



Lisa A. Robinson, MD FRCPC FASN FCAHS
Dean
Vice Provost, Relations with Health Care Institutions

June 22, 2026

Professor Nicholas Rule
Vice-Provost, Academic Programs
Division of the Vice-President & Provost
University of Toronto

Dear Professor Rule,

INTERIM MONITORING REPORT | Department of Medical Biophysics

On behalf of the Temerty Faculty of Medicine at the University of Toronto, I appreciate the opportunity to append an interim monitoring report for the 2021-22 external review of the Department of Medical Biophysics and its degree programs. The report was prepared in consultation with the Chair of the Department, Professor Laurie Ailles. It outlines measures taken since the review to address the priorities identified by your office.

We are proud of the reviewers' description of the Department as *"a jewel in the crown of the research and graduate programs within Temerty and at the University of Toronto"* and that *"the scope and quality of MBP as a whole is exceptionally high; top-ranked at the national and international level and perhaps the pinnacle of success at the university."* We trust that this report demonstrates Temerty Medicine's considered and ongoing response to the UTQAP review of the Department.

Please let me know if I can answer any questions about this report or if any additional information is required.

Thank you.

Sincerely,

Lisa A. Robinson
Dean, Temerty Faculty of Medicine
Vice Provost, Relations with Health Care Institutions

cc: Laurie Ailles – Chair, Department of Medical Biophysics, Temerty Faculty of Medicine
Lisa Richardson – Vice Dean, Strategy & Governance, Temerty Faculty of Medicine

Walid A. Houry – Associate Dean, Faculty & Academic Life, Temerty Faculty of Medicine
Justin Nodwell – Vice Dean, Research & Health Science Education, Temerty Faculty of Medicine
Ihab Khalil – Acting Chief Administrative Officer, Temerty Faculty of Medicine

Attachment

UTQAP Cyclical Review Interim Monitoring Report

As required under [UTQAP section 6.9.1.4](#), the Vice-Provost, Academic Programs (VPAP) will request the Interim Monitoring Report from the Dean midway between the review and year of the next site visit.

Department of Medical Biophysics, Temerty Faculty of Medicine

Review Dates: February 23-24, 2022

Review Reported to AP&P: April 13, 2023

Interim Monitoring Report: June 19, 2026

REQUEST PROMPTS <i>verbatim from the request</i>	RECOMMENDATIONS FROM REVIEW REPORT <i>verbatim from the review report</i>	IMPLEMENTATION STATUS
The reviewers recommended conducting a high-level curricular review of Medical Biophysics, with an eye towards ensuring the continued relevance of learning outcomes and assessment methods, reducing any content redundancy and increasing quality and value across all courses.	“Now that the new modular graduate course structure has been in place for a few years, we recommend that the department (in close consultation with students and faculty) carry out high level curricular review in order to ensure continued relevance and consistency of learning outcomes and assessment methods, reduce content redundancy, and increase quality/value across all courses. In particular, the mandatory ethics and statistics courses should be carefully scrutinized and revised as needed.”	MBP has begun a high-level curricular review. It struck a curriculum review committee to review the biology-stream courses first, as these are the courses that are most in need of updates. The committee comprises five faculty members and two senior PhD student representatives. The committee is reviewing module descriptions, as well as anonymous evaluations completed by the students at the conclusion of each module. In addition, it will be conducting surveys of MBP students and faculty to identify strengths and weaknesses of the current curriculum and soliciting suggestions for new modules that may be needed. Some interesting suggestions include a module in Scientific Reasoning & Logic and a Scientific Methods module, in addition to more comprehensive modules on computational biology. The committee plans to meet once a month to review the data described above and formulate a proposal, which will be circulated to the MBP Executive Committee for feedback and revision. The final curriculum plan will be submitted to the Temerty Medicine Curriculum Governance Committee in January 2027, for implementation in Fall 2027.

