Cyclical Program Review Final Assessment Report and Implementation Plan for Pathology and Molecular Medicine Programs and the Collaborative Graduate Program in Cancer Research

Programs Reviewed:

Pathology and Molecular Medicine:	MSc, PhD
Cancer Research:	MSc, PhD

The graduate program in Cancer Research is a collaborative graduate program offered by the Department of Pathology and Molecular Medicine in partnership with the Departments of Biomedical and Molecular Sciences, Public Health Sciences, Psychology, and Translational Medicine.

Overview

In accordance with Queen's University Quality Assurance Processes (QUQAP), this final assessment report (FAR) provides a synthesis of the external evaluation, internal responses, and assessment of the above programs. This report identifies the significant strengths of the programs, and opportunities for program improvement.

An implementation plan (IP) is attached that identifies:

- How the recommendations will be implemented and the expected timeframe for completion
- who will be responsible for acting on and monitoring progress on the recommendations,
- any resource or governance implications resulting from the recommendations, and
- timelines for implementation of the recommendations.

Final Assessment Report: Executive Summary

Summary of Review

1) The Department of Pathology and Molecular Medicine and the Collaborative Graduate Program in Cancer Research produced a self-study document that was reviewed by the Dean, Faculty of Health Sciences, the Vice-Provost and Dean, School of Graduate Studies and Postdoctoral Affairs, and the Vice-Provost (Teaching and Learning). The self-study was approved on January 24, 2025.
2) The review team visit took place on April 9-10, 2025. The review team members were:
    i. Dr. David Litchfield, Professor, Department of Biochemistry and Director, Research Infrastructure, Schulich School of Medicine and Dentistry, University of Western Ontario.
    ii. Dr. Zia A. Khan, Professor and Vice-Chair, Department of Pathology and Laboratory Medicine, University of Western Ontario.
    iii. Dr. Christopher Moyes, Professor, Department of Biology, Queen's University.
3) The visit included meetings with
    i. Students
    ii. Faculty
    iii. Staff
    iv. Librarian
    v. Department Head and Director of Collaborative Graduate Program
    vi. Representatives (including heads) of Cognate Departments and Institutes
    vii. Interim Dean and Vice-Dean, Basic and Public Health Sciences, Faculty of Health Sciences
    viii. Vice-Provost and Dean, School of Graduate Studies and Postdoctoral Affairs
    ix. Vice-Provost (Teaching and Learning)

4) The review team reported on June 17, 2025. The Department Head, Faculty Dean and the Vice-Provost and Dean (School of Graduate Studies and Postdoctoral Affairs - SGSPA) provided responses to the review team report by May 26, 2026.
5) The Senate Cyclical Program Review Committee considered the review team report, internal responses and a draft Final Assessment Report and Implementation Plan at its meeting on June 16, 2026. This Final Assessment Report and Implementation Plan was approved at that meeting.

The following strengths were noted:

- The programs are exemplary, with a number of major strengths. They demonstrate outstanding curriculum coherence, research training, mentorship quality, and resource support.
- The programs successfully blend clinical needs and activities with molecular biology research, providing students with a well-rounded education that bridges basic science and its clinical applications.

- The programs' position at the interface of clinical practice and basic research is ideal to promote translational research and to align with the priorities of funding agencies and the needs of the broader community.
- Faculty are highly qualified, with successful records of innovation and scholarly contributions. The research capacity of the faculty, including the ability to attract competitive external funding, is a standout strength.
- Faculty members bring a wealth of experience from both academic and clinical settings. This exposes students to both theoretical rigour and practical insights through active collaborative research projects.
- Student research spans various domains within pathology and molecular medicine, ranging from cancer biology to genetic disorders, providing an intellectually rich and diverse environment.
- Students form a tight-knit cohort, with their shared experiences fostering an environment of mutual support and camaraderie.
- The review team was impressed with steps the programs have taken to incorporate principles of Indigenization, equity, diversity, inclusion, anti-racism and accessibility (I-EDIAA) into curriculum design. One of several examples is the Pathology and Molecular Medicine program's role in developing an introductory undergraduate course with a global health and societal impact focus, using case studies that highlight experience and risks of different ethnic groups and Indigenous peoples.
- Faculty, students and partners at the Faculty of Health Sciences were unanimously supportive of the programs, praising their clear impact on graduate student outcomes. The career trajectories of program graduates speak to the quality of professional development and transferable skills acquired during their training.

The following opportunities for enhancement were noted:

The review team did not identify any major deficiencies in the programs. The following suggestions for enhancement are intended to build on existing strengths of the programs.

