

LAND AND FOOD SYSTEMS

ISSUE 29 | SPRING 18

# REACHOUT

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DETECT IMPURITIES  
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THE UNIVERSITY OF BRITISH COLUMBIA

# DEAN'S MESSAGE

## **WE ARE LIVING IN A CRITICAL TIME IN HISTORY.**

Over time, our actions have had a negative impact on eco-systems, agriculture and human health and we are now faced with the results — water shortages, climate change, and food security, to name a few of the global problems we have to deal with.

These problems are not just going to go away. We need to find practical solutions that will allow us — and the natural world — to thrive. And that is exactly what we are doing in the Faculty of Land and Food Systems.

Our Faculty prides itself on a systems-approach and is uniquely positioned to deal with many of the most concerning global issues. Through teaching, research and service, we contribute to a healthier environment and a better understanding of the relationship between food, diet, nutrition and health. Our researchers are advancing scientific knowledge in the areas of sustainable agriculture, food, nutrition and health and food safety and quality.

In this issue of Reach Out, you'll learn more about some of the exciting work our researchers are doing, as well as about some of our dedicated students who are following in their footsteps. The on-the-ground training we provide to our students ensures that when they graduate, they have a strong foundation and can take on the world.



We have more inspiring stories to share than the pages of this newsletter can hold, so I encourage you to visit our recently re-launched website, [www.landfood.ubc.ca](http://www.landfood.ubc.ca), to read more about our amazing faculty members, students and alumni.

## **RICKEY YADA**

DEAN, FACULTY OF LAND AND FOOD SYSTEMS



## THINK&EATGREEN@SCHOOL

TEGS HELPS DR. ALEJANDRO ROJAS' LEGACY LIVE ON

THINK&EATGREEN@SCHOOL, or TEGS, connects UBC with Vancouver area schools to support food systems learning.

“The goal of TEGS is to support teachers to develop foundational food literacy knowledge and skills, while integrating teaching about broader issues of food, health, and the environment,” says Will Valley, LFS Instructor and Academic Director of the Land, Food, and Community Series and TEGS coordinator from 2010 to 2015.

TEGS began as a SSHRC- and CIHR-funded project headed by LFS Faculty member and Principal Investigator Alejandro Rojas. It teamed university researchers with schools to create and support growing food at school, cooking and farm-to-school programs, teaching students about the food system, as well as researching policy and programs to support healthier and more sustainable food systems at schools.

“In Vancouver, K-12 teachers are interested in bringing food into their schools, classrooms and curricula. Yet, apart from Home Economics teachers, very few have formal training in food production and preparation,” says Valley. TEGS helps bridge that gap.

The education community pushed to continue the program after the original TEGS grant ended in 2015. The City of Vancouver is now supporting the Centre of Sustainable Food Systems in partnership with the Vancouver School Board to continue delivering food literacy programming in Vancouver area schools.

The new phase supports schools to apply for food literacy project grants. Current coordinator Lisa Powell runs the program with the help of a team of LFS 496 Food Systems interns. Powell is also responsible for developing and conducting community-based research projects on food literacy and school food systems, and on securing funding to support these projects.

“TEGS provides a wonderful framework for connecting research done at UBC with action in school communities in Vancouver,” says Powell.

“We are grateful that the City of Vancouver provided funding to support TEGS and we are pursuing additional funding to expand the research component of TEGS,” adds Powell.

Current school projects involve starting, expanding, and improving school gardens, growing herbs hydroponically, building a garden inside an old school trophy case, making and canning preserves, creating “cooking tubs” of kitchen equipment for food preparation activities, bringing cooking classes into their schools, and improving school composting systems.

TEGS will be running a Summer Institute for educators, teachers and researchers on July 3, 4 and 5, on the UBC Vancouver campus. TEGS will also be accepting applications for small grants for schools and community groups in the fall. Visit [thinkeatgreen.ca](http://thinkeatgreen.ca) for details, see @ThinkEatGreen on Twitter, or contact Lisa Powell at [lisa.powell@ubc.ca](mailto:lisa.powell@ubc.ca). ☺

