

Canadian Biomaterials Society Société Canadienne des Biomatériaux



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Letter from the President

Dear members of the Canadian Biomaterials Society,

I am pleased to give an overview of the recent activities of the Canadian Biomaterials Society.

First, I would like to congratulate Dr. Nima Khadem Mohtaram on being our President-Elect and Drs. Mohsen Akbari, Isabelle Catelas, Milica Radisic and Tom Willett who have been elected as Senior Board Members, and Laura McKiel as Student Board Member. They join the team formed by Kibret Mequanint, Stephanie Willerth, our Past President, and me.

We are also lucky to have had Roz Labow as treasurer for many years, and Marc Gauthier who became our secretary last May. Todd Hoare is also still helping a lot for the website. Thanks to all of them for their time.

As mentioned at the last general assembly, you are all invited to participate in the development of the CBS. In particular we are looking for people interested in making the CBS Facebook and LinkedIn more lively and dynamic (see page 4).

So do not hesitate to contact us, participate in our initiatives and/or suggest others. You can use the 'contact' message on our website or directly contact me by email (Sophie.Lerouge@etsmtl.ca).

Among our main objectives this year, one is to improve the website and documentation available for next boards, in order to build more defined processes and keep track of previous initiatives and meetings. We are launching a contest for a new logo (see page 4). The entrepreneurship committee created by Nima is working hard to propose workshops and other means to introduce the basics of entrepreneurship to the students. We are following Diego in the organization of CBS2019 in Quebec City and also preparing for the WBC2020 in Glasgow since it is coming sooner than we think! Finally, our student and communication committee has been preparing this Newsletter and ensuring communication with the various student chapters. You will see their main achievements in the next pages.

This issue of our newsletters also contains information on CBS2019, report from CBS2018 in Victoria (Thanks Stephanie for welcoming us there!). Enjoy!

Bonne lecture!

Dr. Sophie Lerouge

École de Technologie Supérieure

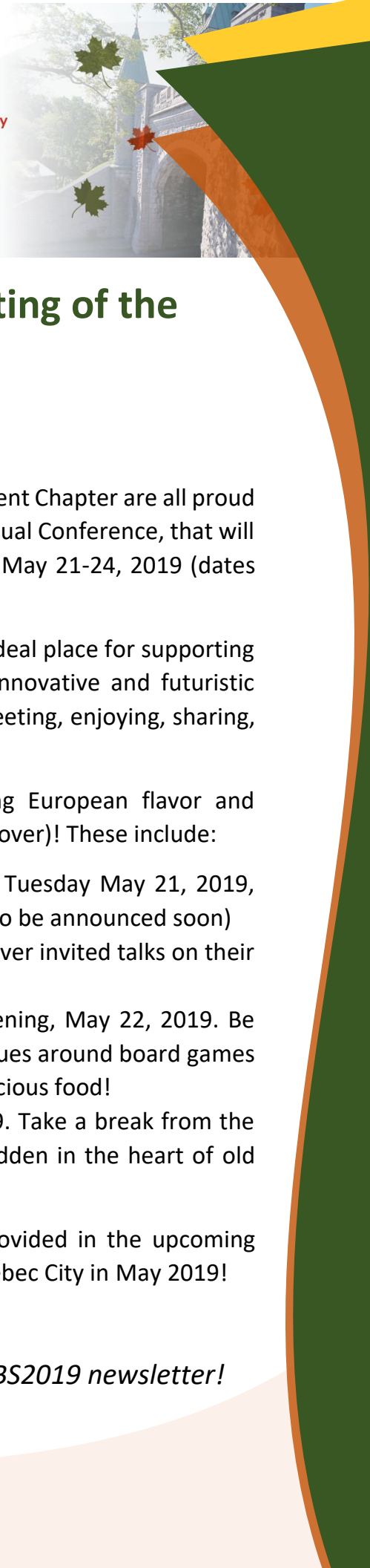




Annual Meeting of
The Canadian Biomaterials Society

May 21-24 2019 | Québec City

Hôtel Le Concorde



Québec City welcomes the 35th Annual Meeting of the Canadian Biomaterials Society

Dear Colleagues and Friends,

The local organizing committee together with the dynamic Québec City Student Chapter are all proud and excited to start planning for the 35th Canadian Biomaterials Society Annual Conference, that will be held in Québec City at the Loews Le Concorde Hotel, downtown, from May 21-24, 2019 (dates inclusive).

Québec City, its World UNESCO Heritage and its unique atmosphere is the ideal place for supporting a Canadian meeting where the early Canadian history meets the most innovative and futuristic advances. This unique ambiance will be the ideal environment-fostering meeting, enjoying, sharing, and networking.

