



CANADIAN BIOMATERIALS SOCIETY
SOCIÉTÉ CANADIENNE DES BIOMATÉRIAUX

BI-ANNUAL NEWSLETTER: Spring 2023

Letter from the President

As we head into Spring, I am looking forward to seeing many of you at the upcoming CBS2023 meeting in Halifax. Prof. Mark Filliagi and team are putting together an exciting scientific program, with excellent keynote speakers and over 160 abstracts submitted from our community! There is still time to register if you have not already.

Please be sure to attend our Annual General Meeting, which will take place at CBS2023 (along with a remote attendance option) to hear about the society's activities this year and plans for next year. As outlined in this newsletter, the AGM will also provide a final opportunity to submit nominations for several open positions on the Board of Directors, as well as to express interest in hosting CBS2025.



I hope that many of you are thinking ahead to WBC2024 in Korea next year as we build towards a strong representation from the Canadian biomaterials community. The Board is working to ensure that we will be able to support as many trainees as possible with travel awards.

Our Student Chapters have been busy organizing seminars, workshops, career and networking events, mentorship programs and more – you will find the details in this newsletter, along with an update on the CBS Mentorship Program run by Dr. Gad Sabbatier.

I want to take this opportunity to thank the Board of Directors for their dedication and work this year in keeping the Society running smoothly, developing new initiatives, and working to improve documentation and processes for future boards. In addition, Prof. Todd Hoare's continued support on our website has been invaluable.

A big thank you to Senior Board Members Profs. Fabio Variola and Brendan Leung who are finishing their terms, along with Prof. Amanda Clifford (Secretary) and Dr. Neda Latifi (Student Representative).

Finally, thank you to Prof. Lindsay Fitzpatrick who led the Communications Committee in putting together this year's newsletters.

See you soon in Halifax!

Sincerely,

Eli Sone

President, Canadian Biomaterials Society

First Call for Nominations: CBS Board of Directors

CBS Board of Directors - Elected Positions

The CBS invites nominations for several positions within its Board of Directors. Nominations are being sought for the positions of:

- **President-Elect**
- **Senior Board Member** (2023-2025 term; 2 vacancies)
- **Student Board Representative** (2023-2024 term)

Nominations will be accepted by email before the Annual General Meeting (AGM), as well as at our AGM (Friday, June 16th at 12:30pm ADT, in person and on Zoom). For your reference, the following Senior Members of the Board will be continuing for the next year:

- Moshen Akbari (University of Victoria; 2022-2024)
- Lindsay Fitzpatrick (Queen's University; 2022-2024)
- Emilio Alarcón (University of Ottawa; 2022-2024)

If you are a current CBS member and would like to nominate someone for the President-Elect, Senior or Student Board of Director positions in advance of the AGM, please send an email to Marta Cerruti (marta.cerruti@mcgill.ca; current President-Elect) indicating your nomination, including the nominee's full name and email address. Advance nominations are strongly encouraged to streamline the process. However, nominations will also be accepted during the AGM. Please note that the nomination process will close at the end of the AGM.

All nominees will be contacted, either directly at the AGM or by email following the AGM, to verify their acceptance of the nomination. If an election is required, the candidates will be asked to provide a maximum 250-word statement regarding their vision for CBS. Subsequently, all CBS members will be sent detailed information for an online election. If there are not more nominations than positions, then the candidates would be acclaimed without the need for an online election.

CBS Board of Directors - Appointed Positions

The CBS is also soliciting nominations for the **Secretary** of the Board. If you are a current member and would like to nominate yourself or a current member for Secretary in advance of the AGM, please send an email to marta.cerruti@mcgill.ca indicating your support for the nomination, including the nominee's full name and email address. Nominations will also be accepted during the AGM. All nominees will be contacted either directly at the AGM or by email following the AGM, to verify their acceptance of the nomination. Based on the accepted nominations, the CBS Board will appoint a new Secretary.

Thank you for your service!

