Introduction

In the Fall of 2021, the Department of Anatomy & Cell Biology (ACB) began preparations for our regular 5-year Chair renewal process, which involves the development of a Self-Study document and culminates in an External Review of the department and its leadership in 2022-2023. This process provides the valuable opportunity for the department to reflect on our progress on the existing ACB Strategic Plan (2017-2022), and to discuss and decide upon our goals for the next 5 years.

To facilitate this, a Planning Committee consisting of the following departmental individuals was established:

- Alison Allan, Chair
- Brian Allman, Associate Chair Clinical Anatomy
- Jenn Devlin, Manager Administration & Finance
- Sarah Hayes, Postdoctoral Fellow
- Silvia Penuela, Associate Chair Research
- Walter Rushlow, Associate Chair Undergraduate Affairs
- Michelle Sveistrup, Graduate Student (Clinical Anatomy)
- Dylan Tinney-Dickinson, Graduate Student (Biological Research)
- Shawn Whitehead, Associate Chair Graduate Affairs

The Planning Group was tasked with considering the accomplishments of the Department over the last 5 years and identifying potential priority areas for enhancement and focus as the Department moves forward. Supporting sources of information for these considerations included:

- Anatomy & Cell Biology 2017-2022 Strategic Plan
- Anatomy & Cell Biology - Summary of Accomplishments (2017-2022)
- Schulich School of Medicine & Dentistry Strategic Plan
- Western University Strategic Plan

The Planning Group felt that over the past 5 years, the department has demonstrated a consistent record of high-quality teaching, research and service as evidenced by several faculty/staff awards and the positive outcomes described in the ACB Summary of Accomplishments document. Anatomy & Cell Biology has become a highly integrated department with a strong sense of community and a culture that is focused on excellence and helping each other succeed. This has allowed the department to successfully navigate the challenges of the ongoing COVID-19 pandemic as a collaborative team in order to maintain the high quality of our collective educational and research deliverables.

With the goal of building on these accomplishments, the Planning Group identified four major areas of focus for further discussion and development at our Departmental Strategic Planning Retreat, including (1) Educational Excellence & Innovation; (2) Research Excellence & Innovation; (3) Equity, Diversity, Inclusion & Decolonization (EDID); and (4) Pandemic Learnings & Recovery. This Retreat was held virtually over two half-days on January 19 & 21, 2022 and was attended by 34 faculty members, 4 graduate students, 2 postdoctoral scholars, and 7 core administrative staff. The Retreat was highly interactive; allowing us to share ideas and establish consensus around our vision and mission for excellence, our desired strategic goals and outcomes, and the actions that need to be taken to achieve these.

The Strategic Plan presented here is therefore a culmination of a tremendous amount of collegial work by the Department of Anatomy & Cell Biology. The document is intended to convey the collective, forward-focused vision of the Department and the initiatives that we have committed to undertake over the next 5 years in pursuit of this vision.
Vision, Mission & Values

Vision: To be a global leader in integrating knowledge creation and dissemination to change how anatomy, cell biology and neurobiology research and teaching is done.

Mission: To champion and enhance innovation in research and education; inspire and empower the next generation of students; broaden community engagement; and create new partnerships to attract and produce the best faculty, staff, and students.

Values: Excellence, Creativity, Collaboration, Inclusiveness, Accountability

Strategic Outcomes

In striving to fulfil our Vision, Mission, and Values, we would like to achieve the following Strategic Outcomes:

1. Undergraduate Education Outcomes
   - Undergraduate students experience an environment of innovative curricula, outstanding pedagogy, and state-of-the-art learning facilities
   - Our undergraduate students learn the value of critical thinking and are motivated towards research and enquiry as part of their education and career path
   - Undergraduate students engage in meaningful experiential learning experiences in the research laboratory and/or community that build their knowledge, skills, initiative, and capacity to contribute to the world around them
   - The principles of equity, diversity, inclusion and decolonization (EDID) are embedded in our undergraduate curriculum and consistently modelled to our students
   - Our undergraduate programs provide a solid foundation for successful career paths in scientific and biomedical professions

