The Department's University net operating budget for 1999-2000 was $18,000 from the University. ($428,310 comes directly from the MOH). Budget cuts for 2000 – 2004 will be met through reduction of non-salary expenses.

Surgery

Sector: Clinical Sciences
Chair: Prof. John Wedge
Last External Review:
May, 1996

The Department of Surgery is made up of 326 faculty members, of whom 185 are faculty full-time, including 10 tenured/tenure stream faculty. The Department has a well developed separate plan (available from Dept.) which is updated continuously, and which outlines their research priorities.

Key Priorities

Education programs:

- Enhance academic emphasis in Surgical Skills Centre focusing on educational research.
- Increase development of endowed graduate scholarships, so that, together with external awards, the Surgical Scientist program will be fully funded.
- Assist Division of Biomedical Communications (BMC) to secure financial support for technology to achieve full potential of M.Sc.BMC. Support new Combined Program with Sheridan College to enhance the professional graduate student experience in 3-D animation.
- To parallel funding, increase student enrolment and plans for professional doctorate
- The Division of Anatomy division will collaborate with BMC and CRE in the development, application and evaluation of interactive multimedia for Anatomy teaching.
- Increase numbers of qualified international graduates in residency programs
- Expand number of clinical & research fellowships (currently 125 clinical fellowships)

Priority Research programs

Strong research program fostered through Surgeon Scientist program, key academic priority. Research funding has quadrupled in last 10 years, ratio of research funding growth relative to university dollars doubling in 6 years. Department has 10 divisions, research will continue on multiple fronts, emphasizing joint and collaborative programs.

The Department will work with campus-based departments and hospital based research units to allocate Canada Research Chairs. Three or four chairs will be sought, with plans to balance PhD and clinician scientists.

Key Challenges

Retention of most productive and talented faculty is a key issue for Department. Currently ranked in top 10% in peer departments in North America. Highly sub-specialized programs require external recruitment as well as internal development. Increasing clinical service demands are greatest threat to teaching and research productivity. Department continues to experience increasing administrative workload due to decentralization of business functions.

Resources

The Department's University net operating budget for 1999/00 was $2.87 million. Plans to meet its budget cuts through faculty retirements and resignations. Would like to increase revenues for salary support through research grants and donors. Deficit to finance Surgical Skills Centre will be cleared by fiscal year 2002-2003. Department participated in the APF process through the proposal for the Surgical Skills Centre and support for Centre for International Health, through the active recruitment of 5 surgeons with academic interest in international health. It will also benefit from the APF in Clinical Evaluative Sciences.

Community Health Sector

Department of Health Administration

Department of Public Health Sciences

Health Administration

Sector: Community Health
Chair: Prof. Vivek Goel
Last External Review: Jan. 1998

The Department of Health Administration is made up of 137 faculty members, of whom 18 are faculty full-time, including 15 tenured/ tenure stream faculty.

Key Priorities

- Sharpen focus of high quality health services research
- Maintain and improve education programs
- Sustain health system through community service
- Build infrastructure

Education Programs:

- Undertake "Building for the Future" review to determine preferred future educational offerings in research and professional programs. Information will be used to complete PhD review; establish a network for research and education in the Clinical Evaluative Sciences; continue innovations in MHSc professional program, including preparation in research methods, and emphasize preparing health system leaders and leaders in academic health science centres (eg. Clinicians & Clinician Scientists).
- Develop clear objectives to evaluate future educational opportunities including feasibility of combined degrees & continuing participation in collaborative programs.

Priority Research programs:

- Health system performance measurement and improvement
- Evaluation and analysis of home and community based care
- Clinical evaluative sciences
- Information and communication technologies in health

Canada Research Chairs will be developed in collaboration with hospitals and research institutes and other faculties in the above research priority areas.

Key Challenges

The major challenge for the department is inadequate, unsafe and unhealthy space. A CFI application for the Centre for Improvement of Health and Function that proposes a new building has been submitted jointly with the Rehab sector. However, the short term space issues still need to be addressed. Limited infrastructure support is a major impediment to pursuing the proliferation of research grants becoming available. A comprehensive development plan is required to address capital, infrastructure and graduate student funding support.