- Collaborate with the Translational Medicine program to ensure that all three programs continue to co-exist in mutually beneficial ways.
- Further enhance training in scientific communication, grant writing, intellectual property and entrepreneurship. Workshops and courses in these areas can further prepare students for leadership roles within academia or industry.
- For the Cancer Research programs, strengthen and/or formalize partnerships (e.g., with engineering, data science, and ethics programs) to expand the range/breadth and depth of research approaches available to students.
- Implement a multi-faceted approach to ensuring academic integrity, blending institutional policy frameworks with proactive educational and administrative practices.
- When reviewing program level learning outcomes (as recommended in recommendation 7), apply an I-EDIAA lens.

Summary of Review Team Recommendations

The reviewers made 8 recommendations, summarized below. For the exact wording of the recommendations, please see the Implementation Plan.

1. Implement a succession-planning process.
2. Showcase translational research carried out by the programs.
3. Design and implement a professional development framework and incorporate pathology experiential learning for graduate students.
4. Develop a vision for computational pathobiology.
5. Establish and implement harmonized funding for graduate students across the Faculty of Health Sciences.
6. Establish a data sharing practice among graduate programs in the Faculty of Health Sciences.
7. Involve graduate students in establishing and regular updating of program-level learning outcomes.
8. Create consistency in course outlines and guidance on artificial intelligence/large language models.

Status

The graduate programs in Pathology and Molecular Medicine and the collaborative graduate program in cancer research have been approved to continue.

Date monitoring report due: June 2027

Date of next review: 2028-2029 academic year

Prepared by Vice-Provost (Teaching and Learning), Academic Unit, Faculty Dean and Vice-Provost and Dean, School of Graduate Studies and Professional Affairs:
July 2025 – May 2026

Approved by the Senate Cyclical Program Review Committee: June 16, 2026

Implementation Plan

Notes:

1) Short-term = within 1 year, Medium-term = 1-3 years, Long-term = beyond 3 years.

2) Where Deans have not added comments, this denotes that they agree with the action plan and have no further comments.

3) Acronyms:

CGPCR	Collaborative Graduate Program in Cancer Research
DPMM	Department of Pathology and Molecular Medicine

Recommendation 1 (Continuous Improvement): ***Implement a succession-planning process within the next academic year.***

Planned Action(s)	**Deans' Contributions to Plan, where appropriate:**	**Person(s) Responsible for Leading Implementation**	**Resource and/or Governance Implications**	**Timeline and Milestones**
Action A: Transitioning to new Graduate Program Chair	Faculty Dean: In progress	Current Graduate Program Chair	None	By end of 2026-2027 academic year
Action B: Transition to new PATH 827 course Coordinator	Faculty Dean: In progress	Current course Coordinator	None	By end of 2025-2026 academic year

Action C: Transition to new PATH 830/930 course Coordinator	Faculty Dean: In progress	Current course Coordinator	None	By end of 2026-2027 academic year
Action D: Recruitment of new Director of CGPCR and Coordinator of PATH 822/823 core courses.	Faculty Dean: Evaluation underway	Current Director	None	Succession plan in place by end of 2026-2027
Action E: Recruitment of new Graduate Assistant	Faculty Dean:	Department Head	Funding for staffing through DPMM	Complete
Action F: Review of Program tasks and development of TOR for leadership positions.	Faculty Dean: In progress	Graduate Program	None	By end of 2025-2026 academic year

Recommendation 2 (Continuous Improvement): ***Showcase and capitalize on translational research carried out by the programs.***

Planned Action(s)	**Deans' Contributions to Plan, where appropriate:**	**Person(s) Responsible for Leading Implementation**	**Resource and/or Governance Implications**	**Timeline and Milestones**
Action A: Create dedicated "Showcase" space on DPMM web site and formalized process to solicit content	Faculty Dean: Under consideration	Graduate Assistant	None	By end of 2025-2026 academic year
Action B: Formalized process for identifying more diverse speakers for DPMM Research Seminar Series.	Faculty Dean: Consultation in progress	Graduate Program Committee	None	By end of 2026-2027

Recommendation 3 (Continuous Improvement): ***Design and implement a professional development framework.***

Planned Action(s)	**Deans' Contributions to Plan, where appropriate:**	**Person(s) Responsible for Leading Implementation**	**Resource and/or Governance Implications**	**Timeline and Milestones**
Action A: Survey graduate students to identify strengths and weaknesses in current curriculum and individual career interests.		Graduate Program Committee	None	By end of 2025-2026 academic year
Action B: Establish a mechanism to promote trainee engagement with existing professional development resources including the SGSPA Individual Development Plan.	Vice-Provost and Dean, SGSPA: Please let us know what SGSPA can do to support this important work.	Graduate Assistant	None	By end of 2025-2026 academic year
Action C: Refinement of our Annual Progress Report mechanism though participation in SGSPA-led Annual Report Working Group	Vice-Provost and Dean, SGSPA: Let us know please if we can be of any additional help.	Graduate Program Committee	None	By end of 2025-2026 academic year
Action D: Disseminate information about opportunities and support to present research findings at scientific conferences and through local opportunities.	Vice-Provost and Dean, SGSPA: Please encourage students to participate in both the 3MT and GradFlix events	Graduate Assistant	None	By end of 2025-2026 academic year