2. Graduate & Postdoctoral Training/Education Outcomes
   - ACB's interdisciplinary graduate programs and collaborative research environment are the preferred destination for high-calibre graduate and postdoctoral candidates
   - Our diverse population of graduate students and postdoctoral fellows are supported by an equitable and inclusive research and training environment
   - Graduate students and postdoctoral scholars experience high-impact research experiences and outstanding mentorship
   - Graduate students evaluate their teachers and learning experiences as excellent
   - Biological Research and Clinical Anatomy graduate students are united as a result of their research and education activities
   - Through our graduate program and postdoctoral support framework, ACB trainees obtain the skills and knowledge to successfully compete in the global job market for both academic and non-academic careers

3. Research Outcomes
   - ACB faculty members and research groups are internationally recognized for their research activities and accomplishments in cell biology, neurobiology, and the anatomical sciences
   - Our research is well-funded and published in top journals in our fields
   - Interdisciplinary research collaborations within and beyond the department transcend and grow our research programs
   - The principles of EDID are incorporated into our research activities, including the composition of research teams and the design and execution of our research projects
   - Community outreach, engagement and partnerships are meaningfully integrated into our research activities
   - Excellence is achieved across all research foci in the department, including bench-based research, clinical/translational research, and scholarship of teaching and learning (SoTL) research
4. **Integrated Departmental Outcomes**

- ACB is known for its strong culture of inclusivity and collegiality, where diversity is celebrated and everyone feels welcomed, valued and supported
- Our programs are the destination of choice for a diverse population of exceptional students seeking an education in cell biology, neurobiology, and/or the anatomical sciences
- ACB students experience innovative, high-quality research and learning environments where they are supported, mentored and enabled to achieve success
- Faculty and trainees participate in a collaborative, multi-disciplinary and dynamic learning and research environment that enhances individual and collective success
- Our faculty members are recognized and rewarded for individual and team-based accomplishments in research and teaching (innovation, impact, productivity, funding, training)
- Department members have access to modern, well-equipped research and teaching facilities and resources
- Faculty, staff, and students actively engage in and contribute to the community through outreach initiatives
- Purposeful approaches to pandemic recovery support faculty, staff, and students in becoming re-energized and re-engaged in teaching, research, and departmental activities

**Strategic Action Initiatives & Processes**

*In order to achieve our desired strategic outcomes, we need to successfully implement the following action initiatives and processes:*

1. **Undergraduate Education Initiatives & Processes**

- **Launch a new Honours Specialization in Anatomical Sciences (targeted for September 2023):**
  - Build on the success of three new ACB courses launched in 2021-2022, including two cadaveric anatomy courses (4200A - Musculoskeletal and 4201B – Organs and Systems) and 4425B – Advanced Clinical Histology
  - Develop a unique HSP capstone course/experience that includes research-based thesis projects focused on the anatomical sciences and/or SoTL research
  - Create a strong undergraduate feeder program for training and recruiting excellent students into the MSc Clinical Anatomy program and/or health-related professional programs

- **Develop new undergraduate course offerings that will enhance the ACB Medical Cell Biology and Anatomical Sciences modules, as well as building additional capacity for the broader BMSc expansion (2022-2027):**
  - Embryology course; 4000-level
  - Computational/Data Sciences course; 3000- or 4000-level. To be developed collaboratively with other Schulich Programs in order to build on the recent recruitment of several new data science faculty members in ACB, Biochemistry, Microbiology & Immunology, and Pathology & Laboratory Medicine
  - Research Ethics/Critical Thinking/Scientific Communication/Professionalism course – 3rd or 4th year level. Potential to be developed collaboratively with other Schulich Programs as this has been recognized as a gap within the BMSc program as a whole
  - New 4th year community-engaged learning (CEL) capstone course(s) that expand capacity and provide an alternative experience to the traditional HSP thesis course. Ideal foci for these courses would include neurological and neuropsychiatric disorders, and/or developmental origins of health and disease. Potential to be developed collaboratively with other Schulich Programs such as Neuroscience and Physiology & Pharmacology

- **Enhance interactions between undergraduate students and faculty, and improve students’ appreciation and understanding of research (ongoing):**
  - Continue collaborating with the Undergraduate Anatomy and Cell Biology Club (ACBC) to enhance undergraduate student engagement in the department; e.g., invitations to seminars, participation in ACB Research Day, social events, and recruitment events
2. **Graduate & Postdoctoral Training/Education Initiatives & Processes**

