

Undergraduate Quality Assurance (QA) Review: 2024-25

Excerpted Report

Department of Cell Biology

Faculties of Science and Medicine & Dentistry

Undergraduate Program Review

Programs:	BSc. in Cell Biology
Date of Review:	February 11-12, 2025
Reviewers:	John Dawson, Chair, University of Guelph; Odette Laneuville, External Reviewer, University of Ottawa; Terri Schindel, Internal Reviewer, University of Alberta

Program Strengths
The Cell Biology undergraduate program at the University of Alberta is unique in Canada as a standalone discipline, offering Honors, Major, and Minor pathways. The program is highly research-focused, aligning with the university’s strategic goals of experiential learning and interdisciplinary engagement. The Cell Biology undergraduate program at the University of Alberta emphasizes theoretical knowledge, research integration, and experiential learning, making it a highly attractive program for students pursuing careers in biomedical sciences, research, and professional health programs. Faculty members are deeply engaged in undergraduate education, and student satisfaction with core coursework remains high. The faculty in Cell Biology are highly research-active, incorporating cutting-edge discoveries, interdisciplinary approaches, and case-based learning into their teaching. Faculty members emphasize active learning strategies, including problem-solving exercises, in-class discussions, and flipped classroom methods; integration of research findings into lectures, exposing students to emerging discoveries in cell biology; and opportunities for undergraduate research, particularly in the Honours program. Additional program strengths: • Strong theoretical and highly research-integrated curriculum that prepares students for graduate studies and industry • Strong alignment with experiential learning goals and interdisciplinary opportunities. • Faculty with extensive research expertise and industry connections. • High student satisfaction with core coursework and faculty mentorship. • The environment of the Department is very student-focused, with hands-on learning as a highlighted value • Adjunct faculty feel involved and heard in the Department

Program Structure	
Recommendation: Implement controlled enrollment growth strategies to sustain course quality.	
Cell Biology Department Response The Cell Biology department is committed to growth of the undergraduate program, and in fact the program is already growing (+200%). With the increased student cohort, we will have to find ways with the Faculty of Science to ensure that students can still graduate on time, and that the quality of the courses and rigour of the program is maintained.	Action Plan: Drs. Eitzen and Steenbergen will communicate with the Faculty of Science to implement, if warranted, enrollment limits to match current and future teaching capacity with student numbers. This will be done quickly for the minor program. We will continue to request additional faculty/ATS resources to help cover our rapidly increasing student cohort.
Faculty of Science Response Science will work with the Department of Cell Biology and our Enrolment Service Partner to develop an enrolment strategy that supports growth related goals.	
Faculty of Medicine & Dentistry Response FoMD will work with the Department of Cell Biology and Faculty of Science to explore strategies to optimize student enrolment.	
Recommendation: Clarify governance roles between the Faculty of Science and the Department.	
Cell Biology Department Response We welcome collaborative governance, and better clarity on governance roles.	Action Plan: Issues related to governance are largely beyond the authority of the Department. We will continue to request that the Dean and Vice Dean Education of the Faculty of Medicine and Dentistry engage the Faculty of Science for a clearly defined governance model for the shared programs.
Faculty of Science Response The Faculty of Science will work with the Department of Cell Biology on governance clarification.	

Faculty of Medicine & Dentistry Response FoMD will work with the Department of Cell Biology and Faculty of Science to optimize collaborative governance.	
Recommendation: Include more lab-based courses from other units as required courses (e.g. BIO391) before 4th year to equip students for success in 4th year projects, aligned with the value of hands-on learning CELL 400 should remain in person	
Cell Biology Department Response BIOL 391 is the equivalent of MMI 391; however, these courses are full. We are in the process of developing the first and only dedicated teaching space for Cell Biology laboratory skills, currently focused on CELL 400. Expansion to include a third year option (analogous to 391) will require additional faculty capacity (new hire) to teach this course as well as an increased budget for TA support.	Action Plan: Short term - We explore approaches with other basic science departments in FoMD to jointly offer more lab courses. Long term - develop an analogous CELL 391 course when additional faculty hires provided to Cell Biology.
Faculty of Science Response The Faculty of Science will support the Department's decisions regarding course development.	
Faculty of Medicine & Dentistry Response The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	
Recommendation: Develop potential pathways of courses for 3rd and 4th year to address the flexibility of course choice	
Cell Biology Department Response As current limited resources (faculty and financial) provided to Cell Biology mean that we can offer a corresponding limited number of courses, we believe that flexibility in program choice is critical, and are hesitant to develop pathways that limit choice for students. Students have also indicated that they appreciate the flexibility that the Cell Biology Program offers. We plan to develop CELL 101 (further explained below), which could highlight some options for course	Action Plan: As resources become available, develop CELL 101 a.s.a.p. In the short term we are developing an on-line portal that will fill some of these demands.

choices that align with different career goals. We have several 3rd and 4th year course offerings in the design or even 'ready to go' phase but these cannot move forward without additional faculty to deliver them. All current Cell Biology faculty are teaching at or above the FoMD 'recommended' teaching load, and while we have had some success with faculty from Clinical Departments (Medical Genetics, Medicine and Oncology) volunteering to teach in our UG program, this is not a long-term solution.	
Faculty of Science Response The FoS and its undergraduate committee will work with Cell Biology on potential calendar changes to address course flexibility.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the Department of Cell Biology developing pathways to provide flexibility of course choice to students.	
Recommendation: Determine equitable criteria for inclusion in different research opportunities, including 4th year projects and lab courses e.g. CELL 400, to manage a larger number of students	
Cell Biology Department Response Prerequisites for CELL 400 will be re-evaluated after the Fall 2025 semester, to ensure equitable access to this course, but also to ensure that students are sufficiently challenged in this course. As the number of students that can enroll in this course is limited, we may evaluate each enrollment application individually, using predefined criteria. Criteria for student inclusion in 4th year (in lab) research projects will remain in the hands of the PI sponsoring the student and providing resources for their project from grant funding.	Action Plan: We have developed a strategy for equitable prerequisites and enrolment criteria for CELL 400. Given that the financial resources to 'teach' students in our research projects come from research grants, the decision to take a student must remain at the discretion of the faculty grant holder until such time as financial resources to perform these projects are equitably and sufficiently funded by the Faculty.
Faculty of Science Response The Faculty of Science is supportive of equitable access to this course.	
Faculty of Medicine & Dentistry Response	

The FoMD is supportive of the program developing criteria to ensure equitable access to opportunities.	
Recommendation: Consider financial support to PI involved in the supervision of 4th year projects	
Cell Biology Department Response Financial support for the laboratories hosting 4th year project course students would increase our capacity to host. Currently, these students are funded by the PI often through externally funded research grants. Investment of tuition in the laboratory that hosts the student would offset part of the costs that are associated with laboratory work, and enable laboratories with better resources to train students.	Action Plan: We note that Budget model 2.0 includes language that tuition collected for the our 4th year project course is provided to the UNIT providing the course (in this case the Faculty). We will request that financial support proportionate to those funds be provided by the Faculty to the supervisors.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD will continue to work with the Department of Cell Biology to explore and action opportunities through multi year budget planning.	
Recommendation: Reach out to the Native Studies Faculty with the goal of increasing the visibility of the Cell Biology program to Indigenous students and weaving in Indigenous ways of knowing and learning into CELL courses.	
Cell Biology Department Response Since the fall, Dr. Steenberg has been in contact with Dr. Lori Ireland (Educational Developer, Indigenous Curriculum and Pedagogy) at the Centre for Teaching and Learning, to explore ways to implement Indigenous ways of learning into our CELL courses. These early discussions will continue in the spring and summer semesters. We also plan to reach out to the Indigenous Medical and Dental Students' Association and the Indigenous Health Program to find common ground between Indigenous knowledge and concepts in cell biology. The aim is to find collaborative ways to increase visibility of Indigenous knowledge/ learning in the program, and visibility of the program to Indigenous students.	Action Plan: While limited/essentially non-existent discretionary budget for such initiatives precludes significant movement on this recommendation, we acknowledge the potential value and we will continue to develop strategies to promote our program to Indigenous students and to incorporate Indigenous perspectives in our classes as appropriate and as limited resources allow.
Faculty of Science Response	

