

Academic Program Reviews 2004-2008

Final Documents – Faculty of Medicine

March 2009

MDCM Program

Strengths:

- The Dean of the Faculty of Medicine, Dr. Richard I. Levin, has considerable skills in addressing important issues facing the Faculty.
- The Physicianship program, developed under the leadership of Dr. Boudreau, and the Osler Fellow program hold promise for the teaching of professionalism.
- The Centre for Medical Education is providing a significant amount of faculty development and support for the curriculum rollout, as well as mentoring for faculty members who have a career interest in medical education.
- Basic science departments and many clinical departments have strong graduate programs with significant CIHR-funded interdisciplinary research.
- The new McGill Medical Simulation Centre represents a successful collaboration between the hospitals and the University. The Centre provides excellent opportunities for the medical program.

Recommendations for improvement:

- A clear strategic plan specific to the Faculty of Medicine should be identified.
- Within certain clerkship rotations, there should be greater standardization across sites, including in the areas of patient exposure, feedback to students and workload policy implementation.
- A specific plan to increase the number of Aboriginal students should be put in place.
- Career advising for medical students should be enhanced.
- There should be clarification and boundaries between student health and student advising.
- The learning environment in some clinical rotations must be improved.
- Policies should be developed and implemented for ensuring regular feedback and mentoring regarding promotion.
- Hospital facilities for students, including learning space, lockers and call rooms, should be monitored regularly to ensure they are of good quality.

School of Nursing: Undergraduate Programs

- Bachelor of Science (Nursing) BSc(N)
- Bachelor of Nursing (Integrated BNI)

Strengths:

- The programs have a unique role, in that they are the only English-speaking university-level nursing programs in the province of Quebec.
- There is extensive collaboration with other departments and schools concerning the curriculum and with the McGill University Health Centre regarding the recruitment of members of its nursing staff to teach (clinical and theory) in the nursing programs.
- Attempts have been made to provide cohesive links between the programs by, wherever possible, integrating the activities of BSc(N) students with those of BNI students.
- The external review noted a high level of enthusiasm and commitment among faculty members and program administrators and a diverse and highly motivated student population.
- The McGill Medical Simulation Centre is a state-of-the-art training facility that greatly benefits nursing students.

Recommendations for improvement:

Bachelor of Science (Nursing) BSc(N)

- Increase the relevance and relatedness of the BSc(N) curriculum.
- Take steps to enable BSc(N) students to graduate with other Health Sciences students by the spring of 2009
- Improve support for students who have difficulty meeting clinical course objectives.
- Help students whose first language is neither English nor French better meet program requirements.
- Enhance professional attitudes and beliefs, as well as develop values and skills in relation to inter-professional practice.
- Complement and enhance learning opportunities for students.
- Continue ongoing sessions to develop clinicians as nurse educators.
- Enhance liaison with the community and expand on clinical placement opportunities.

Bachelor of Nursing (Integrated Option) (Integrated BNI)

- Reduce the attrition rates of francophone students.
- Improve students' performance in physiology.
- Continue to refine the curriculum.
- Increase the use of the Medical Simulation Centre.
- Monitor professional attitudes and beliefs related to inter-professional practice.
- Continue sessions to develop preceptors to work with students.

School of Physical and Occupational Therapy: Undergraduate Programs

- Bachelor of Science in Occupational Therapy
- Bachelor of Science in Physical Therapy

Strengths:

- This is a strong school with solid programs and a committed faculty.
- There are joint courses and a real interdisciplinary collaboration between Occupational Therapy and Physical Therapy.
- The School contributes to Continuing Medical Education and runs workshops for other health professionals.
- Two enthusiastic and dedicated professors have taken on the challenge of directing the School's undergraduate programs. The two academic coordinators of clinical education form an excellent team as well.
- The School has a dedicated new director with a clear vision of McGill taking on a leadership role, with an emphasis on strategic planning and acquiring/developing the resources necessary for the advancement of the School.
- The School trains competent health professionals who almost unanimously stay on to work in Quebec. There is a high demand for these graduates, resulting in virtually 100% employment.
- The new McGill Medical Simulation Centre for practical training is a big plus for both faculty and students.
- The adoption of a case-based reasoning approach to teaching and the emphasis on training knowledgeable consumers in new research findings are positive developments that should be helpful to future graduates, allowing them to cope with the current explosion of the knowledge base.