The CBS would like to thank outgoing Senior Board Members Fabio Variola and Brendan Leung, Student Board Representative Neda Latifi, and Secretary Amanda Clifford for your service to our society.



Fabio Variola
Senior Board Member



Neda Latifi
Student Representative



Amanda Clifford
Secretary



Brendan Leung
Senior Board Member

CBS 2025: Call for Expressions of Interest

The CBS is soliciting Expressions of Interest in hosting the CBS 2025 Annual Meeting. If you are a current CBS member and are interested in hosting CBS2025, please contact Marta Cerruti (marta.cerruti@mcgill.ca; President-Elect).

CBS 2023 Annual General Meeting

Save the Date! The CBS Annual General Meeting (AGM) will be held in Halifax during the 2023 Annual Meeting on **June 16, 2023, at 12:30 pm ADT**.

Not attending CBS2023? No problem! Invitations to the Zoom meeting will be sent to all current members via email in advance of the meeting.

Q&A with CBS 2023 Organizing Committee

CBS 2023 annual meeting @Dalhousie ***Making waves - the Transformational Power of Biomaterials***



Q: The 2023 CBS Annual Meeting is fast approaching! Are there aspects of the program that you are particularly excited to share with attendees?

We believe the program we have built lives up to this year's theme: "Making Waves" – The Transformational Power of Biomaterials CBS 2023 will bring together biomaterial researchers from across the country for a 3-day scientific program packed with over 160 oral/poster presentations. Each day will be kicked off with a plenary lecture by international leaders in the field, followed by concurrent oral presentation sessions. There will also be 2 concurrent "lunch and learn" workshops on June 15th, where participants can learn about the best practices of incorporating EDIA in their research and grant application (hosted by Dr. Emilio Alarcón), or they can discover the many facets of academic career paths with Dr. Kimberly Woodhouse. In addition, Dr. Imogen Coe – a well-respected champion of EDIA in the STEM fields – will deliver a plenary talk to kick off our meeting on Wednesday evening and moderate a panel discussion on the topic. New this year, a Mitacs representative will be on hand to facilitate partnerships between the private sector and our university research community to address emerging clinical challenges and new innovations in biomaterials and medical device development. We are also looking to draw clinicians from the dental community to take part in a "continuing education" tract being built into the programming on Friday morning.

Q: For trainees, do you have any special workshops or social events planned?

The CBS 2023 meeting will include social events each evening where you can connect with conference attendees! On Wednesday evening, we will welcome you to Halifax with a Welcome Reception on Dalhousie campus – a perfect opportunity to complete registration, reconnect with old friends, and meet new colleagues. Trainees will come together Thursday evening over food and beverages in beautiful downtown Halifax. This trainee exclusive event will enable connections with your peers in a casual setting and allow you to explore what Halifax has to offer.

The social program will culminate on Friday evening with the CBS2023 gala! Taking place at Pier21, Halifax's historic immigration hub, gala attendees will dine with breathtaking views of Halifax harbour. Pier21 museum access is included with your ticket, providing a unique opportunity to dive into Canada's immigration past. Dinner will feature live music from Mi'kmaq fiddler and singer Morgan Toney, who brings together the fiery fiddling of Cape Breton Island with the old songs of the Mi'kmaq with brilliance and heart.

Q: Halifax is a beautiful city. Do you have some suggestions for visitors who want to do some sightseeing while at the conference?

There is lots to see and do in "Canada's Ocean Playground"! Staying in downtown Halifax offers easy access to oceanside views. Take a walk along the boardwalk that extends along the entire downtown, or venture to the south end of the downtown peninsula to explore Point Pleasant Park. Halifax is also known for its historic role in the Canadian military and immigration. A trek up the hill to the top of the Citadel gives you a chance to understand the history of the fortress. The CBS2023 gala will take place at Pier21, a great place to learn about Halifax's role in welcoming newcomers to Canada as an eastern port for ships crossing the Atlantic. Those looking to venture out of Halifax before or after the conference have several great outdoor adventures, including a trip to Peggy's Cove lighthouse, several famous beaches, or oceanside hikes that are all within an hour's drive of downtown Halifax. More information on these excursions can be found on the [Discover Halifax Website](#).

