

Let's Talk Science
University of Toronto
St. George Chapter

let's talk science

UNIVERSITY OF TORONTO—ST. GEORGE

2010-2011

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McEwen Centre for
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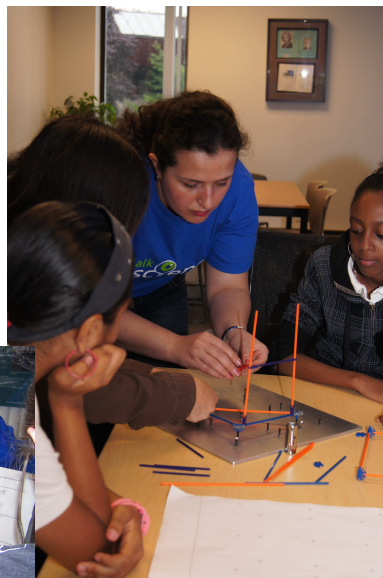
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Science Outreach

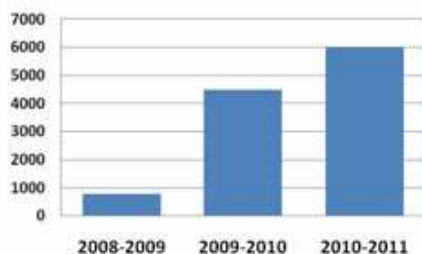
The Let's Talk Science Partnership Program is a **national science outreach organization** that strives to improve science literacy in the community through leadership, innovative educational programs, research and advocacy. We motivate and empower youth (**JK through grade 12**) to use science, engineering, and technology to develop critical skills, knowledge and attitudes needed to thrive in our world. Through our science-based programs for youth and educators, and the science outreach efforts of the award-

winning Partnership Program, LTS reaches over **150,000 youth and educators annually**. These programs provide an excellent platform on which to build positive attitudes towards science and to enhance life skills, including critical thinking, problem solving, teamwork and communication.

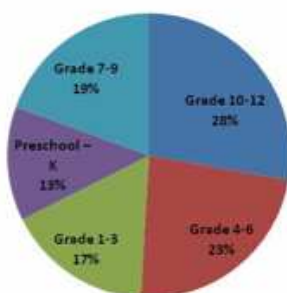


Our Milestones

Children and Youth Reached



Who are we reaching?



- Approximately **6,000 students** reached through various activities in Toronto and the GTA
- **250 student volunteers** from **30** graduate programs
- Over **2,000 hours** of preparation and presentation time logged by graduate students
- Hosted the **All Science Challenge at the Great Hall at Hart House in collaboration with UTM and UTSC**. Grade 7 & 8 students from **12** elementary schools participated for over **\$1,500** in prizes (see pg. 2)
- Boosted our exposure throughout Toronto through the formation of **new community partnerships** (see pg. 4)
- Raised over **\$40,000** in cash and in kind support
- Developed **StemCell Talks** into a National stem cell outreach initiative

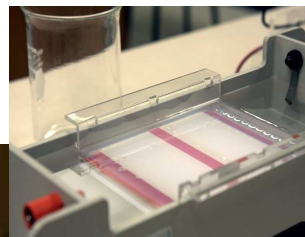
Immunology & Physiology Days

Immunology Day and Physiology Day were developed in partnership with departments at the University of Toronto and Let's Talk Science.

Physiology Day was a joint initiative between Let's Talk Science and the Graduate Association for Students in Physiology Day. The 2nd annual event was held on May 10th, 2011 and

hosted 60 grade 11 students from 9 schools across the GTA. Students spent the day on campus interacting with graduate students and faculty through lectures and hands-on activities in the physiology teaching laboratories.

Immunology Day was a program run on April 29th, 2011. Over 30 volunteers from the Department of Immunology visited over 45 high school classes in total throughout the day to deliver workshops related to the immune system and techniques used in diagnostics.



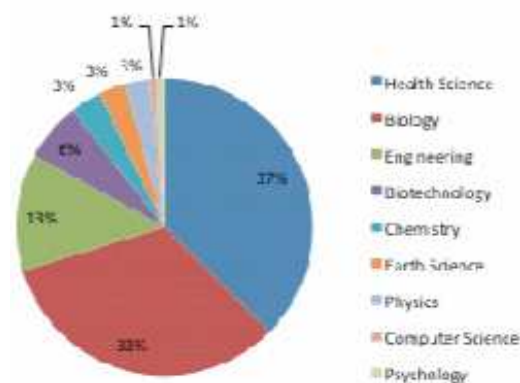
Sandy Lake First Nation Outreach Project

The Sandy Lake First Nation Outreach Project is an exciting new program being developed by volunteers in the Department of Nutritional Sciences and the Sandy Lake Diabetes Prevention Program. Five volunteers will be visiting Sandy Lake in August 2011 to lead a week-long science camp focused on nutrition, exercise science and physiology and their link to diabetes. This project was awarded an Institute Community Support Program Grant through the Institute of Nutrition, Metabolism and Diabetes at CIHR.

