Engineering Transformative Solutions for Health

SBME'S STRATEGIC PLAN INITIATIVES

2025 - 2030

THE UNIVERSITY OF BRITISH COLUMBIA

School of Biomedical Engineering
Faculties of Applied Science and Medicine

We respectfully acknowledge that the UBC Vancouver-Point Grey academic campus is located on the traditional, ancestral, unceded territory of the xʷməθkʷəy̓əm (Musqueam), and UBC operations in Vancouver more generally are also on the territories of the Skwxwú7mesh (Squamish) and səl̓ilwətaʔɬ (Tsleil-Waututh).

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Executive Summary

Since the School of Biomedical Engineering (SBME) was founded in 2017, we have grown rapidly, attracting exceptional faculty, top notch students and substantial funding. We have sustained an incredible degree of momentum and we are committed to maintaining it.

As such, we recently engaged in a thorough strategic planning process that sets out clear priorities for the School's next five years. These are our key areas of focus that shape our strategy and serve as the basis of our decision-making. They outline what we must accomplish in order to move closer towards SBME's Vision:

Transformed health and healthcare for all, achieved through innovative research and education at the convergence of engineering, medicine and biology.

From a foundation that prioritizes cutting-edge research, future-oriented educational programming, and strong partnerships, this plan also emphasizes strategic ecosystem engagement, building bridges with BC communities and throughout The University of British Columbia (UBC), strengthening clinical integration, a greater emphasis on research translation and innovation, financial sustainability and building our internal culture of shared success and belonging.

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Strategic Priorities

The plan sets out the strategic priorities that define our focus for the next five years:

1. **Delivering Dynamic, Research-Informed Educational Programming:** We will equip students and trainees with a comprehensive foundation in in biomedical engineering (BME), social responsibility and hands-on experience across a range of disciplines, so they are poised to address current and emerging health challenges.

2. **Propelling Biomedical Research Excellence:** We will advance knowledge and develop transformative technologies that shape the future of biomedical engineering and its application to health, positioning SBME as a global leader in fundamental and translational health science.

3. **Building Bridges Across Health Ecosystems:** Through collaborations within UBC, including including the Faculty of Applied Science (APSC) and the Faculty of Medicine (FoM), partnerships across the life sciences ecosystem and engaging the communities we serve, we will increase the relevance and impact of our research and educational programs.

4. **Accelerating Biomedical Translation:** We will significantly increase the translation of our research discoveries into real-world health solutions by strengthening translational infrastructure, expanding access to clinical and commercialization expertise and resources, and increasing the generation and application of intellectual property.

5. **Advancing SBME's Visibility, Impact and Leadership:** We will elevate SBME's national and global influence by strategically amplifying our groundbreaking discoveries, shaping policy and attracting top minds and resources.

Key Capabilities

Key Capabilities answer, 'what must we be good at, or develop, to achieve our strategic priorities?' Therefore, to realize the above priorities, we will focus on advancing the following foundational capabilities:

1. **A Culture of Collective Capacity:** SBME thrives because of the diversity of its people. By linking students, staff, and faculty across roles and disciplines, we will build a community where individual strengths drive shared progress in biomedical engineering research, education and innovation.

2. **Strong Governance, Distributed Leadership:** We will establish a robust, transparent and inclusive governance structure that fosters a strong, cohesive community with a shared sense of responsibility and ownership for SBME's broader goals and its impact.

3. **Sustainable, Diversified Funding:** We will establish SBME as a financially resilient entity by diversifying and expanding our funding sources.

4. **A Welcoming and Inclusive Environment Through Equity, Belonging and Reconciliation:** We will foster a welcoming and inclusive academic environment that embraces diversity, promotes equity and belonging, and advances Indigenous Reconciliation.

5. **Innovation with Purpose:** We will embrace a culture that values curiosity, takes calculated risks and empowers our community to challenge convention. Through thoughtful experimentation and agile execution, we will develop systems that enable rapid learning and deliver scalable impact across research, education, health systems, translation and public service. This includes both commercial and non-commercial innovations that advance care, equity and system performance.

With these strategic priorities and key capabilities in focus, we will be well-poised to transform health and healthcare for all.

Acknowledgements

The development of this plan was facilitated by Junxion Strategy, and informed by invaluable contributions from SBME's leadership team, staff, advisory committee members, faculty and students, who participated at various stages through the strategic planning process. An overview of the process we followed to develop the Strategic Plan can be found in Appendix 1.

Strategic Plan Priorities and Capabilities

PRIORITIES

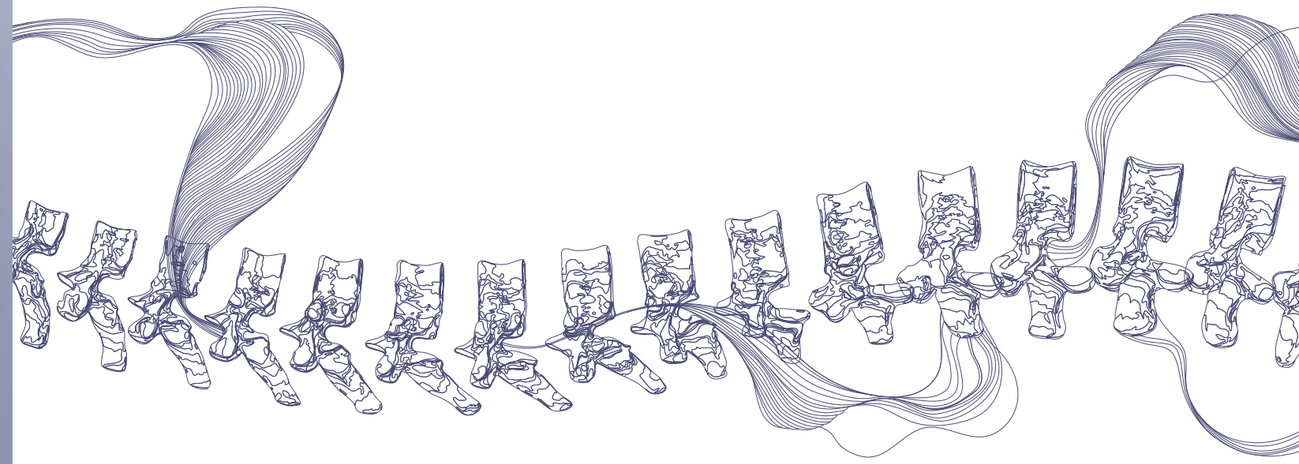
- Delivering Dynamic, Research-Informed Educational Programming
- Advancing SBME's Impact and Leadership
- Propelling Biomedical Research Excellence
- Building Bridges Across Our Health Ecosystem
- Accelerating Biomedical Translation

KEY CAPABILITIES

- A Culture of Collective Capacity
- Innovation with Purpose
- Strong Governance, Distributed Leadership
- Sustainable, Diversified Funding
- A Welcome and Inclusive Environment Through Equity, Belonging and Reconciliation

SBME Propels: Translating Innovation. Elevating Careers. Leading the Future.

SBME Propels is a professional development series delivered by the School that we enables several priorities and capabilities in our Strategic Plan. The program offers faculty, staff, trainees and students opportunities to build fluency in partnerships, translation, leadership, EDI and pedagogy. The series equips students and researchers with the additional skills they need for success, building the bridges from the classroom and the lab to the community, and connecting the school's mission to societal impacts.



Strategic Priorities

Strategic priorities are the key areas of focus that will guide our decision-making; they provide us with the necessary focus to propel us toward our Vision. They answer the question, 'what must we accomplish to move towards our Vision?"

Each strategic priority is presented with an over-arching objective and a series of key results we will work towards over the next five years as the means to achieving each objective.

We'll embrace an agile approach to implementation, reviewing the plan to determine our quarterly priorities, so that we remain responsive to the environment, opportunity windows, and new learnings and developments.

