



Senate Committee on Academic Development
Report to Senate – Meeting of April 23, 2009

**Proposal to introduce a Collaborative Program in Cancer Research in the School of
Graduate Studies and Research**

Introduction

The proposal to introduce a Collaborative Program in Cancer Research in the School of Graduate Studies and Research (SGSR) was reviewed by the Senate Committee on Academic Development (SCAD) at its meeting April 1, 2009. B. Brouwer, Associate Dean of SGSR, and L. Mulligan, Professor and Research Scientist in the Department of Pathology and Molecular Medicine, attended the SCAD meeting to speak to the proposal and answer questions from members of SCAD. Members of SCAD were also provided with the Program Approval Submission Form, which outlines the major components of the proposal. A copy of the proposal is attached to this report.

Analysis and Discussion

The following should be noted:

- this proposed program will involve seven departments including the Department of Anatomy and Cell Biology, Biochemistry, Community Health and Epidemiology, Microbiology and Immunology, Pathology and Molecular Medicine, Pharmacology and Toxicology, and Psychology;
- this proposed interdisciplinary program will capitalize on existing curriculum and will act as an umbrella over existing programs to allow students to earn a special designation;
- students will be trained and be exposed to a broader perspective on the range of cancer research;
- the proposed program will allow the University to promote and advertise a relevant specialization in cancer research that will attract graduate students to the University;
- students will complete a research thesis and will be required to participate in a cancer focused seminar series;
- graduates of the program will seek professions in cancer research, pharmaceutical, health care support and data analysis.

Conclusions/Recommendation

Recommendation:

On academic grounds, SCAD recommends that Senate approve the establishment of the Collaborative Program in Cancer Research in the School of Graduate Studies and Research to commence in September 2009.

Respectfully submitted,



Patrick Deane
Chair, Senate Committee on Academic Development

Committee Members:

Members

C. Baker
J. Coates
P. Deane (Chair)
M. Hoidas
M. Lombardi
D. McKeown
K. O'Brien (Secretary)
P. Oosthuizen
M. Roberts
D. Stockley
M. Whitehead



Senate Budget Review Committee

Report to Senate – April 9, 2009

Proposal to establish a Graduate Collaborative Program in Cancer Research.

Introduction

On April 9, 2009, the Senate Budget Review Committee (SBRC) met to discuss the Proposal to establish a Graduate Collaborative Program in Cancer Research.

Analysis and Discussion

L. Mulligan (Pathology and Molecular Medicine) indicated the overall objective of the program is to train students in the broad area of cancer research and provide a broader perspective than would be possible in any single one of the collaborating departments. The students will be required to participate in a cancer focused seminar series, complete the course requirements of their home department, take one or more ½ courses from the Cancer Research Program recommended courses and complete a research thesis within an area or cancer research. The program will draw upon existing courses and research facilities.

Conclusions/Recommendation

Members of the committee saw no major resource implications with the proposed program and voted unanimously to recommend to Senate that they approve the Proposal to Establish a Graduate Collaborative Program in Cancer Research.

Respectfully submitted,

J. Medves,
Chair, Senate Budget Review Committee

Committee Members:

H. Averno

K. Brock

F. Davis

D. Hallett

J. Helland

D. Janiec

M. Koichopolos

M. Lombardi

J. Medves (Chair)

G. Willmott

I. Young



Queen's
UNIVERSITY

UNIVERSITY SECRETARIAT

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Memo

TO Patrick Deane, Chair, SCAD
Jennifer Medves, Chair SBRC

FROM Georgina Moore, Secretary of the Senate

DATE March 13, 2009

SUBJECT Proposed New Collaborative Program in Cancer Research

The attached proposal has been submitted to the Senate by the School of Graduate Studies and is referred to SCAD and Budget Review for approval. The proposed **Collaborative Program in Cancer Research** was approved by the Graduate Council on February 11, 2009.

Please review the proposal and report back to Senate with your committee's recommendation. Professor Lois Mulligan, Pathology and Molecular Medicine (ext. 77475, email mulligal@queensu.ca), should be contacted if you have any questions or if you would like him to attend a committee meeting. Please contact him directly.

Thank you for your attention to this matter.

Georgina Moore
Secretary of the Senate

copy: K. O'Brien, Secretary, SCAD + copy of Proposal
B. Cooke, Secretary, SBRC + copy of Proposal
J. Deakin, Associate Vice-Principal and Dean, School of Graduate Studies & Research
L. Mulligan, Department of Pathology and Molecular Medicine

Senate Referral File
ATT:

Senate Committee on Academic Development
and
Senate Budget Review Committee

Program Approval Submission

This form is to be used when seeking approval for all new or substantially revised programs of study leading to a degree, diploma or certificate

FACULTY/SCHOOL: GRADUATE STUDIES

PROPOSED NEW PROGRAM: COLLABORATIVE PROGRAM IN CANCER RESEARCH

PROPOSED IMPLEMENTATION DATE: SEPTEMBER 2009

DATE OF GRADUATE SCHOOL COUNCIL APPROVAL: FEBRUARY 11, 2009

SUBMISSION CONTACT

NAME: LOIS MULLIGAN

TELEPHONE: 613 533 6000 X77475

EMAIL: mulligal@queensu.ca

SIGNATURE OF THE DEAN: _____

DATE: 7/23/09

Please note that program proposals must receive the approval of Faculty Board prior to being submitted to the Senate Office for referral to the Senate Committee on Academic Development (SCAD) and the Senate Budget Review Committee (SBRC), which will then make their recommendations to Senate.