Equity, Diversity, and Inclusion Survey: CBS2023

The CBS Board of Directors has recently formed an EDI committee, and to better understand our demographics and the needs of our membership, we have created an EDI survey. We encourage you to take a few minutes to fill out the survey linked below, the results of which will be presented by Prof. Emilio Alarcon (EDI Committee Chair) at our annual meeting in Halifax this June. The survey is anonymous, and the deadline to submit is **May 15th, 2023**.



English : <https://www.surveymonkey.com/r/YSN39ST>

Le conseil d'administration de la SCB a récemment formé un comité EDI, et pour mieux comprendre notre démographie et les besoins de nos membres, nous avons créé un sondage EDI. Nous vous encourageons à prendre quelques minutes pour remplir le sondage ci-dessous, dont les résultats seront présentés par le professeur Emilio Alarcon (président du comité EDI) lors de notre assemblée annuelle à Halifax en juin. L'enquête est anonyme et la date limite de soumission est le **15 mai 2023**.



French : <https://www.surveymonkey.com/r/XDMHX8T>

Early Career and Lifetime Achievements Awards

Nominate an amazing CBS member today!

Upcoming CBS Award Deadlines

CBS Lifetime Achievement Award ⓘ

Application Deadline: May 15, 2023

CBS Early Career Investigator Award ⓘ

Application Deadline: May 15, 2023

Please check out the [CBS Awards Webpage](#) for further information on all CBS awards.

CBS Awards

2022 CBS Visiting Scholar Recipient Report

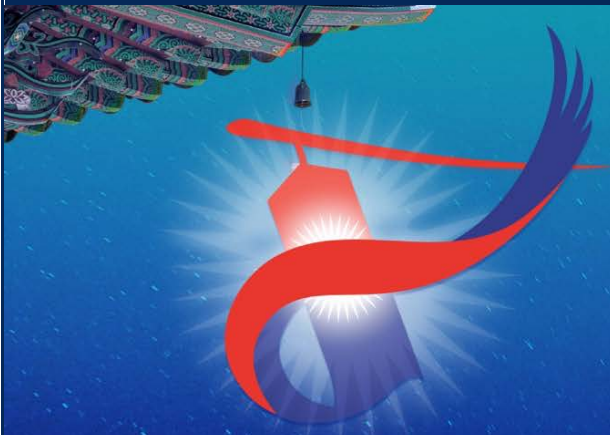
Sumaiya Karim (Queen's University)

Posterior Capsular Opacification (PCO) is an ocular complication which can develop after lens replacement surgeries due to aberrant trans-differentiation processes propagated through cell-material interactions at the artificial intraocular lenses (IOLs) surface. The fibrotic and cell aggregates that develop encroach on the visual axis, leading to a debilitating loss of visual acuity. As one of the most widely performed surgical procedures, approximately 500,000 cataract surgeries are performed in Canada annually. The incidence of PCO is reported in approximately 20% of these cases. My PhD research under the supervision of Dr. Laura Wells at Queen's University focuses on developing surface modifications to methacrylic hydrogels to study and modify the response of lens epithelial cell lines for preventative measures against capsular opacification.

Further evaluation of the performance of these surfaces requires animal models where long-term observations of trans-differentiation and cell behaviour can be analyzed as ex vivo models using animal explants enables greater predictive ability of cell-material interactions. Dr. Heather Sheardown and Dr. Aftab Taiyab's labs utilize well-established pre-clinical models of ocular disease to characterize cellular processes involved in the opacification of the lens.

By visiting their labs with the support of CBS, I have been able to gain an understanding of the techniques and considerations required to maintain intact lens epithelium. I was provided with the knowledge for isolating and preparing rat lens epithelial explants and immunofluorescence techniques for evaluating the ex vivo environments of the lens capsule. This work will support my research by allowing me to validate the anti-fibrotic potential of my materials by visualizing the response with advanced surface modifications.