The Faculty of Science is supportive of exploring strategies and collaborating with key groups and campus units to help with promotion of this program, especially indigenous students. We will work to facilitate communications and interactions with the College of Natural and Applied Sciences Indigenous in STEM student association.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring strategies to increase the enrolment of Indigenous students and to incorporate Indigenous ways of knowing and learning into the program's courses.	
Program Measures and Comparative Analysis	
Recommendation: Increase faculty hiring to address high student-to-faculty ratios. Coordinate a hiring plan with curriculum renewal to ensure the program remains cutting edge and competitive with comparator programs.	
Cell Biology Department Response We are at a critical go/no-go stage. Many Cell Biology faculty members are approaching retirement age. Without replacement of faculty members, it will not be possible to maintain a cutting edge undergraduate program. The department urgently needs to implement a multi-year plan for the transition of courses, as most new hires do not teach courses in the first year of their appointment. The undergraduate program cannot afford any loss of teaching capacity.	Action Plan: As part of our 5-year plan we have clearly defined the faculty renewal required (1:1 replacement of existing faculty, plus expansion matched to program growth), to support sustainable delivery of the program, as well as continuous renewal of courses. Alternatively, we would consider working with the Faculty to make formal, long-term, arrangements for faculty from outside Cell Biology to teach, with appropriate recognition from their home departments, in our undergraduate program.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD will continue to work with the Department of Cell Biology to explore and action opportunities through multi year budget planning.	
Recommendation: Consider Graduate Teaching Assistant (GTA) positions to provide instructional support and graduate student training.	

Cell Biology Department Response GTA positions have been created for the CELL 400 laboratory course. We will ensure that TA-ships become a valuable training opportunity for the GTAs.	Action Plan: We have started to incorporate graduate student TAs for instructional support as part of CELL400 as of Sept 2025. This will depend on continued funding for these positions in our annual budget approved by the Faculty. Additional TAs for other courses will be implemented when additional budget resources are provided.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science’s role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program considering Graduate Teaching Assistant positions when helpful and feasible.	
Recommendation: Secure stable funding for CELL 400 and introduce 2nd-/3rd-year lab courses to align with leading comparator programs.	
Cell Biology Department Response CELL 400 is funded for the 2025/ 2026 academic year. Long term commitment to fund this course would greatly enhance our ability to develop this course into a dynamic course that keeps up with the rapid advancements in the field. It will be important for FoMD to clearly communicate the ‘principles for course offerings’, which it states have been developed.	Action Plan: We will confirm long term support, including additional TA funding, in future multi-year plan requests to the Faculty. We will request multi-year commitments and increases to match student demand, and increased revenue to the Faculty for these courses.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science’s role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	

Recommendation: Develop a centralized 4th year project supervisor matching system to ensure equity in research access.	
Cell Biology Department Response Without significant additional resources, financial and faculty, it is impossible to develop a centralized matching program. Thus, the only path open to us currently is that PIs will select students from those that apply to work in their lab. We do believe it is important that students pursue their own interests in research, and develop their own portfolio of knowledge and techniques that best supports their future career goals. We therefore will continue to encourage students to find their own supervisors, however, we do recognize that this can be a barrier for some students. We also host events (meet the prof night) with potential supervisors, to help students initiate contact with those supervisors. To ensure equitable access, we plan to develop an on-line resource CELL 101, which will have a section on research courses, how to approach a professor, and what to consider when looking for research opportunities.	Action Plan: The course coordinator will reach out (annually or more) to Cell Biology professors, and professors in other departments who have hosted research students in the past, to enquire if they can host CELL research students in the upcoming academic year, and help students initiate contact. We will incorporate tips on how to find a research supervisor in CELL 101. We will continue, and expand our annual presentation to the undergraduate students on how to contact potential supervisors.
Faculty of Science Response The Faculty of Science is supportive of best practices to ensure equitable access to research courses.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program developing a strategy to facilitate the matching of students and supervisors.	
Recommendation: Increase financial transparency from the University administration, ensuring that undergraduate tuition revenue is reinvested into the program.	
Cell Biology Department Response Predictable budgets, linked to student enrolment, will be beneficial for the long term planning of the Cell Biology undergraduate program. While we agree that this is critical there is currently no transparency as to how funds will flow to the teaching units (departments). While unlikely to change, in the near future, we would welcome mechanisms to direct tuition revenue directly into student programs.	Action Plan: We would welcome a transparent process to direct a stable proportion of tuition revenue back to the front face teaching units (departments).

Faculty of Science Response The Faculty of Science will follow the University of Alberta Budget model.	
Faculty of Medicine & Dentistry Response The FoMD will continue to implement the University of Alberta’s Budget Model 2.0.	
Recommendation: Allow for multi-year base budget planning instead of year-to-year funding requests.	
Cell Biology Department Response There is a multi-year budgeting process, but unfortunately budgets are only approved on a single-fiscal year basis, making long-term planning difficult. Long-term commitments for at least some budget items would be beneficial and greatly enhance our ability to develop a plan for course renewal and sustainable growth of our program.	Action Plan: This is beyond the scope of the department, but would welcome, at least for long-term project, multi-year financial commitments.
Faculty of Science Response The Faculty of Science will follow the University of Alberta Budget model.	
Faculty of Medicine & Dentistry Response The FoMD will continue to work with the Department of Cell Biology on multi year budget planning.	
Teaching and Learning Environment	
Recommendation: Secure stable funding for CELL 400 and expand access to upper-year lab courses.	
Cell Biology Department Response CELL 400 is funded for the 2025/2026 academic year. We anticipate it will be funded for future years as it is part of your multi-year plan, but this is not confirmed. Additionally, the TA support for CELL400 for	Action Plan: Request stable funding for CELL 400 (and additional) TA positions in future multi-year plans.