Recommendation 3b (Continuous improvement for DPMM program): ***Incorporating pathology experiential learning for graduate students***

Planned Action(s)	Deans' Contributions to Plan, where appropriate:	Person(s) Responsible for Leading Implementation	Resource and/or Governance Implications	Timeline and Milestones
Action A: Explore development of a practical training module on pathology techniques in conjunction with the Queen's Laboratory for Molecular Pathology and the Pathology Residency Training Program.	Faculty Dean: Exploration underway	Graduate Program Committee	DPMM	By end of 2026-2027 academic year

Recommendation 4: ***Develop a vision for Computational Pathobiology***

Planned Action(s)	Deans' Contributions to Plan, where appropriate:	Person(s) Responsible for Leading Implementation	Resource and/or Governance Implications	Timeline and Milestones
Action A: Articulate a vision for training a generation of graduates who are equipped with skills to explore complex data sets to identify biomarkers of disease and elucidate molecular processes in biological systems.	Faculty Dean: In progress	Graduate Program Committee and DPMM Education Committee	None	2025-2026 academic year

Action B: Create a tenure-track position for the PATH 828 course coordinator.	Faculty Dean: Resource dependent	Faculty Dean and Unit Head	FHS	Complete: the position was created, then filled in March 2026.
Action C: Formal creation of a new stream in computational pathobiology within the DPMM Graduate Program.	Faculty Dean: Under consideration Vice-Provost and Dean, SGSPA: Please let us know how SGSPA can help to create the new stream.	Graduate Program Committee and Unit Head	FHS	2027-2028 academic year

Recommendation 5: ***Establish and implement a harmonized funding across the Faculty of Health Sciences.***

Planned Action(s) – Faculty Dean	**Unit and Dean, SGSPA's Contributions to Plan, where appropriate:**	**Person(s) Responsible for Leading Implementation**	**Resource and/or Governance Implications**	**Timeline and Milestones**
Action A: Conduct review of stipend structures across FHS departments/programs	Academic Unit: Stipend structures across FHS are reviewed annually by the DPMM graduate committee before setting stipend levels for the coming year. Vice-Provost and Dean, SGSPA: Associate Dean Tara MacDonald can play an important role in shaping this important conversation.	Faculty Dean and Unit Heads	Process is in place	Completed

Recommendation 6: ***Establish a data sharing practice among graduate programs in the Faculty of Health Sciences.***

Planned Action(s) – Faculty Dean	**Unit and Dean, SGSPA's Contributions to Plan, where appropriate:**	**Person(s) Responsible for Leading Implementation**	**Resource and/or Governance Implications**	**Timeline and Milestones**
Action A: Establish a data sharing practice among graduate programs in the Faculty of Health Sciences • Ensure research growth works in the best interests of all programs. • Leverage data to inform decisions (Program modifications, outreach, resource allocations, recruitment demographics)	Academic Unit: All changes in curriculum are presented at and reviewed by FHSGC which includes participation of all FHS graduate programs. Program initiatives which may impact research plan are discussed at the Basic Sciences Heads Meetings (Monthly). Vice-Provost and Dean, SGSPA: N/A	Unit Heads and Faculty Dean		Completed
Action B: Establish publicly accessible institutional data dashboards detailing admissions, enrolment, funding, and outcomes	Academic Unit: N/A Vice-Provost and Dean, SGSPA: Please let us know what we can do to assist you.	Vice-Provost and Dean, SGSPA		

Recommendation 7: ***Trainee excellence and program-level learning outcomes***

Planned Action(s)	Deans' Contributions to Plan, where appropriate:	Person(s) Responsible for Leading Implementation	Resource and/or Governance Implications	Timeline and Milestones
Action A: Review and update of program-level learning objectives in consultation with graduate students.		Program coordinators	None	To be reviewed on an annual basis.

Recommendation 8: ***Consistency in course outlines and guidance on AI/LLMs:***

Planned Action(s)	Deans' Contributions to Plan, where appropriate:	Person(s) Responsible for Leading Implementation	Resource and/or Governance Implications	Timeline and Milestones
Action A: Implement a standardized format for graduate course syllabi. Incorporating sections on: • Faculty and University policies • Guidelines for acceptable and unacceptable use of AI and LLMs • Academic integrity		DPMM graduate course coordinators in consultation with Graduate Committee, and if needed, the Centre for Teaching and Learning.	None	Short-term: Initial revisions are complete. Updates of all syllabi should be completed within 2025-26 academic year.