- **Enhance graduate student career and professional development (2022-2027):**
  - Continue to populate the ACB Grad Student Portal OWL website with information and events related to all aspects of career development, professional development, and post-graduate opportunities to provide “one-stop shopping” for graduate students. Also include such information and links in the monthly ACB newsletter
  - Work with the ACB Graduate Student Council, ACB postdoctoral scholars, and/or Schulich to develop regular career sessions with ACB alumni/other speakers; either as part of the ACB Seminar Series or as a new “Career Lunch & Learn” series
  - Leverage the success and content of the 9566 Professionalism course (required for MSc Clinical Anatomy students) by incorporating some of the professionalism modules/assignments into the 9520 and/or 9555 courses taken by MSc Biological Research and PhD students
  - Develop and incorporate an individual development plan (IDP) as Milestone of each student’s program (see CIHR example); discuss and track progress through regular Graduate Advisory Committee meetings. This Milestone could include completion of a set number of professionalism modules, attendance at career sessions, Own Your Future activities etc.

- **Increase opportunities for Biological Research and Clinical Anatomy graduate students to interact through their research and education activities (2022-2027):**
  - Continue offering research project and thesis research opportunities that encompass the different areas of research in the department including bench-based research, clinical/translational research, and SoTL research. Where feasible, encourage collaboration of Biological Research and Clinical Anatomy graduate students on research efforts within and between different labs such that they can gain an appreciation for each others’ research efforts and expertise
  - Strive for a balance between cell biology, neuroscience, and anatomical sciences speakers in the weekly ACB Seminar Series
  - Use the professional/career development initiatives described above to create additional opportunities for interaction between all ACB graduate students, including those working in the different areas of Biological Research (cell biology, neurobiology) and Clinical Anatomy
  - Provide departmental support for social events that offer opportunities for both Biological Research and Clinical Anatomy students to come together
  - Incentivize all graduate students to participate in and work together for departmental recruitment events and community outreach activities

- **Establish ACB as a leader in providing a customized training experience for postdoctoral scholars (2022-2024):**
  - To complement mentorship provided by primary postdoctoral supervisors, establish a broader framework for customized postdoctoral mentorship and professional/career development for each postdoctoral scholar in ACB. This could be led by the GAC in collaboration with a new ACB faculty mentor network
  - Develop and incorporate an individual development plan (IDP) for each postdoctoral scholar as part of the onboarding process (See examples from SGPS and CIHR); track progress through the new mentorship framework described above
  - Use the IDP to identify postdoctoral scholars who are interested in teaching opportunities in preparation for an academic career, and endeavour to provide guest lecture or other teaching opportunities to postdoctoral scholars within ACB courses in order to help build their teaching dossiers
  - Use the IDP to identify postdoctoral scholars who are interested in non-academic careers, and endeavour to facilitate exposure to and support for career choices in industry, government policy, science communication, etc.
  - Provide departmental opportunities for mock interviews and presentations with feedback for postdoctoral scholars who are preparing for job interviews
  - Establish an ACB Postdoctoral Scholars Council and/or shared communication platforms for postdoctoral scholars within ACB (e.g., OWL portal, Slack channel, social media etc.)
3. Research Initiatives & Processes

- **Maintain and enhance a strong research culture and research excellence in ACB (ongoing):**
  - Continue with annual departmental Research Retreats
  - Enhance the visibility of our research activities and accomplishments through the updated ACB research website, social media and the monthly departmental newsletter
  - Increase the number of Research Chairs in the department, including CRCs, Western Research Chairs, and other endowed research positions and awards
  - Work with Schulich and Western to increase opportunities and success with different funding sources; e.g., NIH, DoD, industry funding, philanthropic funding
  - Ensure access to and sustainability of high-quality core and shared research equipment within the department. Advocate to Schulich and Western to enhance institutional core facilities
  - Increase advocacy with Schulich and Western to value and prioritize research as a key institutional mission

- **Preserve, enhance, and reward collaborative research initiatives and successes in ACB (2022-2027)**
  - Build on our existing collaborative culture and diverse research strengths including cell biology, neuroscience, clinical anatomy, and SoTL. Encourage bi-directional collaboration and knowledge exchange between these research foci in order to drive excellence and innovation
  - Enhance capacity to apply for and be successful with large team/multi-PI grants both at the departmental level and through increased involvement with larger Schulich- and university-wide applications (e.g., CFI, CFREF etc.)
  - Increase recognition and reward for collaborative research activities within APE and P&T processes