Our Impact on Graduate Student Life

Let's Talk Science (St. George) has recently partnered with the **Graduate Professional Skills (GPS) Program** from the School of Graduate Studies at University of Toronto. In doing so, Let's Talk Science graduate volunteers are now able to **earn up to 8 GPS credits** for their involvement in 4 different areas of our program, including: partaking in the Science With Impact Training module, judging science fairs, and career mentorship. These GPS points contribute to the professional development of our volunteers, allowing for their professional growth to be documented in their diploma.

Where do our volunteers come from?



StemCellTalks

Opening dialogue on stem cell science and practical ethics

What first started out as a few in-class presentations to high school students quickly grew into a one-day symposium, and now StemCellTalks has become a national stem cell outreach/education initiative. StemCellTalks was developed by the Let's Talk Science program at the University of Toronto in partnership with the Stem Cell Network with the goal of facilitating knowledge transfer between academia and high school students pertaining to the science and practical ethics of stem cells.

StemCellTalks reached over 300 high school students through in-class visits and was highlighted by a one-day symposium held on March 11th 2011 at the MaRS Collaboration auditorium. At the symposium, 150 students were welcomed

with an introductory lecture, Stem Cells 101, presented by Dr. Derek van der Kooy. This was followed by several debates between leading experts in the stem cell field regarding the ideal cell source for clinical stem cell applications.

Students spent the rest of the morning learning issues pertaining to stem cell biology and the use of stem cells for spinal cord injury repair. Professors Derek van der Kooy, Freda Miller, Cindi Morshead, and Molly Shoichet, discussed the topics of stem cell biology and bioengineering in the form of lectures and interactive debates. In the afternoon, Sowmya Viswanathan outlined the process of translating research to the clinic and clinical trials. Following each presentation, the students continued the discussion in smaller groups led by



graduate students and post-doctoral fellows. At the end of each session, the students lined up to share their thoughts with a panel of experts.

The inaugural StemCellTalks symposium was so successful that satellite symposia are planned for Vancouver, Ottawa, Halifax and Montreal.



"The information was very interesting and the debates were very helpful in understanding of the problems in science and ethics of the stem cells research field."

-Gr. 12 student, William Lyon McKenzie Collegiate

Thank You for Your Support!

**Stem Cell Network
Sick Kids
Molecular Genetics, UofT
IBBME, UofT
OSCI
Sunnybrook
Stem Cell Technologies
Octane Biotech
VWR
TPRM**

Volunteer Tales

My volunteer experience with Let's Talk Science has focused on reaching high school students. I have led outreach activities ranging from biodiversity and engineering to genetics and gel electrophoresis. This year I helped to create a national stem cell education outreach initiative called *StemCellTalks* that brought concepts of this the cutting edge research into the classroom. Let's Talk Science has re-kindled my passion for science, and allowed me to cultivate a new passion – teaching Science! Let's Talk Science is an important program because it emphasizes discovery and creativity, promotes the fun parts of science, and aims to engage everyone."

— Margot Arntfield

Doctoral Student in

Dept. Molecular Genetics

Let's Talk Science Volunteer since 2009

As a Let's Talk Science volunteer I have been able to spark the interests of children for science. My experiences as a volunteer has taken me into a kindergarten classroom to teach the little ones about magnetism; the Fun Fair at Adam Beck P.S. took me into the community and the Science Rendezvous event at U of T literally reached all corners of the city. In all cases, it is evident that animating science experiments intensifies children's curiosity for science. This is what makes the Let's Talk Science program special - it transforms what are tedious paragraphs in textbooks into engaging hands-on experiments that lets children understand the principles behind the science with a element of fun and self discovery. At the end of the day, seeing the look of inquisition and wonderment in the faces of the children is simply gratifying - it reminds me of why I became a scientist."

— Chuck Chen

Doctoral Student in Dept. Nutritional Sciences

Let's Talk Science Volunteer since 2009



One of our volunteers, Chuck Chen, demonstrating some chemistry to high school students

let's talk
science
inspiring discovery

University of Toronto St. George Chapter

Coordinators:

Julie Mason

Paul Cassar (outgoing)

Janet Manias (outgoing)

Nika Shakiba (incoming)

Emily Beckett (incoming)

Its.grad@utoronto.ca

Lasting Partnerships

University of Toronto School of Graduate Studies
Graduate Professional Skills Program

Science Rendezvous at the University of Toronto

Royal Winter Fair

Boys & Girls Club

Girl Guides of Canada

Canadian Centre for Victims of Torture

Elementary and Secondary Schools throughout the GTA

Our program would not be possible without your
generous and continued support!