WBC2024

12th World Biomaterials Congress

MAY 26 – 31, 2024
DAEGU, KOREA

Dates to remember

Abstract Submission ([link](#))

April 15, 2023 – September 30, 2023

Notification of Abstract Review Results

December 15, 2023

Early-bird Registration

April 30, 2023 – January 31, 2024



CBS Symposium at the WBC2024

Sponsorship Packages



The CBS is proud to offer a new sponsorship program for the CBS symposium at the World Biomaterial Congress in 2024. We need your help to find supporters!

Please share this announcement with anyone you think may be interested. Contact marta.cerruti@mcgill.ca or makbari@uvic.ca if you have any confirmed supporters or if you need more information.

Gold Sponsorship

Introductory slides at a CBS-led symposium

Logo placement on CBS website

Recognition in all CBS-led press releases and social media promotions

Sponsorship acknowledgement in CBS-led post-conference material

Amount (CAD)
\$2,000

Silver Sponsorship

Logo placement on CBS website

Recognition in all CBS-led press releases and social media promotions

Sponsorship acknowledgement in CBS-led post-conference material

Amount (CAD)
\$1,000

In Memoriam

Ophélie Gourgas (1991-2023) graduated with a PhD from the Department of Mining and Materials Engineering at McGill University under the co-supervision of Professors Marta Cerruti and Monzur Murshed in 2019. She had been an active member of the CBS Montreal Student Chapter and was working as a post-doctoral fellow in the Department of Medicine (Shriners Hospital) when she passed away after a brave eight-month fight against an aggressive form of breast cancer. Despite the brevity of her scientific career, she made significant contributions towards the understanding of diseases related to pathological mineralization, published four papers as first author, six as co-author in leading journals in materials science and biology, and received a Young Investigator Award from the American Society of Bone and Mineral Research for her postdoctoral research.



A bursary in Ophélie's name has been established to honor her memory and support female engineering students in financial need.

Any contribution to helping us achieve our goal of \$25,000 to establish the endowed bursary will be greatly appreciated!

Please make your donations at

<https://crowdfunding.mcgill.ca/ui/main/p/opheliegourgasbursary>

A receipt for tax credit purposes will be issued.

Student Chapter Updates

Southwestern Ontario Student Chapter

Great news! The Southwestern Ontario Student Chapter of CBS has just finalized their elections this April, and we're most delighted to welcome Alessandra Merlo as our president, Alyssa Williams as Vice president, Mabel Barreiro Carpio as Event Manager, Yasmeen Shamiya as Secretary, and Mymoon Bhuiyan and Tiana Rhule as Social Media Administrator and SWOSC Associate, respectively! We can't wait to work together and put our energies into improving the collaboration and connection between our universities and sharing biomaterials research! The Chapter has resumed the activities, and we aspire to have a great start with organizing a Trivia event in June, to begin with some fun, and then have a joint event to discuss characterization methods of biomaterials in the Fall! Stay tuned for more: follow us on social media (@cbs_swosc) or join our mailing list to keep posted!