A number of scientific activities, together with the traditional charming European flavor and hospitality of Québec City, are planned for you from sunrise to sunset, (and over)! These include:

- An incredible program of Tutorials will be presented in parallel on Tuesday May 21, 2019, introducing basic to advanced topics in a variety of vibrant Topics (to be announced soon)
- Several Canadian scientists from all over the country accepted to deliver invited talks on their ongoing research programs and future trends
- An incredible Get Together activity for students on Wednesday evening, May 22, 2019. Be ready to mix with local students in a pub to get to know your colleagues around board games and drinks. Be ready for animation, multiple social activities, and delicious food!
- The Traditional Treasure Hunt on Thursday afternoon, May 23, 2019. Take a break from the conferences and join our treasure hunt to discover the wonders hidden in the heart of old Québec City.

More details about these not-to-be-missed events (and more) will be provided in the upcoming months, so stay tuned. We look forward to meeting every one of you in Québec City in May 2019!

Keep up to date by visiting the website and signing up for the CBS2019 newsletter!

<http://cbs2019.org/>

34th Annual

Meeting of the

Canadian Biomaterials Society

CBS2018 Report

Written by Laura de la Vega, CBS-BCSC President

Dr. Stephanie M. Willerth, conference chair and the 2017-18 President of the Canadian Biomaterials Society (CBS), along with her organizing committee hosted the 34th Annual Meeting of CBS at the University of Victoria during May 16th through 19th. The meeting consisted of a 4-day event attended by 135 people: 90 students, 5 researchers, 25 professors, 15 post-docs, and industry partners. During this meeting, the latest advances on research in the field of Biomaterials and Tissue engineering in Canada were shared and discussed. The event was supported by CBS and external industry funding: Aspect Biosystems as the Gold Sponsor, Rheolution as Silver sponsor, and STEMCELL Technologies and CellScale as Bronze sponsors. The organizing committee consisted of Dr. Willerth and Dr. Akbari from the University of Victoria, Dr. Kastrup and Dr. Yadav from the University of British Columbia, and Dr. Nima Khadem Mohtaram from the University of Waterloo.

The organizing committee hosted high profile keynote speakers such as Dr. Mooney from Harvard University, Dr. Zhen Gu from North Carolina State University, Dr. Whitehead from Carnegie Mellon University and Dr. Saha from the University of Wisconsin-Madison. Cutting edge topics such as biomaterials and stem cells, drug delivery, CRISPR technology, wound healing, among others were discussed in depth. Furthermore, several workshops were offered including an entrepreneurship clinic, “the clinician-scientist perspective”, and a session on 3D printing hosted by Aspect Biosystems. In addition to scientific events, the meeting held social activities including a welcome reception at the local campus pub Felicitas, a poster session where students shared their exciting research, and conference banquet. As well, CBS-BCSC held a trainee meet and greet at the LURE Restaurant & Bar located right across the Inner Harbor of beautiful Victoria downtown.

Awards for best oral presentations were given to Laura McKiel, Niloufar Khosravi, Tobias Fuhrmann, Jayesh Kukarni, Somiraa Said, Charmainne Cruje, Kevin De France, and Jennifer Chan. Poster awards were given to Nancy Khuu (1st place), Chanel La (2nd place), Maxime-Alexandre Ferko (3rd place), and Sara Mohajeri (4th place). Christopher Lee and Bindu Thapa received honorable mentions for their poster presentations. [**Check out best poster & speaker abstracts!**](#)

Elections for CBS President and Board of Directors were held during the meeting, where Nima Khadem Mohtaram (a UVic alumni) was chosen as President Elect. The next CBS annual meeting ([**CBS2019**](#)) will be held in Quebec City and organized by Dr. Diego Mantovani (University of Laval).

Introducing the President-Elect!

Dr. Nima Khadem Mohtaram is currently a faculty member within the Biomedical Engineering Program in the Department of System Design Engineering at University of Waterloo. He has been serving CBS community since 2012 in different positions such as student representative board member, senior board member, annual meeting organizer, and currently as president-elect. His research interests focus on designing and testing micro and nano-engineered biomaterials for regenerative medicine and stem-cell based tissue engineering approaches. In particular, he uses bioengineering techniques to regulate the fate of stem cells for the desired application. He has published over 31 peer-reviewed publications

including 2 book chapters in the field. Dr. Khadem Mohtaram is also an entrepreneur and the chair of Entrepreneurship Committee Advisory Board (ECAB). The mandate of ECAB is aiming to nourishing the culture of entrepreneurship for biomaterials trainee by providing platforms with the focus on problem-based designing of biomaterials and developing biomaterials-related business aspects. Dr. Khadem Mohtaram is also a volunteer board member at a non-for profit quality and management association where he serves as a mentor to provide career development advice to engineering and health-related sciences trainees.



