

## INITIATIVES

### U of S Images of Research Competition Launched

The Office of the Vice-President Research launched the second annual U of S Images of Research competition at the end of March, following up on the hugely successful inaugural competition last year. Faculty, students, staff and alumni were invited to submit their most striking research images along with descriptions of their work. Winners of the competition will be announced soon. For more information, visit:

<http://research.usask.ca/images-of-research.php>

### ILO to Host Canada's First Ever

#### Agriculture Themed AUTM Partnering Forum

On September 29th 2016, the Industry Liaison Office (ILO) is organizing Canada's first ever Association of University Technology Managers (AUTM) partnering forum in focusing on food processing and crop production. The ILO has partnered with the University of North Dakota, University of Alberta, University of Manitoba, AgWest Bio and leading global agriculture businesses including BASF and Syngenta to style an attractive program. This event will highlight the university's advanced agriculture research capacity to strengthen and create sustainable partnerships with local, regional and international industry partners within the Agriculture Sector. This forum will provide an opportunity for Technology Transfer Professionals from North American Universities to build relationships between research and business leaders in global agriculture. Participants will learn about current industry trends and will have an opportunity to network with one another to create innovative solutions for agriculture businesses. This will also serve as a platform to showcase the university's global stature as a research leader in food processing and crop production. AUTM is the largest non-profit organization which supports the global academic technology transfer profession through education, professional development, partnering, and advocacy.

### UnivRS Launched a Funding Opportunities Database

The University Research System (UnivRS) team has launched a research funding opportunities database. This searchable database allows faculty, staff and students locate over 600 internal and external funding opportunities to support their research, scholarly and artistic works – totaling over \$50M. To access the database visit:

<http://univrsapp.usask.ca/converis/publicweb/>

### 3MT Competition Winners Announced

The U of S Graduate Students Association, in conjunction with the College of Graduate Studies and Research, held the second Three-Minute Thesis (3MT) competition on March 2nd 2016. The 3MT competition is an exercise to cultivate students' academic presentation and research communication skills. The competition supports their capacity to effectively explain their research in three minutes, in a language appropriate to a non-specialist audience. The winners were announced:

- **1st Place \$1,000 - Melanie Gallant**, PhD student in Toxicology: *"A Growing Silence in the Night: examining the role of environmental contaminants in global frog population declines"*
- **2nd Place \$500 - Farah Deeba**, MSc student in Electrical Engineering: *"Next Generation Solution for GI Tract Disease Management"*
- **3rd Place \$200 - Nikita Nogovitsyn**, MSc student in Health Sciences: *"Neurogenesis in Epilepsy"*

Charlie Clark – City Councillor (Ward 6), Sheryl Harrow – Executive Director of READ Saskatoon, Ijeoma Udemgba – Executive Director of International Women Saskatoon, and Rachael Kenny – Marketing and Communications Specialist were the four external judges who evaluated the presentations. Each 3MT winner will go on to represent the U of S at Western Regional Competition at the University of British Columbia, Okanagan Campus in Kelowna on April 29th 2016.

## FUNDING SUCCESSSES

### NSERC Strategic Partnership Grants for Projects

- ❖ **Markus Hecker** (School of Environment and Sustainability) received \$725,070 for the project *"Advancing Environmental Risk Assessment of Selenium (ERASe)"* with additional support from Stantec Consulting Ltd., Nautilus Environmental, British Columbia Ministry of Environment and Contango Strategies Ltd.
- ❖ **Jerzy Szpunar** (Department of Mechanical Engineering) received \$345,030 for the project *"Texture in Manufacturing Pipeline Steels for Service in Sour Environment"* with additional support from CANMET and Evraz Inc NA.
- ❖ **Jerzy Szpunar** (Department of Mechanical Engineering) received \$443,391 for the project *"Safer Fuel and Cladding for Future Nuclear Reactors"* with additional support from Candu and Compute Canada.

### SHRF Collaborative Innovation Development Grant

Twenty-five applications were submitted from the U of S and thirteen of them (52%) were approved. Overall, SHRF received 38 applications in this competition and was able to fund 21 projects (55%). The thirteen U of S projects are:

