ANNUAL REPORT 2012-2013









Enhanced Programming Creates New Opportunities

"We've had a wonderful year of growth on multiple fronts, all made possible through collaboration. Our most exciting exchanges are with the clinicians, working together to solve the challenges as we take our first steps in developing therapies for patients," says Dr. Janet Rossant, OSCI Director and President of the International Society for Stem Cell Research.

OSCI expanded its program by providing an additional five postdoctoral fellowship awards, developing a travel awards program to assist trainees presenting research at international meetings, and launching a mentoring program for its junior scientists. OSCI also created a new seminar series, *Translation Talks*, which links stem cell biologists and biomedical engineers with translational clinicians, facilitating partnerships in key clinical areas such as heart disease and diabetes.

"OSCI has been instrumental in supporting the development of our trainees as part of our emerging program at Western University. The OSCI travel and fellowship awards allow our trainees to mix with the best and brightest stem cell minds in Canada and around the world."

- Dr. David Hess, Professor, Western University.

OSCI Stem Cell Rounds featuring a debate between a stem cell biologist and a biomedical bioengineer. A trainee grills the debaters. Finally, everyone voting on the winner!

Our Accomplishments

- OSCI now has over 110 stem cell and regenerative medicine research programs across the province, including partnerships with clinical centres
- OSCI's collaborations with Japan and China have created research and commercialization funding opportunities from the Federal and Provincial governments
- OSCI has defined its six areas of clinical focus and is assembling disease-challenge teams, working together to bring therapies to patients

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International Partnerships Provide Funding for the Ontario Team

Collaborations between Ontario and Japanese scientists led to outstanding results for OSCI scientists in securing funds for research on the epigenetics of stem cells. The Canadian Institutes of Health Research and the Japan Science and Technology Agency announced the Canadian team leaders: Drs. John Dick (University Health Network), Andras Nagy (Samuel Lunenfeld Research Institute) and Janet Rossant (SickKids).

The Ontario-China Stem Cell Research & Commercialization Partnership is now funded for three years. Projects have been launched in the areas of reprogramming, endoderm and pancreatic lineages, and blood stem cell expansion and transplantation. With support from the Ministry of Research & Innovation, Ontario and the Ministry of Science & Technology, China, OSCI is partnering with the Centre for Commercialization of Regenerative Medicine (CCRM) who will engage key regenerative medicine partners.

"Building commercial opportunities in Asia requires strong partnerships, built on trust and significant investments of time. These relationships can be seeded through academic collaborations that are focused on scientific excellence."

- Dr. Michael May, CEO, CCRM.

OSCI's Mission

- Enhance excellence in stem cell and regenerative medicine research in Ontario
- Promote research partnerships and alliances around the world
- Lead the translation of stem cells and regenerative medicine research into improved health and economic growth in Ontario

A successful Ontario-China workshop at Peking University in Beijing secures partnership funding.

OSCI Organizing Committee

Dr. Janet Rossant (Director)

Hospital for Sick Children Research Institute

Dr. Mick Bhatia

McMaster Stem Cell & Cancer Research Institute

Ms. Sandra Donaldson

Hospital for Sick Children Research Institute

Dr. Armand Keating

University Health Network

Dr. Gordon Keller

McEwen Centre for Regenerative Medicine

Dr. Andras Nagy

Samuel Lunenfeld Research Institute

Dr. Cristina Nostro

McEwen Centre for Regenerative Medicine

Dr. Michael Rudnicki

Sprott Centre for Stem Cell Research

Dr. Cheryle Seguin

Western University

Dr. Derek van der Kooy

University of Toronto

Dr. Peter Zandstra

University of Toronto

Dr. Juan Carlos Zúñiga-Pflücker

Sunnybrook Research Institute

Ontario Stem Cell Initiative







OSCI scientists at a Café Scientifique engage in debate on a question that everyone wants an answer to: are stem cells the basis of immortality?

OSCI Defines Areas of Disease Focus

OSCI has been developing its strategy for the Ontario Institute for Regenerative Medicine and has defined its areas of clinical focus to include:

- Heart Disease
- Diabetes
- Blindness
- Brain Neurodegenerative Disorders
- Blood Diseases
- Musculoskeletal Disease

OSCI is assembling disease-challenge teams that encompass stem cell biologists, biomedical engineers and translational clinicians to begin the first phase of developing stem cell therapies for patients.

"Ontario is at a tipping point. We are poised to take stem cell and regenerative medicine therapies to the patient, profoundly changing the way we perceive, treat and cure degenerative diseases. If we harness the scientific excellence and business expertise in this province, we can be leading the wave, instead of following it."

Dr. Alan Bernstein, President and CEO,
Canadian Institute for Advanced Research, CIFAR.

Call to Action

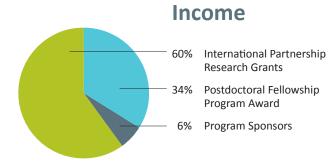
OSCI's goal is to link OSCI, CCRM, clinical teams and commercial partners to form the Ontario Institute for Regenerative Medicine (OIRM) with a vision to translate stem cell and regenerative medicine science into new treatments for degenerative diseases pointing the way to longer and healthier lives for all Canadians, including:

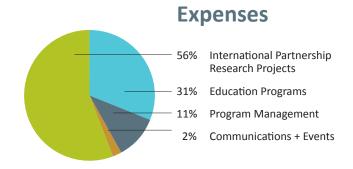
- Enormous social and health benefits from translating Ontariobased discoveries into promising treatments for patients
- Strong economic impact resulting from the commercialization of regenerative medicine products and therapies

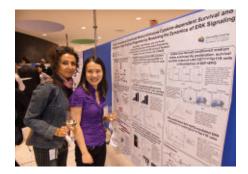
Contact OSCI

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Financial Information

International partnership research project expenses include personnel, supplies and materials in support of the Ontario-China Stem Cell Research & Commercialization Partnership projects. Education expenses include awards for postdoctoral fellows, travel awards, and costs associated with rounds, translation talks and external seminar series. Program expenses include program staff salaries and operational costs. Communication expenses include maintenance of website and password protected portals, media kits and sponsorships. Special events include the annual meeting at the Till & McCulloch Meetings and the ISSCR meeting in Boston.



Our Sponsors Make It Possible

Centre for Commercialization of Regenerative Medicine Department of Molecular Genetics, University of Toronto Faculty of APS & Engineering, University of Toronto Faculty of Medicine, University of Toronto Hospital for Sick Children Research Institute

Institute of Biomaterials & Biomedical Engineering, University of Toronto

Institute of Medical Science, University of Toronto

Lawson Health Research Institute

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Ontario Innovation Trust, Government of Ontario

Ontario Institute for Cancer Research

Ottawa Hospital Research Institute

Samuel Lunenfeld Research Institute

Schulich School of Medicine & Dentistry, Western University

Sunnybrook Research Institute



Networking in action at our poster sessions and annual meeting mixer.

