

The CCRM Niche

News, updates and events for our partners

Ontario and China agree to collaborate on regenerative medicine research and commercialization



Photo Credit: Lynne Postovit, PhD, University of Western Ontario

It's a good thing that English is the language of science now that Ontario's stem cell researchers and commercialization experts are partnering with their Chinese peers on a three-year government funded initiative.

Following successful talks between the **Centre for Commercialization of Regenerative Medicine (CCRM)**, the **Ontario Stem Cell Initiative (OSCI)**, Ontario's **Ministry of Economic Development and Innovation (MEDI)** and the **Ministry of Science and Technology (MOST)** in China, an agreement has been reached to support a new Ontario-China Stem Cell Partnership.

Leveraging available funding from MEDI's **Ontario China Research and Innovation Fund (OCRIF)** and MOST, world-class stem cell researchers from Ontario and China will collaborate on research projects in the following areas: pluripotency, reprogramming and stem cell banking; stem cell differentiation to endoderm and pancreatic lineages; and, blood stem cell expansion and transplantation.

"This is an exciting partnership with plenty of potential and we congratulate the provincial government for having the foresight to initiate OCRIF," says **Dr. Michael May**, CEO of CCRM.

The collaboration recently launched. CCRM will lead efforts to commercialize technologies arising from the partnership.

This announcement is the effort of 18 months of discussions that culminated in a regenerative medicine workshop in Beijing on November 6, 2012 hosted by **Hongkui Deng**, Professor of Cell Biology and Genetics at **Peking University** and MOST. The Ontario delegation included Dr. May who had an additional meeting with the **Chinese Industry and Innovative Technology Strategic Alliance of Stem Cells and Regenerative Medicine**, a peer organization to CCRM based in China.

Upcoming Events

Till & McCulloch Meetings (T&MM)

Beautiful Banff, Alberta is the backdrop to this year's T&MM, Canada's premier stem cell research event. With hundreds of leading stem cell scientists, clinicians, bioengineers and ethicists, as well as representatives from industry, government and NGOs expected to attend, you don't want to miss the opportunity to learn and network. Industry members will be notified of meetings organized just for them. Reserve **October 23-25, 2013** in your calendar.

Register at www.tillandmcculloch.ca

Save the Dates! Back by popular demand, CCRM is once again hosting two workshops for academics and industry representatives: Cellular Therapies Manufacturing and Clinical Trials in Canada on **October 25 and 26, 2013** following the T&MM in Banff and the Cell Reprogramming & Engineering Platform is running its Human Induced Pluripotent Stem Cell (HiPSC) Workshop from **December 11-13, 2013** in Toronto.

Register at www.ccrm.ca



CCRM

Centre for Commercialization of **Regenerative** Medicine

Disclosing disclosures and discourse

Rather than hibernating this winter, CCRM's business development team was active and energetic. The team has sourced and evaluated approximately 80 technologies and it is focusing on six technologies for its first round of potential in-licensing. Over the next month, the team will present its investment recommendations to CCRM's Commercialization Review Committee (CRC), which consists of industry leaders in RM, as well as staff of the Technology Transfer Offices of our member institutions. The CRC is an important resource for determining which technologies CCRM will commercialize.

We are also travelling across the country to meet RM investigators outside of our founding member institutions. **Allison Brown**, Director of Commercialization, gave a presentation in Vancouver on January 10th at the 'Stem Cells and Regenerative Medicine Initiative,' organized by **Dr. Fabio Rossi**. This full day workshop was an excellent opportunity to raise awareness about CCRM and for Dr. Brown to better acquaint herself with the excellent RM research happening in British Columbia. CCRM is also beginning to work with the **University of Alberta** and recently visited the **University of Western Ontario** to discuss collaborative opportunities. We will continue moving eastward to meet with **McGill University**, the **University of Montreal** and the **University of Sherbrooke** in the coming months.



Industry consortium: Growing bigger and stronger

Last March, CCRM was very excited to announce that 20 regenerative medicine (RM) companies had joined its industry consortium (IC), an achievement of which we are particularly proud. The IC represents key sectors in RM – therapeutics, devices, reagents and cells as tools – and tremendous industry expertise.