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The reviewers recommended continuing to monitor and manage student time to completion; particularly at the MSc Level, in the case of outlier situations, and in the context of the COVID-19 pandemic.	“While student times to completion (TTC) have been significantly improved and are no longer considered a major concern, TTCs should continue to be monitored and actively managed on an ongoing basis, particularly (1) at the MSc level; (2) in the case of extreme outlier situations (which now appear to be fairly rare); and (3) in the context of the COVID-19 pandemic.”	Scheduling committee meetings can at times be an onerous task for students, which can result in overall delays and prolonged completion times. To address this, MBP implemented a new online supervisory committee report that requires the date of the next committee meeting to be scheduled before the current meeting is adjourned. This has had a positive impact. In addition, MBP continues to monitor students who are overdue for committee meetings or qualifying exams, or who are beyond 2.5 years of an MSc program or 6 years of a PhD program. A committee consisting of the Chair, two Vice Chairs, Graduate Coordinators and MBP administrative staff meet quarterly to review these students. Lists of students are generated from the internal custom MBP database. Each student is discussed individually to determine if there are any extenuating circumstances and reminders are sent encouraging them to adhere to the timelines. In cases of extenuating circumstances or extreme delays, student-specific plans are made, such as graduate coordinators meeting with students and/or supervisors to resolve potential issues. In an effort to address cases where students exceed the allotted time for the write-up period (6 months for PhD and 4 months for MSc), MBP initiated a process of communicating to the students and their supervisors that their stipend payments are in jeopardy. Since then, more students have been providing updates on the status of their writing, with some in the process of scheduling their exams. I commend MBP on the promising new scheduling and communication structure. MBP continues to monitor student progress at the quarterly follow-up meetings.
The reviewers made several observations and possible suggestions related to student experience and supports: ▪ The reviewers noted that many MBP students reported a perceived lack of access to student supports and	“In terms of access to student services, we heard that students in MBP felt that they were not treated the same as other university students in terms of access to resources, and they would like to ensure that they have inclusion in University of Toronto and Temerty lectures and programming in a number of areas including EDI. These resources appear to	MBP students have access to all of the same resources as campus-based students. Student mental health resources are featured prominently on the MBP website: https://medbio.utoronto.ca/mental-health-resources. In addition, for the past 3 years MBP has invited U of T Health & Wellness to present at its annual orientation day for new students in the first week of September, describing their services and how to access them.

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services compared to other U of T students, and urged the careful monitoring and support of student mental health and resiliency, particularly in the pandemic recovery context. ▪ The reviewers observed that the majority of efforts related to professional and career development (especially with respect to non-academic careers) are led by MBP's student association rather than the unit and recommended considering enhanced formal student supports in these areas.	be available, but it was unclear whether capacity limits or other issues may be a barrier for MBP student access."	MBP is committed to facilitating the best possible access to these resources by its students. It greatly relies on these specialized resources provided by U of T. In addition, MBP will work closely with the MBPGSA to provide awareness of some of the available resources at both Temerty Medicine and the University below, and to incorporate communication of such resources during annual events such as orientation day, the annual retreat and the annual symposium. Health & Wellness - UofT Student Life Flexible Futures Programming for Graduate Students - UofT Student Life Temerty Medicine Resources and Supports for Students Temerty Medicine Office of Inclusion & Diversity MBP General Resources for Students MBP will continue to enhance communication between Departmental leadership and students about the valuable University-wide resources.
	"... graduate student mental well-being and resiliency should be carefully monitored and supported in order to optimize pandemic recovery."	Please see above.
	"The majority of efforts related to professional development and career development (particularly related to non-academic careers) appear to be student-driven through the MBPGSA rather than by the departmental graduate program itself... it is therefore recommended that more focus/value be placed on incorporating formal program activities aimed at supporting professional/career development inclusive of both academic and non-academic career paths."	The Department has access to an extensive alumni database and closely collaborates with the MBPGSA to organize (and fund) an annual Alumni Day, where students are provided with an opportunity to network with former students and obtain information regarding both academic and non-academic careers. In addition, for the past 2 years MBP has funded a collaboration with the MedTech Talent Accelerator, a collaboration between several Canadian universities, the National Association of the Canadian Medical Technology Industries and its member companies. It is a training program designed to launch the next generation of industry-ready talent for the Canadian Medical Technology sector. Participating students benefit from Innovation Seminars, participation in a Hackathon, online courses, job shadowing and the opportunity to conduct an internship within a Canadian Biomedical company. MBP will continue to host an annual Alumni Day with the goal of supporting