Logo Contest

It is time to give the CBS logo a new look! We need your help. Please submit your proposition by sending us an email containing your logo(s) as an attachment (with your name on the file please) at support@biomaterials.ca

A committee will then meet to choose the winner and send the logo to a graphic designer who will modify it and establish the final colours and size.

Important: the logo should stay 'bilingual', i.e. be read as Canadian Biomaterials Society (CBS), as well as Société Canadienne des Biomatériaux (SCB).

If your logo is chosen, you will win a \$200 award!

The deadline for submission is **December 20, 2018**.

Membership Renewal

It is that time of year to renew your membership with the Canadian Biomaterials Society! Visit the website to ensure you remain a member: <https://biomaterials.ca/#!/membership>

Help Wanted

CBS is looking for a dynamic person to manage and revitalize our Facebook and LinkedIn Accounts!

Do you like social networks? Do you want to help strengthen the CBS network? Please contact Sophie (Sophie.Lerouge@etsmtl.ca), as we are looking to share more news and interesting info to all through our website, Facebook and/or LinkedIn accounts.

Biomaterials in Canada

Read the Special issue in ACS Biomaterials Science and Engineering "[Biomaterials going strong in Canada for half of century](#)" containing research papers from the CBS community.

Meet the newly elected Board members



Dr. Mohsen Akbari (PhD) is an Assistant Professor of Mechanical Engineering and a member of the Center for Biomedical Research and Center for Advanced Materials and Related Technologies at the University of Victoria. Research in my lab lies at the interface of cellular biology, biomaterials, and microtechnologies. I have been a member of CBS since 2016 and joined the Board of Directors (BoD) of CBS in the summer of 2018. I currently serve on the clinical-industrial committee, which aims to promote the relationship between academic researchers, clinicians, and industrial partners. My primary goals are to work with other members of the BoD to highlight the positive impact and contributions of the biomaterials community on translational research and engage clinical and industrial professionals in CBS activities.

Dr. Isabelle Catelas (PhD, P.Eng) is an Associate Professor in the Department of Mechanical Engineering at the University of Ottawa, with a cross-appointment to the Faculty of Medicine. My research interests include the study of hip implant failure mechanisms (both from a biological and material point of view), as well as bone tissue engineering. I have had the pleasure to serve on the Board of Directors of the CBS during the last eight years, both as a Senior Board Member and as the President of the Society (2014-2015), and I am honored to have the opportunity to continue serving as a Senior Board Member for the next two years. I look forward to continue fostering the important endeavours that the Society has been working on during the last few years. These include the promotion of student engagement (e.g., through the creation of more student chapters), the reinforcement of industry relations, and the increased representation of clinicians in our Society.



Dr. Milica Radisic (PhD, P.Eng) is a Professor at the University of Toronto, Canada Research Chair (Tier 2) in Functional Cardiovascular Tissue Engineering and a Senior Scientist at the Toronto General Research Institute. I am also the Associate Chair-Research for the Department of Chemical Engineering and Applied Chemistry at the University of Toronto and Director of the NSERC CREATE Training Program in Organ-on-a-Chip Engineering and Entrepreneurship. I have been involved with CBS for a number of years and most of this service was related to the CBS Annual Meetings, where I reviewed abstracts, organized and chaired sessions. I would like to be more significantly involved in Canadian Biomaterials Society (CBS) to further promote its mission of developing biomaterials science, technology and education in Canada. It is also my goal to help CBS promote Canadian biomaterials science internationally.

Dr. Thomas L. Willett (PhD, P.Eng) is an Assistant Professor in the Biomedical Engineering program, in the Department of Systems Design Engineering at the University of Waterloo. I am the director of the Waterloo Composite Biomaterial Systems Lab, which focuses on interdisciplinary investigation and innovation for improved bone health and repair. Trained as a skeletal tissue mechanist, my primary interests lie in the structure-function-property relationships of cortical bone (in health and disease) and of novel biomedical materials designed to mimic and replace bone for extreme applications in orthopaedics, such as large defect reconstructions after tumor resections. I am keen to continue serving as a Board Member for the CBS and look forward to attending the 2019 annual meeting in Quebec City (where I attended my first CBS meeting in 1999).



