Senate Committee on Academic Development
Report to Senate – Meeting of May 26, 2010

Proposal for Organizational Restructuring of the Basic Sciences in the School of Medicine

Introduction

The proposal for organizational restructuring of the Basic Sciences in the School of Medicine was reviewed by the Senate

Conclusions/Recommendation

Recommendation:
that Senate approve the organizational restructuring of the Basic Sciences

D. Edgar
Secretary to the Faculty & School of Medicine
e-mail facsec@queensu.ca
Tel: (613) 533-6000 ext. 77938
Fax: (613)533-6884

April 8, 2010

Ms. Georgina Moore
University Secretary
University Secretariat
B400 Mackintosh-Corry
Queen's University

Dear Ms. Moore:

Please find attached a document entitled **"INTEGRATION OF THE BIOMEDICAL AND MOLECULAR SCIENCES, Proposal For Organizational Restructuring of the Basic Sciences in the School of Medicine" plus addendums** for your consideration and approval by Senate. **An Executive Summary can be found on page 3.**

This proposal was put forward by the Dean's Advisory Group on Restructuring (AGoR), discussed and approved at our School of Medicine Executive on February 23, 2010, our School of Medicine Academic Council on March 23, 2010 and a Special Faculty Board meeting on April 7, 2010.

The following motion was put forward at the Faculty Board meeting:

> *It was moved by I. Young and seconded by R. Deeley, "that the decision of the School of Medicine Academic Council concerning organizational restructuring of the Basic Science departments in the School of Medicine, as recommended by the Dean's Advisory Committee plus addendums, be approved and referred to Senate for consideration"* CARRIED

If you require any further information please do not hesitate to contact me.

Thank you for your attention to this matter.

Best regards;

Original signed by

David R. Edgar
Secretary to the School of Medicine
Faculty of Health Sciences

c.c. D. Walker, Dean Faculty of Health Sciences
I. Young, Vice-Dean Academic, Faculty of Health Sciences

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

II. PREAMBLE

In March of 2009, Dean David Walker expressed to the Faculty of Health Sciences his deep concern regarding the effects that imminent budget cuts would have on the capability of the Basic Sciences of the School of Medicine to maintain its very high level of performance in education and research. The Dean emphasized the critical importance of the Basic Sciences to the educational and research enterprises of the School of Medicine and the consequent necessity that the Basic Sciences have the capability to adapt to an increasingly challenging environment in a way that will enable continued academic excellence and investment in strategic priorities. To this end, the Dean struck the Advisory Group on Restructuring (AGoR) with a mandate to propose an alternate organizational structure for the Basic Sciences that would enhance its capability to respond and adapt to challenges and opportunities and to improve its ability to manage and invest its available resources. Specifically, AGoR was directed to recommend a new organizational model for the Basic Sciences that will enable and foster:

1. The development of distinctive and sought-after educational programs that will enhance the Faculty's capability to recruit the best students.

2. The most effective and efficient deployment of faculty to achieve the educational and research goals of the Faculty of Health Sciences.

3. The support and development of intra- and cross-Faculty interdisciplinary research and the expansion of collaborative research involving Basic and Clinician Scientists.

4. The capability of the Faculty of Health Sciences to acquire external resources.

5. The optimal strategic utilization and management of financial and infrastructure resources.

This document, which represents the culmination of AGoR's organizational design process, describes a proposal for a new integrated organizational structure for the Basic Sciences and includes a detailed description of the design process and the rationale for the recommended structure.

Design"(http://healthsci.queensu.ca/agor/assets/document_for_the_restructuring_proposal.pdf).

Faculty, students and staff were then engaged in a consultative process, including ten individual Focus Groups, through which advice and input regarding the proposed organizational design were sought. The collected information was used by AGoR to inform its subsequent review and refinement of the proposed model. The recommended structure for the Basic Sciences that is described in this document is the final product of this process.

IV. THE INTEGRATED DEPARTMENT OF BIOMEDICAL AND MOLECULAR SCIENCES

The organizational model that best meets the design criteria and optimizes the operational and strategic capabilities of the Basic Sciences is one in which its educational and research programs, as well as associated infrastructures, are integrated within a single department. The proposed organizational structure for this new Department of Biomedical and Molecular Sciences and its position within the organizational chart of the School of Medicine are depicted in Appendices 4 and 5, respectively. The principle features of the model are:

- The Department of Biomedical and Molecular Sciences is formed by the merger of the Departments of Anatomy and Cell Biology, Biochemistry, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology.