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		both academic and non-academic career paths. In addition, it will continue to fund the MedTech collaboration, which has the potential to expand in the future to include not only medical technology opportunities that are more oriented towards fields such as medical devices, but also to include the broader biotech industry (cell biology, drug discovery, etc.).
The reviewers noted that students reported some difficulty with accessing courses outside of Medical Biophysics.	“Students are allowed to take courses offered by programs outside of MBP, but these are often difficult to get into because MBP students are not prioritized for enrollment in other programs.”	MBP negotiated 9 spaces in IMM1431H Immunotherapy, a 0.5 credit course offered in the Department of Immunology and 20 spaces in MSC1030H Learning From Data—An Introduction to Study Design & Statistical Analysis Methods. The latter is offered as an alternative to MBP1201H Introductory Biostatistics for students with no programming experience and who anticipate difficulties in carrying out assignments using Python. MBP reimburses for 1.5 teaching assistants to support the students in this course.

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The reviewers made a number of observations and suggestions related to supporting and potentially increasing broad faculty engagement in departmental activities. They also noted widespread pandemic-related challenges for early-career researchers, and recommended that the department closely monitor junior faculty in the coming years and provide enhanced support where appropriate, to ensure their success and that of their graduate students.	“It is imperative to recognize that the COVID-19 pandemic has created significant challenges and risks for early-career researchers (ECRs) who are working to establish their independent research programs. Therefore, we recommend that the department and the Chair take extra care in continuing to support and mentor this ECR faculty group over the next 5 years to ensure their success and that of their graduate students – they are the future of MBP.”	COVID-19 related challenges are no longer a concern, but MBP remains committed to supporting ECRs. Since July 2023, MBP appointed 16 new faculty members. While most of the affiliated research hospitals offer specific mentorship programs for ECRs (i.e., PMH and SickKids) MBP also supports ECRs through a variety of efforts, such as— 1. MBP prioritizes ECR students for MBP Excellence Awards to partially support graduate student stipends. 2. As soon as a new appointment is approved, the faculty member’s webpage is created and they get access to reviewing the applications of all the incoming students, so they can begin recruiting for the next academic year. 3. MBP invites ECRs to speak at its annual retreat that occurs in early September. This provides an opportunity for ECRs to showcase their work to both new incoming students who are doing rotations and faculty members with whom they may wish to form collaborations. 4. Also in September, MBP conducts “rotations markets” — “meet-and-greet” sessions between faculty and new students to help faculty make connections with incoming students. MBP will continue to hold events designed to help ECRs recruit graduate students and showcase their work to other faculty.
	“... it [is] recommended that there be ongoing active efforts to maintain and enhance faculty engagement consistently for all faculty, not just the subset of currently active faculty. For example, for the committee on student awards, additional criteria could be added to prioritize the funding of students who have actively involved PIs for special funding opportunities ... we recommend gathering data on hours of service (i.e. # of seminars attended and performed, # of exams chaired, etc.) and generating an automated annual ‘engagement report card’ showing the relative scoring of each faculty member and their comparison to medians across a	To help increase faculty engagement, MBP began collecting data on such participation. Data include tracking the following: • Mentorship (e.g., student supervision) • Teaching (module coordination, lecturing) • Administration (participating in committees, e.g. admissions, scholarship review, etc.) • Participation in MBP initiatives (attendance at seminars, retreat, JLM symposium, etc.) Specifically: • Tracking the number of students faculty are supervising; the number of exams in which they are the domain and or breadth examiner; exam