Priority 1: Delivering Dynamic, Research-Informed Educational Programming

Objective: *We will equip students and trainees with a comprehensive foundation in biomedical engineering, social responsibility and hands-on experience across a range of disciplines, so they are poised to address current and emerging health challenges.*

The key to a thriving BME ecosystem is a community with strong core engineering and biological competencies who are socially conscious, interdisciplinary thinkers. By cultivating this in our students and trainees, they will not only be equipped to drive technological advancements that address the health challenges of today, but the evolving health challenges of the future.

Key Results

1. Shape Relevant, Cutting-edge Programming by Engaging Industry Partners

To ensure our graduates are equipped with impactful, crosscutting skills, we will engage industry partners in refining our curricula, engaging them in teaching opportunities and internships.

a. Refine, define and bolster core BME capabilities within the undergraduate and graduate programs, with input from industry partners, and in response to emerging themes within BME teaching, learning and research.

b. Engage industry representatives in annual review of curricula, identifying and addressing educational gaps.

c. Embed industry within curricula to co-teach specialized courses with faculty members, to better integrate research- and industry-focused training.

d. Increase and industry involvement in internships, securing partnerships with 6 new companies for internships, mentorship or collaborative projects by 2028, and 10 companies by 2030.

2. Bolster Experiential Learning Opportunities

To provide our students with diverse, practical skills we will bolster their experiential learning opportunities through customized co-ops, internships and community-service opportunities, enhanced access to core facilities, collaborations with other institutions and by expanding our mentorship programs.

a. Connect SBME educational programming to the skills students and trainees are gaining in professional development programs like SBME Propels so they are in a stronger position to secure internships.

b. In synergy with the APSC co-op program, implement a tailored BME internship program for undergraduate and graduate students, with enhanced involvement from industry and health authorities, to provide 25% or more of our direct student placements.

c. Build our co-op and internship programs to follow a two-phase strategy: a four-month, skills-focused preparatory phase, followed by a longer external placement that builds on this foundation.

d. Establish partnerships with four external partners to subsidize trainees' access to core facilities.

e. Increase trainees' utilization of core facilities and teaching labs by identifying and addressing barriers to access.

f. Develop a suite of hands-on short courses in partnership with expert units, such as the Advanced Therapeutics Manufacturing Facility, to leverage SBME's new teaching spaces, lab and maker spaces that provide practical technical training across the breadth of BME and adjacent areas, such as business and artificial intelligence (AI).

g. Collaborate with other Canadian and global institutions to create project-based or research-based experiential learning opportunities with mutual benefits to students.

h. Leverage the Centre for Community Engaged Learning for community-service learning opportunities within our education to deepen students' understanding of societal challenges and ethical considerations.

3. Strengthen Clinical Integration

We will focus on strengthening SBME's clinical integration by increasing clinician-sponsored projects, improving access to clinical settings, and creating cross-training opportunities with clinical professional programs to enhance the clinical preparedness and real-world relevance of our students' work.

a. Establish an academic point of contact (e.g., instructor) for SBME clinical interactions.

b. Expand the "Engineers in Scrubs" program to increase the number of student-led projects involving clinicians, with a target of 10 projects per year by 2028.

c. Increase the number of clinician-sponsored undergraduate design projects, to enhance real-world applicability of student work.

d. Facilitate 20 student internships annually with health authorities by 2026.

e. Strengthen relationships with clinical stakeholders to remove policy barriers to access to clinical spaces by BME students.

f. Create opportunities for BME students to cross-train with students in clinical professional programs, such as medicine, nursing, occupational therapy, etc.

Priority 2: Propelling Biomedical Research Excellence

Objective: *We will advance knowledge and develop transformative technologies that shape the future of biomedical engineering and its application to health, positioning SBME as a global leader in fundamental and translational health science.*

The pursuit of knowledge and the development of impactful technologies are interconnected goals at the core of SBME's research mission. Breakthroughs in knowledge drive technological innovation, and emerging technologies, in turn, fuel new discoveries. SBME will accelerate this dynamic cycle by synergistically integrating bioengineering, imaging, computer science and human interfacing device development.

Key Results

1. Establish Synergistic Research Strategies

We will refine our research strategies by leveraging our core research strengths in biomedical engineering, and by fostering internal collaborations across SBME labs and clusters to strengthen capabilities and maximize impact.

a. Conduct a research mapping exercise by December 2025 to establish research themes that accurately reflect the disease applications and research conducted by our community, enhancing opportunities for innovation and major team funding.

b. Strengthen collaborations within identified research themes, striving for over 80% of faculty members to be involved in 3 or more collaborative projects with SBME and external members.

c. Incorporate research presentations into faculty gatherings to build a deeper understanding of one-another's research, to help formulate grand challenges, to share ideas across disciplines and to advance collaboration opportunities.

2. Strengthen Research Programs

We will enhance research excellence and impact by expanding support structures, including core facility programs and internal funding initiatives.

a. Launch a core facility partnership program across campus, creating a core suite for internal and external users, with a sustainable user fee target suitable to each core facility by 2027.

b. Establish a sustainable internal research fund of over $250,000 annually by 2028 to support pilot research projects in SBME.

c. Leverage SBME's research support (staff, facilities and expertise) to expand the breadth and depth of funding opportunities for all faculty.

d. Research funding secured by SBME faculty reflects a diverse portfolio of sources, including programs such as Horizon Europe, the Welcome Trust, CIHR, NSERC, CFI, Genome Canada and leading philanthropic and industry partners.

3. Strengthen Synergistic Partnerships

We will lead strategic national and international partnerships to drive collaborative research, amplify impact and accelerate societal benefits.

a. Develop resource-sharing alliances to support local and national research, including a hospital-partnered stem cell bank, shared use of the Biodevice Foundry, and access to SBME's biomechanical testing and advanced imaging capabilities.

b. Establish at least two formal, multi-institutional research partnerships with national and international organizations, such as the National Research Council and the University of Exeter, by 2028 to pursue joint research initiatives and collaborative funding opportunities.

c. Lead or participate in multiple international consortia, such as the Virtual Human Development Consortium, and initiatives in healthcare sensing technologies, AI-enabled diagnostics, biomechanics, immunology and synthetic biology.

4. Expand Accessible Research Output

We will increase our open, accessible research output by establishing a policy and guiding principles to ensure open access to a significant portion of our publications and preprint dissemination, and that is accessible and interpretable by the public.

a. Establish an SBME-specific policy and guiding principles to encourage research outputs that are open-access, including the necessary resources to implement such a policy.

b. Increase knowledge dissemination to the general public through at least 2 new campaigns or initiatives (e.g., YouTube series, open house, seminar series, etc.) that communicate research findings in an easy to understand, approachable manner.

c. Increase inter-SBME awareness of research findings by showcasing new study results through our newsletter and socials.

5. Prioritize EDI in Research

We will champion EDI efforts in research by educating our community about its importance and by providing researchers with the resources they need to incorporate EDI into their research.

a. Create and implement a bi-annual survey by Q4 2025 for SBME researchers (faculty, staff, students, etc.) to determine where there are gaps in knowledge and what resources are needed to successful integrate EDI into our researchers' work.

b. Establish a mini-series of workshops by 2026 that equip our researchers with the tools they need to improve EDI in their grant applications, their lab recruitment processes and their research.

