

School of Biomedical Engineering Industry Advisory Committee

TERMS OF REFERENCE

Purpose

The Industry Advisory Committee (IAC) plays an advisory role in shaping the School of Biomedical Engineering's (SBME's) education, research and translational strategy and activities by providing advice and guidance that is implemented by the School to align our education programs with the needs and trends of industry, and provide a forum for discussion on our research and translation strategy. The IAC was built in February 2021 on the backbone of two industry consultation nights (2019 and 2020), input from which has been used to refine SBME's undergraduate curriculum and inform strategic hiring, research responsiveness and translational activities.

Overarching Goals

Established in 2017, the SBME has seen significant growth, currently hosting 556 students, 89 faculty members (36 of which are core faculty), and 37 staff. Our overarching goal is to be recognized as the top biomedical engineering program in Canada, and among the top 20 on the world stage. In line with our [strategic plan](#), we are focusing our efforts on growing and strengthening our training programs, research and translation activities, and community engagement.

Our **research and translation** efforts are aimed at further building capacity, forging and expanding strong partnerships and collaborations, growing our venture incubation facility, and expanding supporting infrastructure. Recommendations from the IAC help focus these efforts to ensure they are in alignment with, and are supportive of, our growing and vibrant industry ecosystem.

On the education front, we are working toward recruiting top talent for our **graduate program**, strengthening the academic experience through cultivating partnerships and entrepreneurship opportunities, and building professional development initiatives. In further establishing our **undergraduate program**, we are working to expand student recruitment, implement pedagogical innovations, expand upon experiential learning, evolve our undergraduate curriculum, and maintain our accreditation status. We look to the IAC to help us shape and improve our training programs as they continuously evolve. Pertaining to our undergraduate curriculum, feedback from the IAC is an important component of our future accreditation cycles with the Canadian Engineering Accreditation Board (CEAB).

An **overarching priority** is the planning of SBME's upcoming (2025) new on-campus building, which will be purpose-built to enable growth of the School, and as a place for the internal and external BME community to converge and exchange ideas. The IAC plays an integral role in defining how the new building can best synergize with, and serve, the community, from partnerships, funding, and functional perspectives.



Composition

The IAC consists of ~15 prominent members from industry, appointed for a two-year term (renewable), who bring different perspectives from industry sectors spanning our [education](#) and [research](#) areas of focus. Members have a vested interest in shaping the skills and capabilities of biomedical engineers, researchers, innovators and entrepreneurs, by providing advice, support and recommendations to the SBME team. In addition to members from industry, the IAC includes Drs. Peter Zandstra (SBME founding Director; on administrative leave in 2022-23), Peter Cripton (Undergraduate Program Director; SBME Director pro tem in 2022-23), and Danielle Walker (Strategic Partnerships Manager), with other members of the SBME leadership team joining meetings on an ad-hoc basis. The committee is chaired by two Co-Chairs, which are members of the IAC who take on the role for a one-year term. The Co-Chairs represent the IAC as points-of-contact for the SBME, track IAC and subcommittee milestones, coordinate with the SBME team before each IAC meeting, propose discussion items and lead IAC meetings.

Activities

The IAC meets quarterly via Zoom or a hybrid model, as decided by the committee. Members are expected to participate in at least three meetings per year. The agenda is set by the SBME team and the IAC Co-Chair(s). As appropriate, other key SBME faculty and staff may be invited. The first meeting will occur in February 2021, during which these Terms of Reference will be refined, and the goals of the IAC will be discussed in detail. Subsequent meetings will be used to update members on SBME's strategy and proposed changes, and to gather insights and recommendations.

Subcommittees

Three IAC subcommittees were formed in May 2021 to enable focused discussions on key SBME initiatives with 4-6 members, both from within and outside of the main IAC, who have strong expertise and interest in each of the three areas. The **Education** subcommittee informs curriculum alignment with industry trends and needs. The **Commercialization** subcommittee guides strategies for venture incubation and fostering commercialization fluency in trainees, faculty, and staff. The **Partnerships** subcommittee refines strategies to position the SBME as the partner of choice for industry. Membership is for a 2-year renewable term, with Zoom meetings occurring 3-4 times per year. Members are expected to attend at least 2 meetings per year. At times, two subcommittees collaborate on certain initiatives that pertain to more than one of these specialized groups. In those instances, joint subcommittee meetings may take place.

Responsibilities of the IAC

- Offer advice on strengthening the direction and activities of our research programs and new research initiatives in light of industry priorities and trends.
- Support the development and enhancement of a strong industrial network to address large-scale partnered research projects.
- Actively engage with SBME researchers to foster connections and potential collaborations.
- Provide input on strategy and growth of SBME's Innovation Hub and research translation efforts.
- Provide advice and recommendations on curriculum strategy, refinement and evolution, based on current and future needs and trends of industry.



- Promote the SBME through industry and professional contacts, and assist in growing industry support for our co-op program and in soliciting industry projects for our capstone design teams.
- Recommend outstanding professionals to provide field and industrial experience as adjunct professors and student mentors.
- Suggest creative ways to further implement respect, equity, diversity and inclusion principles throughout SBME's activities and initiatives.
- Advise on strategic fundraising for major initiatives.
- Contribute to mitigating potential risks of the program, including geopolitical and cybersecurity risks or threats.
- Track IAC and IAC subcommittees performance and impact metrics in collaboration with the wider SBME team.