2025/2026 was provided as 'one time' funding. Stable, multi-year funding would help the department keep this course up to date with developments in the field. Funding for research courses would increase the capacity within and outside the department to host research students.	
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	
Recommendation: Introduce required wet-lab experiences in 2nd and 3rd year, ensuring students are better prepared for 4th year research.	
Cell Biology Department Response Although we believe such a course would be beneficial, we do not have the instructional capacity to develop and offer such a course.	Action Plan: We will continue to request additional faculty and resources to provide additional course offerings and if these are provided, over and above needs for maintaining the status quo, we will pursue these initiatives.
Faculty of Science Response The Faculty of Science will continue to work with the Department of Cell Biology to develop program requirements. We note that there are many wet-lab courses offered in other units that may meet appropriate learning outcomes in hands-on experience.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program tailoring course offerings to optimize the educational experience for students. The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	
Recommendation: Access an existing or develop a scientific communication course focused on thesis writing, grant applications, data visualization, and presentations.	
Cell Biology Department Response	Action Plan:

CELL 445 and CELL 405 incorporate aspects of this, and we have step by step guidelines on how to write a scientific report (structure of the introduction, how to present results, what and what not to include in the methods etc.). Communication is a large part of our laboratory research courses. We have started offering interactive workshops to students who are enrolled in research courses, so that they become more confident in their writing skills. In the fall, we hosted an interactive workshop on writing a scientific introduction. We plan to have workshops in the future on preparing scientific figures, and how to write a discussion. These workshops are optional. We also rely on the professors hosting the research students to give them guidance on how to write a scientific report or prepare a scientific presentation. The 4th year research students generally produce high quality final reports. Although we aim to offer two workshops per semester, the ability to offer these workshops is constrained by the availability of qualified instructors and the work that they need to prioritize.	Continue offering optional writing workshops for research students, ideally 2 per semester. Development of a dedicated scientific communication course will start when we are provided sufficient faculty and financial resources.
Faculty of Science Response The Faculty of Science is supportive of this recommendation. The Faculty of Science has been working with the Faculty of Arts in the development of writing courses.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program tailoring course offerings to optimize the educational experience for students. The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	
Recommendation: Integrate bioinformatics and statistical training into existing courses to align with industry and research trends with the support (financial and teaching resources) of the Faculty of Medicine and Dentistry.	
Cell Biology Department Response We have started to integrate bioinformation in CELL 302 (diversity of the cell), and introduce computational biology tools in other courses (e.g, use Alphafold in CELL 201 to study the effect of mutations). Updating current courses to include bioinformatics and AI would require a temporary reduction in	Action Plan: Develop and integrate bioinformatics and statistics course components across our existing 300-level and 400-level courses. We will reactivate an existing bioinformatics course we were forced to cancel due to lack of available faculty for teaching if and when additional faculty teaching

classroom teaching hours; the current guidelines for teaching loads do not allow time to overhaul courses in a meaningful way.	capacity can be recruited to Cell Biology.
Faculty of Science Response The Faculty of Science will support and can help to facilitate conversations between the Department of Cell Biology and the Department of Mathematical and Statistical Science to determine opportunities for collaboration	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program tailoring course offerings to optimize the educational experience for students. The FoMD has developed principles for course offerings that will inform course offerings in the Faculty.	
Recommendation: Consider micro-credential or certificate programs for lab-based skills as a potential revenue stream.	
Cell Biology Department Response We are exploring ways to capitalize on micro-credentials, for example in bioinformatics, the use of AI to enhance or expedite cell biology research, stem cell biology or microscopic techniques. The teaching laboratory could be used for these courses, however, we lack the capacity to develop and instruct these courses. We envision these courses would also be available as professional development options for professionals outside the University of Alberta but require clarity on financial aspects.	Action Plan: These will be initiated based upon clarity as to which micro-credential/certificate programs will provide a revenue stream directly to the Department to support them.
Faculty of Science Response The Faculty of Science is supportive in the development of micro-credentials.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the Department developing micro-credential and/or certificate programs that provide valuable educational experience and generate net revenue.	
Faculty Profile	

Recommendation: Establish a long-term hiring strategy to address faculty aging and increasing teaching loads. 1. Prioritize hiring additional teaching-focused faculty to reduce instructional pressure on research faculty; 2. Continue effort aimed at balancing male/female gender ratio of core professors in the department.	
Cell Biology Department Response Hiring additional teaching-focused faculty will alleviate instructional pressure, however, it does not address the lack of research spaces for undergraduate students, and cannot replace 1:1 replacement of retiring research faculty.	Action Plan: Continue to lobby for additional faculty with teaching capacity to be recruited to Cell Biology and/or be made available to teach in our program on an ongoing basis.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	Action Plan:
Faculty of Medicine & Dentistry Response The FoMD is conducting a review of the biomedical sciences to help inform long-term strategic planning.	Action Plan:
Recommendation: Provide protected time for faculty to engage in professional development with funding and institutional support to attend teaching and learning conferences.	
Cell Biology Department Response Protected time for course renewal and professional development is critical to maintain a cutting edge cell biology program.	Action Plan: We currently support our single teaching focused faculty member (Dr. Steenbergen ATS) to participate in conferences and professional development, although our support is necessarily limited due to budgetary constraints.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	

Faculty of Medicine & Dentistry Response The FoMD is supportive of the Department developing strategies to facilitate faculty development.	
Recommendation: Formalize a mentorship program for early-career faculty, focusing on teaching excellence and research mentorship.	
Cell Biology Department Response New faculty members are matched with a senior faculty member for general mentorship. Additionally, Dr. Steenbergen is a trained peer-teaching consultant in FoMD, and can provide support to new faculty members to improve teaching, or connect them to the Center for Teaching and Learning.	Action Plan: Peer mentorship represents a long-standing policy in Cell Biology. Unlike our peer departments in FoMD, we have only had the benefit of a single teaching focused faculty member (Dr. Steenbergen) for one year now. We anticipate that with time Dr. Steenbergen will work with their peers to advance pedagogy in Cell Biology. We will continue to request increased levels of ATS/FSO faculty support to the point that they are equal to our peer departments in FoMD.
Faculty of Science Response This recommendation is outside the scope of the Faculty of Science's role in administering BSc programs.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the Department working with the Office of Research, Institutes and Vice Deans Research and Education among others to ensure effective coaching and mentorship of faculty members.	
Program Environment	
Recommendation: Improve communication from the University regarding budget allocation strategies 1. Develop a clear, itemized budget for delivering CELL courses, outlining expenditures for lab supplies, personnel, and infrastructure 2. Provide a structured base budget allocation to the department, ensuring multi-year funding stability for undergraduate teaching 3. Give the department greater leverage to be entrepreneurial, allowing for innovative course delivery models and interdisciplinary collaborations	

Cell Biology Department Response We would welcome these three strategies. Currently, we have extremely limited leverage and agency to use/propose innovative delivery/collaborations which would become much more feasible with 1) stable, predictable funding and 2) a clear path as to how innovation/increased course offerings would directly lead to additional resources (especially financial).	Action Plan: While these are all beyond the scope of the department we strongly encourage adoption of these recommendations and anticipate that this would solve many problems we currently face in terms of course delivery.
Faculty of Science Response The Faculty of Science is supportive of development of innovative course delivery models. We follow the University of Alberta's budget model.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the Department exploring entrepreneurial, innovative and interdisciplinary models of course delivery.	
Recommendation: Increase visibility of mental health resources, including clear communication about accessing mental health supports, including support relating to conflict resolution.	
Cell Biology Department Response We will include a module on mental health resources at the University and beyond in CELL 101, and will consult /work with existing Support Services to develop these modules. This way, we hope to point out these resources before students are in crisis, so that it is easier to reach out when a crisis happens Additionally, the department aims to have at least two individuals trained in mental health first aid in the department since we are the primary point of contact for students. The University offers courses in Mental Health First Aid, but the cost for these courses has to be carried by the department. Resources that are available at the University are brought up regularly in CELL 201 and other courses.	Action Plan: This is a top priority and administrators of the undergrad program should receive formal training and certification in first aid, mental health and conflict resolution. Develop a CELL 101 module that provides information on support that is available at the University of Alberta.
Faculty of Science Response The Faculty of Science supports the training of staff and usage of wellness resources available to University of Alberta community members. We will work with the Department of Cell Biology on this initiative.	