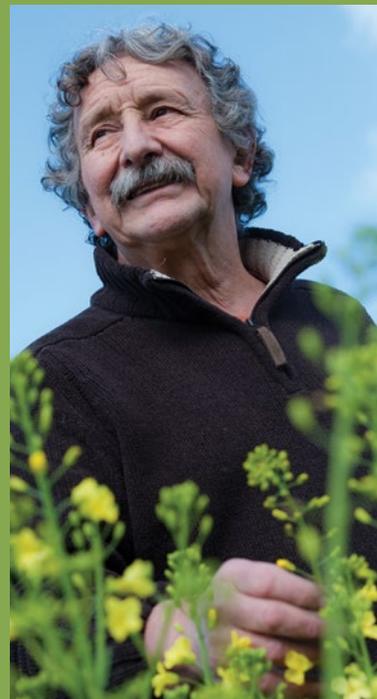
## REMEMBERING ALEJANDRO ROJAS

ALEJANDRO ROJAS passed away on April 16, 2018. Dr. Rojas taught in the Faculty of Land and Food Systems for nearly 20 years, inspiring many students to think differently about food system issues through developing systems thinking competencies, interdisciplinary collaboration, and community-based experiential learning. He was the principal investigator of Think&EatGreen@School from 2010-2015, and he was an integral part of the development of the Land, Food and Community series and the Integrated Studies in Land and Food Systems graduate program. Rojas was also the 2015 recipient of the Canadian Association for Food Studies Excellence in Food Studies Award.

“He taught me the value of connection, both within a topic, through interdisciplinary teaching and research, and with other participants in a learning community,” says Will Valley, LFS Instructor and Academic Director of the Land, Food, and Community Series.

“One of Alejandro’s gifts was his ability to identify and draw out the strengths of others in any setting, be it a lecture hall, small group discussion, or in a meeting. He would begin classes, projects, and meetings by reminding everyone that although there may be differences in titles, positions, and ages, we all have something to contribute and we all can learn from each other. He brought out the best in learners, made them feel valued, and helped them see the value of engaging with others,” added Valley.

His passion, vision, and leadership in teaching, research, and community engagement will be missed. ☺





**KATHERYN IU, OUTGOING PRESIDENT OF THE FACULTY OF LAND AND FOOD SYSTEMS UNDERGRADUATE SOCIETY (LFS | US), REFLECTS ON THE MANY MILESTONES THE LFS | US EXECUTIVE REACHED THIS YEAR.**

**CONGRATULATIONS ON A SUCCESSFUL YEAR FOR THE LFS | US! WHAT WERE SOME OF THE HIGHLIGHTS?**

We helped with the renovation of two new student-centered spaces in the H.R. MacMillan building — the Agora study space and the LFS Lounge. We provided input to ensure the specific needs of LFS students were met by these spaces – the foremost being the facilitation of a community outside of the classroom.

We established new governance documents for future council members, which gives our constituency foundation, structure, and legitimacy to encourage smoother transitions and consistency.

We also introduced the new LFS mascot, the Bee! We hope the Bee will spearhead our sense of pride and identity in the Faculty, as well as signify unity as it represents all the elements of LFS – sustainability, food systems, animal welfare, global resources and food insecurity.

**WHAT LESSONS HAVE YOU LEARNED AS PRESIDENT OF A STUDENT COUNCIL THAT YOU’LL TAKE WITH YOU AFTER GRADUATION?**

I learned how to actively collaborate and develop respectful relationships with individuals from diverse backgrounds, ranging from alumni to staff, professors, and students. I’ve learned to compromise by listening and tapping into what inspires each individual and channel that passion into one vision: to support the Faculty in its goal to bring about academic, leadership and community success in its students.

**WHAT ADVICE DO YOU HAVE FOR NEW STUDENTS JOINING THE FACULTY?**

Be fearless and seek any opportunity you can to build yourself. You have the potential to make an impact. Try your best not to compare your grades and accomplishments to others! Your happiness and health takes priority.

**ROB KIM, THE FACULTY’S NEW CAREER STRATEGIST, IS A UBC ALUMNUS AND FORMER TEACHER WHO JOINED US IN MAY. THIS NEW ROLE WILL SUPPORT LFS STUDENTS TO BECOME CAREER-READY GRADUATES, BY CONNECTING THEIR TALENTS, INTERESTS AND EDUCATION TO THE CHANGING WORLD OF WORK.**

**TELL US ABOUT YOUR ROLE WITH UBC’S CENTRE FOR STUDENT INVOLVEMENT AND CAREERS.**

As a student engagement advisor, I looked at ways to engage students through experiential learning and student leadership opportunities. The main part of my portfolio has been overseeing UBC Collegia, a space for first year commuter students on campus. Since I first took over two years ago, UBC Collegia has more than doubled in size. It now serves nearly 1,000 first year students.