Toronto Student Chapter

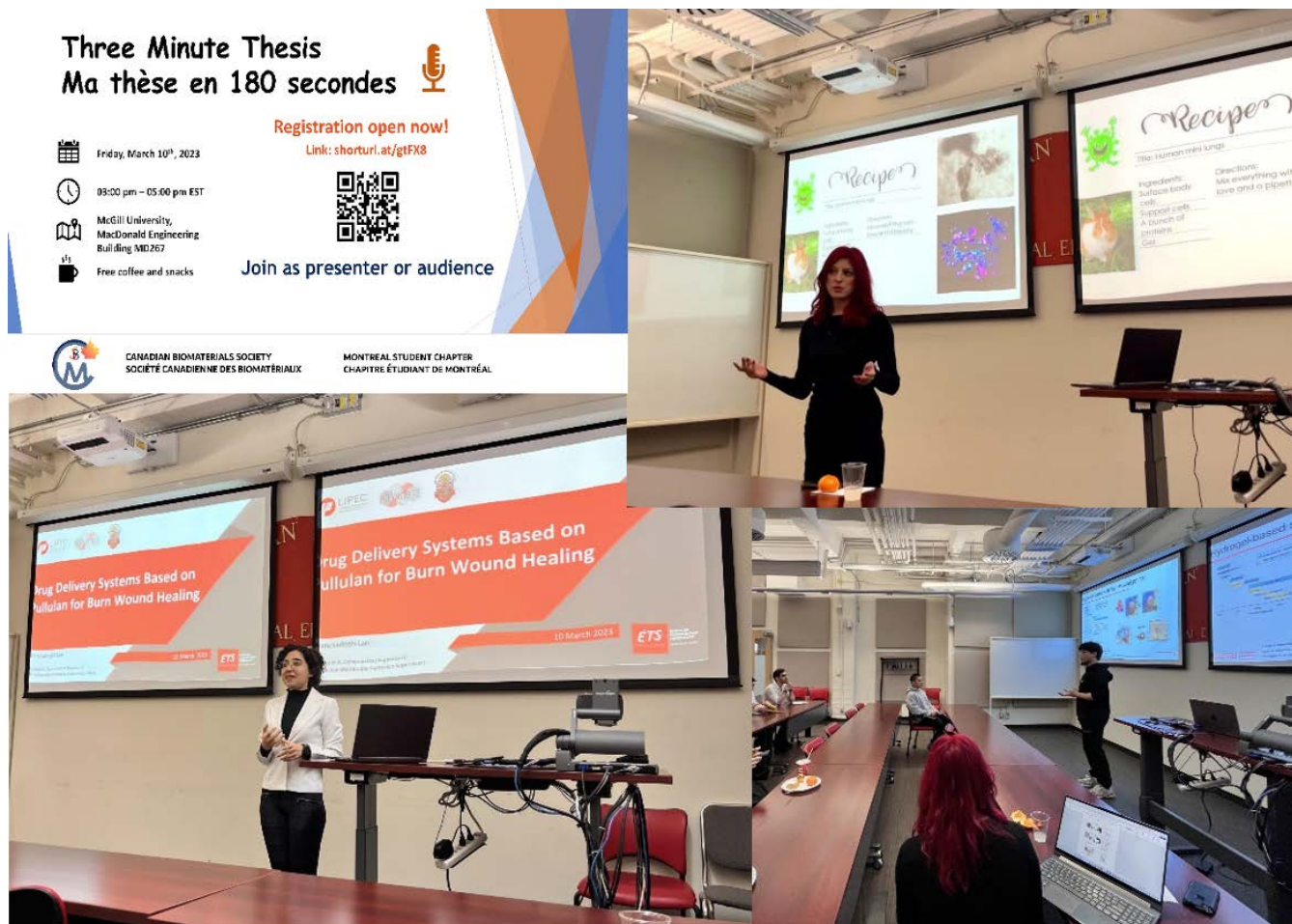
The Toronto Chapter has been busy expanding our presence and growing our membership at York University and University of Toronto. We have also successfully run our inaugural career coffee chat series, with more forthcoming! For the next few months, we will be promoting biomaterials to school-aged children at Science Rendezvous, run another career coffee chat, host student practice seminars, and look to plan our 2nd biomaterials symposium.