Faculty of Medicine & Dentistry Response The FoMD is supportive of the program working with the Dean of Students, Faculty of Science to ensure that students have ready access to mental health resources and support.	
Recommendation: Enhance building security, ensuring that students working late have access to secure facilities and emergency contacts	
Cell Biology Department Response As part of our standard HSE training the department will ensure that each student / staff member is aware of their emergency contacts, when working alone. We note that these same issues were raised in the 2018 review of our graduate program and despite multiple requests for physical security (locked doors) on 5th and 6th floors, 7 years later there has been no movement on these critical upgrades to protect our staff and students. We call attention to the strange situation on 5th floor MSB where there are 3 elevator/stairwell lobbies for public access. One of these (freight elevator) has a door/card access barrier that has never been used as the other two access points remain wide open to public access.	Action Plan: Until such time as physical security measures are provided, we can only ensure that each student/ staff member is aware of their emergency contacts, and where to go when they encounter an unsafe situation as part of their mandatory onboarding procedure (developed in partnership with the FoMD Faculty Safety Advisor).
Faculty of Science Response The Faculty of Science is not located in this building and therefore cannot provide assistance. We do however support efforts made by FOMD.	
Faculty of Medicine & Dentistry Response The FoMD will continue to work with the University of Alberta's Facilities and Operations to enhance building security and student safety.	
Recommendation: Improve coordination with Student Services to streamline academic advising and accommodations	
Cell Biology Department Response CELL 101 will contain information on advising, and who to contact for which types or enquiries. Annual meetings between Student Services and department advisors may be beneficial. It would also be helpful for departmental advisors to have a list of contacts at Student Services, to ensure that issues that arise can be quickly resolved.	Action Plan: We will promote ongoing meetings with Student Services and advisors.

Faculty of Science Response The Faculty of Science Student Services team welcomes collaboration with the Department of Cell Biology and will work with the team of advisors to host regular meetings.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program facilitating coordination with Student Services.	
Recommendation: Integration of Digital Tools for Student Communication - 1. Using the Canvas LMS as a centralized hub for student announcements, research deadlines, and advising contacts and schedules. 2. Develop structured communication strategies for the 4th year project course, including standardized timelines and supervisor-matching mechanisms 3. Implementing an automated email system to notify students of upcoming deadlines, opportunities, and events such as all seminars on campus. 4. Leveraging online advising tools, improving access to course selection guidance and research placement information.	
Cell Biology Department Response Such a hub will be beneficial for students, and we have initiated the development of CELL 101. CELL 101 will be a free, no-credit 'course' and all students in the Cell Biology program will automatically enroll for the duration of the undergraduate program. The vision is that this resource will serve as an online, engaging and interactive handbook that will provide students with a variety of contacts and resources to make it easier to navigate the Cell Biology undergraduate program and student life. It will provide students with resources on the program and courses, but also on study success, academic advising, the library, where to access financial or mental health support, etc. It could also give new students a preview of a large classroom lecture, program planning, and provide information on research courses and how to find a supervisor. Jason Tetro, scientific educator for the basic science departments in FoMD will develop the content for this course. As the course is module based, it can be developed over several years.	Action Plan: Consult with UCBSA, Cell Biology Faculty and other stakeholders to determine the initial content of CELL 101. Include ongoing funding for the development \maintenance of this course as part of our multi-year planning process.
Faculty of Science Response The Faculty of Science will continue to work with the Department of Cell Biology on best practices regarding student advising as well as communications on University efforts.	

Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring strategies to integrate digital tools to optimize student communication.	
Recommendation: Strengthening Community and Student Involvement - 1. Formalizing student representation on departmental curriculum committees, ensuring their perspectives inform program development. 2. Enhancing student engagement through industry networking events, linking students with potential employers and graduate programs.	
Cell Biology Department Response The Undergraduate Director and Cell Biology Advisor regularly ask individual students which courses they would want to see developed, or how courses can be improved. We will formalize this, possibly by implementing a curriculum liaison position in the UCBSA. We will also explore the feasibility of training students to be student peer consultants, to help give feedback to faculty members on the courses they teach. This could complement the Peer consulting program of the Faculty of Dentistry and Medicine.	Action Plan: Discuss creating curriculum liaison positions on the UCBSA, or explore other ways to include students on the curriculum committee. Formalize the curriculum development committee (currently meets on an ad-hoc basis). Continue to work with the CBSA and UCBSA to organize career events.
Faculty of Science Response Representation on departmental committees is outside the scope of the Faculty of Science's role in administering BSc programs. We will continue to communicate with the Department of Cell Biology about activities connecting to industry such as the Science Internship Program and the Science Innovation Centre.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring strategies to strengthen community and student involvement.	
Recommendation: Dedicate a space for UCBSA/CBSA to organize activities, enhancing student engagement and peer collaboration.	
Cell Biology Department Response Both student groups have their own space in the Medical Sciences Building, and also have access to the Cell Biology conference rooms, and use these spaces regularly or classrooms elsewhere on campus. Cell biology students (Graduate and Undergraduate) who are enrolled in research courses, also have	Action Plan: As we recently developed/upgraded many of these new spaces, it is clear we will make it a point to 'advertise' their existence more widely.

access to a large study space.	
Faculty of Science Response The Faculty of Science is supportive of initiatives to enhance student engagement and peer collaboration.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring strategies to help meet the space needs of students.	
Recommendation: Host student-Director town halls each year, providing a structured venue for feedback on program changes.	
Cell Biology Department Response We will evaluate ways to collect feedback to assist curriculum improvement. We currently collect informal feedback from students in the UCBSA. This information has been valuable, but collected from a limited number of students. The past questionnaire has provided valuable feedback that could be repeated every few years. We can also look into ways to collect curriculum feedback through town halls, but one concern is that students might not want to speak openly at a town hall, because of fear of reprisal.	Action Plan: Schedule additional student town halls and/ or anonymous feedback through questionnaires, to inform the curriculum development committee on a yearly basis. Find ways to work with the UCBSA to solicit/collect feedback. Continue to host a 'start-of-term' social event with the UCBSA.
Faculty of Science Response The Faculty of Science will continue to work with the Department of Cell Biology to move program changes through University governance.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring strategies to solicit student program feedback.	
Additional Recommendations:	
Recommendation: A five-year resource and hiring plan - To ensure the long-term sustainability and excellence of the Cell Biology undergraduate program, the development of a five-year strategic resource and hiring plan is strongly recommended. This plan should include:	

1. Enrollment growth projections and their impact on course offerings. 2. Faculty hiring and TA/GTA expansion goals, including future ATS hiring for additional instructional and advising support. 3. A sustainable funding model for lab courses and research integration. 4. Mechanisms to improve financial transparency and departmental autonomy.	
Cell Biology Department Response A 5-year resource and hiring plan is critical for proactive curriculum development, maintaining program success and a positive student experience.	Action Plan: As part of our ongoing internal program review, we have a ranked list of courses that need to be developed over the next 5 years, to maintain a high quality, innovative and dynamic cell biology program. Our most current 5 year plan contains a statement regarding faculty hiring. We will work with the Faculty to develop a transparent model whereby resources from program growth can be used to offset part of the cost of additional faculty hires.
Faculty of Science Response Science will work with the Department of Cell Biology and our Enrolment Service Partner to develop an enrolment strategy that supports growth related goals.	
Faculty of Medicine & Dentistry Response The FoMD will work with the Department to develop a long term training strategy.	
Recommendation: Alternative Research Pathways - To accommodate increasing Honors student demand, the program can explore alternative research experiences: 1. Literature-based research projects, allowing students to engage in critical analysis without requiring lab access. 2. Industry partnerships for research placements, providing students with real-world applications of their knowledge. 3. Interdisciplinary research experiences, integrating bioinformatics, computational biology, and molecular modeling.	
Cell Biology Department Response The exploration of alternative research placements or other options accommodate increasing student demand is welcomed by the Cell Biology department.	Action Plan: While by nature of the discipline, Cell Biology is inherently far more interdisciplinary than more traditional departments, there is a strong interest in our faculty to incorporate additional areas that could increase

