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Spring 2019 Newsletter

Dear members of the Canadian Biomaterials Society,

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

During this year the board has been working hard to improve internal processes and documentation available for future boards, to help them being more efficient from the very first day and to keep track of previous initiatives, budgets and meetings.

Following our contest we have received a few propositions for the new CBS logo and we are updating the CBS website to make it more appealing and useful for the board and the CBS members. We hope to be able to present it at our next General Assembly.

The AGM will take place on **Wednesday May 22nd at 12:15.** Don't miss it! We will present a more detailed summary of our activities and the complete list of the awardees receiving either the WBC2016 Legacy Travel awards, the WBC2016 Legacy Postdoc experience awards and the CBS Merit & Travel Awards. In total more than \$20,000 have been distributed to allow as many students and post-docs as possible to come to the CBS2019 meeting in Quebec City and to promote post-doctoral fellows to visit and interact with other labs. The entrepreneurship committee created by Nima has been working very hard to propose a workshop and a Pitch competition during CBS2019. This is a good means to introduce the basics of entrepreneurship to the students. There is still time to register to this and other tutorials that will take place in May 21st.

We have been following with excitement the organization of CBS2019 in Quebec City. Don't miss it! It is still time to register. You can find in this issue of our newsletters the list of keynotes, tutorials and invited speakers.

And of course we have been preparing for the WBC2020 in Glasgow, since it is coming sooner than we think! I encourage you to join the WBC2020 mailing list to receive all updates.

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.

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,

It is our great pleasure to invite you to attend the 35th Canadian Biomaterials Society Annual Meeting, that will be held at the Loews Le Concorde Hotel, downtown Québec City, from May 21-24, 2019.

Québec City, with 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.

Please visit our website to discover the program (<u>http://cbs2019.org/scientific-program-preliminary</u>) and get more information about the meeting: 6 tutorials, 50 invited speakers, 4 posters sessions, and a social activity each day of the conference for a warm and friendly networking experience.

We are looking forward to seeing you in Québec City!

Keep up to date by signing up for the CBS2019 newsletter! http://cbs2019.org/

35th Annual

Meeting of the Canadian Biomaterials Society



Catherine Le Visage (Université de Nantes, France)

Ketul Popat (Colorado State University, USA)

Christopher Yip (University of Toronto, Canada)



- 2nd Entrepreneurship clinic and Biomaterials Pitch Competition
- 2. Exploring magnetic resonance imaging (MRI) and X-ray computed tomography (CT) for biomaterials scientists and engineers
- **3.** Reconstruction of tissue-engineered organs with human cells: the LOEX experience
- **4.** Mentoring young scientists: developing survival skills in science
- 5.3D-Bioprinting and beyond
- 6. Biotechnology for biomaterials

35th Annual

Meeting of the Canadian Biomaterials Society

INVITED SPEAKERS

Adetola Adesida (University of Alberta) Mohsen Akbari (University of Victoria) **Emilio Alarcon** (University of Ottawa) **Brian Amsden** (Queen's University) Élodie Boisselier (Université Laval) Stéphane Bolduc (Université Laval) Gabriele Candiani (Polytechnic of Milan) Marta Cerruti (McGill University) John Davies (University of Toronto) Gregory De Crescenzo (Polytechnique Montréal) Nathalie Faucheux (Université de Sherbrooke) Mark Filiaggi (Dalhousie University) Lindsay Fitzpatrick (Queen's University) Lauren Flynn (Western University) Marc-André Fortin (Université Laval) Jonathan Gagnon (Université du Québec à Rimouski) Maud Gorbet (University of Waterloo) Kathryn Grandfield (McMaster University) Jesse Greener (Université Laval) **Todd Hoare** (McMaster University) **Caroline Hoemann** (George Mason University) **Corinne Hoesli** (McGill University)