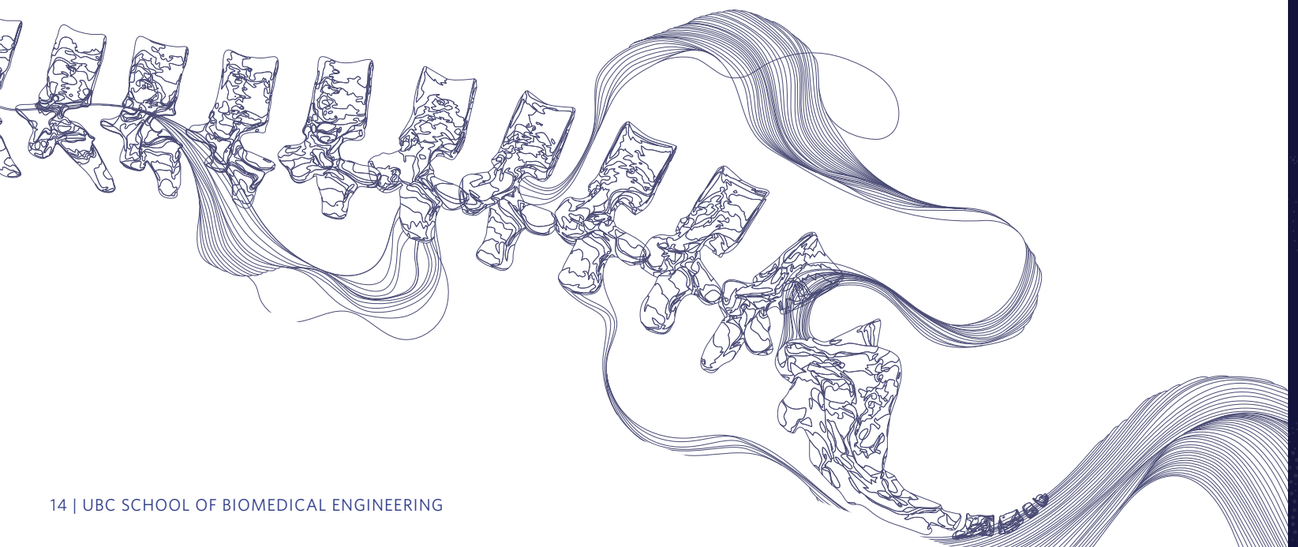
c. Publish an SBME wiki by Q2 2026 with links to EDI-related resources such as courses, workshops, grant-application guidelines, past applications, etc.

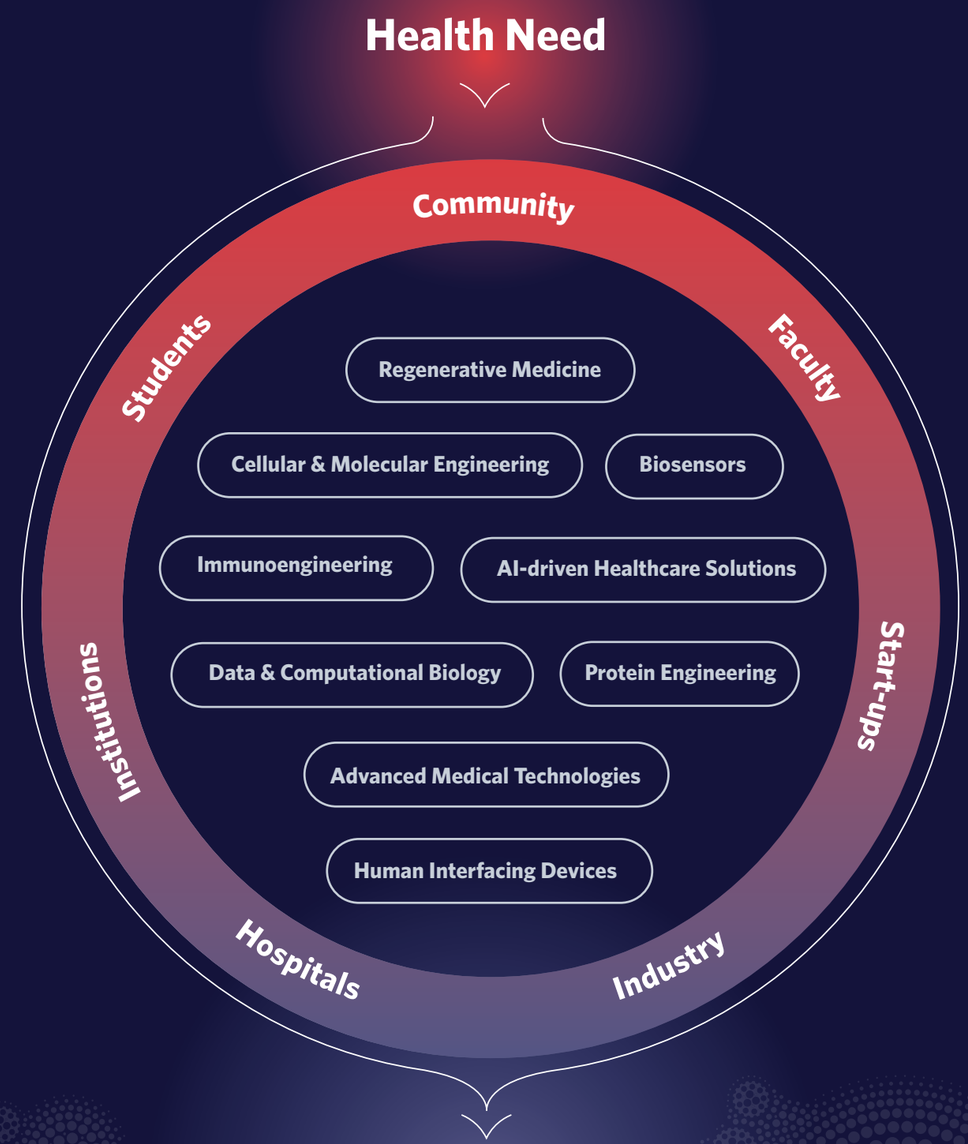
d. Strengthen existing partnerships with EDI-focused research support units on campus (e.g., UBC Research & Innovation), and build new partnerships with external groups (e.g., Tri-agency) to share knowledge and best practices.

SBME Research & Translation is Transforming Health Impacts

At SBME, our approach to research and translation is rooted in a fundamental understanding of biology as an engineered system. We operate across scales from the molecular and cellular realms to the macro level of human physiology. With advances in regenerative medicine, imaging, AI, cellular engineering and more, we no longer have to engineer around biology, but with it.

SBME researchers are advancing knowledge in disease detection, drug delivery, injury prevention, and are improving health-care outcomes with faster and more precise technologies and diagnostic systems. Biomedical engineers are building a future where cures to degenerative diseases are possible, where devices seamlessly integrate with our bodies to assist and support critical functions, and where data-enabled algorithms help us detect and prevent disease and injury before they occur. Cell and tissue engineering has the potential to change how we think about disease and aging and move towards a system of regenerative medicine, using stem cells and biomaterials to repair, replace or regenerate damaged tissues and organs. We design human interfacing devices and engineer strategies for people with chronic disease, traumatic injury, and mobility limitations to help them integrate more fully with their environment. And finally, our imaging and computational biology researchers utilize modern computation tools such as artificial intelligence and machine learning, computer simulations or big data analytics to describe biological phenomenon.





Health Impacts

Treatment
Improving Diagnostics
Diagnostics
Preventative Care
Theraputics
Devices

Priority 3: Building Bridges Across Our Health Ecosystem

Objective: *Through collaborations within UBC, including APSC and FoM, partnerships across the life sciences ecosystem, and engaging the communities we serve, we will increase the relevance and impact of our research and educational programs.*

Cultivating strong relationships within UBC and the broader community—particularly underrepresented groups— is essential to achieving SBME's vision. By bringing together diverse perspectives and expertise, SBME and its partners can make informed decisions about the technological advancements necessary to meet the needs of the communities we serve. Additionally, SBME aims to cultivate meaningful, reciprocal and beneficial partnerships with industry, clinicians, health authorities, governments, and research institutes. These collaborations will enhance our reputation as a center of expertise, broaden student exposure to diverse career paths, and ensure the relevance and impact of our research and educational programs.