Albert Student Chapter

The CBS - Alberta Student Chapter (CBS-ASC) is proud to announce the success of the first events of this semester. Our first invited speaker of the term, Dr. John M. Frostad, joined us in August. This assistant professor, dually appointed in the faculties of Chemical Engineering and Food Science at UBC presented on his development of an apparatus capable of both measuring and exerting nano-Newtons of force on microscale particles to study their mechanical properties. This well attended event included free breakfast/snacks, supported by our fundraising efforts.

Along with funding such events, our bi-annual samosa sale allowed us to reach out and advertise to students and faculty about future events and obtain new members. Hungry staff and students received samosas from our booths found in two locations on campus for a reasonable price while supporting our cause. Our group has also participated in the University of Alberta's annual club-fair, where we shared information about the accomplishments of many scientists in the field of biomaterials and discussed biomaterials with interested graduate and undergraduate students alike. Participation in this event allowed us to distribute information about our club and connect with interested students as well as clubs interested in collaboration.



Our efforts in developing collaborative projects don't end there! We have been working hard to communicate with other graduate student groups to create partnerships both within the University of Alberta and University of Calgary. Currently, we are looking forward to hosting/participating in collaborative events with biomaterials related groups such as those interested in nano-technology and biomedical engineering. Lastly, we are gearing up for our 4th annual Biomat Connect. This year, our Biomat connect will feature an additional session for students to display posters of their research that will be judged by professors and industry members in attendance. This is on top of our well attended keynote speech, panel discussion, and speed networking that have been incorporated in previous years.



Kingston Student Chapter



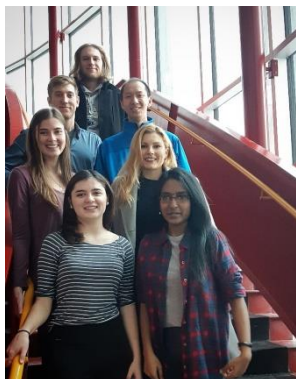
CBS-KSC had an eventful summer and fall! Three of our members attended the 2nd Annual Eastern Ontario CBS Research Symposium, hosted by CBS-OSC in May before the CBS AGM. We really enjoyed seeing the research occurring in Ottawa and touring one of the labs. Next year it'll be our turn to host CBS-OSC in Kingston! Four of our members were able to attend CBS2018 in Victoria, giving two oral and two poster presentations. We hosted two seminars, one with the Queen's CardioPulmonary Unit, a new clinical research facility on campus, and one by a new professor in the mechanical engineering department, Dr. Roshni Rainbow. We held our election after Dr. Rainbow's talk (October 10) and the new executive will take over in January. After the election we hosted a happy hour networking event with graduate students in biomedical engineering, chemical engineering and chemistry. Later in October we held an info session for undergraduate students about graduate biomedical research, in collaboration with the Science to Business Network Kingston Chapter. This event consisted of a panel discussion with two graduate students and two postdocs from chemical engineering and biomedical sciences, a poster session, and a networking session with food and coffee. Finally, at the end of October we had a workshop with Dr. David Hyndman, who works in Industrial Partnerships at Queen's University, to learn about transferable skills from academia to industry positions.



Montreal Student Chapter

Montreal Student Chapter successfully held the 3rd Montreal Biomaterials Research Day, on Bio-inspired Materials and Tissue Engineering, on May 1st. We had 11 invited speakers (8 Professors from McGill, UdeM, Poly Technique de Montreal, University of Sherbrooke and Laval University and 3 industry representatives), as well as 6 selected student presenters. For the first time in the history of our chapter, we had an engaging round-table discussion for 45 minutes between the presenters and the attendees on the applications of biomaterials in tissue engineering. This event was not possible without a great team-work, our mentor and our respectable sponsors. We then had our Fall research seminar featuring Professor Zhu from UdeM on September 27th. This event was followed by our member elections and a social event over lunch. The previous council wish the new crew a successful productive year ahead!





Ottawa Student Chapter

It has been a busy year for the Ottawa Chapter! We have had wonderful involvement from all levels of academia with the OSC president for 2017-2018 Enas Osman and Vice-president Nick Calvert. In May 2018, the Ottawa Chapter held the **2nd Annual Eastern Ontario CBS Symposium**. Students from the Ottawa and Kingston Chapters presented their talks and posters for the upcoming CBS Annual Meeting in Victoria. The CBS-Ottawa Student Chapter contributed with four poster presentations and two talks. Dr. St-Pierre from the University of Ottawa was the keynote speaker for the event.