The criteria requested in PART A should be regarded as the minimum criteria for the assessment of academic programs. Any unit planning a new program should show how not only the criteria listed below but also, where appropriate, those required by the Undergraduate Program Review Audit Committee and those of the Ministry of Training, Colleges & Universities have been taken into account. For further information, please refer to the Senate Policy "Policies and Procedures for Establishing New Undergraduate Programs" (<http://www.queensu.ca/secretariat/senate/policies/newprog/index.html>)

PART A

1. OBJECTIVES:

Please summarize the rationale for introducing this program. The program should be consistent with the Queen's mission, the academic plans of the unit including its teaching and research strengths, the relation of the unit with other academic units and the standards, educational goals and learning objectives of the degree. Explain how this program will achieve the expected academic quality. Please identify the Faculty, School or Department, which will be administratively responsible for the academic aspects of this program such as supervision of graduate students, curriculum development and the Internal Academic Review Process.

We propose the development of a Collaborative Graduate Program in Cancer Research at Queen's University. This is an interdisciplinary Program, involving existing OCGS approved MSc, and PhD programs in the Departments of Anatomy and Cell Biology, Biochemistry, Community Health and Epidemiology, Microbiology and Immunology, Pathology and Molecular Medicine, Pharmacology and Toxicology, and Psychology at Queen's. The overall objective of the program is to train students in the broad area of cancer research and provide a broader perspective on the range of cancer research available to them at Queen's University than would be possible in any single one of the collaborating departments. The proposed Program is intended to:

- a) Formally link graduate education in the diverse areas of cancer research being undertaken in each of the constituent graduate programs.
- b) Provide a common program for students working in cancer research with shared requirements, electives and expectations.
- c) Provide a focused course base for students within the Program that will enrich their interdisciplinary exposure to all aspects of cancer research.
- d) Provide interdisciplinary access to courses and expertise within the Program's constituent departments that optimizes availability of both resources and expertise for all students within the Collaborative Program.
- e) Permit coordinated advertising of graduate education in cancer research at Queen's in order to recruit highly qualified candidates.
- f) Offer a degree distinction (specialization) that identifies candidates as having specialized training in Cancer Research.

Departments will retain administrative responsibility for graduate students and for curriculum development in their specific area. Involvement of each department in the Collaborative Program will be reported as part of ongoing periodic appraisals.

2. ADMISSION REQUIREMENTS:

The admission requirements (preparation and achievement) should be appropriate for the learning objectives of the program and the institution to ensure the appropriate quality of student applicants. In no case should admission requirements be lower than the published minimum standards for the University. Indicators of student demand including applications, registrations, projected enrolment levels, and of the quality of students must be considered. Where admission is competitive, actual admission requirements may be higher than the published minimum standards. Information about anticipated enrolments should also be included.

Admission requirements for students entering the Collaborative Program will be consistent with those of the member Department in which the student will register. In general, this will represent a B+ average or higher in a relevant previous degree program. The Collaborative Program will not consider students who do not meet the specific requirements of the member Department in which they intend to register. Students are admitted to the Doctoral Program after receiving a Master's degree in a relevant area of research at Queen's, or from another institution. Exceptional students may be admitted directly into the PhD Program. Alternatively, students who have demonstrated excellent academic standards and research progress may transfer to the Doctoral program through the mini-Master's thesis route within 18 months of their Master's registration.

Students will be recruited and will enroll in the Graduate Program of one of the participating departments. Applicants accepted by one of the constituent departments, and by a faculty supervisor who is part of the Collaborative Program, will be reviewed by the Program Committee for acceptance into the Collaborative Cancer Research Program.

3. CURRICULUM:

Provide a detailed overview of the proposed program, along with the proposed *Calendar* description. Details such as course requirements (core, supporting, recommended, optional courses), prerequisites, problems students may encounter and new courses being proposed for the program should be included. The structure and curriculum of the program should be appropriate for its learning objectives.

Graduate students engaged in the Collaborative Program in Cancer Research will be registered in one of the participating OCGS-appraised departmental programs and will be required to satisfy the academic requirements of the program-of-registration in conjunction with the academic requirements of the Collaborative Program. The key features of the Collaborative Program are outlined below.

- a) Students will be required to participate in a cancer focused seminar series "The Cancer Research Seminars". This series will feature weekly presentations from faculty members, graduate students or visitors and will expose students to examples of cancer research and practice in broad areas. As part of their departmental requirements, students may also be expected to attend and participate in their home departmental seminar series. All students in the collaborative program are required to present their research regularly in either the Cancer Research Seminars or another required seminar series such as a departmental seminar series, if applicable.
- b) Students must complete the course requirements of their home departments. Further, students will take one or more ½ courses (term length) from the list of Cancer Research Program recommended courses (See Table 1, attached), which may be included within the requirements or electives of their home department, or may be in addition to these requirements. Courses may be drawn from any participating department and should be selected in consultation with the supervisor and with agreement of the home department based on the student's background and training needs.
- c) Students will complete a research thesis within an area of cancer research.

