

# CWSE-Prairies Newsletter

October 2015  
Volume 4 Issue 2



*The goal of the  
NSERC CWSE – Prairies*

*is to develop and successfully lead  
strategic activities that promote  
greater opportunities for women,  
particularly Aboriginal women, in  
science and engineering across the  
Prairie Region.*



## Get the Full Picture: Women, Diversity and Research Excellence Event on Parliament Hill

On June 8th, Dr. Annemieke Farenhorst and two members of her CREATE H2O team, Inoka Amarakoon Mudiyansele and Geethani Amarawansa Eragoda Arachchilage, travelled to Parliament Hill to present their research on water quality in First Nations communities. Sixteen other researchers from across Canada also presented their work. Fifty members of parliament visited the research displays, along with other participants.



The event was organized by NSERC and involved a range of activities to strengthen the profile of women in science and engineering professions. The “Get the Full Picture: Women, Diversity and Research Excellence” event was co-hosted by the Minister of State (Science and Technology), the Minister of Status of Women, and NSERC president, Dr. B. Mario Pinto.

Check out a [video](#) of the event on the NSERC YouTube channel.



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## The NSERC CREATE H2O Program Featured in University of Manitoba's ResearchLIFE Magazine

The NSERC CREATE H2O program was featured in the Summer 2015 issue of the University of Manitoba RESEARCH LIFE magazine. The article highlights some of the multidisciplinary research that is being conducted to strengthen First Nations water and sanitation security, including the roles of professors, graduate students and collaborators such as Michael Anderson and Brennan Manoakesick from Manitoba Keewatinowik Okimakanak.

The featured article, entitled "Water For Life" was written by Helen Fallding and can be found online here: [http://issuu.com/researchlife/docs/researchlife\\_summer\\_2015](http://issuu.com/researchlife/docs/researchlife_summer_2015).

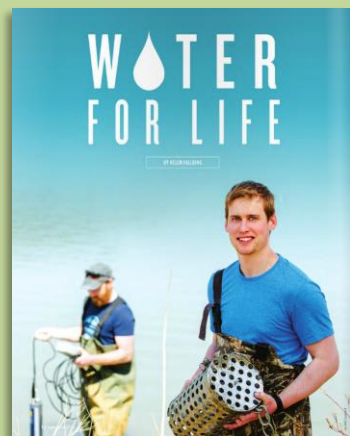


Photo credit: University of Manitoba

## University of Manitoba Hosts the 2<sup>nd</sup> Annual Water Rights Conference

On June 1st, 80 collaborators and 53 visiting youth participated in the 2015 First Nations Water Rights Conference at the University of Manitoba. This event was organized by the NSERC CREATE H2O Program in partnership with researchers who work on the right to clean water under a SSHRC grant. The conference featured sessions related to drinking water, source water, wastewater, and advocacy. Students and their First Nations community collaborators reported on their research findings to date. A very successful day!



Distinguished speaker Ovide Mercredi spoke to students on the changes he has seen in the water in his community at Misipawistik Cree Nation (Grand Rapids MB). Master of Science student Johanna Theroux presented her work on identifying sediment sources through finger printing. She works with Norway House Cree Nation. PhD student Geethani Eroda Arachchilage and Frank Cook from Sapotawayak Cree Nation gave presentations on the comparison of drinking water quality in two water distribution systems common to First Nation communities in Manitoba.

Special guests at the conference included high school students from the Verna J. Kirkness Science and Engineering Program. For many of those students, this was their first time attending a conference.

18 graduate students, 19 undergraduate students and four postdoctoral fellows have joined CREATE H2O since it began in 2013. About a third of the program trainees are Indigenous. 50% of the trainees are women.

For more information please visit the NSERC CREATE H2O website: [create-h2o.ca](http://create-h2o.ca).



