



Canadian Biomaterials Society (CBS) Mentorship and Professional Development Program

Rationale

Canadian universities provide a world-recognized training in research for their graduate students. Graduate students clearly understand the landscape of academic excellence and the expectations of their graduate program. However, most of graduate programs in science and engineering do not integrate non-academic job awareness and entrepreneurship. In fact, many graduate students are unclear about what they may be able to do with a Master's or a Ph.D. degree outside of academia. Also, it is becoming increasingly evident that most of the graduate students in science and technology are not likely to pursue an academic career after their graduation, in Canada, as well as internationally. A recent report¹ highlights that there is a misalignment and a knowledge gap between market labor needs and skills acquisition in academic programs. Therefore, providing appropriate mentoring from professionals outside of academia together with targeted professional development is poised to provide trainees with the necessary skillset to succeed outside academia. Most of career services inside and outside of universities advise that networking and strategic career planning remains the most appropriate manner to obtain a non-academic employment or pursue an entrepreneur career.

Objectives

- Gain a privileged relationship with a senior professional working outside of academia
- Support students during the transition from academia to the job market
- Provide personalized and focused professional development
- Include mentees to a supportive professional network
- Nurture talents and develop leaders within the Canadian Biomaterials Society

Benefits for Mentors

- New learning and insights as a leader (e.g. Provide feedback to others, understand others' motivations)
- Personal growth and satisfaction in identifying potential in others and in helping nurture the next generation of highly qualified professionals and Canadian scientific leaders
- Access to a network of young talents as prospective future employees
- Visibility within the CBS network

¹Mitacs, 2020. Future Skills for Highly Qualified Personnel: Mapping the Challenges, <https://www.mitacs.ca/en/newsroom/publication/future-skills-highly-qualified-personnel-mapping-challenges>



Benefits for Mentees

- Develop new professional skills
- Understand the job market and improve effectiveness in the job search
- Personal and professional growth
- Maximize own potential through self-awareness
- Receive guidance and encouragement necessary for professional development
- Identify job opportunities and effectively tackle new career challenges
- Set challenges whilst building and developing confidence outside of their comfort zone
- Take responsibility and control for own career management

Culture

Personalization and support excellence: We aim at a small, personalized and stimulating program with mentees committed to learn from themselves and others.

Equity, diversity and inclusion: We welcome and support applications from indigenous peoples, visible minorities, ethnic minorities, persons with disabilities, women, persons of minority sexual orientations and gender identities and others who may contribute to further diversification.

A sense of community: We would like to build a community for which the members have a strong desire to help each other to grow.

Program committee

Dr. Gad Sabbatier – gad.sabbatier@gmail.com

Dr. Fabio Variola (University of Ottawa) – fabio.variola@uottawa.ca

Dr. Houman Savoji (Université de Montréal) – houman.savoji@umontreal.ca

How does the program work?

The program is 100% remotely and last 10 months.

Mentor recruitment

Mentors are senior and mid-career industrial professionals or experienced entrepreneurs from companies or start-ups established in Canada. They are volunteers, recruited for the duration of the program (i.e. 10 months), willing to provide constructive feedback and help mentees to achieve their goals. They will be recruited based on an informal interview with one of the organization committee members to assess their fit to the program. A formal application will



successively be submitted. Each Mentor will be asked to prepare a biography where they give a brief description of themselves, their professional background and what activity they would like to participate.

Call for Applications for Mentee – September 1st - 28th

The mentees are CBS members. The program is particularly geared towards graduate students and postdocs. The application process will be advertised through the CBS website. Applications will be sent to Gad Sabbatier (program manager). **There are a limited number of mentees positions depending on the number of mentors available.** The mentees will be selected from the answers to the application form (i.e. motivation, desire to work outside of academia) and not from their CV or academic status. The criteria are the following:

- Career aspiration and project
- Interests in the mentorship program and to have a mentor
- Professional competencies that they want to work on
- Involvement in the Canadian Biomaterials Society
- Additional motivation that they find relevant

Applications are blindly evaluated by mentors and organization committee members.