- **Optimize strategies for mentoring and supporting ACB faculty for research success at all career stages (ongoing)**
  - Continue with annual individual faculty review meetings with the Chair
  - Cultivate an active and holistic mentality across the department that values the importance of ongoing peer mentorship across all career stages and appointment types. Foster an open-door policy between faculty to be able to create meaningful and genuine mentor/mentee relationships - we’re stronger as a department if we bolster each other
  - Have transparency about both successes and failures in order to learn from them, and be open to constructive feedback
  - Encourage the use of internal peer review for all grants before submission in order to enhance the chance of success. Actively debrief for grants that don't get funded in order to improve them for resubmission

- **Increase the visibility and impact of our research through community outreach, engagement and/or partnerships (2022-2027)**
  - Include community-friendly and/or community-focused talks in the ACB Seminar Series, presented by faculty, graduate students (e.g., the required PhD seminar) or postdoctoral scholars. These could be advertised and open to members of the public and include TED-style talks and/or presentations about successful community research partnerships that have been established in the department. Goals would be multi-pronged: (1) increase visibility of our research to the public; (2) hone our skills as scientific communicators to diverse audiences; and (3) increase science literacy within the lay community
  - For translational and clinically-focused research, enhance outreach/partnerships with clinicians and patient groups. This might be best accomplished through trainees (CEL students, graduate students, postdocs, residents, medical/dental students) acting as a bridge between the bench and the bedside
  - For research that has particular relevance to public health/community wellness, enhance outreach/partnerships with community groups and knowledge users; e.g., MLHU, youth or school groups, parent groups etc.
  - Apply the knowledge gained from community engagement to refine research questions and/or inform new research directions
  - Recognize and reward research-related community outreach/partnerships through formal processes; e.g., within APE research criteria for faculty members and/or as a Milestone for graduate students
4. **Integrated Departmental Initiatives & Processes: Equity, Diversity, Inclusion and Decolonization (EDID)**

- **Establish a new Anatomy & Cell Biology EDID Committee (EDID-C) (2022-2023)**
  - Consisting of a diverse and intersectional group of ACB faculty, staff, students, and postdoctoral fellows; including individuals from equity-deserving groups and those committed to allyship
  - The EDID-C will serve as advisors/collaborators with the Chair, Research Committee, UGAC and GAC for implementation of the initiatives below (details of the committee mandate described in final “Accountabilities” section)

- **Strive to have every ACB faculty and staff member complete relevant EDID training (2022-2023)**
  - Specific training options to be defined by the EDID-C. Examples might include the **Tri-council Unconscious Bias Module** and/or the training developed by [CR(EDI)T - Equity Diversity, Inclusion and Decolonization (EDI-D) in Academia: Medical Sciences](#)

- **Incorporate EDID principles into ACB research activities (2022-2027)**
  - Consistently include EDID discussions/learning topics at the annual ACB Research Retreat
  - Strive to integrate diverse populations and/or sex and gender based analysis plus (SGBA+) considerations into individual research studies whenever possible
  - Consider ways to provide additional research opportunities to undergraduate students from equity-deserving groups. This could include creative use of Western’s work-study program, volunteer opportunities, and/or a summer student program focused on supporting students from equity-deserving groups

- **Incorporate EDID principles into ACB community outreach activities (2022-2027)**
  - Collaborate with groups such as [Let’s Talk Science](#) to engage students from diverse background earlier, starting in high school
  - Continue focusing our “Anatomy Gives Back” fundraising and outreach initiatives on helping different equity-deserving groups in the London community
  - Ensure that research-related community outreach and partnerships are inclusive

- **Incorporate EDID principles into classroom and laboratory teaching (2022-2027)**
  - Recognize and acknowledge that much of the information we teach comes from a biased background/history. This is particularly true in the anatomy sciences, where the currently used language and terminology is gender-binary and riddled with colonialisms
  - Based on this knowledge, work to meaningfully incorporate EDID principles and practices into our classroom and laboratory teaching to students in BMSc, graduate, and professional programs
  - Use community-engaged learning capstone course(s) as rich opportunities for students to expand their “book knowledge” through exposure to the lived experience of diverse populations and groups