Calendar description

The Collaborative Graduate Program in Cancer Research is a multidisciplinary program that offers MSc and PhD students training opportunities in the broad range of exciting and challenging fields that contribute to cancer research. The Program allows students to undertake cutting-edge research under the supervision of internationally known investigators with interests ranging from structural and tumour biology and genetics, through epidemiology, to outcomes research and health policy development. The Collaborative Program provides opportunities for interdisciplinary research and learning that are invaluable for our student's future career development. Areas of research interest covered by this program include Molecular Epidemiology; Outcomes Research and Health Policy Development; Cancer Care and Service Delivery; Cancer Genetics, Gene Regulation and Molecular Diagnostics; Drug Development and Experimental Therapeutics; Drug Metabolism and Disposition; Molecular Mechanisms of Carcinogenesis; Cellular Regulation and Signal Transduction in Cancer Cells.

4. TEACHING:

Briefly explain how the intended mode of delivery (including, where applicable, distance or on-line delivery) and standards of instruction for this program are appropriate to meet the program's learning objectives.

All of the courses linked to the Collaborative Graduate Program in Cancer Research are existing courses offered through the contributing departments (Table 1). No distance or online courses are required for this program.

5. EVALUATION OF STUDENT PROGRESS:

Briefly explain the intended method of evaluation of student progress and how it is appropriate for this program.

Students will be evaluated based on their course work and research progress. Course work will be evaluated and assigned a numeric grade. A supervisory committee will be established for each student according to their home departmental guidelines, that will include at least one faculty member associated with the Collaborative Program, and will be responsible for monitoring and evaluating the student's research progress.

6. EQUITY:

This program's planning, development and implementation should be consistent with the equity goals of the University and must avoid direct, indirect and systemic discrimination.

The program has been developed according to the general regulations of the School of Graduate Studies and Research. Any direct or indirect discrimination are avoided.

7. HUMAN RESOURCES:

Please demonstrate that the number, quality and academic expertise of the faculty in the area of the proposed program are sufficient to meet the demands of the program. Where appropriate, the availability of support staff, teaching and laboratory assistants should be indicated. (Additional details should be provided on the Resource Implications Checklist in **PART B** of this form).

At present, in excess of 60 graduate students in multiple departments would be predicted to fall within the area of cancer research. These enrolments provide an indication of the student population that would potentially contribute in future to the Collaborative Program. More than 40 faculty members will contribute to the Collaborative Program in Cancer Research as supervisors of research/thesis projects and may also be involved in coordinating and/or teaching of the specified cancer research graduate courses. These core faculty will be drawn from the Departments of Anatomy and Cell Biology, Biochemistry, Community Health and Epidemiology, Microbiology and Immunology, Pathology and Molecular Medicine, Pharmacology and Toxicology, and Psychology.

8. PHYSICAL AND INFORMATION RESOURCES:

Please provide a summary of available or required program-specific resources, such as: classroom requirements, laboratories, information technology services and facilities, and library facilities and information resources (including unique and special collections). (Additional details should be provided on the Resource Implications Checklist in **PART B** of this form).

The proposed program will draw upon existing courses and research facilities. The core faculty associated with the program have strong tri-council research support from the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council, and the Social Sciences and Humanities Research Council, as well as funding from other sources including the Canadian Foundation for Innovation, National Cancer Institute of Canada, Cancer Research Society, Canadian Breast Cancer Research Initiative, Canadian Breast Cancer Foundation, US Army Breast Cancer Research Initiative and a number of other agencies that will provide the research resources required.

The existing laboratory space, information technology services and facilities, and library and information resources will meet the needs of this program.

9. FINANCIAL RESOURCES:

There should be evidence of sufficient resources to introduce and maintain the program for a reasonable period of time. This should include consideration of any additional funds from internal sources and from government or other external sources as well as possible financial impact of the programs on other programs, within and outside the unit. (Additional details should be provided on the Resource Implications Checklist in PART B of this form).

Students enrolled in the collaborative program will be considered for funding support through their home departmental program. Students may be eligible to apply for personal studentship funding through the appropriate Tri-Council competition or through other agencies (e.g. OGS, NCIC, CRS etc.). Applications will be ranked as required by the student's home department. Stipend funding of students in the Collaborative Program will be in line with policies of their respective home departments.

10. SOCIETAL CONTEXT (STUDENT DEMAND, SOCIETAL NEED, DUPLICATION):

Please provide a summary of how this program is expected to meet student demand and societal need. Evidence of student demand could include: projected enrollment levels, application statistics, origin of student demand (domestic and international), and duration of projected demand. Evidence of review and comment by appropriate student organizations should be provided. Please explain how the program will fulfill a societal need in specifically identified fields (academic, public and /or private sector) and consider the probable availability of positions on graduation, the likelihood of attracting out of province or international students and the equity implications of the program. In the case of a professional program, discuss its congruence with the regulatory requirements of the profession. Please cite similar programs offered by other institutions and provide evidence of additional societal need and/or student demand as well as indicate innovative and distinguished aspects of the program.