**HOW HAS YOUR BACKGROUND AS A TEACHER AND COACH BENEFITTED YOU IN WORKING WITH STUDENT ENGAGEMENT?**

Teaching for 14 years has given me a lot of the skills that I need for engaging students, from workshop design to educational content development. More importantly, being a teacher and Strengths Finders coach has provided me the experience to develop relationships and build influence with students on campus.

**WHY IS IT IMPORTANT FOR STUDENTS TO BEGIN DEVELOPING THEIR CAREER OPPORTUNITIES BEFORE GRADUATION?**

I believe someone from Rome once said, “Careers weren’t built in a day”. Last-minute cramming and studying are not necessarily the best long-term strategy in academics. Developing career opportunities is similar. Building your network and gaining employable skills takes time. It’s never too early for LFS students to start career exploration and to build their career foundation.

**WHAT ARE YOU LOOKING FORWARD TO IN YOUR NEW ROLE AS CAREER STRATEGIST WITH LFS?**

Today, the definition of “career” encompasses much more than simply finding work after graduation. Career, lifestyle and values blur for many people and figuring out and working through these boundaries can be challenging. I look forward to working with students, staff and faculty to support LFS students in their career journey as they wrestle and sit with the question, “What’s next after graduation?”



# SOME COWS ARE MORE BULLISH THAN OTHERS

**SOME CALVES ARE INHERENTLY OPTIMISTIC** or pessimistic, just as humans are, a new University of British Columbia study has found.

“Recognizing these individual personality differences is important to ensure animals are treated well,” said Professor Marina von Keyserlingk, who led the research team from UBC’s animal welfare program.

“Sometimes we are tempted to see only the herd, even though this herd consists of different individuals who cope differently with stressful events. It’s important to consider the individual’s perspective, because even if conditions are good, on average, some animals may still suffer.”

To gauge optimism and pessimism, the researchers set up an experiment involving 22 calves. Before they started the experiment, they trained the calves to understand which of their choices would lead to a reward. In the training, each calf entered a small pen and found a wall with five holes arranged in a horizontal line, two-and-a-half feet apart. The hole at one end contained milk from a bottle, while the hole at the opposite end contained only an empty bottle and delivered a puff of air in calves’ faces. The calves learned quickly which side of the pen held the milk reward.

Once calves were trained, researchers presented bottles in one of the three intermediate holes, so that calves couldn’t be sure if they would be rewarded with milk. The researchers predicted that the most optimistic calves would approach the bottle even if it were positioned close to the location that earlier gave them an empty bottle and puff of air. In contrast, the most pessimistic calves would avoid approaching a bottle in the intermediate holes, even if it were close to the rewarded location.

The calves varied in their responses, but individual calves remained consistent in their outlook and made similar choices three weeks apart. Researchers concluded that pessimism was a consistent individual trait, not just the result of temporary moods or emotions.

The study also assessed fearfulness through standard personality tests that monitor how calves react to unfamiliar situations, such as the presence of a stranger or a foreign object. Fearfulness and pessimism turned out to be closely related.

“Calves that were more fearful were also more likely to view the glass as half empty,” said von Keyserlingk.

Research has shown that optimism and pessimism are also personality traits in humans, but little work has been done to investigate such personality differences in farm animals.

“The next step in our research will be to understand what type of rearing conditions help ensure that an individual animal has a good life,” she added. “For example, more pessimistic calves may require different types of housing and management than we currently provide.”

PhD candidate Benjamin Lecorps was lead author on the study, published in *Scientific Reports* in January. Von Keyserlingk and Daniel Weary were co-authors. The research was funded by a Discovery Grant awarded to von Keyserlingk from the Natural Sciences and Engineering Research Council of Canada. ©

# NEW TECHNIQUE CAN DETECT IMPURITIES IN GROUND BEEF WITHIN MINUTES



**RESEARCHERS IN THE FACULTY** of Land and Food Systems have found a better way to identify unwanted animal products in ground beef.