Mentor/ mentee match and beginning of the program

Based on the answers of the evaluation, the organization committee will match the mentors and the mentees. From that match, the mentee will have two weeks to organize a preliminary meeting with his/her mentor. Else, he/she will be removed from the program. If the match is confirmed, the mentor and the mentee are invited to sign the mentorship agreement through a google form. If the mentor or the mentee do not accept to continue with the other party, the mentee will be assigned to another mentor within the limits of availability. Once the mentor/ mentee couple is formed, the mentorship agreement is signed by both parties. The mentor/mentee relationship will continue from the first meeting based on regular meetings at least 1h/month. The committee members will help the mentors and mentees to perform in their role if necessary.

Training Program (Duration: 10 months)

Separately from the mentor/ mentee meetings, training sessions will be arranged every two weeks for 2h at the same time and day. The detailed scheduled will be defined at the beginning of the program based on the result of a poll shared by the committee with the trainees. The mentees should participate to 75% of the training session to gain the final certificate of completion. Any issue to achieve these conditions must be known as soon as possible.



Program activities

The program is founded on three pillars (**Figure 1**):

1. The mentorship
2. The job search training
3. The professional development

<u>Mentorship</u>	<u>Job search training</u>	<u>Professional development</u>
<p>Meetings one on one with your mentor</p> <ul style="list-style-type: none"> • Mentorship • Professionals outside academia • Diversity 	<p>Continuous training 6 sessions - 2 hours/ session</p> <ol style="list-style-type: none"> 1. Career Path 2. Transferable skills 3. CV tuning 4. Gain visibility (LinkedIn) 5. Networking 6. Interview 	<ul style="list-style-type: none"> • Written and oral communication • Management and leadership • Intellectual property and science commercialization • Design thinking and product design • Basic business skills

Figure 1 : Program toolbox

1. Mentorship

Once Mentors and Mentees are selected, paired and accept to continue the relationship after the preliminary meeting, it will be up to them to self manage their learning journey together. There will be some contact with the program organizers who are there to oversee and provide support if necessary. However, the idea is that each Mentor/Mentee relationship is autonomous, and they establish their own schedule according to the program guidelines (at least 1-hour meeting per month). The meetings are confidential and should favor open communication.

The mentees are expected to prepare for each meeting:

- A topic that they would like information on and relevant questions for discussion.
- They should communicate this to their mentor before the meeting to give time for any necessary preparation.
- Recommendation for mentees: Help your mentor help you. Once you set a goal, you still need to specify what you need. The more explicit you can be, the easier it will be for your mentor to help you. Your needs would be likely different from meeting to meeting or over the mentorship program.



- The mentor is a reactive position and should not organize the meeting.
- Both parties keep a written record of the meetings, using the program record sheet provided by the committee.
- The scheme will come to an end and concluding the relationship is also very important.
- Parties may decide to foster an ongoing relationship once the program finishes.

2. Job search training

Course 0: Introduction to the program. How to take the most from the mentorship program?

Self-awareness and focus

Course 1: Which possibilities for a Ph. D. outside of academia.

Students will discover 40 different designated positions they could land after graduate studies. This course is accompanied with self-reflexive strategies and some tips to get more information about these positions such as informational interviews.

Course 2: Transferable Skills.

Students will understand what companies look for in graduates and how to communicate with recruiters and hiring managers. They will self-reflect on how to highlight their employable skills and have some advice to get the most from their graduate studies to be ready for the future job they would love to do.

The job application

Course 3: how to write and tailor a CV.

Students will learn how to prepare an effective job application package and how to use the available tools to network, get referrals and land to a job they will aspire to. They will learn to write their resumes for industry and receive some tips to strategically tailor it to a job offer. Beyond the CV, they will learn how to use the CV as a marketing document and how the CV circulate through a company.

Course 4: LinkedIn and social media strategies to get visibility. (tentative)

Whether you are networking, job hunting, or building your visibility, LinkedIn is a platform that is hard to avoid. But navigating LinkedIn can be a challenge, particularly for students and young professionals. This workshop will guide you through the many uses of LinkedIn - from highlighting your experience to managing your network - and help you develop your personalized LinkedIn strategy. You will learn about LinkedIn features, applications, and best practices, and will leave with tools to improve your online visibility and reach.



