Western UNIVERSITY · CANADA

Anatomy and Cell Biology
Final Assessment Report & Implementation Plan
August 2026

Faculty / Affiliated University College	Schulich School of Medicine & Dentistry	
Degrees Offered	Master of Science (MSc), Doctor of Philosophy (PhD)	
Date of Last Review	2017-2018	
Fields of Study	Cell Biology Clinical Anatomy Neurobiology	
External Reviewers	Dr. Katrina Gee Professor, Department of Biomedical and Molecular Sciences Queen's University	Dr. Sabine Hombach-Klonisch Professor, Department of Human Anatomy and Cell Science Max Randy College of Medicine, University of Manitoba
Internal Reviewers	Supported by the School of Graduate and Postdoctoral Studies and the Office of Academic Quality and Enhancement	Cherin Chung Graduate Student, Member of SUPR-G
Date of Site Visit	January 21-22, 2026	
Date Review Report Received	April 1, 2026	
Date Program/Faculty Response Received	Program Response: July 17, 2026 Faculty Response: July 17, 2026	
Evaluation	Good Quality	
Approval Dates	SUPR-G: October 26, 2026 ACA: November 3, 2026 Senate (for information): November 13, 2026	
Year of Next Review	2033-2034	
Progress Report	June 2029	

Overview of Western's Cyclical Review Assessment Reporting Process

In accordance with Western's Institutional Quality Assurance Process (IQAP), the Final Assessment Report (FAR) provides a summary of the cyclical review, internal responses, and assessment and evaluation of the Graduate Anatomy and Cell Biology Program, delivered by the Schulich School of Medicine & Dentistry.

This FAR considers the following documents:

- the program's self-study brief;
- the external reviewers' report;
- the response from the Program; and
- the response from the Dean, Schulich School of Medicine & Dentistry.

This FAR identifies the strengths of the program and opportunities for program enhancement and improvement, and details the recommendations of the external reviewers – noting those recommendations to be prioritized for implementation.

The Implementation Plan details the recommendations from the FAR that have been selected for implementation, identifies who is responsible for approving and acting on the recommendations, specifies any action or follow-up that is required, and defines the timeline for completion.

The FAR (including Implementation Plan) is sent for approval through the Subcommittee on Program Review - Graduate (SUPR-G) and the Senate Committee on Academic Curriculum and Awards (ACA), then for information to Senate and to the Ontario Universities' Council on Quality Assurance. Subsequently, it is publicly accessible on Western's IQAP website. The FAR is the only document from the cyclical review process that is made public; all other documents are confidential to the Graduate program, the Schulich School of Medicine & Dentistry, the School of Graduate and Postdoctoral Studies (SGPS) and SUPR-G.

Executive Summary

The graduate program in Anatomy and Cell Biology offers a modern collaborative training experience catering to the needs of the individual student pursuing an MSc or PhD degree in Anatomy and Cell Biology. The program has evolved to comprise three main curriculum options: a non-thesis based (with research project) MSc in Clinical Anatomy, a thesis-based MSc in biological research, and a thesis-based PhD. Graduate students can immerse themselves in one or more disciplines, including cell biology, neurobiology, clinical anatomy, and/or education scholarship related to the anatomical sciences. Specific areas of research strength for graduate training include mechanisms of addiction, cancer biology, cellular signaling, developmental and stem cell biology, biomaterials, regenerative medicine, neurophysiology, behavioral neuroscience, spinal cord injury, and neurodegenerative disorders. Faculty members within the Anatomy and Cell Biology graduate program are distributed throughout the city, with laboratories and

research space in the Medical/Dental Sciences buildings, Robarts Research Institute, London Health Sciences Centre (LHSC)-University Hospital, LHSC-Victoria Hospital, and St. Joseph's Health Care. This provides Anatomy and Cell Biology graduate students with opportunities to be involved in interdisciplinary and clinically relevant biomedical research. This is further enhanced by Anatomy and Cell Biology's participation in several of Western's collaborative graduate programs including Developmental Biology, Molecular Imaging, Musculoskeletal Health, and Global Health Systems and Machine Learning in Health and Biomedical Sciences. Total enrolment in 2023-2024 was at 18 for the Clinical Master's, 23 for the Research Master's and 36 for the PhD.