Key Results

1. Strengthen Relationships

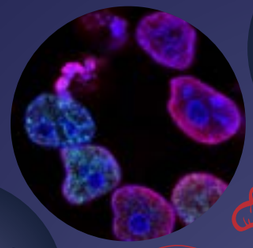
Within and across UBC, we will strengthen our relationships and collaborations with the Faculty of Medicine, Faculty of Applied Science and other faculties to generate shared opportunities and accelerate shared success.

a. Develop impactful new joint academic initiatives with the Faculty of Medicine and the Faculty of Applied Sciences (e.g., shared courses, digital health with nurses, co-taught programs, shared staff between units) by 2030.

b. Establish a strategic partnership with Sauder School of Business and Allard School of Law to support research commercialization and business development opportunities for trainees and faculty.

c. Leverage SBME Innovates to accelerate translational research and rapidly deliver impact for partners across UBC, including the Faculty of Medicine, the Faculty of Applied Science and Sauder School of Business.

The Heart of Innovation: Driving Health Solutions from Lab to Patient



2. Improve Translational Integration with Clinical Partners

We will deepen relationships with hospitals to strengthen clinical integration within SBME and develop pipelines for clinical translation.

a. Deepen relationships between SBME and hospitals and their research institutes to identify common priorities for collaboration by 2028.

b. Support at least three joint clinical-academic research projects annually, with impacts on patient care or health system efficiency by 2030.

c. Establish SBME as the primary source of engineering design expertise for the health authorities, particularly to complement their business development initiatives.

3. Extend Our Engagement with BC Communities

We will build relationships with diverse and broad-ranging communities, including Indigenous and underrepresented/underserved communities, to better meet the needs of the communities we serve.

a. Establish partnerships with at least two Indigenous communities or patient communities by 2030, focusing on better understanding these communities and their stakeholders to recruit students and to inform SBME's research and initiatives.

b. Implement a 'Research Ambassador' program by 2027, where 10 students annually conduct outreach activities in local communities.

c. Host a high-impact workshops by 2028 for Indigenous communities to reciprocate knowledge sharing.

d. Implement two research outcomes in community or clinical settings by 2029, prioritizing solutions that enhance accessibility and equity in healthcare innovation.

4. Enhance Strategic Advisory Engagement

We will enhance how we gather and apply input from our advisory boards and committees to ensure external perspectives are meaningfully integrated into SBME's academic, translational and societal missions.

a. Expand the current Industry Advisory Committee into a broader Stakeholder Advisory Committee that includes representatives from academia, healthcare, and government.

b. Refresh the SBME External Advisory Board (EAB) to reflect current priorities, with updated membership and a clarified mandate.

c. Implement a standardized annual feedback cycle across all advisory bodies, including focused pre-read materials, priority-driven agendas and concise outcome summaries with tracked follow-up actions and metrics.

Priority 4: Accelerating Biomedical Translation

Objective: *We will significantly increase the translation of our research discoveries into real-world health solutions by strengthening translational infrastructure, expanding access to clinical and commercialization expertise and resources and increasing the generation and application of intellectual property.*

Translating cutting-edge biomedical research into tangible benefits for patients and society requires more than just scientific excellence—it demands robust support systems, strategic resource sharing, and a focus on protecting and leveraging intellectual property. SBME will build on its strengths by connecting researchers and early-stage ventures with technical expertise, clinical capabilities, commercialization infrastructure, and mentorship networks. By securing sustainable funding and fostering collaborations, we will provide the foundation needed for successful translation and commercialization. Our efforts will also focus on increasing clinically relevant testing, patent filings and ensuring our intellectual property leads to industry and/or clinical partnerships, so that SBME innovations can drive meaningful improvements in health care.

Key Results

1. Establish and Enhance SBME Innovates' Impact Through Strategic Support and Sustainability

We will strengthen SBME Innovates' role as one of UBC's leading biotechnology incubators by leveraging our technical expertise, infrastructure and mentorship networks to support early-stage ventures, while securing long-term sustainability through a hybrid funding model that includes grants, industry sponsorships and research partnerships.

a. Formalize strategic agreements with UBC Innovates, the Faculty of Medicine, and the Faculty of Applied Science to position SBME Innovates as a core pillar of UBC's broader innovation ecosystem.

b. Collaborate with campus-based and sector-specific incubators and accelerators to ensure SBME ventures have defined pathways to clinical and commercial translation, while benefiting from shared resources and expertise.

c. Establish a sustainable financial model supported by peer-reviewed grants, strategic industry partnerships and translational research collaborations.

2. Strengthen Clinical Translation and Intellectual Property Pathways

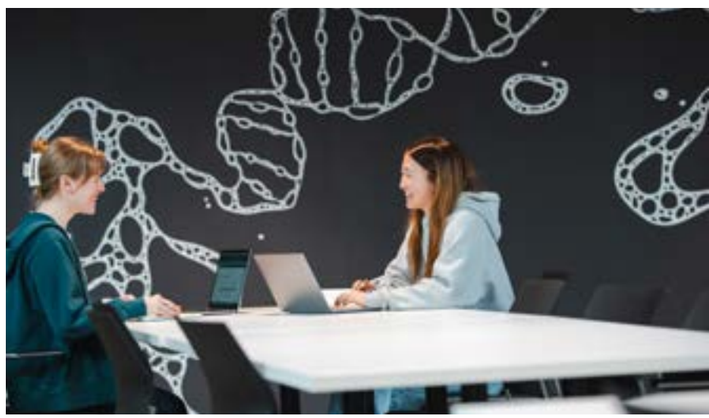
We aim to accelerate clinical translation by supporting both intellectual property development and the advancement of innovations rooted in technical know-how, engineering design, and platform expertise.

a. Establish internal mechanisms by 2026 to support clinical translation and IP advancement, including strategic advising, disclosure support, funding, and a centralized hub that connects SBME researchers with key UBC partners such as Innovation UBC, along with Life Sciences British Columbia (LSBC), Innovate BC, and National Research Council of Canada Industrial Research Assistance Program (NRC IRAP). This hub will guide researchers through disclosure, licensing, and translational pathways—including those not solely dependent on patents—and track SBME's innovation and clinical translation activity over time.

b. Collaborate closely with Innovation UBC to align SBME's strengths in biomedical engineering and translational research with university-wide resources for IP management, clinical deployment, regulatory navigation and early-stage translational funding.

c. Cultivate a translational mindset by engaging faculty and trainees through workshops, clinical need-finding programs, clinician-inventor partnerships, and integration of IP and translation education (e.g., SBME's IP Strategy & Management course).

d. Increase the number of disclosures and translational projects year over year, with a target that at least 50% of SBME-originated innovations result in meaningful translational advances by 2030.



Priority 5: Advancing SBME's Impact and Leadership

Objective: *We will elevate SBME's national and global influence by strategically amplifying our groundbreaking discoveries, shaping policy and attracting top minds and resources.*

Through targeted science communication, internal message alignment, policy engagement, and partnerships, we will ensure that SBME's work leads to real-world breakthroughs while drawing the best people and resources to support us in our mission.

Key Results

1. Recruit and Develop Research Talent

We will recruit faculty members to address critical gaps, develop strong support systems for retention, and implement mechanisms to attract top graduate students, postdoctoral fellows and researchers, establishing SBME as a hub for biomedical engineering.

a. Complete currently-planned faculty recruitments by 2026.

b. Develop and implement a comprehensive faculty hiring strategy by 2026, focusing on identifying key teaching and research needs.

c. Increase enrollment of purpose-driven, high-achieving graduate students by 25% over three years, as measured by entrance surveys and academic indicators.

d. Ensure our students demonstrate improved resilience and problem-solving ability through challenge-based learning assessments.

e. Establish an annual fund for trainees by 2026 to support trainees' participation in conferences, workshops and specialized training.

f. Develop and implement two additional CREATE-style programs in emerging biomedical engineering fields and leverage SBME Propels to support the programs.

g. Strengthen the SBME student experience by, for example, ensuring all graduate students have a core SBME faculty member on their committee and by creating opportunities for first-year undergraduates to engage in research labs early in their academic journey.

