

CWSE-Prairies Newsletter

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Volume 5 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.*



Dr. Farenhorst hosts high school students as part of the Verna J. Kirkness Science and Engineering Education Program

Each year, the University of Manitoba becomes home to Indigenous Grade 11 students from across Canada, on their journey to become the scientists and engineers of the future. Each student chooses a career topic to focus on for an entire week. From May 9-13, Dr. Farenhorst's laboratories hosted Ms. Harmony Cunningham from Jossard, Alberta, and Antoninia Kandiurin from Churchill, Manitoba. The students learned how to conduct research on soil physical, chemical and biological properties, and also watched microscopic nematodes in the soil. They collected various water samples and gained a better understanding of drinking water quality by testing for the presence of coliforms and *Escherichia coli* after plating water samples using Isograds. Harmony and Antoninia also visited the FortWhyte Alive farm and made their own soil. Both students enjoyed their experience in the laboratories and were super delighted when Dr. Verna Kirkness visited them there to watch the students' research in progress.

Big thanks to all the Soil Science students, professors and staff who gave their time and expertise to ensure that the students had a meaningful and unforgettable week! A special thank you to Prairies CWSE/ WISE Kid-Netic Energy program coordinator Lena Yusim and Post-Doc Dr. Inoka Amarakoon for all their coordination during the successful week.



Students get a feel for university life

Windspeaker

Author:
By Andrea Smith
Windspeaker Contributor
WINNIPEG

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Forty Indigenous high school students from across Canada got a taste of university life in Mid-May.



Left: Harmony, Antoninia and Lena were featured in the Indigenous publication *Windspeaker*. They were interviewed about their experiences with the Kirkness program.

Find the article here:
<http://tinyurl.com/h8b77q7>

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Peguis First Nation high school students compete in the 2016 Canada Wide Science Fair

Savannah Stevenson and Scott Johnson, two high school students from Peguis First Nation, were selected to participate at the Canada Wide Science Fair in Montréal, May 15- 20, 2016. Savannah's research project compared two composting methods over a six week time period to determine which end product would be better to use as a fertilizer. One was vermicomposting (worms, soils and food waste) and the other was the traditional composting method (soil and food waste). Scott's research project measured the important role peat moss plays in our environment, including its properties and retention capacity for chemicals.

"My advice to other students is to make sure you have an interest in your project and have fun with it." – Savannah Stevenson



Savannah Stevenson (top) and Scott Johnson (bottom) presenting their posters at the Canada Wide Science Fair in Montreal.

Photos provided by cwsf.youthscience.ca

With the support of the Manitoba First Nations Education Resource Centre Inc., Savannah and Scott traveled from Peguis First Nation to the University of Manitoba to run some laboratory tests to quantify microbial respiration in the two composts and review chemical concentrations in peat moss over time. Students then prepared reports and posters to present their work in Montreal. A big thank you to the members of Dr. Farenhorst's team: Dr. Inoka Amarakoon, Dr. Musarrat Jahan, and PhD student Sirajum Munira who helped the students with laboratory procedures and statistics. The CWSE Prairies congratulates Savannah and Scott on their achievements!

Summer research is in full swing!



The Chair and her students are enjoying their summer research season. They recently published some of their work in Applied and Environmental Microbiology (<http://tinyurl.com/jzx9gg5>), Chemosphere (<http://tinyurl.com/jt4myx8>), The Journal of Environmental Science and Health Part B (<http://tinyurl.com/gtvtzdb>), and The Soil Science Society of America Journal (<http://tinyurl.com/gvvaogj>).

Soil science researcher and champion of women in science and engineering

Researcher profile: Annemieke Farenhorst

JEREMIAH YARMIE, STAFF



The Manitoban, U of M's official student newspaper, published a research profile on Dr. Farenhorst check out the article on page 14 here: <http://tinyurl.com/zpv3sfr>.

Tenure and Promotion Workshop for Women Academics at the University of Calgary



Dr. Marina Gavrilova, professor in the Department of Computer Science at the University of Calgary, collaborated with the NSERC Chairs for Women in Science and Engineering to host a national workshop for women in science and engineering who are looking ahead to promotion. The workshop was offered at the University of Calgary on April 28th in conjunction with the Faculty of Science and the Schulich School of Engineering. The workshop reached full capacity with 25 participants, including four academic staff from the University of Manitoba: Dr. Julieta Frank, Associate Professor in the Department of Agribusiness and Agricultural Economics, Dr. Kateryn Rochon, Assistant Professor in the Department of Entomology, Dr. Jillian Detwiler, Assistant Professor in the Department of Biological Sciences, and Dr. Qiuyan Yuan, an Assistant Professor at the Department of Civil Engineering. Prairies CWSE/ WISE Kid-Netic Energy program coordinator Lena Yusim connected with the four U of M participants to find out about their experiences.



Above: At the workshop, Dr. Farenhorst presented on "How to Strive for Success in Service, Scholarship and Teaching" and participated in a panel that discussed questions surrounding career advancement in academia. As a mentor, Dr. Farenhorst and her mentee took time to discuss how to refine a promotion application from Associate to Full professor.

Why did you participate in this workshop?

QY: I'm looking for mentorship, to understand the tenure and promotion process, and connect and learn from the people have been through this process.

How important is it to have a workshop on promotion that is especially designed for women?

JF: While attending the workshop I realized how many concerns other attendees and I had in common, most of which apply mainly to women. Having the space to address those concerns and hearing from other women on these topics was very helpful.

What was one highlight from the workshop that has stuck with you?

JD: All of the talks were very helpful, but in particular, I appreciated the advice that I should be more familiar with the Strategic Plan initiatives set by my university so that I can think more seriously about how to better fund my research. The other highlight was meeting with my mentor Dr. Safavi-Naini. She is a very accomplished researcher, yet was very down to earth and enthusiastic. It made me feel more confident about my current accomplishments and more energized.