Alicja Kazek-Kesik (Silesian University of Technology) Nima Khademmohtaram (University of Waterloo) Jayachandran Kizhakkedathu (University of British Columbia) Marc-Antoine Lauzon (Université de Sherbrooke) **Sophie Lerouge** (École de Technologie Supérieure) Geetha Manivasagam (Vellore Institute of Technology) Mircea Mateescu (Université du Québec à Montréal) **Kibret Mequanint** (Western University) Rafik Naccache (Concordia University) Milica Radisic (University of Toronto) Paul Santerre (University of Toronto) Tannin Schmidt (University of Connecticut Health Center) Michael Sefton (University of Toronto) Heather Sheardown (McMaster University) Eli Sone (University of Toronto) Jean-Philippe St-Pierre (University of Ottawa) Larry Unsworth (University of Alberta) Fabio Variola (University of Ottawa) Patrick Vermette (Université de Sherbrooke) **Rizhi Wang** (University of British Columbia)

Stephanie Willerth (University of Victoria)

CBS2019 Travel Awards

WBC2016 LEGACY AWARD WINNERS

Zahra Abdali (McGill University - Supervisor: Manuelle Dorval Courchesne)
Omar Bashth (McGill University - Supervisor: Corinne Hoesli)
Bryan Lee (McMaster University - Supervisor: Kathryn Grandfield)
Laura McKiel (Queen's University - Supervisor: Lindsay Fitzpatrick)
Somiraa Said (McMaster University - Supervisor: Todd Hoare)
Houman Savoji (University of Toronto - Supervisor: Milica Radisic)
Ruchi Sharma (University of Victoria - Supervisor: Stephanie Willerth)

CBS2019 MERIT & TRAVEL AWARD WINNERS

Seep A (National University of Singapore) Jennifer Archibald (University of Ottawa) Ali Babar (McMaster University) James Baylis (University of British Columbia) Camille Cassel de Camps (McGill University) **Qiang Chang** (University of Manitoba) Patricia Comeau (University of Waterloo) **David Cortes** (University of Ottawa) Benjamin Dalisson (McGill University) Sergio Diaz-Rodriguez (Universite Laval) Armin Geraili (Western University) Andrea Greschner (Institut National de la Recherche Scientifique) Capucine Guyot (École de Technologie Supérieure) Katsuhiro Hosoyama (University of Ottawa) Anna Kornmuller (Western University) David Lomboni (Politecnico di Milano)

Pascal Morissette Martin (Western University) **Jia Nan** (Universite Laval) Ehsan Rezabeigi (McGill University) Vincent Roy (Universite Laval) Syeda Rubab Batool (Koc University) Fiona Serack (Western University) Nadia Sharma (Western University) Arthi Shridhar (Western University) Quinton Sirianni (Western University) Alexander Steeves (University of Ottawa) Lily Takeuchi (University of British Columbia) Alexane Thibodeau (Universite Laval) Kyla Wilson (University of Ottawa) Yuan Yao (University of Waterloo) Hossein Yazdani Ahmadabadi (University of British Columbia) **Xingying Zhang** (University of Manitoba)

STUDENT Chapters

Alberta Student Chapter

 ${\sf T}$ o raise funds for our events and reach out to more students and faculty members, we held a samosa sale in November 2018. Besides aiding in promoting the technical seminars we organized in early 2019, this fundraiser event served as a platform to recruit new student members. We started off 2019 with a seminar in January by an invited speaker - Dr. Marcel Bally, Head and Distinguished Scientist, Department of Experimental Therapeutics, BC Cancer Agency (Vancouver, BC). He provided his insights on the future of medicine within the realm of biomaterials through his talk titled, "Lipids, Drugs, and Metals: Ingredients for optimizing immunogenic cell death". In February 2019, Dr. Stephanie Willerth, Associate Professor, Department of Mechanical Engineering and Division of Medical Sciences, University of Victoria (Victoria, BC), enlightened students on ongoing 3D bioprinting research efforts in her lab as well as benefits of strategic diversification of projects to succeed in academia through her talk titled, "3D Bioprinting Personalized Neural Tissue".