2. Amplify Our Stories and Increase Influence

We will amplify our stories and grow SBME's influence by investing in science communication, public engagement, and strategic storytelling that supports our goals in recruitment, culture, academic excellence and research translation.

a. Develop and implement a comprehensive science communication strategy that equips faculty, staff and students with skills to effectively share their research with diverse audiences through training, media coaching and storytelling workshops.

b. Publish at least 15 human interest stories annually across SBME's website and social platforms, showcasing the impact of our research, student experiences and translational successes.

c. Generate regular major media pitches and content campaigns to elevate SBME's national and international profile in biomedical engineering and life sciences.

d. Leverage digital platforms—including social media, blogs and webinars—to disseminate research findings, highlight community impact and foster engagement with the global BME community.

e. Strengthen outreach to youth, schools and the public through events and partnerships, positioning SBME as a top destination for future talent and a leading voice in life sciences networks and consortia.

3. Showcase SBME and Strengthen Our Global Reputation Through Signature Events

To showcase our new building, build SBME's reputation and contribute to science and translation locally and internationally, we will host transformational events that engage global audiences, elevate our academic community and foster cross-sector collaboration.

a. In partnership with UBC, Life Sciences British Columbia (LSBC) and others, contribute to hosting an annual industry-focused global conference by 2027 to position SBME as a leader in biomedical innovation.

b. Support faculty in hosting at least two international academic conferences per year by 2028 to bring global research leaders to SBME.

c. Maintain a vibrant, public-facing seminar series featuring our faculty to drive engagement and visibility.

d. Host an annual Open House to welcome the community, inspire youth, and share our work with the broader public.

Key Capabilities

To deliver on our strategic priorities, SBME will invest in developing five Key Capabilities. These are generally defined as new or high priority operational strengths that will support our ability to achieve our Strategic Priorities. Key Capabilities answer, 'What must we be good at, or develop, to achieve our strategic priorities?'

Capability 1: A Culture of Collective Capacity

Objective: *SBME thrives because of the diversity of its people. By linking students, staff, and faculty across roles and disciplines, we will build a community where individual strengths drive shared progress in biomedical engineering research, education, and innovation.*

Through targeted science communication, internal message alignment, policy engagement, and partnerships, we will ensure that SBME's work leads to real-world breakthroughs while drawing the best people and resources to support us in our mission.

Key Results

1. Foster Understanding & Collaboration

We will foster understanding and collaboration within our community by implementing joint lab meetings, increasing participation in seminars and social events, promoting cross-themed research discussions, and launching a peer mentorship program to enhance connections and inspire collaborations across SBME.

a. Implement a 'Joint Lab Meeting" or work-in-progress event series for faculty and graduate students, with a view to enhancing connections and inspiring collaborations across the SBME community.

b. Increase SBME community's attendance at seminars, social events and Symposium by 30% in 2026, compared to 2025.

c. Implement a mentorship program pairing new research staff (PDF, RA, Tech) with experienced team members by Q1 2026, with 100% of new hires matched within their first month.

d. Re-structure SBME Research Day to showcase research from all labs, increase engagement and active participation and better facilitate knowledge exchange.

2. Amplify Internal and External Recognition

We will develop initiatives to honour our community's contributions and increase our nominations for prestigious awards at institutional, national and international levels.

a. Develop a formal SBME recognition program by 2026 to highlight faculty, staff and student contributions in research, teaching and service.

b. Increase faculty and student award nominations by 10% by 2027 at institutional, national and international levels.

c. Incorporate a review of award opportunities into each faculty members' merit review meeting.

d. Increase staff institutional level award nominations by 20% by 2027.

e. Organize monthly 'Role Spotlight' presentations during staff/faculty meetings, featuring different team members and their contributions to SBME's mission, with 100% of roles presented by 2028.

3. Strengthen SBME Identity and Culture

We will strengthen SBME's identity and culture supporting faculty and staff members to thrive through opportunities for leadership development and creation of strategies to engage with our students from their academic journey to becoming alumni.

a. Conduct an annual SBME community survey to assess sense of belonging, integration and confidence, with a 10% year-over-year increase in positive responses and utilize the data to inform improvements.

b. Launch an SBME alumni engagement network, ensuring at least 60% of alumni remain connected through mentorship, events and advisory roles.

c. Create strategies to help alleviate workload and/or administrative burdens, develop leadership opportunities and support changes to work-life balance.

Capability 2: Strong Governance, Distributed Leadership

Objective: *We will establish a robust, transparent and inclusive governance structure that fosters a strong, cohesive community with a shared sense of responsibility and ownership for SBME's broader goals and its impact.*

Effective governance is crucial for creating a cohesive and motivated community. By implementing clear processes, fostering open communication and distributing leadership responsibilities, we aim to build a governance model that supports our strategic objectives while nurturing a positive and productive work environment.

Key Results

1. Optimize Administrative Support and Resource Allocation

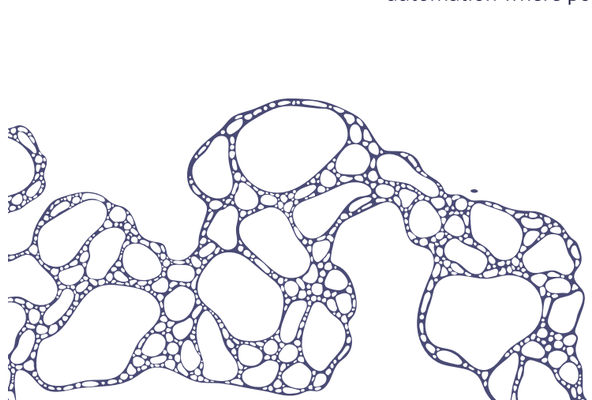
We will optimize our administrative support and resource allocation by conducting a comprehensive needs assessment, implementing a resource optimization plan, streamlining workflows, aligning budgets, and automating processes to enhance efficiency, reduce operational costs, and align activities with prioritized strategic objectives.

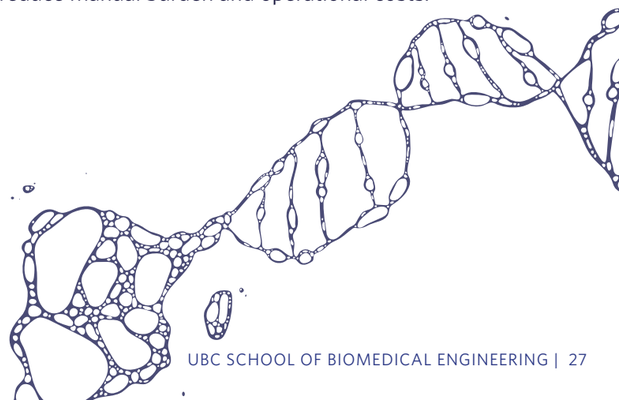
a. Conduct a comprehensive administrative needs assessment by 2026, identifying key areas of challenge and potential solutions.

b. Identify key areas of inefficiency, redundancy and resource-intensive processes and implement a resource optimization and budget alignment plan by 2026.

c. Establish a yearly review process by 2027 to align activities with strategic objectives, budget and resource constraints, through a prioritization framework.

d. Continually streamline administrative workflows and implement process automation where possible to reduce manual burden and operational costs.





2. Develop an Evaluation Framework to Measure Progress

We will track progress on our key results and overarching goals and regularly update our strategic plan at faculty retreats to ensure accountability and alignment with our objectives.

a. Develop and implement a dashboard by Q4 2025 to track progress on all key results.

b. Identify performance measures for each of our strategic objectives, establish leaders and support mechanisms for these objectives, set targets and measure our progress.

c. Review and update our annual priorities at each faculty retreat.