Food science students led by professor Xiaonan Lu used a laser-equipped spectrometer and statistical analysis to determine with 99 per cent accuracy whether ground beef samples included other animal parts. They were able to say with 80 per cent accuracy which animal parts were used, and in what concentration.

Their new method can accomplish all of this in less than five minutes, which makes it a potentially transformative food inspection tool for government and industry. ▶▶





## NEW TECHNIQUE CAN DETECT IMPURITIES IN GROUND BEEF WITHIN MINUTES ►► *continued from page 6*

“By using this innovative technique, the detection of food fraud can be simpler, faster and easier,” said the study’s lead author Yaxi Hu, a PhD candidate in Food Science.

Food fraud is the intentional misrepresentation of food products for economic gain. When producers hold an excess supply of meat or byproducts for which there is relatively little market demand, the

potential exists for unscrupulous operators to try to pass those products off as something else. In the past five years, high-profile scandals in the U.K., Ireland, and Russia have seen lamb, chicken and even rat meat substituted for higher-quality meat products.

DNA testing has proven efficient and accurate in identifying foreign species in meat products, but what DNA testing cannot do is identify offal—hearts, livers, kidneys and stomachs—mixed in with meat of the same species.

To establish their method, the UBC researchers aimed a spectrometer at meat samples they had prepared by grinding together beef and offal from local supermarkets at various concentrations. Because animal products all have different chemical compositions, their molecules absorb and scatter energy from the spectrometer’s laser in different ways. The spectrometer captures these signals – or spectra – to produce an “image” of each substance. These

spectral images can serve as a library for comparison with other samples.

Whether a meat sample is authentic or adulterated with offal can be determined by comparing its spectral image with the pre-established library, to see if there’s a match.

The method improves on existing techniques that are more complicated and time-consuming. For example, a technique known as liquid chromatography works well, but it requires meat samples to be liquefied with solvents before testing, which can take more than an hour.

“The instrumentation for this technique is not that complex,” Hu said. “So, if government or industry wants to do some rapid screening, they don’t need to find highly trained personnel to conduct the experiment.”

All they would need is a spectrometer and user-friendly software that connects to a robust library of spectral images. As more types of meat and offal were analyzed and their results stored, the technique would become even more accurate.

The researchers’ ultimate goal is to create an affordable smart device that could be used by consumers at home for the authentication of different food products, much like the pregnancy-test strip.

The study was published in *Scientific Reports* last November. Hu’s co-authors were electrical and computer engineering post-doctoral fellow Liang Zou; food science undergraduate student Xiaolin Huang; and corresponding author Xiaonan Lu, a 2017 UBC Peter Wall Scholar and associate professor in the Faculty of Land and Food Systems. The research is supported by the Natural Sciences and Engineering Research Council of Canada and the Peter Wall Institute for Advanced Studies. ©



## THE POWER OF TRADITIONAL FOOD

“WITH EVERYTHING I DO, I TRY TO EMPHASIZE HAIDA FOODS,” said Jessie Newman, BSc Dietetics, 2015. Newman is Haida, Heiltsuk, and Kwakiutl, and from Skidegate, Haida Gwaii, B.C. “Food is very powerful: it’s our culture, our identity, and ultimately our medicine. It’s a sad truth that Indigenous people in Canada have lower health outcomes, which is why I believe it’s important to know our history.”

Since graduating from our Dietetics program, Newman has been working as a Community Dietitian with the Skidegate Health Centre on Haida Gwaii. Programs she leads for the community include a diabetes group (Gud Ad Kwaagid), and a wellness group called the Food Learning Circle (Gataagaay Sk’aadga Sgaasgal).

Nutrition education is also a large part of Newman’s role, which includes working with students at the local



## BC SPCA LAUNCHES ANIMALKIND, WORLD'S FIRST ACCREDITATION PROGRAM FOR PEST CONTROL

**FOR ANYONE WHO HAS DEALT** with an infestation of mice in their basement or a squirrel chewing through their home wiring, quick and effective action is a must. But can the problem be solved without unnecessary harm to animals?

Thanks to AnimalKind, a new program recently launched by the BC SPCA, the answer is yes.