The use of bioinformatics tools is increasingly used by professors in the Cell Biology departments, in research courses, and in classroom courses. We will determine if there is interest within Cell Biology or beyond in creating an informal computational biology/ bioinformatics workgroup, so that members can help peers solve issues they encounter.	the scope of disciplines our students could incorporate in their training. The only limitation we anticipate is overcoming our current lack of faculty capacity and financial resources available to our program.
Faculty of Science Response The Faculty of Science will continue to work with the Department of Cell Biology to move program changes through University governance.	
Faculty of Medicine & Dentistry Response The FoMD is supportive of the program exploring alternative research experiences.	
Additional Notes from the Department of Cell Biology, Faculty of Science, Faculty of Medicine & Dentistry	

Graduate Program Quality Assurance (QA) Review: 2024-25

Excerpted Report

Department of Cell Biology

Faculties of Science and Medicine & Dentistry

Graduate Program Review

Programs:	MSc. in Cell Biology; PhD in Cell Biology
Date of Review:	February 11-12, 2025
Reviewers:	Vincent Tropepe, Chair, University of Toronto; Andrew Belmont, External Reviewer, University of Illinois Urbana-Champaign; Wendy Wismer, GPS Council Representative and Internal Reviewer, University of Alberta

Program Strengths
The Cell Biology Graduate Program recruits qualified, diverse students and creates a very strong learning and research training environment. Faculty members who teach, supervise, and otherwise support the program represent a collegial and highly committed group espousing a culture of belonging and excellence. We encountered a highly engaged and caring group of professors that are committed to creating an exceptional learning and research training environment. This was evident not only with primary appointed faculty but also with adjunct professors, who also consider themselves valued and well-integrated members of the department. The program benefits from high quality research and strong support for graduate students. A passion for cell biology research, teaching, and learning is evident with students as well as faculty, and the department functions as a collegial and cohesive group with a strong culture of support and excellence. There is a clear reciprocity of respect and praise between graduate students and faculty members. Graduate students in the program have opportunities to perform original research and collaborate on their research projects while mentoring junior researchers to enhance their leadership skills. Faculty members in the department have diverse expertise in the field of Cell Biology and employ a broad range of advanced techniques and organismal models to pursue their research questions. Judging by the quality of the published research articles, other research outputs, and faculty accolades, the committee concluded that the department is an outstanding research and training environment for students and other highly qualified personnel. Cell Biology graduate students attain a high level of scientific skill that yields impactful

research. Students consistently publish in high-impact journals (e.g., Nature Communications; eLife; Journal of Cell Biology; Nucleic Acids Research) as first author or co-first author, underscoring the high-calibre of their research.

The Cell Biology Student Association (CBSA) represents a highly enthusiastic and engaged group of students that hosts many academic and social events on an annual basis. Most graduate students in the program participate in the association, making for a tight knit group. There are year-round social events, peer support for students adjusting to graduate school and the department, and the CBSA also organizes the annual research day by planning poster sessions, inviting speakers including a keynote, and organizing a career panel where they invite alumni to participate. The CBSA is well supported by the department, and they enjoy open and direct communication with the Chair and there was a feeling that there were adequate opportunities for informal interactions with faculty to share ideas.

Teaching and Learning Environment

Recommendation: Enhance support for PhD candidacy exam preparation. One option could be to assign a “coach” to each student preparing for the exam, which could be a faculty member or senior graduate student. Another option could be to utilize CELL672 to review the goals and expectations for the candidacy exam and to refine course content to focus on learning specific skills in formal scientific proposal writing and presentation.

Cell Biology Department Response: Assigning a “coach” to support students preparing for their candidacy exams is a good idea. We are also developing a shared resource hub to further support students during this process.

CELL672 currently includes a formal 30-minute presentation feedback session with supervisory committee members and department faculty members—a format that is well-received by students. This structure relies heavily on active supervisor and committee involvement. This makes it incompatible with the candidacy exam framework, which requires students to work independently from their supervisors and committee members.

Instead, we believe that CELL545 presents a better opportunity to enhance candidacy exam preparation. In consultation with course lecturers, we will incorporate candidacy-exam components into the course to help students to formulate testable hypotheses, develop the required one-page summary, and craft their proposal.

Action Plan:

- **Implementing Candidacy Exam “Coach” Support**
Beginning in September 2025 (or by January 2026 at the latest), each student transferring into the PhD program will be assigned a *candidacy exam coach*. This coach will be appointed by the supervisory committee and may be either an arm’s-length faculty member or a senior graduate student who has successfully completed their own candidacy exam. The role of the coach will be to provide guidance on exam expectations, preparation strategies, and proposal development. To formally acknowledge their contribution, senior graduate students serving as coaches will receive a letter of recognition issued by the department, which they may include in their CV or teaching/mentoring portfolio.
- **Establishing a Shared Resource Repository**
A departmental Google Drive folder will be created and maintained to house examples of high-quality candidacy exam proposals from Cell Biology graduate students. These

	proposals will be shared with permission from the supervisors and authors, with identifying or confidential information will be redacted. This resource will serve as a valuable reference to help students understand the structure, scope, and level of detail expected in successful candidacy proposals. ● Enhancing CELL545 to Support Candidacy Preparation The graduate component of CELL545 will be refined to better support the development of candidacy exam materials. Students will be asked to prepare a research proposal that aligns more closely with candidacy exam expectations.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the Department of Cell Biology developing a strategy to support PhD candidacy exam preparation.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: We support this important and concrete plan that focuses on preparing students for the candidacy exam. It supports the doctoral student experience, satisfaction, and success.
Recommendation: When planning new courses, consider collaborating with cognate departments to enrich cross- program course offerings and perhaps even team-teach some courses where combining the expertise with a cell biologist would be synergistic.	
Cell Biology Department Response: Presently the Department does not have immediate plans to develop new graduate courses, primarily due to limitations in financial and human resources. However, we fully recognize the value of interdisciplinary education and the potential benefits of cross-departmental collaboration. In this spirit, we are open to exploring opportunities to partner with other departments to enhance our course offerings. Such collaborations could provide our students with a broader and more integrated perspective on complex biological questions and better prepare them for interdisciplinary research careers. We would also like to highlight that our graduate students are encouraged to enrich their academic training by taking relevant graduate-level courses offered by other departments, such as Biochemistry, Medical Genetics, and Medical Microbiology and Immunology. With approval from their supervisory committee and the graduate program director, students can tailor their coursework to align with their individual research interests and goals. This	Action Plan: ● Conduct a Needs and Interest Survey ○ Survey Cell Biology graduate students and faculty to identify interdisciplinary course topics of interest (e.g., computational biology, systems biology, advanced techniques). ○ Identify overlap with offerings or expertise in other departments. ● Initiate Interdepartmental Dialogue ○ Set up exploratory meetings with other departments to discuss possibilities for team-teaching courses and developing modular or short-format workshops.