3. Foster Distributed Leadership

We will foster distributed leadership by implementing a model that empowers faculty, staff, and students to lead strategic initiatives, and providing leadership development opportunities.

a. Conduct an annual survey of faculty and admin staff to identify the priorities they are currently advancing or planning to pursue, ensuring alignment with SBME's strategic goals.

b. Identify baseline participation in the Faculty of Medicine, the Faculty of Applied Science and UBC-wide leadership development programs and implement strategies to increase staff and faculty engagement by 2027.

c. Leverage existing or expanded Associate Director and Program Lead roles (e.g., education, research, EDI and partnerships) as rotational leadership opportunities or leadership incubators. Faculty and staff can serve in these roles for 1–2 years, with clear deliverables and mentorship from senior leaders—building leadership capacity while advancing SBME priorities.

Capability 3: Sustainable, Diversified Funding

Objective: *We will establish SBME as a financially resilient entity by diversifying and expanding our funding sources.*

SBME recognizes the need to adapt to changing financial landscapes within UBC and the broader academic environment. As we transition from our initial launch phase, we aim to develop a robust and diverse funding strategy that ensures our continued growth and impact in biomedical engineering research and education.

Key Results

1. Integrate Government Relations into SBME's Partnerships Strategy

We will embed targeted government engagement within SBME's broader partnerships strategy, leveraging existing relationships and institutional infrastructure to secure strategic funding commitments and inform policy development. This approach will ensure alignment with UBC's government relations activities and optimize SBME's ability to navigate and respond to evolving government priorities.

a. Incorporate government engagement strategies into SBME's annual partnership roadmap by Q1 2026.

b. Monitor key government funding opportunities, policy shifts and emerging initiatives relevant to biomedical engineering.

c. Coordinate at least two strategic engagements per quarter with federal or provincial funding agencies, policymakers or sector partners, led by SBME's partnerships team in collaboration with UBC's Government Relations Office.

d. Leverage SBME's existing university, industry and health partnerships to align with key government funding programs, securing at least one multi-partner grant or funding commitment annually to support faculty research, trainee programs and lab infrastructure.

e. Develop and maintain an internal Government Funding & Advocacy Tracker, mapping key funding opportunities, policy shifts, and strategic engagements to ensure SBME remains proactive in securing long-term support.

2. Strengthen SBME's Financial Sustainability within UBC

We will strengthen our financial sustainability by increasing co-funded research, establishing an endowment fund, launching joint-fundraising campaigns, and developing creative approaches to diversifying our revenue streams.

a. Increase industry co-funded research agreements by 30% by 2028 to strengthen financial sustainability through external collaborations, industry overhead and other co-funding mechanisms.

b. Establish a targeted fundraising strategy by 2026 to raise $50 million in philanthropic support by 2030—including a school naming gift and a $20 million endowment fund—focused on faculty expansion, research initiatives and discretionary funding through industry, philanthropic and alumni engagement.

c. Offer fee-for-service models for industry collaborations, leveraging SBME's expertise and core facilities.

d. Establish Continuing Education and Professional Development Programs that attract revenue – consistent with micro-credential and distributed learning model at UBC.

e. Launch a joint fundraising campaign by 2030 with the Faculty of Medicine, Faculty of Applied Science or a major hospital foundation, establishing philanthropic partnerships in key areas such as cancer engineering, biomechanics of health and aging, and other shared priorities.

f. Work with undergraduate and graduate recruitment teams to ensure seats are filled by educating prospective students about the career opportunities within BME.

3. Increase Success Rates on Research Funding

We will focus on increasing our research funding success by strategic grant support, monitoring mentorship programs for junior faculty and researchers, providing targeted support through workshops and peer-review panels, and expanding large-scale team grants to secure substantial funding commitments.

a. Implement an internal, opt-in peer review process for major grant applications, complemented by targeted grant writing workshops focused on specific funding programs (e.g., CIHR Project, NSERC Discovery, NIH R01).

b. Use data from the ARPT/Merit process to identify faculty who may benefit from additional support, ensuring strategic, needs-based resource allocation to strengthen proposal quality and competitiveness.

c. By Q2 2026, leverage the current Research Manager role as the primary mechanism for coordinating strategic actions and providing dedicated resources for proposal development, submission, and faculty support.

d. Implement a targeted support program to enhance funding success, such as dedicated workshops and peer-review panels, supporting over 50% of SBME research groups to secure more than $500,000 in annual research funding.

e. Maintain and expand large-scale team grants, advancing at least 2 major team grants per year exceeding $10 million annually.

Capability 4: A Welcome and Inclusive Environment Through Equity, Belonging and Reconciliation

Objective: *We will foster a welcoming and inclusive academic environment that embraces diversity, promotes equity and belonging, and advances Indigenous reconciliation.*

SBME recognizes that creating an inclusive culture is crucial to its overall success and a moral imperative. By fostering a sense of belonging, we will increase productivity, attract diverse talent, and contribute meaningfully to the broader goals of reconciliation and equity at UBC and beyond.

Key Results

1. Advance Equity, Diversity and Inclusion Through Informed Strategy

We will advance Equity, Diversity and Inclusion (EDI) in SBME by completing a comprehensive assessment that informs a comprehensive strategy, aligned with UBC's broader EDI goals and ensuring ongoing progress and accountability.

a. Engage the REDI Committee and formal experts to develop and implement a comprehensive EDI strategy by Q2 2026, with quarterly progress updates.

b. Collaborate with UBC's Equity and Inclusion Offices (UBC, FoM, APSC) to leverage activities in a SBME–specific manner Identifying at least five synergistic areas for collaboration.

c. Establish transparent processes for EDI committee membership and renewal.

d. Create SBME Propels stream related to EDI in research

2. Work Towards Indigenous Reconciliation

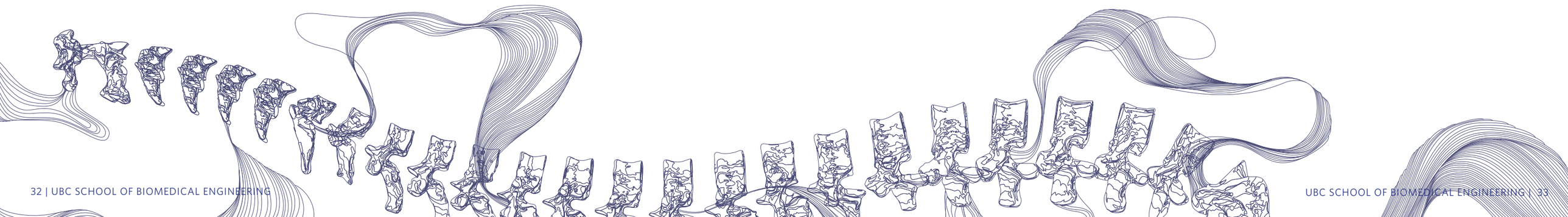
We will authentically work towards Indigenous reconciliation by strengthening Indigenous representation on our Indigenous Engagement Committee, developing and implementing a comprehensive reconciliation action plan, and increasing Indigenous student enrollment and content integration in our programs. This plan will demonstrate SBME's active commitment to reconciliation by supporting change, building reciprocal relationships, and ensuring accountability to Indigenous peoples and communities, in direct support of the UBC ISP's core themes.

a. Develop and implement an Indigenous Strategic Plan for SBME that supports and aligns with the UBC Indigenous Strategic Plan (ISP). The plan will be developed in partnership SBME's Indigenous Consultant with the Faculty of Applied Science (APSC), the Faculty of Medicine (FoM), and Indigenous community representatives and will be completed by Q1 2026. The plan will include clear, measurable actions across research, curriculum, student pathways and community partnerships.

b. Build and sustain respectful relationships with Indigenous partners through community-led collaboration and create dedicated strategic programming to catalyze research that is co-developed by Indigenous Communities and host at least one Indigenous-led public seminar, panel or cultural learning session per year to promote campus-wide engagement and shared learning.

c. Create pathways that support Indigenous student access, retention and success – encouraging internships, tapping into SeedtoStem and Bridging Biomedical Engineering with Underserved Communities program.

d. Advance Indigenous visibility and engagement across SBME programs and culture. SBME will strengthen Indigenous presence and participation by delivering inclusive programs and resources that reflect Indigenous knowledge systems, support student success and build cultural safety.