In September 2018, Kyla Wilson was nominated and accepted the role of president for CBS-OSC 2018-2019 with the support of Vice-president Hallie Arnott. The first event of the new executive committee was held at the beginning of October 2018, where Dr. Xudong Cao (University of Ottawa) spoke at a seminar about Tissue Engineering. The event had almost 50 students from the University of Ottawa and Carleton. Afterwards, the committee, professors and audience were welcomed for a game of pool and an opportunity to expand their social and professional networking skills. The new team is very excited for the other events yet to come.



Keep up to date on the activities of our student chapters!

Alberta:

<https://abbiomat.ca/>

British Columbia:

<https://blogs.ubc.ca/cbsstudentchapterbc/>

Kingston:

<https://biomaterialskingston.wordpress.com>

Ottawa:

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

Montreal:

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

Quebec City:

<https://cbsqcchapter.wordpress.com>



Quebec City Student Chapter

Since the Spring newsletter, the CBS Quebec City Student Chapter (CBS-QCSC) has organized no less than 6 conferences held by international speakers. On the 1st of May, the CBS-QCSC organized its annual meeting including the elections of a new team. On the same day, a seminar was given by Prof. Martin W. King (North Carolina State University College of Textiles) on the design of textile scaffolds for engineering tissue junctions. It was then followed by three student presentations that acted as previews right before the 34th annual meeting of the CBS. Later that month, Prof. Ketul Popat (Colorado State University, USA) discussed the micro/nano-engineering of material surfaces for tissue engineering and regenerative medicine. In June, the surface interactions and the creation of bio-inspired platforms and interactions were discussed in the seminar of Prof. Fabio Variola (University of Ottawa, Canada).



In the fall, Dr Sophie Laurent and Dr Robert Muller (Université de Mons, Belgium) gave an interesting talk about contrast agents for Magnetic Resonance Imaging (MRI). The week after that, Prof. Claudemiro Bolfari (Federal University of São Carlos, Brazil) presented a seminar about surface modifications of implant materials by femtosecond and high-power LASER and Micro Arc Anodization/MAO. Lately, the CBS-QCSC received the Prof. MD Frank Witte (Julius Wolff Institute for Biomechanics and Musculoskeletal Regeneration, Germany), specialist and pioneer in Magnesium based alloys for biodegradable implants for two one-hour conferences. In the coming months, more seminars are to be held, along with a one-day workshop with Anis Hadj Henni from the company Rheolution: New approach to gel mechanical testing – Contactless, Non-destructive, easy! (November 6, 2018).



Meanwhile, the Quebec City Student Chapter is working hard on organizing side events for the 35th Canadian Biomaterials Society Annual Conference that will be held in Québec city from May 21-24, 2019. Be ready to discover the wonders of Quebec City through multiple social activities and delicious food! More details about these not-to-be-missed events will be provided in the upcoming months, so stay tuned! Visit our website at <https://cbsqcchapter.wordpress.com/>

Did you know?

CBS has several awards available yearly for student and postdoc members!

Find new awards on our website: biomaterials.ca



CBS Visiting Scholar Award

Deadline: March 1 Annually

The Canadian Biomaterials Society is providing a Visiting Scholar Award to give to the most promising young scientists the opportunity to visit another university / lab with common research interests and stimulate their interest to pursue their career in the field of biomaterials. The award also intends to foster collaborations as well as exchange of technologies and ideas between Canadian universities in the field of biomaterials.

Who is eligible?

Ph.D. students in their 2nd year and above and post-doctoral fellows, who:

- Have been a member of CBS for at least 1 year at the time of application. The supervising professors in the home and hosting institutions should also be members.
- Have attended at least one annual meeting of the CBS (or WBC) prior to the application for the award.

Value of the award

This award has a value of a maximum of \$3,000, to cover travel and housing expenses for a visit of up to 2 weeks.

Application

procedure

The candidate should submit:

- a current CV including the list of publications
- a brief summary describing the proposed research activities during his/her visit in the hosting institution (maximum 2 pages)
- a maximum one-page budget summarizing the expected expenses

The supervising professors (both in the student home and hosting institutions) should submit a maximum 1-page support letter confirming their interest in the collaborative research activity.

Applications should be sent electronically to the CBS secretary before **March 1 annually**. A maximum of one award will be distributed and announced at the CBS Annual Meeting.

Information can be found on our website at:

<http://www.biomaterials.ca/#!/awards/cbs-visitingscholar>

Join us for the 35th Annual Meeting of the Canadian Biomaterials Society, occurring **May 21-24, 2019!**

Call for Abstracts **OPEN**
Deadline: Feb 22

cbs2019.org



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

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