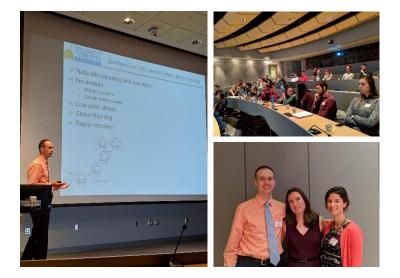


Our annual academic/industrial mixer (4th BioMat

Connect) was held on April 2nd, 2019, which featured a few talks, a panel discussion, and a speed networking session, all geared towards the theme of 'Driving Innovations in Biomaterials'. The keynote talk was delivered by Dr. Helen Burt, Associate Vice President Research & Innovation, University of British Columbia (Vancouver, BC). This was followed by a couple of short talks by Dr. Angela Keuling, Patent Agent, Parlee McLaws LLP (Edmonton, AB) and Mr. Jason Ding, Managing Director, Edmonton Corporate Finance Leader, Deloitte LLP (Edmonton, AB). Dr. Arun Raturi, CSO, Entos Pharmaceuticals (Edmonton, AB) and Dr. Marlene Huerta, Principal Business Advisor, Alberta Innovates (Edmonton, AB), joined the speakers to serve as panelists for the panel discussion. Along with these Lan Tan, Director of Entrepreneur panelists, Development, TEC Edmonton; Dinuka Gunaratne, Career Education Coordinator, University of Alberta; and Monica Varga, Associate Director, Natural Sciences and Engineering, TEC Edmonton, all served as mentors during the speed networking session. The attendees took away a great deal of knowledge regarding technology commercialization, patent filing, and entrepreneurial development. To find out more about our group and events please visit https:/abbiomat.ca/ and connect with us on LinkedIn, Twitter, and Facebook.

BC Student Chapter

On April 8th, 2019 the CBS-BC student chapter held their 2nd annual Biomaterials and Regenerative Medicine symposium. With a total of 45 attendees, graduate and undergraduate students learned about research and advances in the field of biomaterials. The event started with registration followed by lunch and networking session. The first talk was given by Dr. Lampe who is an assistant professor at the University of Virginia. Dr. Lampe discussed the use of biomaterials for regeneration of Oligodendrocyte Progenitor Cells (OPCs). After a quick coffee break, the second talk was given by Dr. Holloway from Arizona State University where she is an assistant professor. Dr. Holloway shared her research about electrospinning and hydrogel engineering for musculoskeletal regeneration. This event was sponsored by the Canadian Biomaterials Society (CBS), the Centre for Biomedical Research at UVic and the Centre for Advanced Materials and Related Technologies (CAMTEC) at UVic.



Kingston Student Chapter

t's been an exciting few months for CBS-KSC! We have a new

executive team ready to make this year filled with events and activities for the biomaterials community around Kingston! This year, the team will focus on events that appeal to a broader spectrum of graduate students in hopes to increase attendance to these events.

Our first event of the year involved having Rheolution from Montreal (rheolution.com) perform а half-day of demonstration and answering questions about their ElastoSens contactless materials testing equipment. The event was followed by a meet and greet with two employees of Rheolution to talk about career development and how to create a technology start-up. Another exciting topic that was discussed was the venture of Rheolution into the cheese producing business. This journey into a previously unexplored area of business started discussion about not being siloed into one application, especially when there are other markets that may benefit more from your instrument!

CBS-KSC members also attended an event held by the Science to Business Network. The event featured Dr. Allan Miranda, the Head of JLabs Canada. CBS-KSC hopes to work with the Science to Business Network in the future to co-host exciting events for a broader audience of graduate students.



Montreal Student Chapter

he Montreal student chapter was pleased to take part in the seminar given by Professor Frédéric Chaubet of the Université

Paris XIII on February 28th. Professor Chaubet presented his research on the subject of nanomedicine for cardiovascular diseases. We are also pleased to present an overhaul of our website and in the coming months we plan to update our communications and social media presence to grow and develop the society. We are equally excited to take part in this year's Annual Meeting of The Canadian Biomaterials Society in our neighboring city of Québec!

STUDENT Chapters



Ottawa Student Chapter

he Ottawa Student Chapter of the Canadian Biomaterials Society (CBS-OSC) has some exciting news this spring. On March 23rd and 24th, we co-hosted our very first two-day Biomedical Engineering Conference (BEC2019). Our executive team decided to provide our graduate and undergraduate students at the University of Ottawa and Carleton University with the opportunity to participate in three oral competitions and four hands-on workshops. The 200 guests registered in the event were also invited to listen to four keynote speakers and attend a round-table discussion with a woman in biomedical engineering panel. We were honored to have Dr. May Griffith, Dr. Abdulmotaleb EL Saddik, Dr. Diego Mantovani and Dr. Adrian Chan speak as our keynotes. We had over 20 students participate in the oral competitions: (1) three-minute thesis, (2) poster presentations, and (3) Dragons Den entrepreneurship competitions.