- ❖ **Deborah Anderson** (Division of Oncology) received \$40,000 for the project *"Identification of New Biomarkers for Breast Cancer"*.
- ❖ **Cathy Arnold** (School of Physical Therapy) received \$39,763 for the project *"Does Fall Arrest Strategy Training (FAST) Added to a Fall Prevention Program Improve Physical Capacity to Prevent Serious Fall-Related Injury to Older Women? - A Pilot Study"*.
- ❖ **Francisco Cayabyab** (Department of Surgery) received \$40,000 for the project *"Impact of Pro-inflammatory Blood-born Intruders on Neuronal Survival in Animal Stroke Models"*.
- ❖ **Mark Eramian** (Department of Computer Science) received \$40,000 for the project *"Novel Methods for Computational Risk Assessment of Thyroid Nodules in Sonographic Images"*.
- ❖ **John Gordon** (Division of Respiriology, Critical Care and Sleep Medicine) received \$40,000 for the project *"Cellular Therapy for Atopic Dermatitis"*.
- ❖ **Janet Hill** (Department of Veterinary Microbiology) received \$39,430 for the project *"Redefining the role of Gardnerella Vaginalis in the Vaginal Microbiome"*.
- ❖ **George Katselis** (Department of Medicine) received \$40,000 for the project *"Examining the Development Origins of Kidney Disease in Infants of Diabetic Mothers Using Urine Proteomics"*.
- ❖ **Joshua Lawson** (Department of Medicine) received 39,975 for the project *"Predictors of Health Care Utilization and Patterns of Medication use Among Children with Asthma"*.
- ❖ **Jeremy Lee** (Department of Biochemistry) received \$40,000 for the project *"Development of Drugs Which Bind to a-Synuclein for Treatment of Parkinson's Disease"*.
- ❖ **Wanda Martin** (College of Nursing) received \$39,110 for the project *"Concept Mapping to Improve Health Through Urban Agriculture"*.
- ❖ **Michael Schwandt** (Department of Community Health and Epidemiology) received \$39,691 for the project *"Social Determinants of Health among Migrant Workers in Saskatchewan"*.
- ❖ **Sonia Udod** (College of Nursing) received \$40,000 for the project *"Building Nurse Manager Leadership within Lean Management System"*.
- ❖ **Franco Vizeacoumar** (Division of Oncology) received \$40,000 for the project *"Developing Targeted Therapeutic Reagents for Prostate Cancer"*.

### CFI JELF Funding Success

The Canada Foundation for Innovation (CFI) announced one successful John R. Evans Leaders Fund (JELF) proposal on March 14th 2016:

**Andrew Grosvenor** (Chemistry), **Ajay Dalai** (Chemical & Biological Engineering) and **Robert Lamb** (Chemistry) were awarded \$577,036 from CFI for the project *"X-ray Photoelectron Spectrometer: The Tool for Understanding the Surfaces of Advanced Materials"*.

For more information, visit: <https://goo.gl/QtKJBB>

### Contract Funding Successes

The Saskatchewan Ministry of Agriculture has provided funding through the Agriculture Development fund for a total of 42 projects. Total funding received is \$7,891,429 for the projects:

- ❖ **Suzanne Abrams** (Department of Chemistry and SSSC) has received \$241,412 for the project *"Application of Abscisic Acid (ABA) Analogs in Pulse Agronomy and Physiology"*.
- ❖ **Aaron Beattie** (Crop Development Centre) has received \$183,333 for the project *"FHB Screening of CDC Barley Breeding Selections, 2016-2020"*.
- ❖ **Angela Bedard-Haughn** (Department of Soil Science) has received \$100,467 for the project *"Enhanced Saskatchewan Soil Data for Sustainable Land Management"*.
- ❖ **Bill Biligetu** (Crop Development Centre) has received funding for three projects:
  - \$292,450 for the project *"Evaluation of Contrasting Forage Pea Cultivars in Mixtures with Cereals for Greenfeed Production in Saskatchewan"*;
  - \$177,301 for the project *"Development of Locally Adapted Alfalfa Cultivars in Saskatchewan"*; and
  - \$217,636 for the project *"Breeding new Sainfoin Lines with Improved Forage Characteristics and Persistence in Saskatchewan"*.

- ❖ **Fiona Buchanan** (Department of Animal & Poultry Science) has received funding for two projects:
  - \$171,000 for the project *"Genes Involved in Fat Deposition Are Affected by Vitamin A in the Diet of Feedlot Cattle"*; and
  - \$145,000 for the project *"Feeding Fusarium-Infected Wheat to Insect Larvae to Produce a Safe Replacement Protein Source"*.
- ❖ **Ajay Dalai** (Department of Chemical & Biological Engineering) has received \$291,000 for the project *"Investigation and Demonstration of Close Coupled Gasification of Novel Fuel Pellets Developed from Agricultural Residues"*.
- ❖ **Anas El-Aneed** (Division of Pharmacy) has received \$190,000 for the project *"High Value Bioactives and Vitamins from Canola Crush Waste Stream"*.
- ❖ **Rich Farrell** (Department of Soil Science) has received funding for two projects:
  - \$168,409 for the project *"Identifying the Mechanisms Responsible for Greater Than Expected Residue-Induced N<sub>2</sub>O Emissions from Canola and Flax"*; and
  - \$93,941 for the project *"Quantifying the Contribution of Pulse Crop Residues to GHG Emissions, N Nutrition, and the Growth of a Subsequent Wheat Crop"*.
- ❖ **Volker Gerdts** (VIDO) has received \$390,000 for the project *"Development of Novel Therapeutics and a Next Generation PRRSV Vaccine: Phase II"*.
- ❖ **Phillip Griebel** (VIDO) has received \$246,000 for the project *"Control of Viral and Bacterial Respiratory Pathogens in Weaned Calves"*.
- ❖ **Wolfgang Koster** (VIDO) has received \$300,000 for the project *"In Ovo Vaccination Platform to Reduce Salmonella and Campylobacter Bacteria in Poultry"*.