- The Department of Community Health and Epidemiology remains as a

- All graduate programs in the School of Medicine remain unchanged. The administration, of the Anatomy & Cell Biology, Biochemistry, Microbiology & Immunology, Pharmacology & Toxicology, and Physiology Graduate Programs becomes the responsibility of the Department of Biomedical and Molecular Sciences, in conjunction with the Associate Dean, Graduate and Postdoctoral Education.

The process through which AGoR engaged stakeholders in consultation regarding the initial restructuring proposal proved extremely valuable. The advice received critically informed the review and refinement of the structure of the Department of Biomedical and Molecular Sciences, the final framework of which is depicted in Appendix 4. In redesigning the internal structure of the Department, AGoR has endeavored to describe the major operational components of the Department in a way that will enable a clear understanding of their responsibility, authority and functioning (see Appendices 6 to 9) without addressing the numerous operational details that must be finalized in the detailed functional planning phase to follow.

1.

Four divisions are proposed: Biomolecular Structure and Function; Infection and Immunity; Integrated Human Function and Therapeutics; and Neurosciences. These divisions are suggested because of their alignments with graduate and undergraduate educational programs, AGoR's recognition of the roles, strengths and traditions of existing professional groups and scientific disciplines, and the current functional interrelationships of faculty with respect to both the educational programs in which they participate and research they conduct. Individual faculty will choose their division of membership and each division will have a named Director whose roles will include leadership and advocacy for educational programs and disciplinary teaching, coordination of divisional activities and divisional representation on various departmental committees.

AGoR strongly recommends that the divisional structure of the Department be fluid. The vitality and longevity of individual divisions will be determined largely by the success and strength of the educational programs that they support. Therefore, the focus, structure and number of divisions should be free to change as the educational programs they support evolve.

The research education function of the Department of Biomedical and Molecular Sciences will be administered by a Research Education Committee (REC), the proposed terms of reference for which are described in Appendix 6. In conjunction with the Associate Dean, Graduate and Postdoctoral Education, the REC will oversee the departmental graduate programs and postdoctoral training and will also be responsible for the development and implementation of research education and training programs for medical scientists (i.e. medical postgraduates).

2. Undergraduate Education

Departmental undergraduate educational functions will be governed by an Undergraduate Education Council (UEC), the proposed terms of reference for which are included in Appendix 7. Reporting to the Department Head, the purpose of the Council will be to provide oversight and coordination of all departmental undergraduate educational programs including Biochemistry, Life Sciences, teaching in the MD program and service teaching. The operational

administrative structure for the teaching programs, the involved faculty and

Education Committee, the divisions do not have authority over or responsibility for Research Groups or programs. AGoR recommends that Research Groups and programs remain fluid with sufficient administrative flexibility to enable their differential growth and development commensurate with their success and

efficiency with which the faculty teaching resource is employed will facilitate the protection of faculty time for scholarship.

The benefits of the implementation of a single workload document will be maximized if such a document governs all QUFA faculty in the School of Medicine who are engaged in biomedical and molecular education and research, not just those who form the new Department of Biomedical and Molecular Sciences. Our challenges demand the use of our entire faculty resource in the most effective way possible. The capability to optimally deploy all our teachers will be critical to maintaining the vitality and integrity of some of our educational programs. Therefore, AGoR strongly recommends that a common workload document be developed and implemented for all QUFA members in the School of Medicine who are engaged in the biomedical and molecular sciences, including those whose primary appointments are in clinical departments.

- The alignment of responsibility with authority will promote organizational responsiveness by enabling timely and effective planning, decision-making and the implementation of decisions.

VI. THE RESTRUCTURING TIMELINE

The following description summarizes the next steps that will be followed in the restructuring process and the timeframe for their completion:

- **Faculty Decision-Making**
  - Approval of proposed organizational structure by School of Medicine Executive at meeting of February 23, 2010
  - Approval of proposed organizational structure by School of Medicine Academic Council at meeting of March 23, 2010
  - Approval of proposed organizational structure by Faculty Board at meeting of April 7, 2010
  - The Faculty of Health Sciences submits to Queen's Senate a request for approval of the restructuring plan

- **Detailed Design (April-June 2010)**
  - Specific and detailed planning is undertaken regarding all aspects of the new organizational structure including work processes and functional considerations

- **Detailed Planning for Transition (June-September 2010)**
  - Development of the implementation plan

- **Implementation (2010-11 Academic Year)**
  - The target date for achievement of full implementation of the new organizational structure is September 2011

APPENDIX 1
ORANIZATIONAL DESIGN PROCESS

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ORANIZATIONAL DESIGN PROCESS

4. Consultation Process

- Input and advice regarding the proposed organizational design was solicited by AGoR
- Ten Focus Groups were held with students, faculty and staff. Input from the Focus Groups was submitted to AGoR

5. Model Refinement

- Input from the Focus Groups and written submissions was synthesized by AGoR and used to refine the proposed organized model into its final form.

