

Faculty of Science update to the President, September 16, 2016

Since our last report of May 26, 2016, the Faculty of Science (FoS) has the following to report:

Dean's Office:

The Faculty of Science celebrated convocation awarding 100+ Bachelor of Science degrees. This year's Governor General Silver Medallist, **Alyssa Zucchet** from Biology is off to Med School at UBC Okanagan, as are 4 other UFV Science graduates. Several of our graduates have also gone into graduate programs at UBC, SFU, USask, etc. It is noteworthy that a former student, **Andrew Alexander**, Science Dean's medallist 2014, who is doing a PhD at UBC, was recently awarded the prestigious NSERC Vanier award worth \$150,000 (\$50,000/yr for 3 yrs).

Dr. Lucy Lee, Dean of the Faculty of Science, was busy through the summer months participating in conferences relating to both, her role as administrator and as scientist. She attended the Canadian Council of Science Deans in June and organized a session on the topic of Predatory Publishing with U. of Colorado Librarian Jeffrey Beall.

Dr. Lee and 3 of her current and past students, **Gagandeep Rai** (BSc 2016 Graduate), **Harshraj Sidhu** (4th year Biology student), and **Kamal Moghrabi** (BSc 2015 Graduate) presented at the World Congress on In Vitro Biology held in San Diego, CA in June. The students made oral and poster presentations, and Kamal Moghrabi took third place at the poster competition beating out many MSc and PhD students who participated in the competition.



Gagan Rai, Harsh Sidhu, plenary speaker Nobel Laureate Dr. William Moerner, Kamal Moghrabi & Dr. Lee at World In Vitro Conference

The Faculty of Science is excited to hear that UFV received a new \$2M funding from the Provincial government for renovation of Science labs. This is much needed to upgrade the aging infrastructure especially as safety standards need to be met, as well as to find space efficiency to accommodate the increasing science lab demands and to implement the newly accepted Bachelor of Agricultural Science which will begin to be offered in Winter of 2017.

The Science Rocks! 2016 Camp finished up on August 12th. Over the 6 weeks, 95 campers from grades 4-7 enjoyed week long science based demonstrations and activities from finding out why some things stink, to mystery solving, and forensics. The Science Rocks Camp Coordinator, **Robin Endelman**, and science faculty members **Alan Reid**, **Cory Beshara**, **Ian Affleck** and Lab Technician, **Avril Alfred** supervised a camp each. The Science Rocks Team Leaders who attended each of the camps were UFV science students, **Rebecca Robertson**, **Ali Renwick** and **Valerie Flokstra**. The average attendance for each camp was 14. Whereas the Aboriginal Youth Camp which ran August 2-5 ran at full capacity with 24 kids. Once the word got out, there were many last minute registrations.



The Centre for Environmental Sustainability (CES) had been working with Facilities and Sodexo to bring composting back to campus which has now been successful. CES continues to be active in the UFV community with continued presence at events such as at the New Student Orientation (**Pat Harrison**, Chair of CES) and U-Join events. **Travis Gingerich** took over as the new Facilities Student Environmental Coordinator from Alyssa Bougie who graduated in June with her BSc. Pat and the GreenUFV team (Mark Gouldsblom, Sheldon Marche, Gayle Ramsden and Alyssa Bougie), were the inaugural award winners for UFV Teamwork award.

Biology:

Following the retirement of Beth Gillespie, Biology hired a new tenure-track faculty member: Dr. Nathan Bialas, a cell and molecular biology expert who works with tiny worms called *Cenorhabditis*. Nathan is actually not new to UFV, as he worked as a sessional since 2009. Nathan has a PhD from SFU and has extensive teaching experience.

July 2016 was an exciting month for Biology Professor **Alida Janmaat** and Biology Student **Chris Hinz**. They attended the 49th Annual meeting of the Society for Invertebrate Pathology held in Tours, Loire Valley, France. Chris presented their poster entitled: Does *Agriotes obscurus* avoid the fungal entomopathogen, *Metarhizium brunneum*?

Biology student, **Vivienne Beard** has been busy representing UFV at scientific conferences (eg. Genetic Society of America's meeting in Orlando) as well as attending the 58th London International Youth Science Forum held in London UK July 27-August 10, 2016. Vivienne's activities can be read in the FoS blog articles for LIYSF at <http://blogs.ufv.ca/science/2016/07/26/less-24-hours/> and for her conference participation in Genetics at <http://blogs.ufv.ca/science/2016/07/26/definitely-no-grass-growing-viviennes-feet/>

Vivienne, second from right front row, with some of the 2016 LIFSFS participants.