The Canadian Biomaterials Society – Alberta Student Chapter (CBS-ASC) has had a very eventful winter of 2023, as an exciting year. Our student chapter was responsible for organizing four different lecture series, which covered a wide range of topics, from academic discussion to career development in the field of biomaterials. The first part of our conversation consisted of a scholarly discussion. As a guest lecturer, Prof. Dr. Darrell J. Irvine joined us from the MIT. He gave an outstanding presentation on the topic of customizing biomaterials for the treatment of cancer and the production of vaccines. Dr. Kevin Lo from the University of Connecticut delivered the subsequent presentation in the second lecture. The use of biomaterials in bone repair and regeneration was one of the topics he discussed. Following that, we planned a workshop on career development for those students who are interested in pursuing a job in the publishing industry. Alice Miller, who works with Frontiers in Bioengineering and Biotechnology as a journal manger, was the one who delivered the presentation. Dr. Nihal Engin Vrana, CEO of Spartha Medical in France, delivered a further talk on the topic of career growth. He emphasized the importance of recent graduates adequately preparing themselves for the biotech industry. Every session was interesting, and people came from diverse backgrounds to take part. In March, we held a samosa sale with the goals of increasing student participation and generating funds. There were over fifty students there, all of whom appeared to have a good time.

Canadian Biomaterials Society Alberta Student Chapter

Montreal Student Chapter

Since last December, our executive team have been working hard to provide our CBS-MSC members with benefits and bring cohesion to our community. Up till now, we organized a 3-minute thesis event on March 10th, and planned on many more for the upcoming months, including a lab tour event on May 18th, and a Research Day event in August. Three students participated as presenters and more than 30 students and professors attended as audiences in the past event, followed by a casual coffee-and-chat session. Please find the following photos for this event.



Apart from these events, our Montreal student chapter has re-designed our logo and actively updated our website for several rounds. We are very proud of our new logo as it corresponds to the design language of the new CBS logo and has our own features. We updated the events page, board member page, and mentor page of the website and added a “Join us” page to recruit students to our student chapter and subscribe them to our contact list for information on future events. I believe with the combined efforts from our new executive team, we have started to bring our Montreal student chapter to a new active state and will make every effort to improve further on. Please find our new logo and website in the following:

<https://cbsmontrealchapter.wordpress.com/>



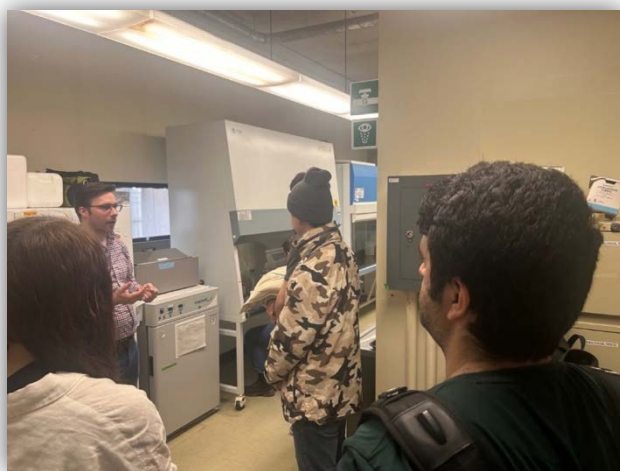
Québec City Student Chapter

The Québec City Student Chapter of the Canadian Biomaterials Society (CBS-QCSC) is coming off a successful year. In November 2022, with the virtual election of the new executive committee, CBS-QCSC has welcomed a new and exciting team consisting of graduate students with diverse backgrounds, including biology, pharmacology, medicine, chemical and materials engineering, etc., to bring a new set of perspectives to our group. We are hoping to organize more exciting events in this year. Our new executive committee, headed by president Mahdokht Akbari, is looking forward to moving in an exciting direction. In December 2022, we also had Dr. Betty Li from National Research Council of Canada, to discuss about “Development and validation of microfluidic chip and 3D bioprinted tissue models for therapeutic screening”. More than 20 students and staffs have joined and participated in each of these events. During May 2023 we will perform a seminar focused on ‘*application of medical physics in biomaterials science*’ presenting by Dr. Baljeet Seniwal. Planning is underway for chapter activities across the region for the new academic year, with a new focus on developing industry connections for our academic partners and student members, and the networking events among students in Quebec City region. Over the academic year, the CBS-QCSC will host a networking event night and will host seminars to highlight local biomaterials research and foster collaborative research initiatives.