The self-study included refinement of the program learning outcomes and a curriculum mapping exercise. It was equally informed by two student focus groups, surveys administered to current graduate students, faculty and recent graduates, and a departmental retreat associated with the development of a 2022-2027 departmental strategic plan.

The external reviewers shared a positive assessment of the graduate Anatomy and Cell Biology program. They offer five recommendations with considerations for further enhancement.

Strengths and Innovative Features Identified by the Program

- Leadership in Clinical Anatomy training, including one of only two MSc Clinical Anatomy programs in Canada and the only Canadian PhD option with a Clinical Anatomy field.
- Cohesive and supportive community, fostered through extensive social programming, open communication with program leadership, and cross-stream integration initiatives.
- Student-led peer mentorship program that successfully supports new students, develops mentorship skills in senior students, and strengthens community across program streams.
- Dedicated professional development and Equity, Diversity, Inclusion, Decolonization, and Accessibility (EDIDA) initiatives, including integrated professionalism training, alternative-career programming, inclusive research practices, and a dedicated EDIDA committee embedded throughout departmental governance.
- Faculty members within the department have maintained a consistently strong level of funding from both internal grants and peer-reviewed external research and infrastructure grants.

Concerns and Areas of Improvement Identified and Discussed by the Program

- Students indicated that the funding structure is unclear – a mechanism to help alleviate this will be the inclusion of a presentation about Graduate Student Funding as part of the September orientation week.
- Need for stronger integration across program streams, particularly addressing perceived divisions between Clinical Anatomy students and thesis-based research students.
- More consistent oversight through advisory committees and clearer documentation of student progress.
- Improved support for PhD thesis preparation and completion, including workshops, guidance resources, and more structured communication regarding thesis expectations and defense preparation.
- Continued modernization of anatomy teaching laboratories and learning spaces.
- Development of a framework around the ethical and informed use of GenAI for their studies, research, and writing. This will be built into the learning modules of the professionalism course, Own Your Future interactive modules, and external speaker talks.

Review Process

As part of the external review, the review committee, comprising two external reviewers, one internal reviewer and a graduate student reviewer, were provided with Volume I and II of the self-study brief in advance of the scheduled review and then met in-person over two days with the:

- Vice-Provost, Graduate & Postdoctoral Studies
- Associate Vice-Provost, Graduate & Postdoctoral Studies
- Administrative Coordinator, School of Graduate and Postdoctoral Studies
- Vice-Provost, Academic Planning, Policy & Faculty
- Director of Academic Quality and Enhancement
- Associate Dean, Graduate and Postdoctoral Studies, Schulich School of Medicine & Dentistry
- Assistant Dean, Program Review and Development, Schulich School of Medicine & Dentistry
- Western LibrariesTeam Members
- Department Chair
- Associate Chair, Graduate Studies
- Graduate Affairs Committee Members
- Clinical Anatomy Programming Subcommittee Members
- Program Faculty Members
- Graduate Program and Departmental Staff
- Graduate Students

Following the site visit, the external reviewers submitted a comprehensive report of their findings which was sent to the Program and the Decanal Office for review and response. Formative documents, including Volumes I and II of the Self-Study, the External Report, and the Program and Decanal responses form the basis of this FAR. The FAR is collated and submitted to SUPR-G by the Internal Reviewer with the support of the Office of Academic Quality and Enhancement.

Summative Assessment – External Reviewers' Report

External reviewers shared that "*the program structure for both thesis-based and course-based graduate plans is well thought out and clearly supports the training of students in anatomy and cell biology*."

Strengths of the Program:

- Faculty members have strong competency in research and expertise in teaching, with a demonstrated collaborative and respectful attitude that greatly benefits the program.
- Rich and inclusive programming, including the integration of thesis-based and clinical anatomy students through a shared professionalism course, extensive seminar programming, Research Day, research retreats, and professional development opportunities.
- Active student participation in governance, educational experiences, EDIDA initiatives, and departmental activities.
- Dedicated administrative and support staff, who continue to maintain critical operations and student services despite significant staffing pressures.