- ❖ **Randy Kutcher** (Crop Development Centre) has received funding for three projects:
  - \$105,000 for the project *"Improving Fusarium Head Blight Management in Durum Wheat in Saskatchewan"*;
  - \$100,000 for the project *"Rapid Screening for Fusarium Head Blight Resistance in Isogenic Wheat Lines Using Biomolecular Imaging and Genomics Tools"*; and
  - \$41,667 for the project *"New Sources of Resistance to Fusarium Head Blight in Spring Wheat"*.
- ❖ **George Mutwiri** (VIDO) has received \$184,425 for the project *"Evaluation of Safety and Efficacy of a Swine Influenza Vaccine"*.
- ❖ **Scott Napper** (VIDO) has received \$210,250 for the project *"Development of a Live Diagnostic Test for Chronic Wasting Disease"*.
- ❖ **Mike Nickerson** (Department of Food & Bioproduct Sciences) has received funding for three projects:
  - \$148,000 for the project *"Modification of a Commercial Lentil, Pea, and Faba Bean Protein Isolate Production Process for Improved Flavor Profiles"*;
  - \$187,000 for the project *"Entrapment of Heart Healthy Oils Using Lentil Protein Isolates by Spray Drying"*; and
  - \$168,500 for the project *"Enhancing the Marketability of CWRS Wheat by Creating 'Cleaner Label' Opportunities through Genetics and/or Enzymes"*.
- ❖ **Matthew Paige** (Department of Chemistry) has received \$26,667 for the project *"Improved Iron Chelates for Treatment of Iron Chlorosis in Saskatchewan Pulse and Fruit Crops"*.
- ❖ **Jose Perez-Casal** (VIDO) has received \$350,920 for the project *"Novel Approach to Develop a Vaccine against Mycoplasma Bovis"*.
- ❖ **Martin Reaney** (Department of Plant Sciences) has received \$360,000 for the project *"Adding Value to Flax Orbitides"*.
- ❖ **Jeff Schoenau** (Department of Soil Science) has received funding for two projects:
  - \$32,625 for the project *"Nutrient Uptake and Nitrogen Fixation by Fababean in Saskatchewan Soils"*; and
  - \$17,400 for the project *"Crop Response to Foliar Applied Phosphorus Fertilizers"*.
- ❖ **Tim Sharbel** (Global Institute for Food Security) has received \$369,000 for the project *"Comparative Genomics of Apomictic Plants: Advancing Novel Tools for Niche Breeding"*.
- ❖ **Bing Si** (Department of Soil Science) has received \$25,000 for the project *"Evaluating the Effect of Tillage Radish™ on Water Infiltration Rate in Annual Cropland"*.
- ❖ **Fabienne Uehlinger** (Department of Large Animal Clinical Sciences) has received \$1,981,146 for the project *"An Assessment of the Impact and Risk Factors of Internal Parasites in Beef Cattle in Western Canada"*.
- ❖ **Albert Vandenberg** (Crop Development Centre) has received \$312,500 for the project *"Faba Beans for the Future – N-telligent Farming"*.
- ❖ **Volker Gerdt** (VIDO) has received \$124,000 for the project *"Field Trial for the Assessment of Novel Vaccine for Porcine Epidemic Diarrhea Virus"*.
- ❖ **Vladimir Vujanovic** (Department of Food & Bioproduct Sciences) has received \$200,401 for the project *"Development and Scale-up Production of Plant Endophytic Microorganisms for Seed Treatment of Wheat, Barley, Canola & Pulse Crops"*.
- ❖ **Tom Warkentin** (Crop Development Centre) has received funding for three projects:
  - \$460,358 for the project *"Genome Wide Association Study (GWAS) of Folate and Micronutrient Profile in Pea"*;
  - \$137,939 for the project *"Marker-Assisted Introgression of Useful New Diversity into the Pea Genome for Rapid Cultivar Improvement"*; and
  - \$153,094 for the project *"Technology Platform for Comprehensive Nutritional Profiling of Seeds"*.