One year later, we are pleased to welcome four new companies to broaden our expert base and accelerate product development: **Applikon Biotechnology**, **TAP Biosystems**, **Inception Biosciences** and **Sernova**. You can read how these companies will benefit CCRM and strengthen the industry consortium by visiting www.ccrm.ca/media-room-panel.



Photo Courtesy of Inception Biosciences

Associate Members

A popular club has a waiting list for admission and the IC is no exception. To manage its size and stay true to its original purpose of initiating co-development projects, CCRM has introduced an Associate Membership category that provides some of the benefits of being an IC member, but does not include access to co-development projects. Associate members are eligible to join the IC after one year, pending board approval. Already seven companies are in the process of joining and those names will be announced soon.

New ethics unit to promote responsible research

CCRM is now working with **McGill's Centre of Genomics and Policy** to address ethical, legal and social issues (ELSI) related to commercialization and regulation that may arise as it aims to fill specific gaps in the product development pathway for its academic and industry partners. We intend to develop policies, forms and agreements for our own use and to share with interested members of the RM community to ensure that we are all proceeding in a consistent manner.

"We look forward to the ELSI expertise that **Prof. Bartha Knoppers** and her colleagues will bring to CCRM to complement the stringent standards that we already work under," says **Dr. Michael May**, CEO of CCRM.

You can read the original announcement here: www.ccrm.ca/media-room-panel.

Random Blebs

The CCRM Niche is pleased to introduce this new section to the newsletter that is the layperson's equivalent of "bits and bobs" or "a bit of this, a bit of that."

For those readers unfamiliar with the term *bleb*, it is an irregular bulge in the plasma membrane of a cell (that occurs during cell death) caused by localized decoupling of the cytoskeleton from the same membrane (i.e. when a cell breaks off pieces of its membrane). Blebs vary greatly in growth rates, size, contents, and actin (a protein) content.

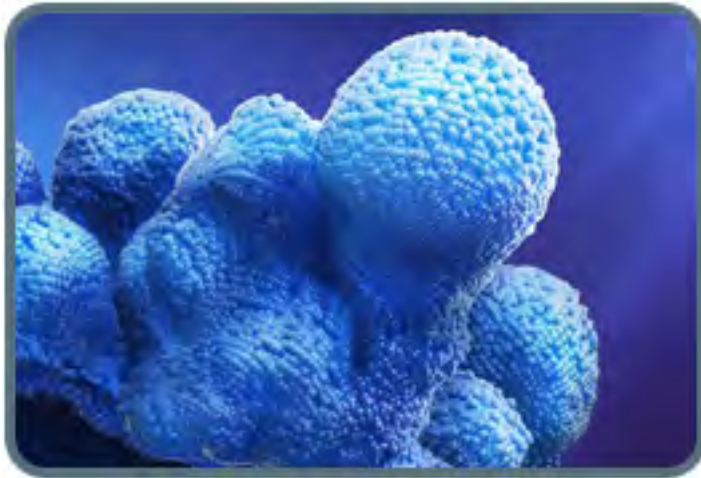


Image courtesy of Genentech, a member of the Roche Group

- **Dr. Michael May**, CEO of CCRM, is now a member of the **International Society for Stem Cell Research (ISSCR)** Industry Committee (<http://bit.ly/VJndEu>). If there are any thoughts or issues that you would like shared with this committee, please don't hesitate to let him know by e-mailing michael.may@ccrm.ca, and he will advocate on your behalf.
- Congratulations to **Dr. Ricardo Baptista**, Development Scientist for CCRM's Cell Manufacturing Platform, best poster winner at Scale-up and Manufacturing of Cell-Based Therapies II (Jan. 2013 in San Diego, California) for *Development of a perfused-bioreactor process for high density culture of NK-92 cells for immunotherapy*. Authors: **Baptista RP, Viswanathan S, Keating A, Zandstra PW, Timmins NE**.
- Congratulations to **Dr. Emily Titus (née Walker)**, Development Scientist for CCRM's Cell Reprogramming & Engineering Platform, winner of the Norman F. Moody Award at the **Institute of Biomaterials and Biomedical Engineering's (IBBME)** 50th anniversary alumni dinner (October 2012). The award goes to an outstanding student carrying out his/her research while under the supervision of one or more IBBME faculty members.
- **OSCI** has launched a new seminar series that features the research of clinicians doing translational work in RM. **Drs. Tom Waddell (UHN), Janet Rossant (SickKids), Maarten Egeler (SickKids), Armand Keating (UHN), Terrence Yau (UHN)** and **Shaf Keshavjee (UHN)** are among the first to be showcased. All "Translation Talks" will be webcast and you can learn more at www.ontariostemcell.ca and www.ccrm.ca.