Recommendations for improvement:

- Enhance the breadth and depth of knowledge and expertise in the Faculty.
- Devise a recruitment strategy that will target career scientists and clinical experts who will enhance the pedagogy of the School, notably in the musculoskeletal, cardio-respiratory and mental health domains.
- Develop professional elective courses that will address emerging specialty areas in both Occupational Therapy and Physical Therapy.
- Liaise with professional orders to identify emerging domains that require education in specific frames of reference and specialized techniques.
- Increase efforts to provide a teaching and learning environment that is appropriate for students, faculty and support personnel.
- Investigate and propose solutions to current space issues that affect students, faculty and support personnel.
- Narrow the gap between research and clinical practice.
- Investigate possible solutions to finding enough practicing clinicians and clinical placements for student supervision.

Departments of Cell Biology & Anatomy, Biochemistry, Microbiology & Immunology, Pharmacology and Physiology: Graduate Programs

Strengths:

- The programs offered by all five departments were judged, by external review, to be of excellent quality.
- The programs are able to attract highly qualified applicants from Canada and abroad.
- These departments have strong undergraduate programs that provide a “feeder” system for the graduate programs. The high quality of the undergraduate programs allows the graduate programs to be research intensive.
- Students are closely mentored by their supervisors, many of whom are internationally renowned researchers.
- Students are given the opportunity to present their work throughout their program and at international meetings.
- The external review concluded that, overall, these programs rank among the best in Canada and can compete internationally.

Recommendations for improvement:

- Explore means to recruit more of the top students from other universities in Canada, the United States and internationally.
- Continue efforts to provide students with the opportunity to attend at least one scientific meeting (local for MSc and national or international for PhD).
- Focus any recruitment of new staff on individuals whose research is internationally recognized as being at the forefront of areas likely to lead to major advances.
- Ensure timely decisions in the fast-tracking (or otherwise) of MSc students into the PhD program.
- Encourage graduate students to act as teaching assistants. The present tendency is to see this as a distraction from research, but such activity is an important part of student development and could assist certain undergraduate programs with high enrolments (e.g., ANAT 600).

School of Nursing: Graduate Programs

Strengths:

- Traditionally, the School has played a key leadership role in the development of graduate education and the introduction of research into academic nursing and into practice in Canada.
- Members of the faculty participate in several national research networks: Psychosocial Oncology Research Training (PORT), Pain in Child Health (PICH), Facilitating Unique Training Using Research and Education (FUTURE), the Palliative Care Research Training Program and at least two Quebec-based initiatives, GRISIM and FERASI.
- Participation in the above provincial and national networks affords faculty members opportunities to collaborate with other leading researchers across the province and the country.
- Graduate students also benefit from the School's involvement in these networks since there are frequent opportunities to attend seminars and national meetings.
- The School has a unique PhD program that is offered jointly with the University of Montreal.
- The direct-entry master's program is also unique in Canada, and its graduates enjoy an excellent reputation.

Recommendations for improvement:

- Increase the information available on the website and in print material about the School's graduate programs to the nursing community in Quebec, Canada and North America.
- Recruit qualified faculty members for both tenure and non-tenure track positions.
- Secure funding for students in master's and doctoral programs.
- Increase the School's operating budget to cover the costs of clinical training.
- Acquire additional or new space to meet the needs of faculty and students.
- Provide infrastructure to support the research and educational activities of faculty and students.
- Invest in videoconferencing facilities and personnel to support the School's inter-university initiatives and specialized nurse practitioner programs.
- Continue to develop options for study and research in master's and doctoral programs.
- Tailor learning opportunities at the graduate level for international students.
- Support the School's international initiatives in research and education.
- Provide in-house information technology support.

School of Physical and Occupational Therapy: Graduate Programs

Strengths:

- The School is well established and highly respected within Quebec and Canada.
- Faculty members are productive in research and include some of the leading scientists nationally and internationally. Notably, two members are Canada Research Chair holders.
- The recent redesign of the professional programs is a major accomplishment.
- Student feedback indicates they like their programs and feel they have ready access to, and support from, teachers and supervisors.
- Several new faculty positions have become available, with more to come in the next four to five years. This offers a rare opportunity for the renewal and expansion of faculty expertise.