Resources

The Department's net operating budget for 1999-2000 was $1,705,559. Budget cuts for 2000 – 2004 will be met through a combination of increased revenues (salary recovery, research overheads, and CE), carry-forwards, and retirements. Department is participating in APF process through the Program in Clinical Evaluative Sciences; Educational Computing and Teaching Space, Knowledge Translation Program and Centre for International Health proposals.

Public Health Sciences

Sector: Community Health
Chair: Prof. Harvey Skinner
Last External Review: 1999

The Department of Public Health Sciences is made up of 203 faculty members, of whom 38 are faculty full-time, including 33 tenured/ tenure stream faculty.

Key Priorities

- Sustain and strengthen core programs in Education and Research
- Develop three new integrative research programs
- Introduce educational innovations
- Invest in our people
- Expand Resource and Funding Base

Education Programs: Major changes and innovations are planned, priorities include:

- Strengthen core programs: 4 MSc/PhD and 5 MHSc programs
- Create new MSc/PhD program in psychological and applied social science.
- Establish a program International Public Health (APF proposal)
- Restructure professional degree programs; introduce flex-time in Health Promotion
- Complete creation of 4 year course in Determinants of Community Health
- Explore potential of interdisciplinary PhD

Priority Research programs:

- Core research: epidemiology, biostatistics, social & behavioural science, occupational & environmental health, and public health practice
- Centre for Improvement in Health and Function
- Gene-Environment-Society Determinants of Health (integrative research)
- Urban Health Improvement (integrative research)
- Centre for International Health (integrative research)

Key Challenges

Canada Research Chairs will be sought to strengthen core education programs, links with research centres, links with partners and new integrative research programs. Recruitment of new faculty is key issue in the next 5 years. Two major challenges are inadequate space and graduate student funding. A CFI application for the Centre for Improvement of Health and Function that proposes a new building has been submitted jointly with the Rehab sector. However, major short-term space problems need to be addressed. Limited space and infrastructure support is an impediment to pursuing the proliferation of research funding opportunities becoming available. A comprehensive development plan is underway to address capital, infrastructure and graduate student funding support.

Resources

The Department's net operating budget for 1999-2000 was $3.3 million. Budget cuts for 2000 – 2004 will be met through non-replacement of faculty retirements. Department is participating in APF process through the Centre for International Health, Program in Clinical Evaluative Sciences, Knowledge Translation Program and Educational Computing and Teaching Space proposals.

Rehabilitation Sector

Department of Occupational Therapy

Department of Physical Therapy

Graduate Department of Rehabilitation Sciences

Department of Speech-Language Pathology

Occupational Therapy

Sector: Rehabilitation
Chair: Prof. Helene Polatajko
Last External Review: Feb. 1999

The Occupational Therapy Department is made up of 164 faculty members, of whom 8 are faculty full-time, including 7 tenured/tenure stream faculty. A new Department Chair, Prof. Helene Polatajko took office on January 1, 2000.

Key Priorities

The Department's key priority in the area of research is to **strengthen the research culture** by undertaking a number of initiatives, especially by establishing a common vision for research focused on **occupation and its relation to health and well being**, b Efforts will be made to increase the faculty complement through several channels: moving to and expanding the graduate program, seeking personnel awards for faculty and by seeking cross appointments to share in teaching and student supervision.

The Department, with sector colleagues, will work to secure an endowed Chair for Rehabilitation, and to establish a Centre for Rehabilitation Sciences and Evidence-Based Practice.

The undergraduate B.SC. (OT) program will be phased out and replaced with a professional master's entry program, beginning 2001. The enrolment targets for the program will be an intake of 52 for the first 3 years and 62 thereafter. The Department will continue to work with PT, through the structure of GDRS, to design and introduce a PhD program in Rehabilitation Sciences.