Getting to Know

Geoff MacKay

Board of Directors, CCRM



Geoff MacKay is President and Chief Executive Officer of **Organogenesis Inc.**, a cell-based leading RM company, with two FDA approved products, based just outside of Boston, MA. Organogenesis Inc. has treated hundreds of thousands of patients with living, cell-based products. Appointed to his role in 2003, Mr. MacKay provides Organogenesis with significant global and commercial experience, spanning the pharmaceutical and biotechnology sectors.

Before working at Organogenesis, Mr. MacKay held numerous leadership positions within **Novartis AG** including Vice-President and Business Unit Head, Transplantation and Immunology at Novartis Canada, Vice-President of Tissue-Engineering at Novartis USA, Head of Global Sales Immunology and Transplantation based in Basel, Switzerland and, prior to that, Sales and Marketing Manager of Novartis Biotech Europe.

Mr. MacKay's life work has been to successfully advance the field of RM into a routine standard of care. In addition to his work at Organogenesis and his role at CCRM, Mr. McKay is active with other prominent RM organizations. He currently participates on the Board of Directors of the **Canadian Stem Cell Network** and he serves as Chairman of the Board for the **Massachusetts Biotechnology Council (MassBio)** and the **Alliance for Regenerative Medicine (ARM)**, the world's leading RM trade organization of which CCRM is also a member.

Introducing the Cell Reprogramming & Engineering Platform team

Shahryar Khattak is the newest member of the team and his focus is on generating reporter gene containing cell lines using targeted engineering strategies. Dr. Khattak is also developing strategies for directed differentiation of pluripotent cells. Dr. Khattak is a Development Scientist.

Andreea Norman facilitates the derivation and banking of human iPSC lines. In addition, Ms. Norman works on the development of directed cell differentiation strategies. Ms. Norman is a Development Technologist.

Sofia Pustynnik supports the development and implementation of human ESC/iPSC quality control and characterization assays. Additionally, Ms. Pustynnik supports CCRM's fee-for-service activities. Ms. Pustynnik is a Development Technologist.

Sue Runciman is responsible for the expansion, maintenance and banking of cell stocks for CCRM's master cell bank. She is also currently working on several fee-for-service contracts for academic and industrial clients. Ms. Runciman is a Development Technologist.

Emily Titus develops and implements quality control and characterization assays for human ESCs and iPSCs. Dr. Titus also designs and validates custom qPCR panels for fee-for-service clients. Dr. Titus is a Development Scientist.

Wanyi Xiang is responsible for establishing standard operating procedures for the generation of induced pluripotent stem cells and characterization of these cells. She also provides technical support and advice to our customers. Dr. Xiang is a Development Scientist.

CCRM's Director of Cell Reprogramming & Engineering, **Dr. Kamal Garcha**, was profiled in the Summer 2012 issue of *The CCRM Niche*. Please visit www.ccrm.ca for a copy.

Meet the CCRM Team

Jennifer Moody
Director, Operations



Jen Moody is CCRM's first Director of Operations, moving into the role from her previous position as Manager of Technology Development at CCRM.

As CCRM continues to grow and expand, Dr. Moody's new role has become crucial. As a member of the senior team, Dr. Moody is responsible for managing operational issues that affect the whole company. For example, she is currently in the process of developing and introducing an employee handbook, ethics policy and performance evaluations, while also overseeing Information Technology and lab management.

Despite her new responsibilities, Dr. Moody continues to work as part of the business development team. In that role, she coordinates development plans with the scientific staff, something that she enjoys as it keeps her connected to the technology side of CCRM.

Always eager to learn, Dr. Moody describes her excitement about her position: "It is a new and challenging role and I'm finding it appealing from the perspective of building structure and plugging into the whole organization." It sounds like she's found her "niche".

The CCRM Niche

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