

Executive Summary: Division of BioMedical Sciences, Faculty of Medicine

Academic Unit Planning Process: The Academic Unit Planning (AUP) launch for the Division of BioMedical Sciences (BMS) took place over the extended period of the pandemic, with the self-study report ultimately submitted in Spring 2022. Students, staff, faculty and senior administration contributed to the self-study, focused on teaching, scholarship, community engagement and alignment with the university frameworks and the Faculty of Medicine Strategic Plan “Destination Excellence” (2018-2023). An external panel visit was arranged in Fall 2022 and the panel report received in early 2023. From the panel recommendations, the BMS Division prepared a unit-level response and action plan with short, medium and longer-term goals.

Undergraduate teaching and training: The BMS Division makes substantial contributions to UG teaching for medical education and offers a full year course in Human Physiology in the Faculty of Science. The BMS Division also supports UG training in research through various support mechanisms, from career experience placements to summer research opportunities. These training opportunities are an important mechanism to connect potential graduate students with supervising faculty in the BMS Division.

Graduate teaching and training: Faculty alignment with the five BMS graduate programs is based on their major area of research expertise: Bioscience of Health & Disease, Cardiovascular & Renal Sciences, Human Genetics & Genomics, Immunology & Infectious Diseases and Neuroscience. Each BMS graduate program offers an MSc and PhD degree. Graduate students and postdoctoral fellows are important contributors to the scholarly work and research funding success of the BMS faculty members.

Unit successes: BMS faculty hold significant internal and external funding awards and these research programs sustain undergraduate and graduate training. Curricular and extracurricular activities developed in the BMS Division contribute to research and professional skill development for trainees with good library, funding and administrative support for the graduate programs. PhD graduates enjoy high rates of employment in academia, academic track and academic professional positions. Less is known about BMS MSc graduates, although admission to medical school or continuation as trained research assistants are common outcomes at the Master’s program level. The limited number of MD-PhD graduates from the Faculty of Medicine have all graduated from BMS programs.

Unit challenges and recommendations: Faculty group summaries highlight the common challenge to sustain collaborative research programs and strong graduate training experiences in the face of low faculty complement per area of expertise. Low faculty complement has resulted from retirements and mid-career faculty departures from the BMS Division, combined with restricted university hiring practices in recent years. Expertise gaps are most pronounced for anatomy, cardiovascular physiology, Mendelian genetics research tied to the NL population and immunology. BMS faculty laboratories are distributed between the older HSC and newer Medical Education building, with a distinct difference in physical surroundings. Responses to the graduate student survey indicate high levels of program satisfaction for many, but dissatisfaction for others. There is room for improvement in expectation setting at the time of admission and increased support for trainees during their program. The BMS Division recognizes that some of the 2022 panel recommendations are long-standing challenges related to faculty hires, infrastructure needs and internal policies in need of review, but the BMS Division has proposed actions to mitigate some of challenges. It is important for the administrative leadership and BMS Division to make headway on the adopted recommendations, in order to benefit from positive outcomes after the investment of time and effort in the AUP process.

Unit directions: The BMS Division is proud of its long history and its evolving future, recognizing that a minimal complement of faculty expertise is needed to succeed with research and innovation in undergraduate and graduate teaching, public engagement and the administrative needs of the unit. Strategic directions for the Division are directed to new and current faculty and students, and are geared to their continued success and quality of experience.