Key Challenges

A key challenge is strengthening the Department's infrastructure and resource base for building capacity to support the development and introduction of new graduate programs and increased enrolment. Resources will need to be found to support: an increase in faculty/student ratios, new and expanded space and facilities, and operating funds for teaching and administrative support.

The Rehabilitation and Community Health sectors have initiated planning for a Centre for Improvement in Health and Function through a CFI application. It is expected that new facilities for the Centre will address physical space and facilities difficulties now faced by both sectors.

The Department is working collaboratively with Physical Therapy and Speech-Language Pathology on creating a sectoral plan for shared administrative opportunities and facilitating intra-sectoral collaboration. The Rehabilitation Departments are planning to establish a Rehabilitation Council of Chairs that will provide an organizational structure to: explore common goals, facilitate collaboration, realize economies of scale and enhance distinctiveness of the disciplines for the continued development of the sector.

Resources

The Department's net operating budget for 1999-2000 was $1.259 m. Budget cuts for 2000 – 2004 will be met through reduction in non-salary expense. The Department has participated with the other Rehabilitation Departments in the APF process through a proposal for administrative support to the doctoral stream programs of the sector, administrative support for clinical site activity, as well as teaching support.

Physical Therapy

Sector: Rehabilitation
Chair: Prof. Molly Verrier
Last External Review: Feb. 1999

The Physical Therapy Department is made up of 251 faculty members, of whom 10 are faculty full-time, including 8 tenured/tenure stream faculty.

Key Priorities

One of the key priorities for the Dept. of Physical Therapy is building its research capacity. The Department plans to strengthen the component on physical disability, its impact and rehabilitation approaches to minimize disability. It intends to extend its research focus by including a new initiative to study the determinants of disability impact, specifically looking at the return to work process and life care planning. In the approach to disability impact, an emphasis will shift from the individual and institution to the interaction between the individual and their environment both at work and home. Partnering with the Institute of Work and Health will support research excellence in this area as well as partnering with the Community Health sector of the Faculty. The Department plans to create a Centre for Studies in Disability Impact as part of the Centre for Improvement of Health and Function, a collaborative initiative of the Rehabilitation and Community Health sectors.

The undergraduate Physical Therapy program will be phased out and replaced with a Masters entry professional program (starting 2001). The program will decrease enrolment to 52 and will be condensed to two years. It will have an expanded clinical research component, business acumen and emphasis on academic leadership for practitioners.

The Department is also preparing to launch a doctoral program in Rehabilitation Science in 2002 with the eventual inclusion of a PhD Physical Therapy Stream.

Key Challenges

One of the key challenges is strengthening the Department's infrastructure and capacity for the development and introduction of new programs and increased enrolment, including increase in faculty, new and expanded space and facilities, and operating funds for teaching and administrative support.

The Rehabilitation and Community Health sectors have initiated planning for a Centre for Improvement in Health and Function through a CFI application. It is expected that new facilities for the Centre will address physical space and facilities challenges now faced by both sectors.

The Department is working collaboratively with Occupational Therapy and Speech-Language Pathology on shared administrative opportunities. The Rehabilitation Departments are planning to establish a Rehabilitation Council of Chairs that will provide an organizational structure to: explore common goals, facilitate collaboration, realize economies of scale and enhance distinctiveness of the disciplines for the continued development of the sector.

Resources

The Department's net operating budget for 1999-2000 was $1.261 M. Budget cuts for 2000 – 2004 will be achieved through reduction in non-salary expense and other salaries. The Department has participated with the other Rehabilitation Departments in the APF process through the proposal for administrative support to the doctoral stream programs of the sector, administrative support for clinical site activity, as well as teaching assistance support.

Graduate Department Of Rehabilitation Science

Sector: Rehabilitation

Chair: Prof. Molly Verrier

Last External Review: April 1999

The Graduate Department of Rehabilitation Science offers a thesis program focusing on rehabilitation science theory and research. Faculty are cross-appointed from a broad range of departments, some within the Faculty of Medicine and others from other Faculties.