Interpersonal relationship to land to a job

Course 5: "How to network anywhere". (tentative)

Did you meet a new colleague at work or at a social gathering? Have you asked a peer for advice on your career path? Did you strike up a conversation with staff at a shop you frequent? We make connections with people all the time, that is simply what networking looks like. In this workshop, we examine ways to cultivate relationships and strengthen ties, for personal and professional happiness. Come prepared to take part in this interactive session where we will practice being "N.I.C.E." to make connections that matter.

Course 6: The interview processes and interview preparation strategies.

Students will learn the different type of interview they will go through before getting an offer and how to nail it. They will exercise their elevator pitch and to answer behavioral questions with storytelling. They will also learn how to negotiate a job offer.

3. Professional Development

Professional development sessions will offer important and additional skills that complete the conventional graduate training. They will be delivered by an expert in the designated field following by a round table to provide practical insights. The organization committee has defined the following main non-technical skills that will be delivered through sessions:

Course 1: Written communication.

Course 2: Oral communication.

Course 3: Management and leadership.

Course 4: Intellectual property and innovation commercialization.

Course 5: Design thinking and product design.

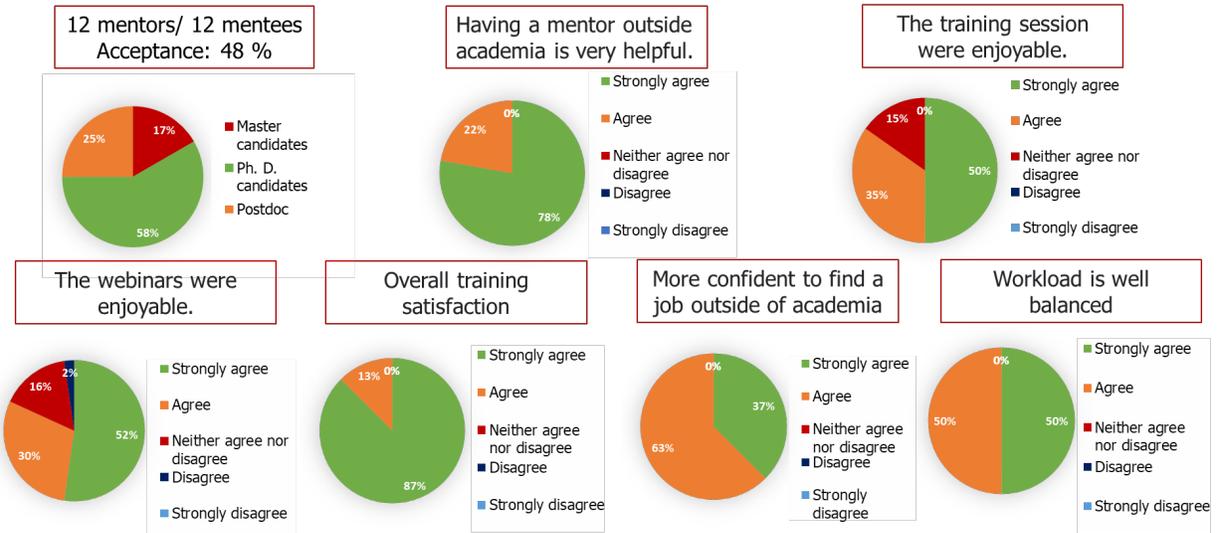
Course 6: Basic business skills and entrepreneurship.

1- Other activities

The organization will provide networking sessions and mock interviews.



Feedback from the 1st cohort (2019-2020)



Testimonies

Well organized and informative program. Not only was I able to connect with successful CEOs, engineers and scientists in the biomedical industry from across Canada, the program allowed me to network with fellow students and postdocs in the same position as myself.

- Hallie Arnott, University of Ottawa

Thank you very much Gad and thanks to CBS for organizing this program! It is really helpful for students to learn more about the real world and techniques to look for the first job.

- Lu Wang, Polytechnique