

## FACULTY OF MEDICINE & DENTISTRY

**Biomedical Sciences Working Group** 

## Definition of Biomedical Sciences Success in the Faculty of Medicine and Dentistry

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The success of biomedical sciences in the Faculty of Medicine and Dentistry is driven by excellence and impact in three key areas: research, education, and service. Biomedical sciences focus on understanding health and disease through groundbreaking research, training future scientists and clinicians and making meaningful societal contributions. This document outlines the goals that will guide the Faculty in achieving excellence in biomedical sciences.

## Aspirational Goals for Success:

**1. Excellence in Research:** Research success is measured by the impact of discoveries and their potential to improve health. Key factors include:

- **Innovative Research:** Success means producing groundbreaking research that deepens our understanding of health and disease.
- Sustained Funding: Success relies on securing competitive, peer-reviewed funding from recognized national and international research agencies (e.g., Tri-agency funding programs, New Frontiers in Research Fund, Canadian Foundation for Innovation). These external investments directly support research activities and translate into institutional investments that further augment the research enterprise (University Budget Model).
- Intellectual Property and Translation: Successful research can lead to innovations that inform clinical research, benefit health and result in licensing agreements that attract investment.

**2. Excellence in Education and Training:** Success in education is about recruiting, supporting, and preparing the next generation of scientists, educators, and clinicians for careers in academia, industry, government, NGOs and healthcare. Key factors include:

- **Recruitment, Retention, and Career Progression:** Success is measured by how well students and postdoctoral scholars are recruited and progress in both their training and careers.
- **Quality of Training Programs:** Success includes high funding rates for competitive training awards and impactful scholarly output. Programs must be adaptable to the evolving needs of students, which includes ensuring valuable research opportunities for undergraduate students.
- **Innovative Teaching and Mentorship:** Institutional success depends on effective and innovative curricula that integrate interdisciplinary research and teaching. Mentorship and coaching to help students and postdoctoral scholars succeed in their careers is a key objective.

**3.** Service to Society: Our contribution to society is crucial to success. This includes engagement with the scientific community and broader public. Key factors include:

- **Meeting Societal Needs:** Success means addressing society's most pressing needs, including those of historically underserved communities.
- Leadership: Success is reflected in contributions to research and education focused organizations, including peer review and external consultation roles.
- **Community Engagement:** Successful service involves partnering with the community, connecting with alumni, and contributing expertise to research, education and health initiatives.

**4. Institutional Infrastructure:** Success depends on ensuring strong institutional infrastructure. This includes people, culture and resources. Key components include:

- **Core Facilities:** Successful research and education depend on well-supported facilities that are accessible and used by internal researchers and external collaborators. Facilities must be equipped with state-of-the-art technology and staffed with skilled personnel.
- **Culture:** A strong, inclusive, and collaborative culture is essential. This includes an environment that values diversity, collegiality, ethical practices and a commitment to integrity.
- **Collaboration:** Collaboration amplifies the impact of biomedical science. This includes partnerships within and beyond the Faculty that span disciplines, as well as the clinical sciences.

**5. Financial Sustainability:** To ensure long-term success, the Faculty must develop strategies for the financial sustainability of biomedical science. This includes:

- **Diversifying Revenue Streams:** Relying on multiple funding sources, such as government and NGO grants, private sector partnerships, and philanthropy, is key to strengthening biomedical science.
- **Supporting Entrepreneurial Activities:** Encouraging the commercialization of research through technology transfer, licensing, and spin-off companies will generate additional revenue to support research and educational activities.
- **Cost-Efficient Operations:** Efficient use of financial and human resources is crucial to optimizing the value of biomedical science.