Prospective Areas of Improvement for the Program to Consider

- Clarify and standardize PhD expectations, particularly regarding the three-publication expectation, comprehensive examination requirements, timelines, and evaluation standards to improve transparency and consistency.
- Address faculty workload and succession concerns, including supervisory imbalances and long-term sustainability of teaching and research capacity.
- Strengthen operational capacity as understaffing was identified as negatively affecting student onboarding, responsiveness and milestone tracking.
- Further enhance integration and community between clinical anatomy and thesis-based students through additional mentoring, peer-teaching, and shared learning opportunities.
- Consider reviewing admissions practices, reducing barriers to entry, addressing funding inequities, and improving financial accessibility for students.
- Reduce communication gaps between the Dean's Office, SGPS, and faculty, contributing to uncertainty and inconsistent expectations.

Summary of the Reviewers' Recommendations and Program/Faculty Responses

The following are the reviewers' recommendations in the order listed by the external reviewers.

Reviewers' Recommendation	Program/Faculty Response
Recommendation #1: Program Staffing 1) Strengthen administrative staffing capacity. To ensure program stability, it is recommended that the department: a) Increase staffing by a minimum of 2.0 FTE, if possible, including reinstating a dedicated student facing administrative assistant. b) Ensure that students receive stipend and TAship payments in a timely manner. c) Institute formal leave coverage plans for essential tasks, including admissions, payroll, TAship appointments, and student tracking milestone coordination. 2) Improve clarity and accessibility of administrative processes. To improve accessibility, it is recommended that the department: a) Develop a concise "Who to Contact" guide outlining responsibilities, communication channels, and escalation pathways. b) Develop regularly updated database to enable tracking of student progress committee composition, etc.	**Program:** The Program agrees that staffing shortages were a significant challenge during the review period, particularly following the loss of key administrative positions and the subsequent university-wide hiring freeze. Shared staffing arrangements with Medical Biophysics further strained departmental operations, although remaining staff and colleagues worked diligently to maintain essential services for students. Since the review, the Department has substantially strengthened its administrative capacity through the hiring of a dedicated Academic Programs Assistant, a new Administrative Assistant, and an Acting Manager of Operations. Recruitment of an additional anatomy laboratory technician remains a priority and will further increase staffing capacity. The Department is confident that these staffing improvements will address many of the concerns raised by reviewers regarding communication, responsiveness, and student support. To enhance administrative transparency, information about stipend, scholarship, and TAship payment schedules will be clarified in the Graduate Student Handbook, orientation sessions, finance workshops, and on the program website. Resources to support graduate student budgeting will also be provided. Recognizing communication challenges experienced during the staffing transition, the Department will update faculty and staff contact information, improve website and handbook resources, and include key contacts in new students' Letters of Understanding. To strengthen student tracking and progress monitoring, the Department will re-establish centralized record-keeping through OWL Brightspace and maintain a comprehensive live database of all active graduate students, enabling more effective oversight by Progam leadership. **Faculty:** The Decanal team supports the program's response. Staff are an essential component to a properly functioning department and graduate program. Any additional changes or support can be requested by the department, but administrative complement is under the purview of the Dean's office.

Recommendation #2: Student Culture and Community Engagement 1) Increase connectivity between clinical and thesis-based programs through structured peer-teaching or mentoring opportunities. 2) Develop a modified professionalism course co-taught across programs to support more student-led decision-making in learning, for example peer-teaching events that serve as skills assessment and learning at the same time.	**Program:** The program views its peer mentoring initiative as a major strength and plans to expand its role in fostering stronger connections between Clinical Anatomy and thesis-based students. Future efforts will promote greater awareness of the mentoring program among students and faculty while exploring new peer-teaching and mentoring opportunities across program streams. To strengthen integration, the program will build on the recently combined ANATCELL 9555/9566 professionalism course by introducing activities that encourage interaction, peer learning, and student-led skill development. In collaboration with the Centre for Teaching and Learning, the program also plans to develop workshops that support peer-teaching initiatives and enhance professional and teaching portfolios. Additional opportunities for cross-stream engagement will be explored within ANATCELL 9520 through shared scientific communication and skills-development activities. Finally, the department intends to reinstate community-building events such as holiday gatherings, family picnics, and leadership activities that were discontinued due to staffing and leadership transitions. These initiatives are expected to strengthen departmental culture, increase student engagement, and foster a stronger sense of community across all graduate programs. **Faculty:** The Decanal team supports the program's response.
Recommendation #3: Program Learning Objectives 1) Clarify and improve the structure and timing of the PhD comprehensive exam, including: a) Addressing the burden placed on students and faculty to find examiners at the same time. b) Ensuring the timing allows space to respond if an exam is not passed close to completion. Finalizing exam details and expectations more clearly. c) Considering vulnerabilities of the written component to AI.	**Program:** The program recognizes concerns about the burden and consistency of comprehensive examinations and has already implemented changes for the Summer 2026 cohort to improve clarity, transparency, and faculty workload distribution. These include revised timelines, clearer guidance on major revisions and progression to the oral exam, and more explicit expectations for both students and examiners. The Graduate Affairs Committee will review the effectiveness of these changes after the current exam cycle. The program is also proactively addressing the implications of generative AI by incorporating AI literacy and ethical-use guidance into graduate training and comprehensive exam preparation. In response to reviewer feedback regarding publication expectations, the program is revising its Graduate Student Handbook to establish more flexible and transparent milestones that recognize disciplinary differences in research and publication practices. Greater emphasis will be placed on project-specific mentoring by advisory committees to support student progress. To strengthen oversight, the program has updated its Progress Report Form to identify cases that are "Satisfactory with Concerns" and provide targeted