Capability 5: Innovation with Purpose

Objective: *We will embrace a culture that values imagination, calculated risk, and empowers our community to challenge convention. Through thoughtful experimentation, agile execution and purposeful learning, we will develop systems that enable rapid learning, celebrate creativity and deliver scalable impact across research, education, translation and service.*

While innovation is a cross-cutting capability that is operationalized across all strategic priorities, the following Key Results are specifically intended to build the cultural and operational dimensions required to foster a culture of innovation at SBME.

Key Results

1. Increase Industry-Partnered Research and Innovation

We will strengthen our industry partnerships to accelerate research innovation and commercialization, fostering a collaborative ecosystem that enhances knowledge translation and drives impactful biomedical solutions.

a. Increase the number of industry-partnered research grants and research chairs by 30% by 2029.

b. Establish three endowed partnerships, valued at $5 million or more, by 2029.

c. Establish formalized research and clinical partnerships to enhance knowledge translation and commercialization opportunities for SBME innovations.

2. Catalyze a Scalable Innovation Ecosystem

We will establish and sustain a robust innovation pipeline that empowers the SBME community to translate bold ideas into scalable ventures and health system solutions.

a. Position SBME Innovates as a key UBC incubator for early-stage biomedical ventures, ensuring alignment with university-wide innovation and commercialization strategies.

b. Maintain a steady-state capacity of 8-10 high-impact ventures in the incubator, ensuring quality over quantity and maximizing successful spinouts.

c. Ensure 50% of incubated ventures originate from SBME faculty by 2028, reinforcing the incubator's role in commercializing university research.

d. Support at least two SBME faculty- or trainee-founded ventures per cohort to successfully graduate from SBME Innovates by 2028, transitioning toward independent operations such as securing external lab space or equivalent infrastructure.

e. Strengthen SBME's role within UBC's innovation ecosystem by working in close partnership with Innovation UBC to align venture support efforts, intellectual property strategy and translational pathways.

f. Collaborate with Innovation UBC to ensure coordinated support for SBME-affiliated ventures, from early-stage project development through to commercialization and startup formation.

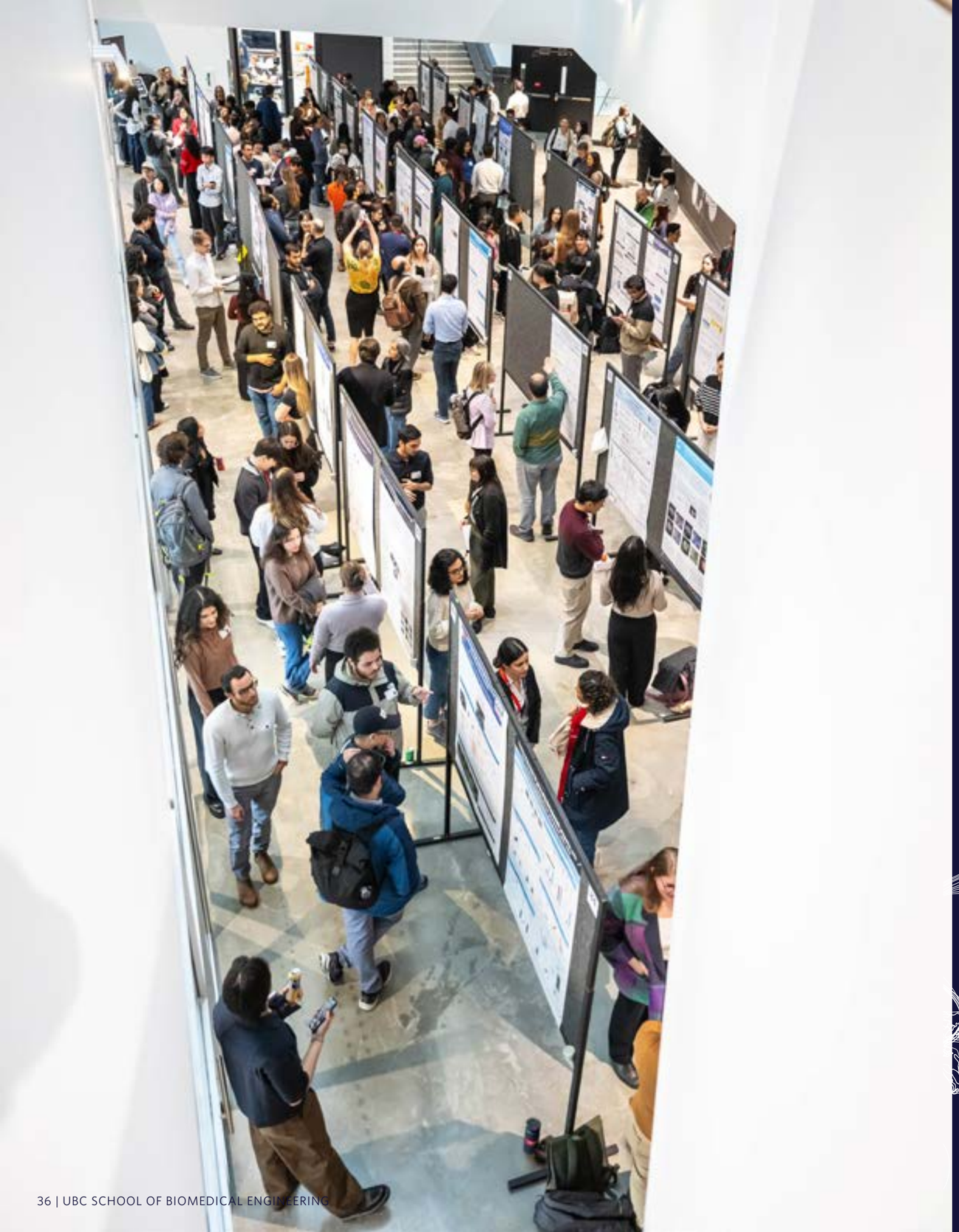
3. Build SBME's Innovation Culture and Competency

We will foster a vibrant culture of innovation and strengthen organizational capability by integrating innovation-focused learning and leadership opportunities, celebrating creativity and experimentation through community events, and developing a framework to measure and communicate our innovation impact across research, education, and translation.

a. Integrate innovation-focused learning and leadership development opportunities.

b. Foster an internal culture of experimentation and creativity through annual events.

c. Develop a framework to measure and communicate SBME's innovation impact.



Appendices

Appendix 1: **Strategic Planning Process**

SBME engaged Junxion Strategy to guide and facilitate the strategic planning process. The process was designed to seek a range of perspectives on our work and opportunities that lie ahead.

Discovery Phase

The process began with a Discovery phase to gather and compile information about the factors contributing to SBME's success, challenges, and current context.

Environmental Scan
The environmental scan included a high-level PESTLE analysis – examining the political, economic, social, technological, legal, and environmental factors to consider during the strategic planning process. This furthered our understanding of the opportunities and threats faced in the current and forthcoming context. This also included a review and assessment of SBME's benchmarks – institutions excelling in biomedical engineering research, innovation, translation and educational programming.

Interviews
We conducted in-depth interviews with sixteen representatives of SBME's leadership team, advisory committees, staff, faculty, and UBC partners. These interviews provided us with in-depth insights into SBME's context, strengths and opportunities to pursue.