flexibility supports our commitment to interdisciplinary learning.	
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the program coordinating the refinement of existing courses and development of new courses with other disciplines to ensure vibrant and sustainable course offerings.	
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS strongly supports the recommendation to enhance collaboration with cognate departments when planning new courses. We recognize the significant potential for enriching cross-program course offerings and fostering a more interdisciplinary learning environment for our graduate students.	Action Plan: We will explore opportunities to incentivize and recognize departments and faculty who actively engage in interdepartmental course development and team-teaching, through mechanisms such as teaching awards or development grants.
Recommendation: Increase opportunities for graduate students to present their original research and engage with the broader research community to further enhance the learning environment.	
Cell Biology Department Response: We appreciate this timely and constructive recommendation. We are pleased to share that the department has recently received a generous donation, which will be used to establish the <i>Voyage of the Beagle Travel Award</i> . This new initiative aims to support senior graduate students—those who have successfully passed their candidacy exams—in presenting their research at international conferences. The award will provide up to \$1,500 CAD per recipient, with two awards being distributed annually: one in January (for travel between February and July), and one in July (for travel between August and January). We anticipate that this initiative will increase opportunities for our students to showcase their work on a global stage and encourage greater engagement with the broader scientific community.	Action Plan: • The call for applications for the <i>Voyage of the Beagle Travel Award</i> will be announced to all Cell Biology graduate students twice a year, on December 15 and June 15. • Application deadlines will be January 15 and July 15, respectively. Applicants will submit a current CV, conference details (including the submitted or planned abstract), and a proposed travel and accommodation budget. • The Cell Biology Graduate Committee will review applications and select the awardees, to be announced on January 31 and July 31. Selection criteria include the applicant’s research accomplishments, scientific merit of abstract, and impact on student training.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the program increasing opportunities for graduate students to present their original research and engage with the broader research community.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: This is a great initiative to support doctoral students to share and disseminate their research. The Department is encouraged to promote the GPS-administered graduate travel awards that financially support graduate students for travel to disseminate their research results or develop their

	research.
Recommendation: Ensure that the FoMD basic sciences program review has broad and meaningful consultation with faculty and graduate students in Cell Biology so that successful elements of their program are preserved (and even emulated) regardless of whether programs are reconfigured.	
Cell Biology Department Response: We strongly support this recommendation and echo the importance of broad consultation throughout the FoMD graduate program review process. The Cell Biology graduate program is committed to maintaining the strengths and successful elements of our program—such as our strong mentorship model, research training, and collaborative environment—regardless of any potential reconfiguration.	Action Plan: We believe that thoughtful engagement with both faculty and graduate students is essential to preserving what works well and identifying opportunities for enhancement. As such, we welcome the opportunity to contribute actively to discussions and planning processes to ensure that any future program changes continue to support excellence in training, student success, and research innovation.
Faculty of Medicine & Dentistry Response: The Department of Cell Biology has Department Chair, early career faculty, program coordinator, graduate student and academic department member representation on the FoMD Biomedical Sciences Review Working Group. Members of the FoMD, including from the Department of Cell Biology, are encouraged to help inform the future of biomedical sciences in the Faculty by participating in town halls, surveys and focus groups.	Action Plan: 1. The Biomedical Sciences Working Group will submit a self-study report to the Dean by September 30, 2025 that includes input received from members of the FoMD. 2. Members of the Faculty will have the opportunity to meet with external reviewers of the Faculty’s biomedical sciences September 15-16, 2025.
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS concurs with the recommendation. We recognize the critical importance of a comprehensive and inclusive consultation process to identify and preserve the successful elements that contribute to the strength of existing programs. The Cell Biology program, in particular, is acknowledged for its demonstrated successes in various aspects of graduate education, research training, and student experience. We believe that understanding and, where appropriate, emulating these successful elements will be invaluable for the FoMD basic sciences portfolio.	Action Plan: We will emphasize the importance of using insights gained from programs like Cell Biology to inform improvements and innovations across all basic sciences programs, fostering a culture of continuous improvement and shared excellence. Should any reconfigurations be proposed, GPS will work closely with FoMD to ensure that the core strengths and positive student experiences identified through consultation in Cell Biology are shared and recognized through the approval and governance process.
Student Experience	

Recommendation: In addition to the usual summative assessment of the student’s annual research progress, the supervisory committee should provide documented feedback on the development of specific skills that map onto essential competencies.	
Cell Biology Department Response: We recognize the importance of providing graduate students with formative feedback that extends beyond research outcomes to encompass the development of essential academic and professional competencies. We agree that documented feedback on these competencies will promote transparency, encourage skill development, and provide students with clearer guidance on expectations. To that end, we plan to integrate competency-based assessment into our supervisory committee meeting report in a way that is both meaningful and manageable for supervisors and students.	Action Plan: ● Revise the Supervisory Committee Meeting Report Form ○ Add a structured section evaluating the following competencies: Technical Skills, Critical thinking, Communication, Collaboration, Independence, Time Management, and Work Habits/Industriousness. ○ Use a numeric scale (1–5) to provide consistent benchmarking. Require brief qualitative comments for each competency to offer specific feedback and context. ● Include Student Self-Reflection and Goal Setting ○ Add an optional section for students to self-assess their competencies and set goals for the upcoming year. This encourages ownership of their development and facilitates productive discussions. ● Gather feedback ○ Gather feedback from faculty and students to assess clarity and value for further improvement/refinement.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the program ensuring that its assessment strategy optimizes student learning and growth.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS supports the Department’s action plan to include additional competency-based assessment mechanisms. The Department is encouraged to make use of the Student Progress Report to provide additional formative feedback on specific research and transferable skills.
Recommendation: Maintain current practice of having teaching assistantships as an optional, rather than mandatory, opportunity to gain skills in teaching. However, we also recommend that, where pedagogically appropriate, teaching assistants have more opportunities in courses for in-person teaching (i.e., going beyond only grading assignments/tests).	
Cell Biology Department Response: Beginning in Fall 2025, our department will receive funding for one fully supported TA position each in the Fall and Winter terms through the	Action Plan: Cell Biology graduate supervisors will discuss the TA opportunity with their students and, through mutual agreement, nominate candidates for the available position. In

launch of our new laboratory course, <i>CELL 400</i>. Teaching assistants for this course will engage directly in in-person instruction with undergraduate students. This initiative not only enhances opportunities for our graduate students to gain valuable teaching experience but also helps support those who may require additional funding to meet the minimum PhD funding requirements.	the event of multiple applicants, the Directors of Undergraduate Studies (Dr. Eitzen) and Graduate Studies (Dr. Tan) will collaboratively select the TA based on an evaluation of the training background, academic stage, career goals, and financial need of the candidates.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the program determining how to best provide meaningful teaching opportunities for students.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS is delighted to learn that the Department of Cell Biology will be launching a new laboratory course, CELL 400, in Fall 2025. We are particularly pleased to hear that this initiative includes funding for one fully supported TA position in both the Fall and Winter terms. These new TA positions will provide invaluable opportunities for graduate students to gain direct, in-person instructional experience with undergraduate students. Such teaching experience is crucial for developing a comprehensive skill set that is highly valued in both academic and non-academic career paths. Further, we recognize and appreciate that these new positions will play a significant role in supporting graduate students who may require additional funding to meet the minimum PhD funding requirements. This directly aligns with GPS's commitment to ensuring our graduate students have the necessary resources to focus on their studies and research.
Recommendation: Coordinate with GPS and FoMD to co-create professional development programming for graduate students in Cell Biology, and potentially other basic science programs in FoMD, accessing a broader alumni base as deemed appropriate.	
Cell Biology Department Response: We appreciate this recommendation and agree that collaboration with GPS and FoMD presents an important opportunity to enhance professional development for our graduate students. Co-developing professional development programs with GPS and FoMD will allow us to draw on broader networks to diversify and enrich the offerings. Coordinating with other biomedical departments will also enable us to deliver broader-reaching events through shared resources.	Action Plan: • A needs assessment will be conducted with current graduate students to prioritize areas of interest and ensure programming aligns with their career planning goals. • We will initiate discussions with GPS and FoMD to explore co-developing tailored professional development programming for Cell Biology students that is also accessible to graduate students in all interested departments.