2) Reassess the "three paper" guideline and clarify what constitutes a strong PhD thesis. 3) Improve transparency and consistency in how defenses are evaluated, particularly when outcomes do not meet published standards. 4) Ensure thesis expectations reflect the department's diversity, acknowledging varied research approaches, topics, and publication norms.	feedback. Progress reports are reviewed by the Graduate Chair and Graduate Affairs Committee to ensure early identification and discussion of emerging student concerns. **Faculty:** The Decanal team supports the program's response. Responsible and ethical training regarding AI use is a goal in graduate education since students will be exposed to AI throughout their careers. Discussions concerning AI are ongoing at Western at every level, and some policies have been developed. For example, SGPS has developed guidance for the use of generative AI in graduate studies: https://grad.uwo.ca/about_us/policies_procedures_regulations/ai.html and offers an online workshop to support this guidance: https://uwo.ca/ownyourfuture//workshops/harnessing_genai_for_research.html
Recommendation #4: Faculty Workload Strain 1) Work toward a more balanced distribution of graduate supervision across faculty ranks and career stages; 2) Assess the alignment between teaching-focused and research-active faculty roles in supporting a thesis-based graduate program; 3) Identify strategies to support equitable participation in graduate supervision and mentorship; and improve communication and clarity of expectations between the Department, the Dean's Office, and SGPS regarding faculty workload and graduate program responsibilities.	**Program:** It is important to note that faculty workload is governed by the collective agreement. Our elected departmental workload committee will be reviewing our workload document this year, which details expectations in terms of teaching, research/scholarship, and service to ensure equitable distribution across faculty members of varying workloads. In response to concerns about faculty workload and supervisory capacity, the Department has begun developing a Faculty Succession Roadmap to address the impact of seven recent retirements, three anticipated retirements, and limited hiring since 2018. The plan will use a proactive, data-driven approach to identify and address gaps in research expertise, graduate supervision, and laboratory infrastructure. Key priorities include maintaining expertise in cellular biology, neurobiology, and anatomy; ensuring sufficient research-active laboratories to support graduate trainees; and preserving strong supervision and mentorship capacity. Through strategic recruitment planning, the Department aims to sustain program quality, reduce workload pressures, and ensure the long-term viability of its research-intensive graduate programs, with hiring priorities informed by departmental and graduate program needs. **Faculty:** The Decanal team supports the program's response. Program and department needs are discussed and prioritized by the Department Chairs for consideration by the Dean's office. They may then be forwarded to the Provost's office for consideration and approval. Faculty workload falls under the faculty collective agreement (UWOFA and Western).