Cancer is a leading cause of death in Canada and the world. In recent years there have been tremendous advances in our understanding of the underlying molecular mechanisms of cancer; however, those advances have not yet been translated into the expected major improvements in disease prevention, clinical practice and patient care. The realization of these expectations represents a high priority to all Canadians in the immediate future. This will require investigators with a broad range of skills across the spectrum of cancer research. The multidisciplinary cancer research community at Queens' University provides an outstanding training environment for these future leaders in cancer research in Canada. Strengths in cancer research are found within several departments at Queen's, but no one department provides the full breadth of research expertise, which can make it challenging for students in any one department to access the knowledge base and perspective on Cancer Research that they may desire. Thus, the development of the proposed Collaborative Graduate Program in Cancer Research will meet the needs of both students and faculty by formally linking the unique strengths in cancer research of the participating departments and thereby creating an optimal cancer training opportunity. In addition, the development of the new Collaborative Program in Cancer Research will provide students with the opportunities to share educational experiences and access to resources and expertise with a large peer group with similar interests. The proposed Program includes common requirements that will facilitate interactions between students in a wide range of cancer research areas, broadening their experience in the field. The Program will enhance our ability to advertise and recruit high quality students with an interest in cancer research. We anticipate that joint advertising will enhance the profile for research in this area, making it easier for potential students to identify research areas and individual faculty with interests that complement their own, and to identify courses with content that focuses on cancer research themes. Finally, the formal notation of the training specialization as "Cancer Research" provides a valuable tool for trainees seeking recognition of their new-found expertise and focus in achieving future educational and career goals or entering the job market.

11. LEARNING AND PROGRAM OUTCOMES:

While the aim of a university education is to produce educated individuals who possess good judgment and the capacity for critical thought, it is also important to consider specific indicators of learning and program outcomes, such as a graduation rate, length of studies, job placement, external scholarships, awards of graduating students, results of professional certification or licensing examinations, etc. Please discuss the anticipated outcomes of this program.

In general, it is anticipated that MSc students will graduate within 24 months and PhD students will complete in four years from initial registration, in keeping with expectations of the home departments. Registration in the Collaborative Program is not expected to prolong these times to completion as Collaborative Program courses are generally subsumed within the departmental requirements and electives.

Graduates of our program will fill a variety of roles within the cancer research and management community. Recently, graduates in cancer research fields from our contributing departments have found employment opportunities in the pharmaceutical industry, health care support and data analysis (e.g. Health Canada, NCIC-Clinical Trials Group, Cancer Care Ontario) or have gone on to pursue a PhD in cancer-related areas. We anticipate that graduates of the Collaborative Program in Cancer Research will have excellent career opportunities in similar aspects of the job market.

12. OTHER ISSUES:

Please describe any additional special considerations with respect to this program.

None

PART A
Table 1
GRADUATE COURSES

The following list provides a summary of existing Cancer Research graduate courses offered in the constituent departments that will contribute to the Collaborative Cancer Research Program at Queen's University. Courses are coordinated by core faculty of the proposed Cancer Research Collaborative Graduate Program.

Course	Instructor	Status	Term	Next Given
BCHM 811- Advanced Molecular Biology	C. Mueller	Given each year	Winter	2009
BCHM 832- Molecular Basis of Cellular Function	G. Cote	Given each year	Fall	2009
EPID 810- Controlled Clinical Trials	R. Meyer/ D. Tu	Given each year	Winter	2009
EPID 817- Cancer Epidemiology	W. King/ W. Mackillop	Given each year	Winter	2009
EPID 818- The Canadian Cancer System and Public Policy	H. Walker	Given each year	Fall	2009
PATH 822- Experimental Cancer Diagnostics and Therapeutics	C. Nicol	Alternate years with PATH 823	Fall	2009
PATH 823 - Cancer Biology	B. Elliott	Alternate years with PATH 822	Fall	2010
PHAR-811 Principles of Drug Discovery and Development	T. Massey	Given in alternate years	Fall	2010
PSYC 994- Psychology of Decision Making	D. Feldman-Stewart		Winter	2009

PART B - RESOURCE IMPLICATIONS

1. SUMMARY OF RESOURCES REQUIRED

Please summarize the **additional** resources needed to implement the program:

a) FACULTY – not required

b) STAFF – not required

c) TEACHING ASSISTANTS – not required

d) PHYSICAL FACILITIES:

Please describe the space resource implications of the proposal in terms of the following (include both size (in terms of # of students) and frequency (number of hours per week required))

1. Classrooms No additional classrooms required

2. Laboratories No additional laboratories required

3. Offices No additional office space required

e) INFORMATION FACILITIES

Please indicate the ITS resource implications for the proposal in terms of requirement for

1. Hardware - not applicable

2. Software / Internet - not applicable

3. Audio-Visual – not applicable

4. Telecommunications – not applicable

f) LIBRARY SERVICES

Please indicate which of following new library resources will be needed:

- Journals
- Print Monographs
- Audiovisual material
- Historical documents
- Electronic databases
- Statistical/Geospatial data

Existing resources will be suitable.

g)UNIVERSITY REGISTRAR

Please indicate the resource implications for the proposal in terms of requirements for:

- Scholarships/Bursaries not applicable
- Registration/SIS Programming not applicable
- Timetable not applicable
- Admission not applicable
- Convocaton not applicable

h)OTHER UNIVERSITY SERVICES

Please indicate the resource implications for the proposal in terms of requirement for:

1. Financial Services - not applicable
2. Human Resources – not applicable
3. Advancement - not applicable
4. Student Services – not applicable
5. Residences - not applicable
6. Other - not applicable

2. NEW EXPENDITURES

What new funds will be needed for each of the following? One-time \$ are monies that will only be required once for startup. Base \$ are funds that will continue to be needed year after year. Please attach some backup to show how the numbers were calculated.

e.g. Staff - Base \$60,000 (1.5 FTE @ \$40,000))

	ONE TIME \$	BASE BUDGET \$
FACULTY		
STAFF		
TEACHING ASSISTANTS		
STUDENT ASSISTANCE (Grad)		
OTHER NON-SALARY		
TOTAL		

3. FUNDING SOURCES

Please show the source of the **additional and/or re-allocated funds** needed for the proposal. What amount will be re-allocated from within the department's budget, from within the faculty's budget, from within the University's budget and how much will come from tuition or other sources. One-time \$ are monies that will only be required once for startup. Base \$ are funds that will continue to be needed year after year. The total costs in section 2 (Cost Breakdown) must match the total costs in section 3 (funding sources)

	ONE TIME \$	BASE BUDGET \$
DEPARTMENT BUDGET		
FACULTY BUDGET		
UNIVERSITY BUDGET		
TUITION REVENUE		
OTHER SOURCES		
TOTAL		

If other sources are used, please list the sources and indicate if the funds have been applied for and if they have been secured.

4. IMPACT ON ENROLMENT

- a) How many students are expected in the program? 40
- b) How many new students will the program attract to Queen's University? (i.e. students in the program that are not transfers from existing programs currently being offered at Queen's) 0
- c) How many students must be accommodated by other departments / units? (Please indicate which departments / units will be affected and how.) 0

Students in the Collaborative Program will enter through an existing home departmental program.

5. NET IMPACT OF THE PROPOSAL

Please summarize any other resource or funding implications of the proposal.

None

RECEIVED

MAR 05 2009

DEAN
of Graduate Studies & Research
QUEEN'S UNIVERSITY



DEPARTMENT OF PSYCHOLOGY

Queen's University
Kingston, Ontario
Canada K7L 3N6
Tel 613 533-6005
Fax 613 533-2499

February 25, 2009

Lois Mulligan, PhD
Division of Cancer Biology and Genetics
Cancer Research Institute at Queen's University

Dear Dr. Mulligan,

The Department of Psychology is pleased to support your application for a cooperative graduate program in Cancer research. The proposal for the program was distributed to all faculty members and discussed at a departmental meeting where a motion was made to support and participate in this program. The motion passed unanimously.

We look forward to having our students extend their knowledge in this challenging and important domain by participating in this program. We also will be pleased to provide training to appropriately qualified students from other departments in some of our relevant graduate courses.

If we can be of further assistance, please do not hesitate to contact us.

Sincerely,

R. C. L. Lindsay
Coordinator of Graduate Studies
Department of Psychology

Lois Mulligan, PhD
Division of Cancer Biology and Genetics
Cancer Research Institute at Queen's University

4 March 2009

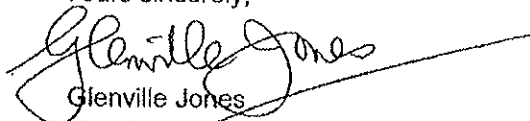
Dear Lois:

On behalf of the Department of Biochemistry, I am delighted to support your proposal to mount a Collaborative Graduate Program in Cancer Research at the MSc and PhD level in this university. I welcome this development primarily because, as you are aware, we have several faculty members with their primary appointments in the Department of Biochemistry (Mueller, Petkovich, Craig, Jia, Singh and Jones) who are engaged in cancer cell biology at the basic science level and who might therefore benefit from having the opportunity to interact with other disciplines or other 'pillars' as they known in the CIHR vernacular and do so while formally training graduate students in two fields. Such a program opens up new avenues for collaboration and broadens the rather narrow focus of faculty and students in cancer research to include aspects and funding opportunities not currently encouraged by the current departmental graduate programs.

Given the broad expertise that we have represented at Queen's in all aspects of cancer research, this is a natural development of having so many cancer specialists working in the same space and reaching the critical mass that helps to spur synergistic interactions not just the sum of their productivity. Using my own biochemical research example, where I study vitamin D metabolism and have the sophisticated LC-MS/MS technology to measure circulating vitamin D metabolites, such a collaborative program allows me to interact with pillar 3 & 4 researchers who wish to study vitamin D metabolite levels and health outcomes in human populations at increased risk of breast and colon cancers. Graduate students graduating from such programs acquire valuable applied, cross-disciplinary knowledge which allows them to be all-rounders later in their research career. This must ultimately benefit the field of cancer research in the long-run and allows the bench-to-bedside goal of knowledge translation to really work.