Recommendations for improvement:

- Reduce completion times for both the MSc and PhD degrees.
- Hire qualified support staff for the graduate program.
- Identify and hire both tenure-track and clinical graduate faculty.
- Increase yield rates (ratio of offers made/offers accepted) and funding, especially for PhD students.
- Develop new graduate courses at the cutting edge of rehabilitation research, scientific methods, and research integrity and ethics.

School of Communication Sciences and Disorders: Graduate Programs

Strengths:

- The School is well established and well regarded; it created the first doctoral program in this discipline in Canada.
- The School's programs have evolved over the years in response to demands from the field and the resources available.
- Students like the program, the faculty members and the practicing professional speech / language pathologists they work with clinically and in the classroom.
- Despite constraints in space and resources, the School is doing well with strong research programs and relevant educational programs.

Recommendations for improvement:

- Recruit qualified faculty to fill two tenure-track positions in the department.
- Develop and implement new courses to: 1) increase elective options for students; and 2) provide state-of-the-art clinical and research training with respect to emerging paradigms and technologies.
- Improve access to clinical practicum sites and supervisors for MSc(A) students.
- Develop solutions (or acquire funding) to deal with issues that limit enrolment in the MSc and doctoral programs, including:
 - Limited funding for doctoral students.
 - Procuring new and securing existing clinical practicum sites for MSc(A) students.
 - Expanding space available for students and faculty.

Department of Medicine; Division of Experimental Medicine: Graduate Programs

Strengths:

- The external review found the programs to be of extremely high calibre.
- The Director's leadership style is very effective and widely appreciated throughout the division.
- Each student has a thesis supervisor, as well as an academic adviser to oversee his or her progress.

Recommendations for improvement:

- Reduce times-to-completion of the M.Sc. and Ph.D. degrees.
- Increase the current minimum stipend for graduate students.
- Institute a mandatory ethics course for all incoming students.
- Track students post-graduation to determine the ultimate outcome of their graduate training.
- Undertake periodic reviews of the role and effectiveness of academic advisers.
- There are relatively few MDs registered as students in Experimental Medicine (which is in marked contrast to comparable institutions). It is recommended that clinician scientists be specifically targeted for recruitment.
- Make student attendance compulsory at a given number (eight to 10) of seminars per year (to be tracked by the Division).
- Review the specific roles of course breadth, teaching style and undergraduate student enrolment for each graduate course offered by the Division in order to assess its contribution to graduate education and promote more active course development.

**Department of Human Genetics Graduate Programs (MSc and PhD) and
Genetic Counselling Graduate Program (MSc)**

Strengths:

- The external review found these programs to be of extremely high calibre.
- The MSc in Genetic Counselling is one of only a few such programs in Canada and has obtained American accreditation.
- The Department has developed outstanding opportunities for students to interact with one another and with faculty members in both a social and research context.

Recommendations for improvement:

- Monitor the career progress of alumni as a means to evaluate the effectiveness of our programs.
- Improve levels of financial support for students in the MSc program in Genetic Counselling.
- Increase the use of web-based technology and videoconferencing.
- Develop curricular content in research methodologies in the MSc program in Genetic Counselling.
- Implement weekly bulletins in the Department of Human Genetics and introduce timelines so that MSc and PhD students can monitor their progress.

Neurological Sciences, Otolaryngology, Experimental Surgery, Pathology and Psychiatry: Graduate Programs

Strengths:

- These programs, located in departments that carry out a dual function (research and clinical), are highly interdisciplinary and offer unique opportunities for graduate students to embrace more clinical aspects of research.
- Faculty members in these departments are often intensively involved in teaching activities, not only in these programs but also in graduate and undergraduate programs in Medicine, Biology and the Basic Biomedical Science departments; this enriches and unifies many aspects of graduate and undergraduate teaching across several programs at McGill.
- Some of these programs have instituted procedures that ensure close mentorship of students by faculty members, in addition to their designated supervisors. This provides tangible benefits to both supervisors and students.

Recommendations for improvement:

- Explore means to reverse the declining opportunity for clinicians to participate in experimental research.
- Examine the distribution of teaching assistantships throughout the University to determine if clinical departments are fairly represented.
- Work with the University to intensify efforts to obtain financial support for all graduate students.
- Intensify efforts to track the progress of graduates after they leave the University.
- Consider instituting Annual Student Research days to provide students with an opportunity to present and discuss their work in a larger forum.