AnimalKind is the first program of its kind anywhere in the world that accredits pest control and wildlife management companies committed to using animal welfare-based standards with the BC SPCA stamp of approval. It was created by three UBC Animal Welfare Program alumni: Sara Dubois (PhD & MSc, Animal Science, 2014 & 2003), Nicole Fenwick (MSc, Animal Science, 2005) and Erin Atman Ryan (BSc Applied Biology, 2014) as a practical approach to resolving urban animal welfare issues in BC.

Besides being an alumna, Sara Dubois is the chief scientific officer for the BC SPCA and an adjunct professor in our Applied Biology program.

“Each year, the SPCA gets hundreds of calls from the public asking us to recommend a humane pest control company in their area,” she said. “Research shows that most consumers want to deal with wildlife conflicts without causing harm to the animals. Our goal was to create a science-based program that addresses this ethical concern and which provides an incentive for pest control companies to move away from poisons,

glue traps and other methods that cause animals to die slow, agonizing deaths.”

Working with the UBC Animal Welfare Program, and with funding from the Peter Wall Institute of Advanced Studies and the Vancouver Foundation, BC SPCA experts developed practical standards to accredit and audit pest control companies, based on scientific wildlife knowledge and in consultation with the pest management industry.

Dubois notes that many of the more than 3,000 wild animals treated each year at Wild ARC, the BC SPCA's wildlife rehabilitation centre in Metchosin, were harmed as a result of inhumane pest management practices. “For example, we receive baby raccoons and squirrels who were orphaned when their mothers were trapped and songbirds who are brought in stuck to glue traps.”

The BC SPCA launched the AnimalKind program with its first two B.C. companies – AAA Wildlife Control in Vancouver and Alternative Wildlife Solutions in Victoria - but expects the number of participating companies to grow significantly in 2018 in response to public demand. The BC SPCA is also fielding requests from other countries to license the program.

Dubois says that in addition to targeting individual consumers, the BC SPCA is working with municipalities and organizations such as TransLink, who have expressed interest in ensuring that all of their pest control providers become AnimalKind accredited. ☺



elementary and high school. “For the younger group, my goal is to expose them to local or traditional foods in a low pressure, fun environment, and to get them excited about food knowledge. For older students, I’m looking to build food skills, but I also want them to be able to make informed decisions about food. And it’s very important for me that they know what diabetes is, what the risk factors are, and why the rates are higher in First Nations peoples.” She credits UBC’s Dietetics program with providing her the hands-on learning opportunities to teach the students she works with today.

Newman’s passion has always been diabetes, ever since she was introduced to the disease as a child. “I would visit my great aunt during her dialysis appointments, and I could see her frustration and her pain as she battled the disease. From that moment I knew I wanted a career in health care. I feel that diabetes hasn’t been shared in a way that people have understood, and I hope to change that. My goal is to decolonize diabetes prevention and care.” ☺

## UBC 35 YEAR CLUB

Congratulations to Professor Murray Isman, Professor David Kitts and Sylvia Leung, Purchasing Agent, on reaching the impressive milestone of 35 years of service at UBC! Isman was Dean of the Faculty of Land and Food Systems from 2006-2014 and currently serves as Director of the Wine Research Centre. Kitts has served as Associate Dean, Research for LFS since 2012. Leung was hired as a Research Assistant/Technician in the Department of Animal Science in 1983, after earning her BSc in Agriculture/Animal Science with our Faculty.

## PHD STUDENT EVAN BOWNESS A FINALIST IN STORYTELLERS CHALLENGE

Evan Bowness, a PhD candidate at The Centre for Sustainable Food Systems, was recently selected as a finalist for the Social Sciences and Humanities Research Council (SSHRC) of Canada 2018 Storytellers challenge. SSHRC's annual contest challenges postsecondary students from across the country to tell the story—in three minutes or 300 words—of how SSHRC-funded research is making a difference in the lives of Canadians. Bowness is working with Dr. Hannah Wittman on a project called 'Food Sovereignty and the City: A Visual Ethnography of Urban Agriculture in Canada and Brazil.' He is a visual sociologist whose work takes an urban political ecology approach to understanding problems in the food system and social movements, most specifically the food sovereignty movement. He will receive \$3,000 and the opportunity to compete in the Storytellers Showcase being held May 26 to June 1 at the University of Regina.