In summary, I support strongly the development of a Collaborative Graduate Program in Cancer Research because we at Queen's have both the critical mass of researchers and high quality research in many sub-fields of the broad cancer discipline; because this program will train students in many related disciplines and get them ready for the kind of collaborative research that Canada supports right now; and because this training program will indirectly benefit in the longer-term, cancer patients in the healthcare system world-wide.

Yours sincerely,



Glenville Jones
Craine Professor & Head, Department of Biochemistry
& Professor, Department of Medicine
gj1@post.queensu.ca



DEPARTMENT OF BIOCHEMISTRY

Botterell Hall, Room 650, 18 Stuart Street

Queen's University

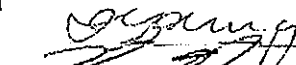
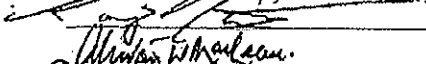
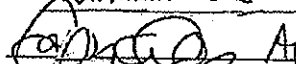
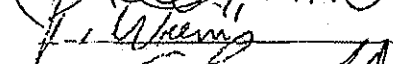

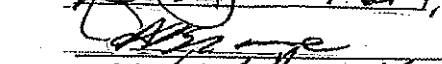
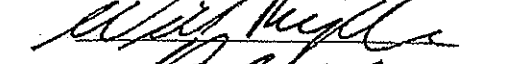



Kingston, Ontario, Canada K7L 3N6

Tel 613 533-2900

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6. SIGN-OFF

Following Faculty Board approval, signatures from the following individuals listed below must be obtained to verify that they have reviewed this proposal. Supplementary comments may be appended and so indicated by checking the box beside the appropriate signature.

Title	Comments Appended	Signature
Department Head	<input type="checkbox"/>	
Dean or Associate Dean (Health Sciences)	<input type="checkbox"/>	
Dean or Associate Dean (Arts and Science)	<input type="checkbox"/>	
Dean of Student Affairs	<input type="checkbox"/>	
University Librarian	<input type="checkbox"/>	
Director, Information Technology Services	<input type="checkbox"/>	
University Registrar	<input type="checkbox"/>	
Associate VP (Operations & Facilities)	<input type="checkbox"/>	
Vice-Principal (Operations & Finance)	<input type="checkbox"/>	
Vice-Principal (Academic)	<input type="checkbox"/>	

LIFE SCIENCES - CANCER RESEARCH STREAM (LISC SSP – CANC)

D) Library Services

Please indicate which following new library resources will be needed:

Bracken Library collects extensively in the Cancer area and the current resources should amply satisfy the needs of this new programme.

Indicate the likelihood of the program having an impact on Library staffing?

The document currently says that there would be no impact. However, any stream that requires students to do research should involve librarians to integrate information literacy at the appropriate time in the curriculum. Students will need to learn effective search strategies as well as the use of bibliographic management software. Librarians are often asked to assist students with their research projects, without the integrated courses, librarians will spend more time helping students individually with their research needs.

LIFE SCIENCES-DRUG DEVELOPMENT AND HUMAN TOXICOLOGY RESEARCH STREAM (LISC DDHT)

f) Library Services

Please indicate which following new library resources will be needed:

The collection on drug discovery and drug development may not be strong enough to support the 2 new proposed courses on these topics.

Indicate the likelihood of the program having an impact on Library staffing?

The document currently says that there would be no impact. The librarians already teach effective literature search strategies in 4th year Pharmacology and the skills should apply to any other courses. However, to support a research stream, the students should also learn the use of bibliographic management software. Also, librarians will spend time helping students individually with their research needs.

26 Feb 2009

Suz/admb/new programs library impact 09.doc

Program Approval Submission

Part B: Resource Implications and Physical Facilities

The Bracken Health Sciences Library (BHSL), housed on two levels in Botterell Hall at Queen's University, supports the education and research endeavors of the faculty, undergraduate and graduate students in the Faculty of Health Sciences, including the Schools of Medicine, Nursing and Rehabilitation Therapy, and the Life Sciences programs. Eight professional librarians (who are members of the Queen's University Faculty Association) and eleven library technicians, as well as part-time casual employees, staff the BHSL.

Queen's University has always had a strong commitment to the excellence of library collections. There is a constant review of the collection and of periodicals, and careful attention is paid to the needs of students and faculty when orders are placed. It is the library's avowed policy to continue the review of the acquisition program to maintain sound working library for teaching, research and clinical practice.

Due to the interdisciplinary nature of the fields of health and life sciences and the research associated with them, it is virtually impossible as well as unnecessary to divide the BHSL acquisition funds by department. The disciplines served by the BHSL require that information to be current and as a result 90% of the acquisitions budget is allocated to journals and electronic resources.

In collection practices there is a growing emphasis on electronic resources, both e-books (over 1000 titles) and e-journals (6000 in the health and life sciences), as they provide currency of content, and point-of need 24/7 access from any computer with Internet access. Remote access to electronic resources is available through the Queen's Proxy, allowing students, faculty members, and preceptors to access a rich array of resources from home, office or clinic.