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	variety of measured performance metrics. This could be provided for each faculty at their annual review with their respective research institutes and used to set expectations.”	chairing; number of times chairing exams for SGS • The number of courses in which they are lecturers during the academic year; the number of courses for which they are the course coordinator • Committees: admission committee (uptown/downtown), OGS scholarship review committee, SGS Awards, NSERC CGS Committee, CIHR CGS Master’s, APC Committee, EDI Committee and Executive Committee • Attendance/participation records for the following: ○ Seminar course MBP1015Y (faculty evaluate student presentations) ○ Annual Faculty Meeting ○ MBP Symposium ○ MBP Retreat ○ Summer Program Lecturer ○ Summer Program Poster Judge This data will be presented to faculty at the Annual Faculty Meeting in June. Each faculty member will be provided with an engagement score and will be able to measure their level of engagement compared to their peers. For faculty members falling into the lower range of engagement score, the Chair will arrange a one-on-one meeting to discuss how the faculty member can improve their engagement in the Department.
The reviewers recommended exploring options for potential strategic funding initiatives to support curricular and infrastructure enhancements, in collaboration with University Advancement as appropriate. They flagged computational sciences, machine learning, and Artificial Intelligence as possible areas in which to prioritize expansion.	“... the external review panel would like to identify a great opportunity for advancement to work with MBP to develop a Dean’s Challenge Fund application to Temerty Medicine or a similar strategic initiative around development of an enhanced computational sciences/machine learning/AI curriculum and infrastructure for MBP...”	MBP is highly motivated to explore opportunities to enhance its computational sciences/machine learning/AI curriculum. It is important to note 100% of faculty in MBP hold academic Status-Only Affiliated Scientist appointments—professors with primary appointments at TAHSN research institutes. Infrastructure for PIs in these types of research areas is therefore provided by the research hospitals and students within these labs have full access to these resources. MBP has created a new course module, MBP1413H Biomedical Applications of Artificial Intelligence. This module is a graduate-level course in machine learning and artificial intelligence applied to biomedical research. It covers core concepts, machine learning algorithms and deep learning approaches. Applications in medical imaging, genomics and clinical information are discussed. Students will

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		have an in-depth course project applying these techniques to real-world datasets from their own research. In addition, several of MBP’s recent newly-appointed faculty have expertise in n these fields. MBP recruited six new faculty members whose research interests include Data Science & Computational Biology and/or Deep Learning & Artificial Intelligence. MBP’s new faculty recruitment plan, moreover, will aim to fill the need for supervision and committee participation for the growing number of students with these research interests. In addition, through its curriculum review MBP will determine the need for additional courses in these areas.
	“The permanent inclusion of funding for administrative stipends for the Vice-Chairs and Associate Chair in the department’s core budget. We recommend \$40K/year for Vice-Chairs and \$20K/year for the Associate Chairs. With this remuneration, more formal policies should be established to clearly define the roles and accountabilities of each Vice-Chair/Associate Chair with the intent of establishing a formally designated model of “Distributed Leadership” to delegate many of the Chair responsibilities in a logical, site-specific manner (i.e. Uptown/Downtown). Formal MOUs should be developed and signed between MBP/Temerty, the Vice-Chairs/Associate Chair and their respective TAHSN research institutes to allow for these roles to be accommodated and this should be part of the implemented policy.”	Vice Chairs and the Associate Chair are currently receiving such stipends, which are incorporated into the MBP budget. MBP’s budget recently underwent increased cost containments, so negotiating additional funding for administrative stipends is not feasible at this time; the amount will remain static. Previous MOUs will require updating. MBP will review and amend the MOUs with Sunnybrook and SickKids research institutes with their respective Vice Presidents of Research.
	“Inclusion of a travel budget for development of international collaborations in the core budget: This will assist in developing international scientific collaborations for faculty and also allow for enhancement of graduate student recruitment and research campaigns and outreach efforts to promote MBP at international universities. \$25-50K/year	MBP continues to provide travel awards to students who are presenting at conferences. Currently it budgets for 16 awards per annum at \$1,000 for each qualifying student. Given the current widespread budget restraints, MBP cannot increase the number of travel awards. MBP also travels to universities across Canada to promote the Department and augment graduate student recruitment. Currently its budget includes \$6,000