APPENDIX 2
RESTRUCTURING THE BASIC SCIENCES

Rather, the objective is to design an optimal organizational structure that will enable the Basic Sciences to excel in education and research within the constraints of its future resources. This report describes the initial work that has been completed by the Dean's Advisory Group on Restructuring (AGoR), the purpose of which is to establish the focus and scope of the redesign process. The following sections describe major drivers of the need for innovation in education and research and opportunities for improvement that currently exist within our organizational structure. The final section presents a statement of the framing purpose and scope for the restructuring initiative.

THE DRIVERS OF INNOVATION AND CHANGE

The most significant factor that is precipitating the immediate need for innovation and change in our organizational structure is the reduction in faculty complement that the Basic Sciences must manage over the intermediate to long term. A 10% reduction (approximately $1.2M) in the budgets of the Basic Science departments will be implemented gradually through fiscal year 2013. As a very large proportion of the budget is devoted to faculty compensation, a significant decrease in faculty complement is inevitable. Hiring to newly vacated basic science faculty positions has already been effectively frozen and will likely remain so into the foreseeable future. The pressure for individual faculty to expand their teaching and service responsibilities at the expense of time available for scholarship will consequently progressively increase. As well, because of varying departmental demographic profiles, differential attrition of faculty between departments will occur with some units suffering losses that will be large enough to place major educational programs in jeopardy.

Although the acute financial crisis represents the "tipping point" for organizational change, there are numerous other internal and external influences that are very important drivers of the need for innovation. During the last ten to fifteen years, there have been dramatic changes in the environment in which both postsecondary education and biomedical research are conducted. Within the Basic Sciences we have for some time recognized the increasing pressures to adapt to an academic world in which transdisciplinary integration has been accelerating. As traditional organizational boundaries have been transcended by the gradual emergence of interdisciplinary research groups and educational programs, questions as to whether our current organizational structure would enable the integration and flexibility necessary for the Basic Sciences to be a leader in biomedical education and research in this type of environment have been raised, yet we have not acted. The progressive loss of faculty that we face has removed any luxury of complacency we may have had. It is imperative that

APPENDIX 2

RESTRUCTURING THE BASIC SCIENCES IN THE SCHOOL OF MEDICINE:

The purpose of the restructuring initiative is to:

APPENDIX 3

RESTRUCTURING THE BASIC SCIENCES IN THE SCHOOL OF MEDICINE: DISCUSSION PAPER ON DESIGN CRITERIA FOR THE NEW ORGANIZATIONAL STRUCTURE

In its initial communication, "Restructuring the Basic Sciences in the School of Medicine: The Need for Change", the Dean's Advisory Group on Restructuring (AGoR) described major factors driving innovation and change in the organization of the Basic Sciences of the School of Medicine, identified opportunities for organizational improvement through redesign and defined the framing purpose and scope for the restructuring initiative. In this paper, AGoR proposes a set of provisional design criteria to guide the creation of the new organizational structure for the Basic Sciences.

Design criteria have been developed for each of the core functions of the Basic Sciences: education; research; and, executive functions including leadership, strategic management and administration. The approach to establishing the design criteria was framed by the three key design elements that were identified in the "Need for Change" document:

- Educational and research groupings and their responsibilities and accountabilities
- Linkage mechanisms between functional groupings and people that enable integration and collaboration
- Optimization of the strategic capability of the organization.

The following questions were used to guide identification of the design criteria for each core function:

- What are the responsibilities and accountabilities of the individual functional groupings and what type of flexibility must they have?
- What critical internal and external linkages must the functional groupings have and how will these linkages enable collaboration and integration?
- What are the optimal reporting relationships of the functional groupings?
- How will the strategic capability of functional groupings be fostered?

