



University of Toronto Quality Assurance Process (UTQAP) Cyclical Review: Final Assessment Report and Implementation Plan

Programs Reviewed:	Undergraduate programs (offered in association with the Faculty of Arts & Science): Molecular Genetics and Microbiology, B.Sc. (Hons.): Spec, Maj Graduate programs: Genetic Counseling, M.Sc. Molecular Genetics, M.Sc., Ph.D.
Unit Reviewed:	Department of Molecular Genetics
Commissioning Officer:	Dean, Faculty of Medicine
Reviewers (Name, Affiliation):	<ol style="list-style-type: none">1. Professor Phillip Hieter, Ph.D., Department of Medical Genetics, Department of Biochemistry and Molecular Biology, University of British Columbia2. Professor Richard P. Lifton, M.D., Ph.D., Sterling Professor of Genetics and Professor of Medicine (Nephrology); Chair, Department of Genetics; Investigator, Howard Hughes Medical Institute, Yale School of Medicine3. William McGinnis, Ph.D., Richard C. Atkinson Endowed Chair, Dean, Distinguished Professor, Section of Cell and Developmental Biology, University of California, San Diego
Date of Review Visit:	October 19 – 20, 2015
Date Reported to AP&P:	November 1, 2016

Unless otherwise noted, all bulleted comments apply to all programs reviewed.

1 Outcome

The Committee on Academic Policy and Programs (AP&P) concluded that the Decanal response adequately addressed the review recommendations.

2 Significant Program Strengths

- Extremely strong department that is a gem of Canadian science and education
- Impressive number and breadth of undergraduate courses, including praiseworthy new online course in genetics
- Undergraduates have a very high opinion of their education, and they are highly appreciative of their interactions with professors and research opportunities
- Uniquely strong master's degree program in Genetic Counseling that attracts brilliant students
- Large, strong Ph.D. program with excellent camaraderie despite being spread across different labs
- Terrific center of research with an extraordinarily high international reputation and impressive international awards
- Faculty are very involved in education, with strong programs in undergraduate teaching and training of Ph.D. students
- High morale and cohesiveness among individual department members and staff

3 Opportunities for Program Enhancement

- Adjusting the Department's limited role in the education of MD students, given the importance of molecular genetics in understanding human health and disease.
- Improving time-to-completion for Ph.D. students
- Engaging in consideration of faculty renewal to maintain currency in areas of strength and support programmatic directions
- Providing refreshed and consolidated laboratory spaces to retain top faculty, accommodate any additions to the complement, and keep pace with facilities at institutes
- Examining the sustainability of the unit's current financial model, the fundraising efforts to support the Department, and the funding structure for international graduate students

4 Implementation Plan

The Dean undertook in consultation with the Department to support the following changes:

Short Term (6 months)

- Adjusting the Department's limited role in the education of MD students
 - The undergraduate medical curriculum is currently undergoing a fairly dramatic revision, to be implemented beginning in September 2016. These changes will include the integration of genetics/genomics into all aspects of the curriculum, which will provide an opportunity for the Department to participate in the education of medical students. The new Chair will need to work with the Department to overcome any barriers that may limit the engagement in our MD curriculum: time commitment, highly-structured schedule and format, etc.
- Improving time-to-completion for Ph.D. students
 - The University, through the School of Graduate Studies, has introduced a number of new initiatives to address this problem, including providing an Innovation Fund that Faculties can access to support innovative initiatives to address this issue. The Faculty of Medicine plans to apply for these funds to help support students who have been reluctant to take a leave of absence for health-related reasons because they could not manage financially without their stipend.
- Engaging in consideration of faculty renewal
 - An international search for the next Chair of the Department has just concluded
- Providing refreshed and consolidated laboratory spaces
 - The Faculty of Medicine will be providing new state-of-the-art laboratory space at MaRS Tower 2 and renovating MSB, which will benefit members of this and other basic science Departments

Medium Term (1-2 years)

- Improving time-to-completion for Ph.D. students
 - The Faculty of Medicine is exploring the possibility of not providing stipendiary support to MSc students beyond year 3 and to PhD students beyond year 7 of their training. The Faculty of Medicine will consider not allowing supervisors who have graduate students beyond year 7 in their training to take any new students until these students graduate.
 - The Chair and Graduate Coordinator(s) in this program have been working with faculty members and graduate students to implement multiple policies and procedures aimed at reducing time to completion. Toward this end, in the immediate term, the Department has shortened the allotted time to complete the writing phase of both the MSc thesis from a total of 16 weeks to 12 weeks, and the PhD thesis from a total of 24 weeks to 18 weeks.
- Engaging in consideration of faculty renewal
 - Once a new Chair is in place, the Faculty will support the recruitment of at least two new junior faculty
- Examining the sustainability of the unit's current financial model
 - The Faculty of Medicine will be investing in the Department through new recruitment, new space, and an influx of operating funds to stabilize the Departmental budget. In addition, the Faculty of Medicine is now providing \$6,000 for each meritorious second-year international graduate student to defray the cost of higher tuition for these students. The Department of

Molecular Genetics has and will continue to benefit from this new funding stream for international students.

The Dean's Office will follow up annually with the unit to assess progress.

5 Executive Summary

The reviewers identified the programs' strengths as: the extremely strong department that is a gem of Canadian science and education; impressive number and breadth of undergraduate courses, including praiseworthy new online course in genetics; undergraduates with a very high opinion of their education, who are highly appreciative of their interactions with professors and research opportunities; uniquely strong master's degree program in Genetic Counseling that attracts brilliant students; large, strong Ph.D. program with excellent camaraderie despite being spread across different labs; terrific center of research with an extraordinarily high international reputation and impressive international awards; faculty are very involved in education, with strong programs in undergraduate teaching and training of Ph.D. students; and high morale and cohesiveness among individual department members and staff. The reviewers recommended that the following issues be addressed: adjusting the Department's limited role in the education of MD students, given the importance of molecular genetics in understanding human health and disease; improving time-to-completion for Ph.D. students; engaging in consideration of faculty renewal to maintain currency in areas of strength and support programmatic directions; providing refreshed and consolidated laboratory spaces to retain top faculty, accommodate any additions to the complement, and keep pace with facilities at institutes; and examining the sustainability of the unit's current financial model, the fundraising efforts to support the Department, and the funding structure for international graduate students. Changes to the MD program will include the integration of genetics/genomics into all aspects of the curriculum, which will provide an opportunity for the Department to participate in the education of medical students. The Faculty of Medicine will apply for an Innovation Fund that Faculties can access to support innovative initiatives to address time to completion, along with other Departmental and Faculty-level efforts. Once a new Chair is in place, the Faculty will support the recruitment of at least two new junior faculty. The Faculty of Medicine will be providing new state-of-the-art laboratory space at MaRS Tower 2 and renovating MSB. The Faculty of Medicine will be investing in the Department through new recruitment, new space, and an influx of operating funds to stabilize the Departmental budget. The Committee on Academic Policy and Programs (AP&P) concluded that the Decanal response adequately addressed the review recommendations.