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	recommended.”	annually for this. Additional travel funds required to promote MBP internationally, however, are not currently available. In spite of this, MBP receives a large number of international applicants, largely due to its excellent Communications Officer, who has overhauled and maintains the MBP website and has found alternative ways to promote the Department online.
The reviewers recommended exploring funding options to enhance program accessibility and diversity.	“An important suggestion around increasing the program’s accessibility and diversity was to make funding options available for waiving graduate program application fees in order to increase diversity (e.g., as has been done in Department of Chemistry at the University of Toronto).”	This is an excellent recommendation. MBP has considered waiving the application fee and the MBP EDI committee previously explored this possibility. MBP receives an average of 350-400 applications per year; at a \$130 application fee and the total annual cost of \$45,500 to \$52,000 represents close to 10% of its UTF budget that helps support students. Waiving of application fees might better implemented at the SGS level.
The reviewers observed while postdoctoral scholars are employed by the TAHSN research institutes, they are clearly critical to the research success of MBP. They encouraged the department to explore ways to more purposefully incorporate postdocs into MBP culture.	“... it is recommended that MBP to take a more purposeful approach to incorporating postdocs into the MBP culture through departmental communications, as well as offering them increased opportunities for engagement in department activities (i.e. seminars, retreats, career development activities, teaching opportunities) where feasible. This should be done in close collaboration with the TASHN institutes’ Offices of Research Trainees, Temerty, and the postdocs themselves in order to ensure relevance and avoid redundancy of efforts.”	MBP and Temerty Medicine appreciate this recommendation. Postdoctoral fellows (PDFs) participate as judges in the MBP Symposium & Summer Student Poster Day and speakers at the Summer Student Seminar Series. While some supervisors of PDFs have helped subsidize expenses to join the MBP retreat, broad implementation of this is not feasible. PDFs of MBP faculty are effectively employees of the various TAHSN research institutes and hence are not under the direct administration of U of T. While there has been considerable discussion about establishing a Toronto-wide “postdoc academy” to better serve these talented early career researchers, this has not yet been implemented. Career development, scientific workshops and seminar series could be included. MBP and Temerty Medicine are highly supportive of these initiatives. Incorporation of PDFs from MBP faculty into Departmental activities (i.e., annual research day, MBP retreat, Christmas party, Alumni Day, etc.) is not currently possible for logistical and financial reasons. There are several hundred PDFs in MBP faculty labs. Inviting them to Departmental activities would effectively double participation and would require a significant increase to the core budget (approximately \$100,000 for the four activities mentioned above). MBP will continue to work with Temerty Medicine’s Vice Dean of Research & Health

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		Science Education and the various TAHSN research institutes to support a Toronto-wide postdoc academy to standardize engagement and support PDFs Faculty-wide. MBP will explore collaborative opportunities with U of T and the research institutes to better integrate PDFs and will explore a Toronto-wide initiative towards a formal PDF academy.
The reviewers recommended exploring the implementation of modern systems to aid with efficiently tracking student recruitment and progression, and monitoring faculty engagement.	“An IT consultation could be obtained to design such a database (~\$50-100K one-time cost) and database maintenance and updates should be built into the subsequent annual core budget (~\$10K/year). This database will provide essential data for the department to make decisions on multiple fronts including: ▪ Tracking student recruitment and progression through the system ▪ Tracking student accomplishments ▪ Tracking faculty engagement as described in the faculty recommendations above ▪ Enabling easy generation of funding letters for students: to reduce workload for administrative staff”	MBP worked with developers at UHN to establish a framework for a new web-accessible database. MBP also reached out to MedIT to determine if the new database could be hosted on a U of T server. Such a database prototype was seen as potentially useful for other Departments in Temerty Medicine as it would provide administrative staff with an effective means to monitor student progress/time-to-completion, schedule committee meetings and calculate student stipends. A security audit that would be required by MedIT because of the high security level required for such data, however, was not possible to conduct because of other commitments. MBP will continue with the current database until the necessary security audit for the new database prototype is scheduled.