**Department of Epidemiology, Biostatistics and Occupational Health:
Graduate Programs**

Strengths:

- The Chair is strongly committed to these educational programs and has made improvements that are widely appreciated throughout the Department.
- The recruitment of a number of new, young faculty members over the past several years has revitalized these programs.
- The Department has developed a culture that strives for excellence in teaching and student supervision.
- The Department's interconnectedness with hospital units and diverse agencies provides a rich environment for faculty and student research.

Recommendations for improvement:

- Develop a master's degree in Public Health with concentrations in key areas, including Epidemiology, Environmental Health and Occupational Health.
- Develop undergraduate courses leading to a minor in Epidemiology and Public Health.
- Review the possible closure of the diploma program in Epidemiology.
- Undertake an inter-faculty review of current occupational health programs (MSc and PhD), including laboratory facilities for teaching and training.
- Explore means to increase research space for faculty members' research teams and research students housed on campus at Purvis Hall and Lady Meredith and to improve and expand teaching space for departmental teaching programs.
- Target admission goals for each degree program as a function of available faculty.
- Increase the applicant pool for all programs.

Medical Physics Unit: Graduate Program

Strengths:

- The external review noted that the Medical Physics Unit (MPU) at McGill is one of Canada's premier centres of excellence in this field.
- The Director has done an outstanding job of administering the unit and its graduate program.
- Graduate students and Physics residents are attracted to the program because of its quality, clinical focus and solid CAMPEP-compliant preparation for professional certification as a hospital physicist.

Recommendations for improvement:

- Improve the MPU's annual budget to enable:
 - Remuneration of clinical instructors.
 - The appointment of teaching assistants for 10 of the 12 mandatory didactic MSc courses.
 - The purchase of laboratory equipment to improve the practical and technical knowledge of graduates.
- Obtain additional space for teaching rooms and laboratories.
- Increase student enrolment, provided that the current severe financial and space constraints are alleviated.
- Restore the MPU's faculty complement to four academic physicists.
- Obtain funding for renovation of the current MPU's library/conference room, including the updating of the communal computer, Internet access and the purchase of new books.
- Develop a new and sustainable funding formula for graduate students.
- Establish an MPU Curriculum Committee to review current course offerings.

Biomedical Engineering Department: Graduate Programs (MEng and PhD)

Strengths:

- Excellent regular and associate faculty members with international research recognition.
- Well-organized and well-executed graduate programs.
- Strong evidence of success for program graduates in academia and industry.
- Well-developed links with clinical researchers and teaching hospitals that ensure relevance for graduate trainee research.
- Enthusiastic group of graduate and post-doctoral students.
- Very good course slate, offered with regularity.

Recommendations for improvement:

- Create an institutional strategy for the recruitment of new staff in Biomedical Engineering and Bioengineering to support the large number of graduate students, relying on co-operation and collaboration between the faculties of Engineering and Medicine.
- Ensure that the Department has an operating budget that supports its graduate teaching programs, maintains its related infrastructure and attracts best students with additional special stipends, as currently done in Engineering for PhDs.
- Improve the infrastructure in Room 321 of the Duff Medical Bldg, in keeping with its role as the Department's core teaching/seminar space.
- Renovate the Biomedical Instrumentation teaching laboratory and update its infrastructure.
- Develop wet laboratory space in support of graduate teaching.
- Increase teaching theatre time and the availability of small meeting rooms and seminar rooms.
- Consider developing a Biomedical Engineering (BME) graduate course in Physiology aimed at BME students.
- Consider adding Directed Studies courses to current curriculum offerings.
- Review current comprehensive examination procedures.
- Review current seminar courses and consider making attendance mandatory.
- Prepare a short departmental guidance document to help students develop their theses.
- Shorten program completion times in line with BME programs at other universities in Canada.
- Establish an annual Student Research Day.
- Adopt an open administrative style with regular faculty meetings, active standing committees and ongoing evolution of educational programs. Wherever possible, encourage student representation.
- Examine current admission requirements to ensure that they do not pose unacceptable obstacles to the recruitment of the more biology-oriented students.
- Protect and nurture the systems biology thrust of the Department.
- Streamline the administration of students and classes by the Faculty and the Department.
- To determine program outcome, track graduate students and their careers after they leave McGill.

March 2009