## KILLAM TEACHING AWARDS

Congratulations to our 2017-18 Killam Awards recipients. Kelleen Wiseman, Lecturer, was awarded the Killam Teaching Prize in recognition of her outstanding achievement as a teacher. Christine Sumner received the Killam Graduate Teaching Assistant Award in recognition of her outstanding contributions to teaching and learning at UBC. Wiseman and Sumner are invited to a special ceremony and reception in the fall and Wiseman will also be honored at Spring 2018 Convocation.

## PREMIER UNDERGRADUATE AND WEBBROOK SCHOLAR AWARDS

Justine Cole, a student in our Bachelor of Science in Applied Biology program majoring in Applied Animal Biology, received one of UBC's most prestigious academic awards for undergraduate students, the Premier Undergraduate and Westbrook Scholar Awards. Cole won the Harry Logan Memorial Scholarship and Harold B. & Nellie Boyes Memorial Scholarship, which together totalled \$11,700. She was honoured at a reception for all Premier Undergraduate and Westbrook Scholar award winners at Norman Mackenzie House on April 4th.

## CRYSTAL KARAKOCHUK RECEIVES ILSI NORTH AMERICA 2018 FUTURE LEADER AWARD



CRYSTAL KARAKOCHUK, Assistant Professor, Food, Nutrition and Health, received the ILSI North America 2018 Future Leader Award, which is given annually to promising nutrition and food scientists. The award allows new investigators the opportunity to add to an existing project or to conduct exploratory research that might not receive funding from other sources or add to an existing project. The award provides \$30,000 over a two-year period.

Karakochuk was selected because of her leadership potential and promising research in the field of nutrition, and the panel noted that her proposed research entitled "Investigating the potential risk of untargeted iron supplementation among Cambodian women" was particularly well thought out. ☺



## THE KRISTIAN DOMINGO FOUNDATION

THE KRISTIAN DOMINGO FOUNDATION was started in 2017 by the family of Kristian Elpidio Tsu Domingo as a way of preserving his memory.

Kristian passed away on August 16, 2016, at the age of 20. He was a second year student in our Faculty, working toward a degree in Animal Science. Kristian was fond of animals and competitive sports, and wondered at an early age if he could be both a veterinarian and professional soccer player at the same time. Enrolling at UBC after being diagnosed with cancer, Kristian showed resilience and determination in the pursuit of his dreams. He continued his active lifestyle when his body had the strength, having successful seasons in football and golf, his favourite sports.

As a non-profit organization, the Foundation aims to provide meaningful opportunities with financial assistance to young adults who have faced and overcome adversity in their lives. As well, they work closely and support institutions that played a fundamental role in Kristian's life, including the Canuck Place Children's Hospice and the B.C. Cancer Foundation's Adolescent and Young Adult Program.

MORE INFORMATION ON THE FOUNDATION AND HOW YOU CAN SUPPORT THEM IS AVAILABLE ON THEIR WEBSITE: [KRISTIANDOMINGOFFOUNDATION.COM](http://KRISTIANDOMINGOFFOUNDATION.COM).



**PROFESSOR  
HENNIE VAN  
VUUREN RETIRES**

ON MARCH 15, 2018, we held our First Annual LFS Gala at the Robert H Lee Alumni Centre to celebrate and recognize the diverse leadership, community and academic talents at LFS. We honoured three of our alumni with the Alumni Builder Award – Meeru Dhalwala (LLD '16), David Eto (BSc (Agr) '85) and Harold Steves (BSc (Agr) '63). Harold captivated the room with his inspiring and memorable acceptance speech. We are so grateful to our alumni who stay engaged with our Faculty and come back to embolden future leaders and we wanted to share an excerpt of Harold's speech with those in our community who were unable to attend the event (the entire speech can be found on our website at [www.landfood.ubc.ca/alumni-community/](http://www.landfood.ubc.ca/alumni-community/)).