APPENDIX 3
RESTRUCTURING THE BASIC SCIENCES IN THE SCHOOL OF MEDICINE:

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RESTRUCTURING THE BASIC SCIENCES IN THE SCHOOL OF MEDICINE: DISCUSSION PAPER ON DESIGN CRITERIA FOR THE NEW ORGANIZATIONAL STRUCTURE

To achieve these goals, the organizational structure of the Basic Sciences must be designed to:

1. Facilitate the development of both internal and external collaborations;
2. Integrate strategic management of the education and research functions;
3. Align funding with responsibility and authority and enable flexibility in the allocation and management of resources;
4. Provide internal communication linkages that promote inclusivity and transparency of process;
5. Enable knowledge transfer and application through partnerships with key external agencies;
6. Enable administration of effective mentoring programs for all faculty in which the development of educational, scholarly and administrative capabilities are integrated.

Engagement of all stakeholders and constituencies in the review of the design criteria presented in this paper is very important. The design criteria will determine the structure of the Basic Sciences and it is therefore essential that they accurately reflect the purposes and needs of our organization. It is our collective wisdom that will produce the best design criteria and, through their application, the most effective organizational structure. AGoR strongly encourages all students, faculty and staff to provide commentary, advice and recommendations that will inform the process through which the final design criteria will be established.

APPENDIX 5
SCHOOL OF MEDICINE
ORGANIZATIONAL STRUCTURE

APPENDIX 6
RESEARCH EDUCATION COMMITTEE

Proposed Terms of Reference

Purpose
- Oversee departmental graduate programs and postdoctoral and medical scientist training
- Provide leadership in research education and training

Membership
- Directors of departmental Divisions
- Directors of Graduate Programs
- Representation from graduate students
- Representation from postdoctoral fellows

Primary Responsibilities
- In conjunction with the Associate Dean, Graduate and Postdoctoral Education:
  1. Oversee the development, implementation and quality of departmental graduate programs, postdoctoral training and medical scientist training
  2. Oversee the training and development of students and fellows as educators
  3. Develop and implement recruitment strategies for students and postdoctoral fellows
  4. Acquire external funding for graduate programs
- Collaborate with the departmental Research Committee and Research Groups on the implementation and administration of research education and training programs
- Ensure appropriate harmonization of curricula, administrative processes and student funding between departmental graduate programs
- Advise Department Head on strategic planning for research education and training programs
- Manage the research education budget
- Advise the Department Head on the assignment of faculty graduate teaching and related administrative responsibilities

Authority
- Authority, in conjunction with the Associate Dean, Graduate and Postdoctoral Education, for the development, implementation and management of graduate programs

APPENDIX 6

Proposed Terms of Reference

Purpose

- Provide oversight and coordination of all departmental undergraduate educational programs including Biochemistry, Life Sciences, MD and service teaching
- Provide leadership in undergraduate education

Membership

- Associate Dean, Undergraduate Science Education
- Directors of Biochemistry and Life Sciences Programs
- Lead, Human Structural Sciences Education Unit and Lead, Biochemistry and Life Sciences Laboratory Education Unit
- Representation from the MD Program
- Representation from each Division

Primary Responsibilities

- In conjunction with the Associate Dean, Undergraduate Science Education:
  1.

- Strong influence, through advice to the Department Head, regarding assignment of faculty teaching and related administrative responsibilities

Reporting and Key Relationships/Linkages

- Reports to Department Head
- Collaborative relationship with Associate Dean, Undergraduate Science Education
- Lateral linkages to departmental Research Education and Research Committees, Directors of Divisions and Research Groups
- Communicative linkages to the MD program and cognate departments within and outside the School of Medicine
- Communicative linkage to the Associate Dean (Faculty of Arts and Science)

Accountabilities

- Quality of educational programs and quality of students' educational experience
- Quality of teaching, supervision and mentoring provided by faculty
- Sustaining high academic and ethical standards within the educational programs
- Efficient and effective utilization of resources

Proposed Terms of Reference

Purpose

- Provide leadership and operational management for departmental research functions
- Administer the departmental research infrastructure

Membership

- Representation from Directors of Research Groups
- Representation from Directors of Divisions

Primary Responsibilities

- Manage the departmental research infrastructure resources including space, equipment and support staff
- Manage the departmental research infrastructure budget
- Advise the Department Head on strategic planning and resource allocation

Authority

- Full authority for the operational management of research infrastructure resources and support staff
- Strong influence, through advice to the Department Head, regarding strategic planning and resource allocation

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APPENDIX 9
EXECUTIVE COMMITTEE