Ottawa Student Chapter

It has been an exciting year for CBS-OSC. We are pleased to announce that we organized the third mentorship program thanks to the contributions of our mentors, mentees, and organizers. In the one-to-one mentorship program, undergraduate students were assigned to Master/Ph.D. students who shared their experience on applications to graduate school, how to find supervisors and funding. In addition, we have launched the CBS-OSC’s lab tours during which undergraduate and graduate students had the opportunity to attend a one-day tour of a lab that is performing research in the field of Biomaterials at uOttawa. The program aims to encourage students to meet with principal investigators in-person and discuss potential projects and available positions. It also intends to give them a better idea about the types of research in the field and the equipment available in different labs. So far, we have organized tours of three labs and plan to continue them at both uOttawa and Carlton university until August 2023. Finally, we intend to invite the CBS-OSC’s current and former executive members for an Alumni get-together where former members would share their experiences from previous years with current ones and help us improve the chapter’s activities with their insights.

CBS-OSC lab tours 2023



Professor Jean Philippe St-Pierre’s Lab tour



Professor Xudong Cao’s Lab tour

CBS Graduate Mentorship and Professional Development Program Update

The Canadian Biomaterial Society has partnered with the 2nd Lab to provide its members with a cutting-edge mentorship and professional development program. The fourth cohort of the program consists of students who are matched with future industry leaders as mentors. They receive professional development opportunities and have access to 25 career training sessions throughout the program.

In addition to these benefits, students will become part of the growing community and professional network of the 2nd Lab, a Canadian non-profit organization that empowers early-career scientists to make an impact on society. Over the years, the mentorship and professional development program has facilitated the professional integration of more than 100 CBS members, with 80% of them finding impactful employment within four months of their graduation.

Next cohort will open in Fall 2023. Follow the [2nd Lab on LinkedIn](#)



Testimonials from the CBS Undergraduate Mentorship Program

Québec City Chapter

"In the mentees' opinion, the best moment shared with their mentor was when they shared their struggles as undergraduate students, which made them realize they were not alone in many ways. The regular conversations helped them grow, immensely, both personally and professionally."

- Mentees

"While challenging from a time perspective, CBS mentorship was rewarding from a developmental perspective. Our mentors were first challenged to build a relationship with a mentee they had only brief information about and had never met in person/online. Thanks to the how-to documents and workshops from the CBS mentorship program, they emailed each other quickly and met online as soon as possible. Once over the hurdle of getting to know one another, which happened quickly, some mentors began to think through ways to create visibility and access for their mentees, whether that be about career exploration, post-graduate study, or simply a bond of friendship! Beyond that, being a mentor not only inspires more undergraduate students to study in the biomaterial field but also tries to push mentors to become better versions of themselves. All our mentors were truly grateful for this opportunity!"

- Mentors

“ Thanks to the CBS mentorship program, I was confidently able to choose to pursue graduate studies after learning about my mentor's personal experience and hearing their advice. My mentor helped me through every step of the application process, making it much less stressful. I am glad I participated and would recommend the program to anyone else looking for guidance in post-graduation plans and studies!



KALEB

Biomedical Mechanical
Engineering and Computing
Technology student at uOttawa



“ I had a great experience being a mentee with the CBS. I found it was super useful to my studies and early career paths. My mentor introduced me to different volunteering opportunities, answered my questions on grad studies in detail, and most importantly, helped me connect with the supervisor of my current CO-OP which added a lot to my experience and had a great impact on my choice of grad studies.

ZEINA

4th-year Biomedical Mechanical Engineering
Student at uOttawa

Thanks for Reading!

On Behalf of the Canadian Biomaterials Society

Communications Committee, Administration and Board of Directors

<https://biomaterials.ca>

Follow us on twitter: [@CanBiomatSoc](https://twitter.com/CanBiomatSoc)

If you wish to contribute to our next newsletter, please contact:

lindsay.fitzpatrick@queensu.ca