The Library provides access to the premier health and life sciences indexing and abstracting databases that are available on a common OVID interface. Bracken Health Sciences librarians have developed curriculum-integrated information literacy programmes to ensure that students and faculty learn how to use these resources efficiently and effectively. Programmes for upper-level students also include instruction on the use of bibliographic management software (e.g., Reference Manager, RefWorks).

Bracken Health Sciences Library has also established a Health Informatics Librarian position. This librarian works closely with faculty and IT Services at Queen's to investigate, develop and foster the integration of library and information technology into the curriculum and research streams at both the individual faculty member, and larger departmental levels.

BHSL also maintains a programme of faculty development courses. These are designed to introduce faculty to resources, services and support that the library provides. These

also allow us to explore in a collegial environment, the option and opportunities for integrating these resources and services into teaching, learning and research.

The total area of 31,500 square feet includes seating capacity for 400-500 library users. In 2005, the BHSL's Main Level was completely renovated to create a state-of-the-art interactive learning facility. Circulating laptops and wireless Internet allows students to choose their preferred seating areas, many of which are designed to encourage collaborative activities. Six group study rooms each hold twelve persons, either at tables or at tablet armchairs on wheels. Students may reserve the group study rooms using a self-serve online room booking system.

Students have access to 86 workstations at BHSL. These include 42 fixed personal computers and laptops, as well as 14 circulating laptops, with Windows XP and full Microsoft Office production software. An additional 12 laptops are available for group learning purposes. Twenty-five thin client express workstations offer web browsing and e-mail as well as file editing and printing. A state-of-the art electronic classroom, the e-lab, which can be booked by faculty, offers a comfortable learning environment with wall-hung plasma screens, a document camera, SmartBoard technology, a sound system and movable furniture. Other amenities at BHSL include printers, copiers, and a self-serve scanning station.

The BHSL Main Level also offers informal study areas, such as computer pods, café style benches and tables, and groupings of leather chairs. On the Lower Level, where the emphasis is on quiet independent study; there is a sunny silent reading lounge and dozens of study carrels.

25 Feb 2009



DEPARTMENT OF PHARMACOLOGY
AND TOXICOLOGY

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February 6, 2009

Dr. Patrick Deane
Vice Principal (Academic)
Queen's University
Kingston, Ontario K7L 3N6

Dear Dr. Deane:

On behalf of the Department of Pharmacology & Toxicology, I am pleased to express my support for the proposed Collaborative MSc and PhD Programs in Cancer Research. A number of graduate students in our Department study mechanisms of chemical carcinogenesis and mechanisms by which tumours are resistant to chemotherapeutic drugs. As stated in the Brief for the programs, our Department already has OCGS-acknowledged strength in Cancer Research. As such, there is sure to be interest in these exciting new collaborative programs among our future graduate students.

I believe that Dr. Mulligan and her colleagues have done an excellent job of developing a proposal for programs that will build on strong existing discipline-based departmental graduate programs, while adding a valuable new element with the formalized concentration on Cancer Research. This will allow students and faculty to take advantage of time-tested graduate training approaches, while introducing an excellent mechanism for inter-disciplinary communication and education. Indeed, the existing CIHR Transdisciplinary Training Program in Cancer Research already has provided a very effective stimulus for inter-disciplinary collaboration and graduate student supervision. The establishment of the Collaborative Programs is the next logical step, and is sure to further enhance these interactions.

Members of the Department of Pharmacology & Toxicology are looking forward to participating in these new programs, and we wish Dr. Mulligan and colleagues continued success as the approval process moves forward.

Yours sincerely,

Thomas E. Massey, Ph.D.
Professor and Head



R. KEITH POOLE, PROFESSOR AND HEAD
DEPARTMENT OF
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Jan. 28, 2009

Dr. Lois Mulligan, PhD
Division of Cancer Biology and Genetics
Cancer Research Institute
Queen's University

Dear Lois,

I am writing in support of your proposed Collaborative Graduate Program in Cancer Research. As you know, there are researchers in the Department of Microbiology & Immunology actively engaged in cancer-related research and I am certain that students in these labs will be interested in and will benefit from your program. We would be more than happy to have qualified graduate students in Microbiology & Immunology take part in your Collaborative Program and, indeed, expect that the availability of this program will enhance our ability to recruit top calibre graduate students to this Department. For you information, a number of our gradate courses (MICR851 and MICR950) have cancer-relevant content (tumour viruses) that might be of interest to students in the Collaborative Program.

Best of luck with the proposal, and if there is anything else you require from me or this Department, please do not hesitate to ask.

Regards,

R. Keith Poole, PhD
Professor and Head



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February 2, 2009

Dr. Lois Mulligan
Department of Pathology
Queen's University
Kingston, Ontario

Dear Lois,

Re: Collaborative M.Sc. and PhD Programs in Cancer Research

I am writing as Head of the Department of Community Health and Epidemiology (CHE) to offer my department's enthusiastic support for the proposal to establish new collaborative M.Sc. and PhD programs in Cancer Research.

