

SBME PROPELS

Professional Development Series

Built in partnership with entrepreneurship@UBC, SBME PROPELS is an extracurricular series of workshops, seminars and panels for trainees and faculty at UBC’s School of Biomedical Engineering (UBC). The virtual series will run throughout the 2021-2022 academic year, and will include 4 streams, offered in parallel from September 2021 to April 2022:

Stream	Goal is to build fluency in...	Main target audience (SBME)
Research Partnerships	The benefits, types and processes of research partnerships, and related supports available within UBC	All faculty and students
Translating Your Innovation	Knowledge translation and commercialization of research innovations	All faculty and students
BME Career Pathing & Practical Skills for Trainees	Career pathing and essential professional skills	All students and postdoctoral fellows
Leadership: PIs as CEOs	Effective leadership of a research group and program	Early-career researchers

Outline: The following pages present an outline of our vision for the topics and content for each of the four streams.

Format: Individual sessions will take place at 12-1pm PT (lunch-and-learns), virtually via Zoom. We look forward to working with our partners, speakers and panelists to define the format of each session (seminar, workshop, panel discussion).

Audience: The series, as well as individual sessions, will be open to the entire SBME community.

Contact: Raquel De Souza, SBME Partnerships Manager – raquel.desouza@ubc.ca

Stream 1: Research Partnerships

1. Why Partnered Research?

Topics: Introduction to series; value of external partners to research; value to partners; overview of UBC's resources to support partnered research

2. Identifying, Approaching, and Securing a Partner

Topics: Types of external partners (industry, local & international, clinical, not-for-profit, communities); outreach strategies; identifying potential synergies and challenges researchers can address; crafting a value proposition and positioning the win-win

3. UBC's Policies and Procedures

Topics: UBC's research and inventions policies; conducting intellectual property discussions; UBC's research agreements process for partnered research project; understanding your collaborative research agreement; managing a collaboration with a UBC spin-off company

4. Partnership Funding Opportunities

Topics: Making a case to your industry partner (SR&ED credits, government matching funds, comparisons to in-house research costs); leveraging government funding to match partner investments (Innovate BC, CDTS, NSERC, MITACS, MSFHR, NRC IRAP); funding projects with international partners; effective grantsmanship for partnered projects

Stream 2: Translating Your Innovation

1. Getting Your Ideas into Practice

Topics: Technology transfer, company creation, knowledge translation/exchange; panel of researchers who have taken each path

2. Commercialization Considerations for Early-stage Academic Project Design

Topics: Engaging commercialization experts early in the research process; protecting your innovation & UBC's disclosure process; creating a successful start-up from a research program

3. Success Starts with the End in Mind: Human-centered Design, Clinical Applications, and Target Market Considerations

Topics: Case study of integrating engineering and medicine throughout the research process; clinical needs and applications of technologies in medicine; "Where to play" process (Mark Gruber) and the target product profile

4. Company Creation 101

Topics: Identifying the problem you seek to address; competitive analysis and market research; business models; risk assessment

5. Pitching 101

Topics: Pitching formula; what not to do; 15min panel, 45min workshop (including 30-60s presentations/pitches by attendees)

6. Investing in Innovations

Topics: Government funds, Angel investors, VC, corporate partnering/investing; incubators and accelerators

7. Understanding BC's Healthcare Business Ecosystem

Topics: Inventors, supporters, funders, partners, clinical implementers/receptors; e@UBC's ecosystem mapping exercises

8. BME University Spin-off Companies

Topics: Panel discussion with founders

Stream 3: BME Career Pathing and Practical Skills for Trainees

Career Pathing

1. Career Paths in Biomedical Engineering

Topics: Career paths: clinical, research, industry, VC, not-for-profit; panel with Canadian BME program graduates who have followed different paths

2. Setting Yourself Up for Success: Extracurriculars and Trainee Jobs

Topics: Making extracurriculars count; co-op and internships; summer research programs

3. Smart Networking, negotiating, and conflict resolution

Topics: Effective networking practices and tools; fostering your professional network; negotiation skills; conflict resolution

4. Landing Your First BME Job

Topics: Marketing yourself effectively as a biomedical engineer; creating a strong application: CV and cover letter basics; interview prep and best practices

5. Embarking on Your Career

Topics: Mentors and mentees; continued professional development

Practical Skills

6. Time & Project Management Essentials

Topics: Overcoming overwhelm and procrastination; project management best practices in the private sector; taking control of your week; when making plans doesn't materialize

7. Getting the Most out of Your Grad School Experience

Topics: "Design your life" principles

8. Wellbeing in Intellectually-Demanding Careers

Topics: TBD

9. Effective Lay Scientific Writing and Presentations

Topics: The "why" and the "how"; hands-on workshop and pre-work.

Stream 4: Leadership: PIs as CEOs

Complementary component: Leadership Coaching Services, UBC

1. What is Leadership?

Topics: Leading vs. managing a team; leadership best practices

2. Effective PI-Trainee Relationships

Topics: What is excellent graduate supervision? Building a strong student supervisor relationship

3. Creating a Culture

Topics: Crafting and sharing a vision

4. Time Management as a Leader

Topics: Essentials of productive teams; project management basics; prioritizing and time management; running effective lab meetings

5. Overcoming Impostor Syndrome and Perfectionism

Topics: Overcoming impostor syndrome and perfectionism

6. Nurturing the Next Generation

Topics: Supporting diverse career aspirations and paths; encouraging professional development and extracurriculars; leveraging your network to support your team

7. Enriching Your Lab's Resources

Topics: Participating in fundraising for your lab