*I come from a UBC family involved in Land and Food Systems for three generations and 140 years in agriculture in BC. We imported the first Holstein cattle to BC and founded BC's first seed company in 1888. We still grow some of the same locally adapted seeds today. I have a daughter and son who are graduates in agriculture, both in the Kamloops area, one working in range management and the other ranching. My father took Agriculture classes in a house on Broadway Street in 1918 and in 1922 he took part in the "Great Trek" to the land proposed for a university at Point Grey but he graduated before the UBC Campus was developed. It was those students that had the foresight to campaign for a university they would never get to use but would benefit all of us today...*

*I did the research for the ALR in 1973. At that time we were producing 86% of our vegetables and small fruit. Today it is 43%, exactly half. I made a presentation to the World Habitat Forum in Vancouver in 1976. Because we had saved our farmland a group from the UN affiliated IESCO attending the Forum in 2006 asked Richmond to set up an urban farm school to help teach cities how to feed themselves. This led to "Municipally Supported Agriculture" (MSA), in Richmond where we will have students from Kwantlen farming the Garden City Lands in central Richmond this year. It also led to the Metro Vancouver Agriculture Committee, which I chaired, developing a regional food security plan in 2011 that we are gradually implementing today.*

*And that is where students of today come in. We live in a changing world and we will have to adapt. As you go through life, no matter how big or how small your contribution, the greatest satisfaction in life is knowing you have made a difference. ☺*

**PROFESSOR HENNIE VAN VUUREN**, Founding Director of the UBC Wine Research Centre and Blythe and Violet Eagles Chair of Food Biotechnology, retired from UBC on March 31, 2018.

Prof. van Vuuren came to UBC in 1999 following a short stint at Brock University; prior to that he was the Head of the Department of Microbiology and Founding Director of the Institute for Biotechnology at Stellenbosch University. It was through his vision and sheer drive that the UBC Wine Research Centre was created, along with the Wine Library that opened in 2002.

The first two genetically engineered wine yeasts to receive Generally Regarded As Safe (GRAS) status from the US FDA were constructed in his laboratory. One of these, ML01, prevents or limits the formation of biogenic amines (allergens) in wines and it was the first genetically enhanced wine yeast to be commercialized. Another genetically enhanced wine yeast, prevents the formation of ethyl carbamate, a potential carcinogen in wine. In all, Prof. van Vuuren has been awarded 6 patents and published 82 peer-reviewed research papers. Through his expert grantsmanship he attracted over \$14 million to UBC that facilitated the construction of state-of-the-art research laboratories, a core mass-spectrometry laboratory, a core DNA-microarray laboratory and the Wine Library. He obtained more than \$1 million in wine donations to the Wine Library and four Nobel Laureates plus scientists from MIT, Stanford, Princeton and major universities from around the world have visited the Wine Library. He also helped attract additional outstanding faculty and lab personnel that have firmly established UBC as a leader in viticulture and enology research in the Province and internationally. He recently filed four patents and his company, Creatus Biosciences Inc., has now opened its research laboratories in Vancouver. ☺



## FIONA SIMMANCE

### RESEARCH MANAGER

“MY PASSION FOR OCEANS AND THE MARINE ENVIRONMENT STARTED when I was a child in London,” said Fiona Simmance, Research Manager, Centre for Sustainable Food Systems (CSFS) at UBC Farm. “Once a month, we’d escape the city and head to the English coastline.”

Simmance’s love of marine life led her to pursue a PhD at the University of Southampton, where she studied environmental change in marine environment.

“I was particularly interested in conservation and food security in fishing communities in developing countries, and the ability of fisherfolk to adapt to climate change,” she said. She has eight years of experience in food security and sustainability, working in private and public sectors, including the United Nations, where she undertook a global literature review, analyses and report writing for a landmark food security and sustainable development study.

Simmance was already familiar with Hannah Wittman, CSFS Academic Director, and her work when she learned the CSFS was looking for a research manager.

“I knew Dr. Wittman was doing food security and food sovereignty research, and that she was getting involved in ecosystem services and social dimensions of managing food systems, so I was really excited when this position came up.”

The role involves helping Wittman manage CSFS research projects as well as developing a long term ecological monitoring station and a new global diversity agro-eco systems research cluster.

“I’ll be focusing on understanding how agroecology and sustainable agriculture can be supported and what benefits they have for global food security,” she said. “The UBC Farm is a test center and a living lab for all of this innovative research on sustainable food systems that can be applied to wider regions. Not only is it an excellent research space, but it’s a core element of learning and sharing, and bringing the community and researchers together. Our CSFS researchers are doing such amazing work in sustainable agriculture that addresses social, ecological and economic dimensions, and I’m happy to be a part of that.” ☺

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