- **Incorporate EDID principles into graduate and postdoctoral training (2022-2027)**
  - Ensure that ACB consistently has graduate student and/or postdoctoral scholar representation on the departmental EDID-C and on the Schulich Council on Reforming Equity, Diversity, and Inclusion for Trainees [CR(EDI)T](#)
  - Establish two $15,000 scholarships in ACB that are offered annually for students in equity-deserving groups; to be evaluated holistically rather than just on traditional academic merit
  - Expand the eligible expenses that can be covered by travel scholarships to includes aspects such as childcare and/or children’s travel expenses
  - Revise the ACB graduate student funding document to have a “humanizing” preamble that explicitly states students’ take-home pay after tuition and fees, and also provides a current model for the cost of living in London (rent, food, utilities etc.)
  - Advocate to Schulich and Western for increasing graduate stipends to encompass a living wage and ensure ongoing adjustments for inflation
Advocate to Schulich and Western for program application fee waivers for equity-deserving groups
Collaborate with Schulich and Western to identify a process that allows graduate students and postdoctoral scholars to confidentially disclose/discuss EDID-related challenges and/or mistreatment and receive appropriate support and resolution

5. Integrated Departmental Initiatives & Processes: Pandemic Recovery

- Embrace a safe and purposeful return to in-person teaching, research and service activities while still maintaining flexibility using hybrid approaches (ongoing):
  - Working – maintain flexibility with regards to when and where faculty, staff and students work most effectively
  - Teaching – build hybrid/blended learning approaches into our courses and advocate with the University to allow more autonomy for instructors to decide on modes of course delivery
  - Meetings (administrative, research, student advisory/thesis committees) – invest in IT infrastructure for ACB meeting rooms in order to facilitate high-quality hybrid meetings
  - ACB Seminar Series – return to an in-person series while keeping flexible/occasional virtual Zoom options in order to incorporate more high-profile and/or international speakers
  - Faculty, staff, and student/postdoctoral recruitment – maintain a hybrid approach to initial online interviews combined with in-person interviews and onsite visits for final short-listed candidates

- Maintain positive and innovative teaching and research approaches developed during the pandemic (ongoing):
  - Continue using virtual platforms (Zoom, data sharing etc.) to facilitate and strengthen national and international research collaborations
  - Maintain online booking calendars for shared research equipment
  - Keep enhanced collaboration as part of our teaching culture in order to support each other and share best practices for online, blended, and face-to-face teaching
  - Take advantage of the technology investments and strategies developed by the department during the pandemic to enhance student learning (e.g., better use of OWL capabilities for course sites, expanded use of the Digital Learning Suite developed for cadaveric anatomy teaching etc.)
  - Advocate to Schulich for the continuation of the Digital Media Intern program to support teaching

- Take a purposeful and individualized approach to supporting faculty, students, postdoctoral scholars, and staff in their pandemic recovery (2022-2027):
  - Carefully monitor and prioritize mental well-being and resiliency in order to optimize pandemic recovery for all faculty, staff, and students.
  - Provide and advocate for extra support for faculty members that have been particularly impacted by the pandemic (e.g., early-career researchers, those with child/elder care responsibilities, those with health conditions/family members that made/make them more susceptible to severe disease outcomes, those with animal or human research studies that have been delayed, etc.). Supports to be considered include alternative workload arrangements, bridge funding for research, and situational considerations during the APE and P&T evaluation processes
  - Provide and advocate for extra support for graduate students and postdoctoral scholars that have been particularly impacted by the pandemic. This includes situational considerations during admission/recruitment interviews and advisory committee meetings as well as financially-supported flexibility in times to completion
  - Be empathetic to the fact that undergraduate student teaching and learning has been disrupted/inconsistent/online for more than two years. Support students, instructors, and graduate teaching assistants (GTA) in rehabilitating to in-person learning and assessment
6. **Integrated Departmental Initiatives & Processes: Sustained Departmental Excellence**

- Carefully monitor and enhance our capacity to accomplish our research and teaching goals with regards to infrastructure, human resources, succession planning and sustainability (2022-2027)
  - As the BMSc program expands, ensure that faculty and TA resources are adjusted/advocated for in order to support increased student enrollment while still maintaining our ability to deliver high-quality educational experiences to our students
  - Work closely with Schulich and Western to ensure successful completion of a new state-of-the-art Cadaveric Anatomy Facility with the Bioconvergence Centre to support innovative teaching and research. This includes subsequent renovation and repurposing of current cadaveric teaching lab space into open-concept research labs to expand departmental research capacity