Focus Groups
We conducted focus groups with SBME's Leadership Team in August 2024, another with faculty in November 2024, and one with the Industry Advisory Committee in December 2024. These focus groups discussed aspirations for the next five years, including what success might look like.

Survey
We conducted a survey of SBME's staff, faculty and students to gather their perspectives on SBME's strengths, opportunities, and topics that had emerged during other Discovery activities. We received 244 responses to a survey emailed to roughly 1000 stakeholders.

Initial Insights
Upon completion of Discovery, Junxion presented a synthesis of the findings, organized into nine prominent themes and discussed in a facilitated dialogue:

1. Fertile Land
2. Nurturing the Seeds You've Planed
3. The Power and Potential of Purpose
4. Cultivating a World-Class Organization
5. Committees, Committees, Everywhere...
6. Building a Home for Our Students

Strategy Phase

Junxion Strategy facilitated two full-day, in-person workshops with SBME's leadership team, as well as additional student body, staff and faculty representatives. The first workshop served to gather broad, divergent thinking, building from the Initial Insights that emerged through the Discovery phase of this project and participants' new thinking.

During this workshop, we identified the short, medium and long-term outcomes we desire to achieve, as necessary pre-conditions for achieving our Vision, as represented by the Theory of Change.

These conversations laid the groundwork for the second strategic planning workshop, where we identified the objectives to focus on over the next few years in order to achieve the outcomes laid out in our Theory of Change. This workshop enabled focused dialogues to converge the range of ideas we had explored into a more viable list of priorities and the capabilities necessary to achieve them.

Appendix 2: **Agile Implementation**

To ensure this strategic plan is thoroughly implemented and maintains its relevance over time, SBME will update its progress on the plan regularly. Patrick Lencioni's 'Siloes, Politics and Turf Wars' outlines a suitable approach to agile implementation. Generally, the process includes:

1

Implementation Launch:
The development of a short-term action plan, using a Quarterly Scorecard model

2

Quarterly Meetings:
The leadership team will engage in quarterly meetings to look back on progress made during the previous quarter, set a new theme and associated objectives for the subsequent quarter, and establish a RACI table—Responsible, Accountable, Consulted, and Informed—for the next quarter.

3

Check-ins:
Every two weeks, the leadership team will meet to ensure the group is staying focused and making progress on the quarterly theme.

Appendix 3: **Document Version Control**

Version 1

The first version was developed by Junxion Strategy, on completion of the strategic planning workshops Junxion facilitated with SBME in February 2025. It was presented to representatives of SBME on February 25, 2025.

Version 2

The second version was refined by Junxion Strategy, after receiving feedback from the Leadership Team. It was shared with a wider group of SBME representatives the week of March 17, 2025.

Version 3

The third version was refined by Junxion Strategy, after receiving additional feedback from the Leadership Team, the Industry Advisory Committee, and faculty. It is the final version and ready for publication

Appendix 4: **Biomedical Illustrations**

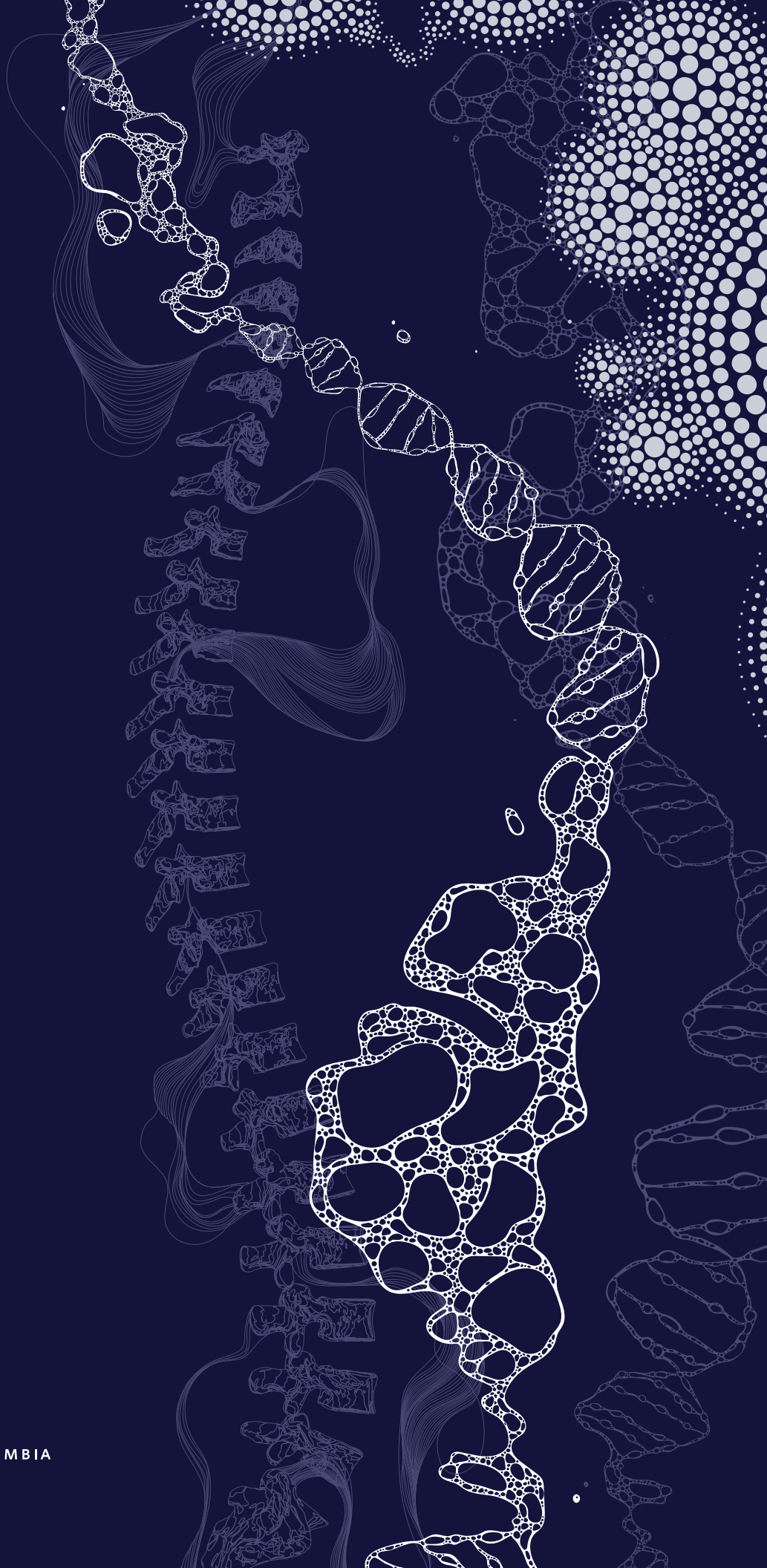
The graphic images through this Strategic Plan are part of an art installation in the newly opened Gordon B Shrum Building Created by Dr. Jen Ma, PhD. Jen is a science communicator and artist with a background in Stem Cell Bioengineering.

The mural spans four storeys and celebrates the dynamic relationship between biology, engineering, and human health and is inspired by the research and vision of the School of Biomedical Engineering (SBME

A continuous stream flows across each level, representing SBME's integrated engineering approaches and their seamless connection to the human body. On every floor, the stream takes on a new texture—symbolizing distinct research themes and reveals objects that emerge at different scales of biology, from molecular to systemic.

When you view this artwork in-person, it appears larger-than-life, these abstract forms inspire a sense of wonder and possibility. Their deliberate design evokes the precision and purpose of SBME's work, while their openness allows for individual interpretation and imagination.

Minimalist in palette yet rich in meaning, the images brings together complexity and calm, science and art. It stands as both a reflection of SBME's present and a bold expression of its future: a place where discovery flows endlessly, and innovation knows no bounds.



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