Our department currently offers graduate training in Epidemiology to the M.Sc. and PhD levels. Although the designated, OCGS approved fields in our program are "clinical epidemiology", "health services and policy research" and "epidemiology and population health", cancer is the primary research focus of many of our core faculty members and the most frequently chosen field of research for our graduate students. Ten cancer researchers in CHE are based at Queen's Cancer Research Institute (QCRI), where many already work in collaboration with basic scientists in other departments and also with clinicians engaged in cancer research. Five CHE faculty members are associated with the National Cancer Institute of Canada's Clinical Trials Group, which is the national leader in cancer clinical trials in Canada. Five other CHE faculty members are based in QCRI's division of Cancer Care and Epidemiology, which is a national leader in cancer epidemiology and health services research. These two very strong research units offer outstanding thesis opportunities for our graduate students and provide broader learning opportunities within our multidisciplinary research institute.

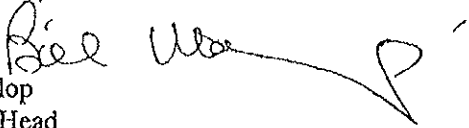
The faculty of CHE have already demonstrated their support for multidisciplinary education in cancer research through active participation in QCRI's CIHR-funded training program in transdisciplinary cancer research. Many of our graduate students, especially those funded through that program, are already co-supervised by faculty members in other departments. Some of our students have, in fact, worked in a lab under the supervision of a basic scientist while collecting the data they needed for their thesis in Epidemiology. Moreover, our department already offers two graduate level courses in Cancer Epidemiology and Cancer Policy that were designed to be accessible not only to Epidemiology students, but also to those in the basic sciences who are working on a cancer-related project.

The collaborative program that you have proposed, therefore, builds on strong existing partnerships in education and research, as well as on the exceptional breadth and depth of cancer research programs at Queen's. I believe that the creation of the formal collaborative program will encourage even more of our students to acquire a broad understanding of the field of cancer research, while they develop in-depth knowledge and research experience in their own particular field.

For these reasons, our Department strongly support this initiative.

With many thanks for your leadership in putting this important program together.

Yours sincerely,


W.J. Mackillop
Department Head



Pathology and
Molecular Medicine
QUEEN'S UNIVERSITY

Jain D. Young, MD, CM, FRCPC
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February 4, 2009

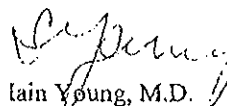
Dr. Patrick Deane
Vice Principal (Academic)
Room 253, Richardson Hall
Queen's University

Dear Dr. Deane,

I am very pleased to provide my enthusiastic support for the initiative, led by Dr. Lois Mulligan, to establish a Collaborative Graduate Program in Cancer Research within the Faculty of Health Science. The proposed program will create an interdisciplinary network involving more than forty faculty members across seven departments and will provide graduate students involved in cancer research with an unprecedented opportunity to engage in and be exposed to the wide range of areas and approaches that fall under the umbrella of cancer research.

The Department of Pathology and Molecular Medicine has cancer research as the major focus of its Graduate Program. I see the establishment of the proposed Collaborative Graduate Program to present a significant opportunity for both the graduate students we recruit and our faculty who engage in cancer research. Developing programs that bridge disciplines and departments will not only enhance the appreciation students will gain for the complexity and breadth of cancer research but will also provide the significant additional benefit of fostering collaborative research among the cancer research faculty at Queen's.

Sincerely,


Jain Young, M.D.



/s/ G:\SEC\YOUNG\fac\Correspondence\2009\Deane Feb 4.doc

PREPARING LEADERS AND CITIZENS FOR A GLOBAL SOCIETY



January 29, 2009

Dr. Patrick Deane
Vice-Principal (Academic)
Queen's University
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CHARLES H. GRAHAM, PHD

Professor and Head
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and Cell Biology
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Dear Dr. Deane:

I am pleased to provide my strongest support for the proposed Collaborative Graduate Program in Cancer Research. It is my opinion, and that of many others, that this innovative program is an excellent example of how individuals from various departments and faculties can come together to provide an outstanding educational alternative that is unique to Queen's University.

There are many reasons as to why this exciting initiative should be strongly supported, some of which are listed in the Brief for the Standard Appraisal of the Program. I would like to point out that one key reason for supporting it is that, because of its collaborative nature, the program crosses departmental and faculty boundaries and therefore provides students with a truly comprehensive and interdisciplinary experience in cancer research.

Another important aspect of the Program is that it draws on the administrative infrastructure already in place in the participating departments. This means that the Program can be implemented without significant additional resources from the University. It is also important to highlight the fact that participating departments will benefit from the development of graduate-only courses associated with the Program, which can then be added to the repertoire of departmental course offerings. The collaborative nature of the Program will also likely result in increased interactions and potential collaborations between participating faculty members.

In summary, this Collaborative Graduate Program in Cancer Research is a 'win-win' situation for students, faculty members, participating departments and faculties, as well as for Queen's University. It is for these reasons that I offer the Program my most enthusiastic support. I would be happy to contribute to its success.

Sincerely,

Charles Graham

c.c. Dr. Lois Mulligan