What impact will this workshop have on your future promotion application?

KR: It's made me more confident in my ability to produce a good package for promotion. I feel I have a better idea of what will be evaluated on, and how to promote what I have done. I also know there are people who can help me, and the workshop has helped me identify who these people could be for me.

ACEC-MB TWICE hosted 3rd Annual Industry Reception

On March 10, 2016, the Association of Consulting Engineering Companies – Manitoba Technical Women in Consulting Engineering Committee (ACEC-MB TWICE) hosted their 3rd Annual Industry Reception at FortWhyte Alive. The celebratory and informative event was attended by 50 industry professionals and academics, including Prairies CWSE Annemieke Farenhorst. As part of a panel discussion at the event, Dr. Farenhorst spoke about strategies companies can implement to increase gender diversity and recruit and retain women in their companies. Also participating in the panel were Dr. Marcia Friesen, P.Eng, who provided an overview and interpretation of the results of the industry survey TWICE completed last year, and Andrea Watts, P.Eng, who discussed Engineers Canada’s 30 by 30 Initiative, with an emphasis on why diversity and reaching a participation rate of 30% for women is critical to the engineering profession.

Dr. Farenhorst thanks TWICE and ACEC Mb for inviting her to participate at this wonderful event.



Photos provided by ACEC-MB

Announcing the recipients of the 2016 ICAN-WISE scholarship

ICAN-WISE is the Integrated Collaborative Academic Network for Women in Science and Engineering. This unique scholarship program was created by the Prairies CWSE in 2014 to facilitate women mentee-mentor academic research collaborations in natural sciences and engineering fields. This summer, Dr. Farenhorst is supporting four research collaborations at three universities across the prairies.

Congratulations to the recipients of the ICAN WISE Scholarship!

Avery Crocker

Kelsey Smyth

Leela Witvoet

Lauren Shyluk



Advancing Women Conference

The Advancing Women – Life Skills for Leadership – Women in Agriculture Conference which took place on March 28-29, 2016 in Calgary. The conference welcomed over 560 women in agriculture from more than 210 companies across Canada. Furthermore, two thirds of the attendees were farmers! All came together to network, discuss and learn about ways to create and support mentorship for women in Agriculture, and foster skill development for future generations of women leaders.

The CWSE Prairies program sponsored three students to attend the agricultural conference – Martina Alder from Olds College, Fiona Jochum from the University of Manitoba, and Amanda Wolf from the University of Lethbridge.



"Thank you so much for not only such a great conference but the opportunity to attend with sponsorship. I made many connections and took home some valuable knowledge. I look forward to next year." - Amanda Wolf (Left), University of Lethbridge

Science Rendezvous!

Science Rendezvous is a day-long celebration of science for all-ages that takes place in 40 cities across Canada. Science Rendezvous 2016 was held on May 7 and attendees enjoyed thousands of activities, including at the University of Manitoba and the University of Winnipeg. There were many exciting activities taking place at the University of Manitoba thanks to numerous staff and student volunteers from the Clayton H. Riddell Faculty of Environment, Earth, and Resources, The Faculty of Agriculture and Food Sciences, Faculty of Engineering and Faculty of Science.

WISE Kid-Netic Energy showcased their explosive programming with a Bottle Rocket Launch and the CREATE H2O program for First Nations water and sanitation security, directed by Dr. Farenhorst, hosted the Speed-Date a Scientist activity where attendees could learn about water and wastewater research.



3rd Annual First Nation Water Rights Conference at the University of Manitoba



L to R: Michael Anderson, Anita Murdock, Shaylee Ducharme, Darion Smith, Brennan Manoakesick, and Leona Star

The Third Annual University of Manitoba Water Rights Conference was held May 26-27, 2016 at the University of Manitoba. The event was organized by The CREATE H2O Science and Engineering Training Program and The Right to Clean Water in First Nations Project. Approximately one-hundred stakeholders attended the event, including members of First Nations communities that are collaborating with university students in water rights research.



The entire conference agenda can be downloaded from the CREATE H2O website (<http://tinyurl.com/z7zbb99>) along with slides of selected presentations (<http://tinyurl.com/zn7qskp>).

WISE Kid-Netic Energy hosts 3rd annual Make Your Move event

The 3rd Annual Make Your Move event was held on Saturday, March 12th, 2016 in the Engineering Atrium at the University of Manitoba. This event, in conjunction with International Women's Day, brought together 60 Grade 8 girls from Winnipeg and surrounding communities and paired them with 20 engineering professional mentors to take part in hands on engineering challenges. The day-long event had local comedian Dana Smith as the emcee, a DJ, photo booth, and great food. Prairies CWSE/ WISE Kid-Netic Energy program coordinator Lena Yusim was the main organizer of the event.

There were twenty teams in total, one of them sponsored by the Prairies CWSE program. This year's challenge was for each team to build a life-size boat using only the materials provided, and then one member of the team had to paddle their team's boat across the University of Manitoba pool. The fastest teams won big prizes from Ticketmaster. Each team brought an immense amount of creativity and determination, and remarkable boats were built and raced. Thanks to all of the staff, crew, mentors and sponsors for making the event a success!

"I liked that the girls actually had to trust their designs--and the work of their teammates--to hold them up in the pool. It added an extra sense of reality and responsibility (accountability) that took the design challenge to another level. A great confidence builder." – MYM team mentor



"The day was most memorable and definitely had an impact!"
- Participant's parent



"My favourite part was being part of a team and building an original idea. It really empowered me to do more and pursue an engineering career."
- Grade 8 student participant

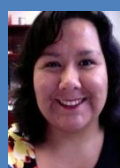
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