Another event highlight was the four interactive workshops on: (1) Nanoparticles, (2) Microfluidics, (3) Dr. Variolas' Keynote

& Advanced Medical Databases, and (4) 3D Bioprinting. The microfluidics workshop provided guests with three types of microfluidics chips, allowing them to explore how microfluidics work in an applied manner and understand the different applications in biomaterials research. Those who attended the conference also had the opportunity to learn how to use three types of 3D bioprinters! Our event head coordinator and CBS-OSC social coordinator David Cortes worked exceptionally hard to build partnerships with sponsoring companies such as Reholutions, Cellink, Mechanical Engineering Student Society (MESS) and Graduate Student Association (GSEAD). It was donations by these supporting groups, combined with contributions from CBS and planning from our executive committee that made the event possible. We also need to thank Subway, TastersHUB and Starbucks for generous contributions to food and beverages for the event.



Chapters

STUDENT

Quebec City Student Chapter

 ${f S}$ ince the beginning of the new year, 5 events have been organized by the CBS Quebec City Student Chapter (CBS-QCSC).

In February, the now traditional annual Wine and Cheese of the CBS-QCSC took place. The event consisted in a seminar from Emilie Dubois, founder of IMPAKT Scientifik, on her post-degree experience in the entrepreneurship world followed by a poster presentation. In the same event, the elections of a new team were held, with the selection of the new executive committee. On the 20th, the CBS-QCSC hosted a very successful webinar on the basics of the Thermolac Software held by Prof. Rodrigo Magnabosco (Centro Universitàrio de FEI, Brasil). The following day, on the 21st of February, Prof. Frédéric Chaubet (Université Paris 13, France) gave an interesting conference on nanomedicine and drug release systems.



n March, two events were organized: the first, the 8th of March, was another successful seminar on the use of the Origin

software presented by Dr. Morgane Laurent (Université Laval) and Zheng Shao (OriginLab Corporation, USA). The second one, held on the 19th, saw the CBS-QCSC, in collaboration with Cloud Science (Canada), hosting Regemat3D, a 3D-printing Spanish company, giving a seminar on 3D printing for medical applications. Moreover, the QSCS is actively working on the organization of the "social" events for the 35th Canadian Biomaterials Society Annual Conference that will be held in Québec city from May 21-24, 2019. In fact, the student night and the traditional Treasure Hunt in the "Old City" will be organized by our chapter! For more details about these events and for updates on the upcoming activities of the chapter, visit our website at https://cbsqcchapter.wordpress.com/

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

Alberta: https://abbiomat.ca/

British Columbia: https://blogs.ubc.ca/cbsstudentchapterbc/

Kingston: <u>https://biomaterialskingston.wordpress.com</u>

Ottawa: https://ottawachaptercbs.wordpress.com/

Montreal: https://cbsmontrealchapter.wordpress.com/

Quebec City: https://cbsqcchapter.wordpress.com

Society Announcements



Did you know?

CBS has several awards available yearly for student and postdoc members! In particular, this year \$16000 has been distributed to 39 students and post-docs to help them travel to CBS2019 and award their hard work. See all details about awards and awardees on our website: https://biomaterials.ca/

WBC2020

Don't forget that next year is WBC2020 in Glasgow. The deadline for abstract submission is not known yet, but will likely be as soon as September or October. So be prepared and register on the <u>WBC2020 website</u> to receive updates!

Website Update

Thanks to the help of Todd Hoare and Jason Silver, the website is presently being updated. We hope that it will be ready to present at your next AGM in May 2019 in Quebec City!

Membership Renewal

It's 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

Join us for the 35th

Annual Meeting of the Canadian Biomaterials Society, occurring May 21-24, 2019 in Quebec City!

<u>cbs2019.org</u>

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Follow us on Twitter <u>@CanBiomatSoc</u>

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