



**Canadian Biomaterials Society**  
**Soci t  Canadienne des Biomat riaux**

**Quarterly Newsletter**

**Winter 2013**



### **30th Annual Meeting of the Canadian Biomaterials Society**



The 30th Annual Meeting of the Canadian Biomaterials Society (CBS) is fast approaching (May 29-June 1) and will be held at the University of Ottawa.

Abstract submission is now open at the CBS website

<http://biomaterials.ca/#!/cbs2013> - you can also find the abstract formatting guidelines as well as full details about the conference, including student travel awards, on the CBS website.

The abstract submission deadline has been extended to **February 4, 2013**. Don't miss this chance to present your work to an audience of leading biomaterials scientists, clinicians, and industry leaders in beautiful Ottawa, Ontario! Dr. Isabelle Catelas, the conference chair, and the members of the Organizing Committee are very excited to announce that the following internationally recognized speakers will be giving a presentation:

- **Kristi Anseth**, Ph.D., Tisone Professor, Associate Professor of Surgery, University of Colorado, USA.
- **John Brash**, Ph.D., Professor, Department of Chemical Engineering, McMaster University.
- **Lyndon Jones**, Ph.D., Professor, School of Optometry and Vision Science, University of Waterloo.
- **Tony Mikos**, Ph.D., Louis Calder Professor, Department of Bioengineering, Rice University, USA.
- **Claude Rieker**, Ph.D., Director Scientific Affairs, Zimmer GmbH, Winterthur, Switzerland.
- **Marc Ruel**, MD, Cardiac Surgeon & Cardiac Surgery Research Chair; University of Ottawa Heart Institute, Ottawa.
- **William R. Wagner**, Ph.D., Director, McGowan Institute for Regenerative Medicine, Professor of Surgery, Bioengineering & Chemical Engineering, University of Pittsburgh, USA.

### **CBS Student chapters in action.**

*By Maryam Kabiri, Nima Mohtaram, Maud Gorbet*

Two student chapters are currently sponsored by the Canadian Biomaterials Society.

The **BC student chapter** was created in 2011 and held several activities in its first year, running workshops, seminars and discussion groups related to biomaterials. On June 28th, 2012, Dr. Willerth Lab, Dr. Jun Lab, and the BC Student Chapter of the Canadian Biomaterials Society were pleased to

welcome 20 students at the University of Victoria and UBC students by video conference to the 1<sup>st</sup> student-based Neural Tissue Engineering workshop. During the workshop, Dr. Willerth and Dr. Jun gave scientific presentations and two graduate students gave short presentations on experimental protocols. In the afternoon, hands-on workshops allowed students to become familiar with electrospinning, stem cell culture on scaffolds, and microsphere preparation.



The **Alberta student chapter** was created in August 2012 and is aimed towards connecting people (students, professors, industry) working on biomaterials across Alberta and professional development of Albertan CBS members. Dr. Hasan Uludag (Chemical Engineering, U of Alberta) inaugurated the first series of seminars with "A

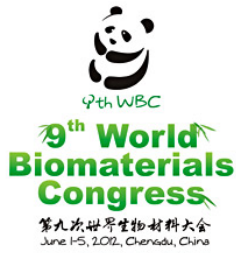
Taste of Biomaterials" and Dr. Afsaneh Lavasanifar (Dept of Pharmacy, U of Alberta) spoke in November on "Super Medicines". Over 45 people from different faculties and departments

(Pharmacy, Medicine, Chemical Engineering, etc.) attended the meetings, providing a fertile ground for discussion and new interactions.



## Outlook on the World Biomaterials Congress in China in 2012,

by *Stephanie Willerth*



From June 1st through 5th, 2012, delegates from all over the world met in Chengdu, China for the 9th Annual World Biomaterials Congress with the overall theme of "Innovative Biomaterials and Crossing Frontiers in

Biomaterials and Regenerative Medicine".

The Canadian Biomaterials Society was well represented as Drs Gaétan Laroche, Diego Mantovani, and Maryam Tabrizian were all honored as Fellows of Biomaterials Science and Engineering (FBSE). CBS also awarded student travel awards to support Rafi Chapanian, Christina Holmes, Bahareh Sayyar, Jane Cheung, Pauline Lequoy, Christoph Staehli, Florencia Chicatun, and Laura Rose as they presented their research at this meeting. The student travel award winners also worked at the CBS booth, helping to spread the word about our society and WBC2016 to be held in Montreal. Additionally, a number of CBS members gave talks and presented their research to the international community while our WBC 2016 Organizing Committee was able to lay the groundwork for the next World Congress.

Several of our members took the day trip to see the pandas in a local reserve and to experience the local Chinese market place.

The banquet was quite the experience as a range of Chinese performers entertained the crowd and a number of interesting Sichuan dishes were served. Overall, the conference provided an amazing intellectual and cultural experience for all of the attendees.



## Canadian Biomaterials Society Visiting Scholar 2012 - Azadeh Goudarzi

In January 2013, the Canadian Biomaterials Society was pleased to announce Azadeh Goudarzi as the winner of the inaugural CBS Visiting Scholar Award.

The award, a value of \$3,000 maximum, provides a promising young scientist with the opportunity to visit another university/lab with common research interests and stimulate his/her interest to pursue a 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. For more information on the award, please visit

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

In her doctoral research, Azadeh is studying the self-healing ability of calcium silicate cement (CSC) composites in simulated body fluid (SBF). More cell culture experiments are required to ensure the continued biocompatibility, bioactivity and osteoconductivity of the composites, and so she has initiated a collaborative research project with Dr. Jake Barralet at McGill University. Dr Barralet's group has significant expertise in calcium phosphate cements (CPCs), and in evaluating biocompatibility, bioactivity and osteoconductivity of biomaterials. During her visit in Montreal, Azadeh will be able to use their facilities to evaluate her hypothesis and investigate the biological properties of self-healing calcium silicate composites as well as possible self-healing properties of CPCs and combination of CSCs and CPCs. This visit and the new collaboration will likely lead to new research grant proposals.

Azadeh is passionate about her research, as it has great potential application for CSC composites, but also for other bioactive ceramic bone cements. Natural tissues have the self-healing ability to repair their structural defects without external assistance. As we gain a better understanding of this phenomenon and become able to achieve the same characteristic in biomaterials, Azadeh's research could help prevent revision surgeries and thus reduce pain, time and money, and ultimately increase the patient's quality of life.



### ***CBS Newsletter editorial board***

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Please contact [mgorbet@uwaterloo.ca](mailto:mgorbet@uwaterloo.ca) if you want to contribute to our next Spring 2013 CBS Newsletter.



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