Key Priorities

The Graduate Department of Rehabilitation Science is focusing on building the research enterprise with all internal and external partners in the Rehabilitation Sector. The focus of the Department's activities will be:

- Continue to run a high quality MSc Program
- Attract increased funding for graduate students
- Launch the PhD program in 2002
- Develop a proposal for a postdoctoral training program in Rehabilitation Sciences following the introduction of the PhD program

The Department is exploring an option for its MSc thesis program to be combined with the new MScPT professional program for PT students to receive a combined professional and research degree.

The Department will continue to work closely with OT, PT and SLP to ensure alignment of professional and doctorate stream programs. The Rehabilitation Sector Departments are planning to establish the Centre for Rehabilitation Sciences Research and Evidenced-Based Practice. The Rehabilitation Sector and Community Health Centre have developed a proposal for the Centre for Improvement in Health and Function, seeking CFI funds.

Key Challenges

One of the key challenges is strengthening the Department's infrastructure and capacity for the development and introduction of new programs and increased enrolment, including increase in faculty, new and expanded space and facilities, and operating funds for teaching and administrative support. The proposed Centre for Improvement in Health and Function is expected provide new facilities, addressing physical space and facilities challenges now faced by both sectors.

The Rehabilitation Departments are planning to establish a Rehabilitation Council of Chairs that will provide an organizational structure to: explore common goals, facilitate collaboration, realize economies of scale and enhance the distinctiveness of the disciplines for continued development of the sector.

Resources

The Department's net operation budget for 1999-2000 was $36,214. Budget cuts for 2000 – 2004 will be achieved through reduction in non-salary expense. The Department has participated with the other Rehabilitation Departments in the APF process through the proposal for administrative support to the doctoral stream programs of the sector, administrative support for clinical site activity, as well as teaching assistant support.

Speech-Language Pathology

Sector: Rehabilitation
Chair: Prof. Paula Square
Last External Review: March 1994

The Speech-Language Pathology Department is made up of 118 faculty members, of whom 8 are faculty full-time appointments, including 8 tenured/tenure stream faculty.

Key Priorities

The Department continues to build its internationally-recognized research programs in two key areas - speech motor control/ disorders and developmental language disorders. Effort will be directed to initiating a third major field of research/doctoral studies in **hearing sciences**, through enhancement of existing relations with the Department of Otolaryngology and with the addition of new faculty garnered through enrolment increases.

Planned changes in educational programs include increase in enrolment in the doctoral stream from 12 to 17 FTE (contingent on doctoral student stipends) and increased enrolment in the Graduate Professional Program in 2004 by 20%, contingent upon the success of a Superbuild proposal. There are plans to develop a joint sector graduate course with the Graduate Department of Rehabilitation Sciences in Disordered and Restorative Motor Control. The Department plans to launch its new "research-to-practice" modular curriculum in the professional graduate program in 2000-01.

The Rehabilitation sector departments are planning to develop a research centre, The Centre for Rehabilitation Sciences and Evidence-Based Practice. The Rehabilitation and Community Health sectors have initiated planning for a Centre for Improvement in Health and Function through a CFI application. It is expected that new facilities for the Centre will address physical space and facilities challenges now faced by both sectors.

Key Challenges

Faculty recruitment is generally a challenge as there is an existing 10% shortage of academics in the discipline. The Department is working collaboratively with Physical Therapy and Occupational Therapy on shared administrative opportunities.

The Rehabilitation Departments are planning to establish a Rehabilitation Council of Chairs that will provide an organizational structure to: explore common goals, facilitate collaboration, realize economies of scale, and enhance distinctiveness of the disciplines for the continued development of the sector.

Resources

The Department's net operating budget for 1999-2000 was $1.00 M. Budget cuts for 2000 – 2004 will be met through accrued carry-forwards from a voluntary early retirement, a tenure-stream slot that remained vacant for a year, and unpaid leaves of absences. The Department has participated with the other Rehabilitation Departments in the APF process through a proposal for administrative support to the doctoral stream programs of the sector, administrative support for clinical site activity, as well as teaching support.