- **Recognize and reward excellence (ongoing):**
  - Continue to nominate deserving staff and faculty members for Schulich, Western and external awards/honours that recognize and reward excellence in all aspects of our mission
  - Continue to use the Annual Performance Evaluation (APE), Workload, and Promotion & Tenure processes in deliberate and meaningful ways to review, recognize, and reward high-quality and innovative faculty contributions to research, teaching, mentorship, and service
  - Celebrate our successes on an ongoing basis through the ACB website, monthly newsletter, social media, departmental meetings, and recognition/social events

**Accountability**

*In order to succeed, we must be accountable and hold ourselves and one another to the highest standards. The following outlines the groups and individuals who will be accountable for carrying out our strategic initiatives and processes in order to achieve our desired outcomes.*

1. **Undergraduate Education**
The Anatomy & Cell Biology Undergraduate Affairs Committee (UGAC) will be responsible for developing and/or supporting all undergraduate-related strategic initiatives and tracking milestones of success. This will be done in partnership/consultation with the Clinical Anatomy Committee, students, and the Chair of the Department. With the support of the UGAC and the Chair, individual Anatomy & Cell Biology faculty members will be accountable for high-quality undergraduate teaching and collaborative contributions to the Department’s overall strategic goals for undergraduate education.

2. **Graduate & Postdoctoral Training/Education**
The Anatomy & Cell Biology Graduate Affairs Committee (GAC) will be responsible for developing and/or supporting all graduate- and postdoctoral-related strategic initiatives and tracking milestones of success. This will be done in partnership/consultation with the Clinical Anatomy Committee, students, postdoctoral scholars, and the Chair of the Department. With the support of the GAC and the Chair, individual Anatomy & Cell Biology faculty members will be accountable for high-quality graduate and postdoctoral teaching and training, as well as collaborative contributions to the Department’s overall strategic goals for graduate and postdoctoral training/education.

3. **Research**
The Anatomy & Cell Biology Research Committee will be responsible for developing and/or supporting all research-related strategic initiatives and tracking milestones of success. This will be done in partnership/consultation with the Clinical Anatomy Committee and the Chair of the Department. With the support of the Research Committee and the Chair of the Department, individual Anatomy & Cell Biology faculty members will be accountable for the success of their own research programs and for collaborative contributions to the Department’s overall strategic goals for research.
4. **Integrated Department Initiatives: Equity, Diversity, Inclusion and Decolonization**

The Chair will be responsible for establishing the new Anatomy & Cell Biology EDID Committee (EDID-C). Once established, the EDID-C will be responsible for developing and/or supporting all EDID-related strategic initiatives. This will include (1) identifying EDID-related education and training opportunities for ACB faculty, staff, and students; (2) working as advisors/collaborators with the Chair, Research Committee, UGAC and GAC for implementation of the proposed initiatives and processes; and (3) tracking departmental metrics of success for EDID. With the support of the EDID-C and the Chair, individual Anatomy & Cell Biology staff, faculty, students, and postdoctoral scholars will be accountable for maintaining and embracing an equitable, diverse, and inclusive environment for working, learning and knowledge creation.

5. **Integrated Department Initiatives: Pandemic Recovery & Sustained Departmental Excellence**

The Chair, the Associate Chairs, and the Manager of Finance and Administration will be responsible for leading initiatives related to pandemic recovery and sustained departmental excellence. This will be done in close partnership with faculty, staff, students, and postdoctoral scholars.

**Summary**

In summary, the Department of Anatomy & Cell Biology at Western is a vibrant community of scholars, educators, learners, and leaders whose strength comes from diversity as well as unity. Over the past 5 years, the department has demonstrated a consistent record of high-quality teaching, research, and service; establishing itself as a highly integrated department with a strong sense of community and a culture that is focused on excellence and helping each other succeed. Looking forward to 2027, the outcomes and initiatives outlined in this Strategic Plan will ensure that the Department is embedded in a culture of inclusive excellence in research and teaching that positions us as global leaders in our discipline.