- ❖ **Chris Willenborg** (Department of Plant Sciences) has received funding for three projects:
  - \$269,770 for the project *“Improving Weed Management for Saskatchewan Growers”*;
  - \$110,550 for the project *“Herbicide Screening in Hemp (Cannabis Sativa)”*; and
  - \$194,093 for the project *“The Effect of Pre-harvest Glyphosate on Quality of Milling Oats”*.

- ❖ **Bruce Wobeser** (Department of Veterinary Pathology) has received \$42,675 for the project *“Genetic Variability of Clinical Diseases Caused by Histophilus Somni in Western Canadian Cattle”*.
- ❖ **Peiqiang Yu** (Department of Animal & Poultry Science) has received \$138,500 for the project *“Develop Fast Screening Method for Feed Mycotoxin Testing for Livestock Producers”*.

## PARTNERSHIPS

### International Agreements Signed

- ❖ **Cooperation Agreement:**  
**UiT The Arctic University of Norway** – Joint Master Program, College of Graduate Studies and Research, College of Arts and Science, Johnson Shoyama Graduate School of Public Policy, School of Environment and Sustainability, International Centre for Northern Governance and Development.
- ❖ **Student Exchange Agreement:**  
**Yokohama National University, Japan** – University-wide undergraduate and graduate student exchange.
- ❖ **MOU Agreement:**  
**University of Agriculture, Krakow, Poland** – to further explore opportunities for collaboration.

### International Research Success

A female scholar from Syria is being hosted by a faculty member in the Department of Food and Bioproduct Sciences, **College of Agriculture and Bioresources**, from February 2016 to February 2017, through the Institute of International Education “Scholar Rescue Fund” (IIE-SRF). IIE-SRF provides \$25,000 USD and the U of S is providing \$24,455.90 USD.

### U of S Events during International Month (February)

- ❖ **One Health on a global scale: How can international One Health initiatives make a difference?**  
 There was a panel discussion with U of S experts in One Health, moderated by **Dr. Vikram Misra**.
- ❖ **Chinese New Year Celebration - Year of the Monkey**  
 The U of S, the Confucius Institute and the Chinese Students’ and Scholars’ Association presented Chinese New Year Celebration.
- ❖ **Department of History Presented 7 Days that Transformed the World**  
 On June 7th 1967 Israeli troops conquered East Jerusalem, delivering a coup de grâce to their Arab nemeses and ending the third Arab-Israeli War—also known as the Six Day War. The Middle East would never be the same. This was public lecture series sponsored by the History Department, hosted by the Hose and Hydrant Brewing Company and presented by **Dr. Benjamin Hoy**.
- ❖ **Marquis Hall presented “International Street Food Fair”**  
 Each day the menu highlighted special cuisine from around the globe and various cultural activities and displays took place.

## ❖ **WUSC Student Refugee Program Q&A Forum**

This forum was an opportunity for faculty, staff and students to learn about how they could become an active part of the Student Refugee Program (SRP) and support the welcoming, resettlement and integration of new student refugees into our university and broader community. The SRP is run through the World University Service of Canada (WUSC) University of Saskatchewan Local Chapter (since 1979) and is supported by the University of Saskatchewan Students' Union and the University of Saskatchewan. For 2016-2017, the University of Saskatchewan is providing additional financial assistance to double of the number of sponsored student refugees from 3 to 6. These additional sponsored student refugees will be coming from places affected by the current conflict in the Middle East.

## ❖ **Veterinarians in Antarctica**

Presented by **Dr. Robert McKorkell** (U of C) and **Dr. Gregg Adams** (U of S). Participants learned about the reproductive health of Weddell Seals in Erebus Bay, Ross Island, Antarctica.

## ❖ **Special Presentation: "Fabrication of biomolecules and drugs nanocarrier using layered double hydroxide"**

Presented by Japanese Intern, **Sumio Aisawa** (Assistant Professor, Faculty of Engineering, Iwate University). This was part of the College of Engineering graduate seminar series.

## ❖ **International Human Rights Law Conference**

This conference brought together leaders in the field of human rights law from around the world. It touched on important human rights issues, including disability law impacting children and adults, race relations in the United States, refugee law in Europe, and environmental sustainability as it impacts human rights globally. The conference included a keynote address by the **Honourable Ralph Goodale**, Minister of Public Safety and Emergency Preparedness, as well as presentations by an array of distinguished speakers including **Alex Neve** (Amnesty International), **Marvin M. Bernstein** (UNICEF Canada), **Anderson Joyce** (CUSO International), and **Oonagh Fitzgerald** (Centre for International Governance Innovation).