Recommendation #5: EDIDA 1) Review the student admission process to ensure greater accessibility and reduce potential barriers to entry. 2) Address financial accessibility concerns, including the absence of a minimum stipend for Clinical Anatomy, which may discourage or exclude some applicants. 3) Challenges related to TAship payments and eligibility for awards - consider guaranteeing TAship support to enhance equity and reduce financial stress.	**Program:** The program acknowledges opportunities to improve recruitment and communication by enhancing online information about admission requirements, application processes, supervisor selection, and research opportunities, while ensuring materials align with EDIDA best practices. The program notes that demand for the Clinical Anatomy stream remains strong, but will explore the feasibility of introducing a base research stipend for second-year Clinical Anatomy students. It remains committed to supporting students through TAships and scholarship opportunities. For thesis-based students, TAships are not formally guaranteed but have historically been available at levels above many comparable programs. To improve transparency and recruitment, the program will better communicate funding and TAship opportunities through its website and graduate student funding materials. **Faculty:** The Decanal team supports the program's response. While it would be ideal if a base stipend could be provided for Clinical Anatomy students, it is important to note that the Clinical Anatomy program is a course-based Master's with a research component. Within Schulich, students enrolled in course-based and professional programs do not receive stipends, are usually not guaranteed TAships, and they usually pay higher tuition fees than those paid by students in research-based graduate programs.

Implementation Plan

The Implementation Plan provides a summary of the recommendations that require action and/or follow-up. In each case, the Graduate Program Chair, in consultation with SGPS and the Dean of the Faculty are responsible for enacting and monitoring the actions noted in Implementation Plan.

Recommendation	Proposed Action and Follow-up	Responsibility	Timeline
Recommendation #1: Program Staffing 1) Strengthen administrative staffing capacity. 2) Improve clarity and accessibility of administrative processes.	• Review procedures and policies in relation to stipend, scholarship and TAship to improve clarity and accessibility. • Review and update information about administrative processes related to graduate education. • Update faculty and staff contact information wherever relevant and necessary. Enhance student tracking and progress monitoring process.	Graduate Chair; Department Chair	By September 2027
Recommendation #2: Student Culture and Community Engagement 1) Increase connectivity between clinical and thesis-based programs through structured peer-teaching or mentoring. 2) Develop a modified professionalism course co-taught across programs.	• Promote the peer mentoring program and explore ways to expand and enhance it to support and foster student connections, and new peer-teaching and mentoring opportunities. • Promote and enhance community building initiatives and events within the department.	Graduate Chair; Peer Mentoring Committee	By September 2027

Recommendation #3: Program Learning Objectives 1) Clarify and improve the structure and timing of the PhD comprehensive exam. 2) Reassess the "three paper" guideline. 3) Improve transparency and consistency in how defenses are evaluated. 4) Ensure thesis expectations reflect the department's diversity of research approaches, topics, and publication norms.	• Monitor the effectiveness and impact of recent changes in comprehensive examinations and make further improvements, as necessary. • Provide effective and timely ways to mentor graduate students around effective and ethical use of AI during their academic endeavours leveraging on resources and support available through other Western units such as SGPS and the Centre for Teaching and Learning. • Provide further clarity around thesis expectations.	Graduate Chair; Graduate Affairs Committee	By September 2027
Recommendation #4: Faculty Workload Strain 1) Work toward a more balanced distribution of graduate supervision across faculty ranks and career stages. 2) Assess the alignment between teaching-focused and research-active faculty roles in supporting the thesis-based graduate program. 3) Identify strategies to support equitable participation in graduate	• Prioritize research and graduate mentorship capacities in the succession planning "Roadmap" to preserve program quality, ensure the long-term sustainability of the programs.	Department Chair; Graduate Chair	By September 2027

supervision and mentorship.			
Recommendation #5: EDIDA 1) Review the student admission process. 2) Address financial accessibility concerns. 3) Consider guaranteeing TAship support to enhance equity and reduce financial stress.	• Review and update admission process and explore ways to integrate EDIDA best practices in the admissions process. Improve clarity in communicating information related to admission process such as admission requirements, supervisor selection and funding for both thesis-based and Clinical Anatomy programs. • Explore the possibility to provide funding to Clinical Anatomy students. The program acknowledges opportunities to improve recruitment and communication by enhancing online information about admission requirements, application processes, supervisor selection, and research opportunities, while ensuring materials align with EDIDA best practices. The program notes that demand for the Clinical Anatomy stream remains strong, but will explore the feasibility of introducing a base research stipend for second-year Clinical Anatomy students. It remains committed to supporting students through TAships and scholarship opportunities. • For thesis-based students, TAships are not formally guaranteed but have historically been available at levels above many comparable programs. To improve transparency and recruitment, the program will better communicate funding and TAship opportunities through its website and graduate student funding materials.	Graduate Chair; Department Chair	By September 2027