The Super Science Club, which is coordinated by **Christine Dalton**, continues to deliver exceptional science fun to elementary students. This year, **Megan Krabbendam**, **Sandeep Gill**, **Rebecca Robertson** and **Ali Renwick** took the program to two schools in the Valley. Megan and Sandeep worked at Rick Hansen Secondary in Abbotsford with Grade 5 students from Rick Hansen's feeder schools. Rebecca and Ali worked at Vedder Elementary in Chilliwack with 30 elementary children and their families. Megan

also provided interesting science activities with groups of students from grades 3-6 at Dewdney Elementary Mission, Shortreed Elementary Langley and Yarrow Community School in Yarrow.

Biology Instructor, **Pat Harrison**, along with several other members of the faculty of Science were on hand at the U-Join event held at the Abbotsford Campus this past week.



Chemistry:

Chemistry was saddened to hear that retired professor, Dr. Nigel Dance succumbed to cancer this past June. Dr. Dance and his late wife Dr. Lesley Spiers taught for many years at UFV/UCFV. They will be dearly missed. Work is in progress to establish an endowed scholarship in their name. Two new faculty members were hired this summer: Drs. **Golfam Gafaroufar** (PhD' 15 U Montreal) and **Linus Chiang** (PhD' 14 SFU, PostDoc U. Stanford) joined UFV this year filling the needs for Analytical Chemistry and Inorganic Chemistry respectively. Dr Chiang was recently appointed Adjunct Faculty at SFU that will allow him to supervise graduate students through that institution.

Prof Tsutomu Asano from Oita University, Japan, visited UFV in June-July 2016. He was hosted by Dr **Noham Weinberg** for a research collaboration. Two full-day sessions were also held that included student presentations and subsequent discussions of their results. Plans for future collaboration were outlined.

Math & Stats:



New Student Orientation was well attended. Faculty members from the Math and Stats department were on hand to answer questions and help make the transition to UFV a smoother one for students. Math instructors **Robin Endelman** (pictured at right) and **Karin Loots** (in picture at left) were nearby to assist.



Math Department Head, **Ian Affleck** was available to answer questions about the Math and Stats department at the U-Join event held September 6th and 7th at the Chilliwack and the Abbotsford campus.

Math Professor, **Cynthia Loten** has returned from her sabbatical and has scheduled the upcoming Math Mania dates. Sandy Hill Elementary, October 5, 2016; Yarrow Community School, February 1, 2017; and, Chilliwack Adventist Christian School, May 17, 2017.

A new faculty member, Dr. **Kseniya Garaschuk** (PhD' 14 UVic) begun Aug 1. She is working on course design, curriculum development and outreach, and has already published a paper with UFV affiliation. She is also the Editor in Chief of Crux Mathematicorum and is a member of various committees within the Canadian Mathematical Society.

Physics & Engineering:

The first cohort of the Engineering Physics Diploma program crossed the stage at the June convocation, many of whom also completed the BSc in Physics degree. There were 9 students completing the diploma which provided excellent applied research opportunities with regional partners, including the Cancer Centre and agricultural industries. These opportunities allowed **Dr. Lin Long** to apply for an NSERC CRD grant which was successful and she will be receiving over \$200,000 in funding for the next two years.



The Faculty of Science was thrilled to team up with GearBots Makerspace who provides learning opportunities for kids ages 9-15+. The Faculty of Applied and Technical Studies at UFV initiated the program with GearBots. Dereck Dirom from GearBots Makerspace and 8 of his young apprentices took up residence in our Physics Lab in August at the Abbotsford Campus for a week of coding using the robotic devices.

Physics Professor, **Derek Harnett**, UFV's 2016 Research Professor, returned from his year-long sabbatical at the University of Saskatchewan, and is back teaching and continuing his research supervising various graduate students as an adjunct professor at USask.

Physics and math student, **Josh Friesen**, recently wrapped up a work semester in the marketing department of the Prospera Credit Union in Abbotsford. He found that the analytical skills he learned in both his physics and math classes were well suited for the job.