	• We will contribute to and benefit from centralized GPS and FoMD professional development initiatives, with the aim of incorporating a broader range of speakers and mentors, including professionals outside of academia and non-alumni.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of the Faculty’s graduate programs developing professional development opportunities for graduate students.	
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS welcomes the recommendation to coordinate with the Faculty of Medicine & Dentistry (FoMD) to co-create professional development programming for graduate students in Cell Biology and potentially other basic science programs within FoMD. This initiative aligns with our commitment to equipping our graduate students with the comprehensive skills and networks they need for successful careers, both within and beyond academia.	Action Plan: Based on the Department’s needs assessment GPS PD team will meet with the Cell Biology team to explore and co-create discipline-specific PD opportunities for Cell Biology graduate students.
Recommendation: Increase opportunities to celebrate with the academic community the accomplishments of students within the Cell Biology Graduate Program (and more broadly in FoMD), such as competitive awards for research excellence.	
Cell Biology Department Response: Currently, several competitive awards recognize research excellence within the Cell Biology Graduate Program. At our annual Cell Biology Research Day, one or two students are awarded with the <i>Best Poster Prize</i> . At the faculty level, the FoMD <i>Med Star Award</i> highlights the significance, scope, quality, and originality of graduate student first-author research publications. In addition, GPS offers several thesis completion awards that recognize outstanding theses at both the master's and doctoral levels. That said, we acknowledge there is room to expand how we celebrate and showcase the achievements of our students. We will explore additional opportunities, within both the department and broader FoMD and GPS, to recognize and promote the outstanding work of our graduate trainees.	Action Plan: • Increase Award Awareness Increase visibility of available awards by regularly communicating available opportunities (e.g., Med Star, GPS awards) to students and encouraging applications through email updates and faculty reminders. • Strengthen Internal Communications Highlight the achievements of award-winning students—such as recipients of the Best Poster Prize, Med Star Award, and thesis completion awards—through departmental communications and website features to foster a culture of recognition and celebration.

Faculty of Medicine & Dentistry Response: The FoMD agrees that encouraging and celebrating research excellence is important.	
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS supports this recommendation and is available for consultation and discussion on ways to enhance the opportunities to recognize student success and research excellence.	Action Plan: FGPS is committed to working collaboratively to enhance these celebratory opportunities. We will promote Student Success Stories by actively featuring Cell Biology and FoMD graduate student award winners and their research accomplishments through FGPS communication channels, including our website, newsletters, and social media.
Faculty and Supervision	
Recommendation: Develop strategies to periodically disseminate new information to faculty members regarding program changes from GPS and confirm/re-iterate Cell Biology program requirements and timelines.	
Cell Biology Department Response: We recognize the importance of keeping faculty informed about program requirements and changes from GPS. To support this, our monthly departmental faculty meetings include a dedicated segment for the Director of Graduate Studies to share updates and discuss matters relevant to the graduate program, including any changes from GPS. To strengthen communication and ensure alignment of program expectations and timelines, the Director of Graduate Studies will schedule annual one-on-one check-ins with faculty members who supervise Cell Biology graduate students.	Action Plan: Monthly Faculty Meeting Updates Include a standing item on the agenda to share relevant updates from GPS (e.g., policy changes, timelines, award opportunities). Annual Supervisor Check-Ins Schedule annual meetings with each faculty member supervising Cell Biology graduate students to review program milestones, timelines, and updates from GPS.
Faculty of Medicine & Dentistry Response: The FoMD is supportive of strategies to ensure the effective and timely dissemination of relevant program information to faculty members.	
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS supports the Department's action plan to formalize the presence of an agenda item to encourage active reporting of GPS guidelines, new policies, and partnership opportunities.	Action Plan: Our approach will focus on clarity, accessibility, and consistency. We will enhance the use of our official FGPS communication channels to share updates. This includes:

	● Regular Email Bulletins: Implement a schedule for brief, clear email bulletins specifically for program coordinators and graduate chairs that summarize recent policy changes, important deadlines, and new resources relevant to graduate programs. ● Updated Website Content: Ensuring our GPS website serves as the definitive and most current source for all graduate policies, forms, and guidelines. We will specifically work to highlight recent changes or updates. ● GPS Council Meetings: GPS will continue to emphasize to graduate coordinators and administrators to share upcoming changes, address questions, and gather feedback from the Cell Biology department faculty and students.
Recommendation: Make the Student/Faculty Advisory Subcommittee of the Graduate Program Committee a standing committee with broad student representation that meets once or twice per year to ensure timely awareness of new program ideas or concerns.	
Cell Biology Department Response: We appreciate the intent behind this recommendation and fully support meaningful student-faculty dialogue regarding the graduate program. A Student/Faculty Advisory Subcommittee was active during the Cell Biology Graduate Manual revision process between 2018–2019 but has not remained in place as a standing committee. We are mindful that any such subcommittee has clear terms of reference and a productive agenda. Importantly, the Cell Biology Student Association meets monthly and provides a regular forum for students to discuss their experiences and raise concerns. Any relevant issues identified through these meetings are brought directly to the Director of Graduate Studies or the Department Chair for timely consideration and response. We will continue to support this student-led structure while exploring opportunities for targeted student-faculty engagement around specific program initiatives or emerging concerns.	Action Plan: ● Maintain open channels for the Student Association to relay concerns or make suggestions directly to the Director of Graduate Studies or Department Chair as needed. ● The Director of Graduate Studies will attend the Student Association monthly meetings once to twice a year to provide updates on program changes and gather feedback / concerns.

Faculty of Medicine & Dentistry Response: The FoMD is supportive of strategies to ensure that student perspectives help to inform the evolution of our graduate training programs.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS strongly supports the recommendation; this is an excellent initiative that will significantly enhance communication, transparency, and responsiveness within the graduate program.
Recommendation: Increase awareness of mental health supports through different communication channels and consider developing ideas on “preventative” mental health supports that are tailored for basic science graduate students.	
Cell Biology Department Response: Thank you for drawing attention to the ongoing need to strengthen mental health awareness and support for our students. We fully agree that increasing visibility of existing resources and developing preventative strategies, especially those tailored to the unique stressors faced by Cell Biology graduate students, is critical. We plan to align our efforts with the ongoing work of the Office of Advocacy & Wellbeing in the FoMD, where Dr. LaPointe serves as Assistant Dean of Graduate Studies. This office promotes learner health and well-being by providing academic and personal counselling, advocacy, and accommodations.	Action Plan: • Work with our web coordinator to improve the departmental website, making mental health and support services more visible—such as relocating student and staff services links to a more prominent, dedicated section. • Circulate information about relevant resources and activities offered by the Office of Advocacy & Wellbeing to Cell Biology graduate students on a regular and timely basis. • Support new initiatives from the Office of Advocacy & Wellbeing, including the peer technical-support program proposed by Dr. LaPointe.
Faculty of Medicine & Dentistry Response: The FoMD is committed to ensuring the health of students. The Faculty is supportive of strategies to ensure that available resources are effectively communicated to students.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS fully supports the critical recommendation to increase awareness of mental health supports through different communication channels and to develop "preventative" mental health supports. GPS has created a webpage that lists key Student Wellness supports on campus (https://www.ualberta.ca/en/graduate-studies/resources/graduate-students/index.html). Graduate supervisors and administrators are encouraged to share this with students during the orientation and throughout students' journey.
Resources	
Recommendation: Enhance security in the Medical Sciences Building. FoMD should consult occupants on their concerns, increase communications to make the building occupants better aware of after-hours protocols, and improve door locks/fob access as required.	