## Congratulations to University of Manitoba ICAN WISE Scholarship Recipient: Parisa Selseleh

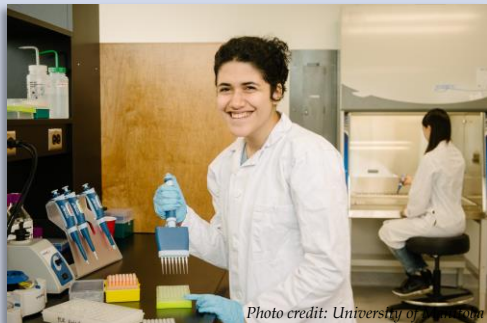


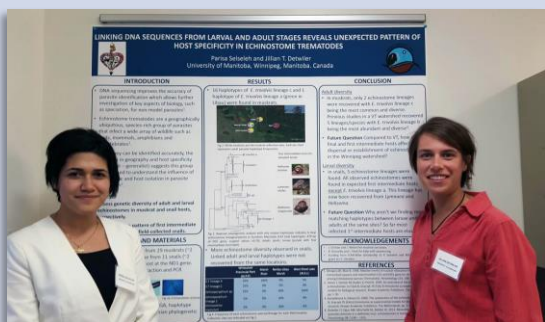
Photo credit: University of Manitoba

This summer, University of Manitoba undergraduate student Parisa Selseleh was awarded the ICAN WISE Scholarship. Because of this scholarship she was able to work with her mentor Dr. Jillian Detwiler, of the Department of Biology. Her research focussed on the genetics and phylogenetic analysis of freshwater parasites. During the summer she collected freshwater snails, muskrats and birds, analyzed the DNA of their parasites, and used the DNA sequences to see how the parasites from each species were related to one another.



Photo credit: University of Manitoba

Her analysis will contribute to the effort to stop the decline of amphibian populations, because parasitic infections are likely a significant part of this decline. Her analysis will help to identify which parasites are most likely to impact amphibian populations and perhaps find a treatment based on genetic variation.



She presented her results at the 46th annual meeting of the Rocky Mountain Conference of Parasitologists at the University of Nebraska Cedar Point Biological Station in Ogallala, Nebraska. **Her poster won the best undergraduate student poster award.**

**Congratulations to Ms. Selseleh!**

## Thank you for a Great Summer Field Season to the CREATE H2O Team from Dr. Annemieke Farenhorst!



CREATE H2O is funded by Canada's National Science and Engineering Research Council (NSERC). Directed by Dr. Annemieke Farenhorst (Chair for Women in Science and Engineering - Prairies Region), its purpose is to address research science and training gaps that are preventing effective, culturally appropriate investments in water and sanitation security on First Nations reserves.

**Here is a team photo from May 1, 2015. Annemieke would like to thank her team members for their hard work and for a great summer field season.**

**Top row (l-r):** Ross McQueen, Stewart Hill, Ruidong Mi, Jeff Seward, Alexa McAdam, Erica Flaten, Pepper Pritty, Johanna Theroux.  
**Bottom row (l-r):** Geethani Eragoda Arachchilage, Inoka Amarakoon Mudiyansele, Annemieke Farenhorst, Monica Mai, Arthur Weldon, Wendy Ross.

# Engineering Fun Science – WISE Kid-Netic Energy Celebrates 25 Years of Outreach



WISE Kid-Netic Energy is a non-profit organization that gives youth from Kindergarten to Grade 12 the opportunity to get curriculum based, hands-on experience in science and engineering. It was founded in 1990 and

is the largest community outreach program offered by the University of Manitoba, and one is of the biggest of its kind.

On Thursday, September 24th along with 75 past employees and friends, WISE Kid-Netic Energy celebrated 25 years of outreach. The guests participated in six activities that showcased the new and exciting WISE programming. They ate delicious food, and shared their favourite memories from their experiences about the program. Dr. Annemieke Farenhorst spoke at the event about her youth experiences and thanked the WISE program for their ongoing collaboration in various activities.

# WISE Kid-Netic Energy Offers All-Girls Codemakers Camp

WISE Kid-Netic Energy held its very first all-girls Codemakers Camp in August at the University of Manitoba. The camp, designed for girls in Grades 7-9, was so popular that it reached its capacity of 25 registrants and had a waiting list!



This camp offered hands-on computer science experiences and was taught by University of Manitoba undergraduate student instructors and WISE Program Administrator Nusraat Masood. Programming included the fundamentals of software coding, and revealed the building blocks of hardware. The codemakers put their new knowledge to test by building a robot and bringing it to life.

Please look for this opportunity again next year! Information will be posted at [www.wisekidneticenergy.ca](http://www.wisekidneticenergy.ca).



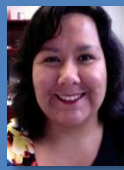
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