Cell Biology Department Response: We strongly agree that enhancing security in the Medical Sciences Building is a pressing concern. While decisions around infrastructure, building access, and security systems fall under the responsibility of the FoMD and the university, we fully support efforts to improve safety for all building occupants.	Action Plan: • Communicate our request for improved building security by sharing safety concerns from students, staff, and faculty. • Share relevant security updates, reminders, safety protocols, and emergency procedures with Cell Biology department members through emails. • Invite feedback from our department community regarding specific safety concerns or incidents, which we will compile and forward to FoMD / University to assist in prioritizing improvements (e.g., door locks, lighting, key card access).
Faculty of Medicine & Dentistry Response: The FoMD will continue to work with the University of Alberta’s Facilities and Operations to enhance building security and student safety.	Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS supports this recommendation and the proposed action plan by the Department
Recommendation: Develop a 5-year complement renewal plan that considers upcoming retirements as well as the department’s ongoing academic planning.	
Cell Biology Department Response: We agree that long-term planning around faculty complement renewal is essential to the continued success of our graduate program. Expanding course offerings, accommodating growing enrollment, and maintaining excellence in graduate education will require strategic investments in faculty renewal and growth. While we recognize that budgetary authority and decisions regarding faculty positions rest with the FoMD and the University, we remain committed to engaging in proactive and forward-looking academic planning. In this regard, we have strategically collaborated with research institutes, such as the Women and Children’s Health Research Institute and the Alberta Diabetes Institute, to co-recruit new faculty members in areas of shared interest. We have also leveraged external salary support programs, including the Canada Research Chairs (CRC) and Canada Excellence Research Chairs (CERC), to enhance our ability to attract and retain top-tier candidates.	Action Plan: • Develop a 5-year internal faculty renewal plan to identify anticipated retirements, address potential programmatic gaps, and prioritize areas of future growth and innovation. • Continue strategic collaborations with research institutes to pursue joint hiring opportunities in areas of mutual interest. • Leverage external salary support programs (e.g., CRC, CERC) to strengthen our recruitment efforts and research capacity. • Engage regularly with FoMD leadership to clearly communicate departmental academic priorities and advocate for targeted investment in new or replacement faculty positions.

While faculty renewal decisions ultimately depend on broader institutional factors, we agree that a clear and collaborative plan will position the department to make a strong case for future investment.	
Faculty of Medicine & Dentistry Response: The FoMD is supportive of long term academic planning for teaching and research.	Action Plan: FoMD will continue its annual multi year budget planning process to help the Department plan for the future.
Faculty of Graduate and Postdoctoral Studies (GPS) Response: GPS supports the recommendation to develop a 5-year complement renewal plan that strategically considers upcoming retirements and aligns with the department's ongoing academic planning. This forward-thinking approach is essential for ensuring the continued strength, vitality, and relevance of our graduate programs and research endeavors.	
Recommendation: Enhance budget transparency and literacy for department leadership so they understand the rules about how tuition revenues are divided between FoS and FoMD, and then how these tuition revenues are divided and allocated within FoMD. Similarly, enhance budget transparency and literacy regarding the flow of research overhead generated through departmental grants and other sponsored research agreements.	
Cell Biology Department Response: As a department, we are committed to better understanding how tuition revenues and research overhead are allocated, even though we recognize that budgetary processes at the faculty and university levels remain complex, dynamic, and, at times, opaque. We agree that improving our internal literacy and maintaining open lines of communication with FoMD and FoS will strengthen our ability to advocate for resources in support of teaching, research, and graduate education.	Action Plan: ● Request periodic budget updates from FoMD that explain current tuition revenue distribution models between FoS and FoMD, and how these impact departmental funding. ● Encourage more transparent communication between FoMD and our department about changes to budget models or funding priorities. ● Seek clarification on research overhead flow to better understand overhead distribution and potential discretionary use. ● Document and track departmental resource needs related to course delivery, TA positions, and graduate program growth, to better support advocacy efforts.

Faculty of Medicine & Dentistry Response: The FoMD will continue to implement the University of Alberta's current Budget Model.	Action Plan: The Faculty will continue its annual multi year budget planning process with the goal of ensuring proactive planning, transparency and fiscal literacy for Faculty leadership.
Recommendation: Provide annual base budget funding for the department to deploy strategically for the needs of the graduate program, the details of which could be negotiated with the Dean (e.g., amount; sources of funding; percentage of carry-forward/savings allowance; etc.). This will empower the Chair to optimally utilize an activity-based budget to serve the academic priorities of the department while potentially increasing opportunities to generate revenue.	
Cell Biology Department Response: We support the recommendation to establish annual base budget funding dedicated to our graduate program. Access to strategic funding would allow the department to not only enrich the student experience but also strengthen the impact of our program. With flexible, department-directed graduate program funding, we could implement a variety of initiatives, including establishing competitive research and/or travel awards, subsidizing career coaching or skills development sessions through GPS or external providers, and enhancing graduate student recruitment efforts through targeted outreach events or promotional materials. A flexible annual allocation would significantly increase our capacity to deliver on the strategic goals of the graduate program and improve student outcomes.	Action Plan: • Initiate discussions with FoMD to explore the feasibility, amount, and parameters of a base budget allocation specifically for graduate program support. • Develop a strategic funding proposal outlining the department's priorities and intended uses of such funding.
Faculty of Medicine & Dentistry Response: The Faculty approved 'Principles for Departments for Undergraduate and Graduate Course Offerings in FoMD' this past semester. The principles outline procedures for requesting additional teaching resources. Departments are encouraged to use the principles to identify creative approaches to help support their training programs.	Action Plan: The Faculty will use the 'Principles for Departments for Undergraduate and Graduate Course Offerings in FoMD' in allocating teaching resources as part of the multi year budgeting process.
Additional Notes from the Department of Cell Biology	
We sincerely thank the review committee for their thoughtful and thorough evaluation of our graduate program. We were particularly encouraged by the committee's comments on the department's <i>"strong culture of support and excellence,"</i> and the <i>"clear reciprocity of respect and praise between graduate students and faculty members."</i> These reflections affirm the collaborative and student-centered environment we strive to cultivate and maintain. We also greatly appreciate the committee's recognition of the <i>"high level of scientific skill that yields</i>	

impactful research” among our graduate students, and the commendation of our efforts to deliver an excellent program.

We would also like to express our appreciation for the committee’s helpful and constructive recommendations. Their review has already contributed to tangible improvements in our program: for example, we are pleased to report that CELL 400, our first in-person laboratory course, is now fully funded and supported by in-person teaching assistantships. This is a significant win for our department and students, and a clear demonstration of the positive impact of this review process.

With respect to the ongoing faculty-wide review of graduate programs in the FoMD, we appreciate the goal of identifying efficiencies and opportunities for interdisciplinarity. However, we strongly believe that the current structure and identity of the Cell Biology Graduate Program are essential to its continued success. As the committee rightly noted, *“there is a real risk of diluting what is currently an excellent learning and scientific training experience”* through program consolidation.