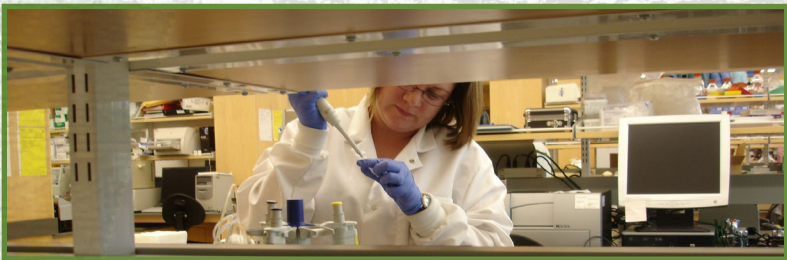




CCHSA
Canadian Centre for Health
and Safety in Agriculture

CCSSMA
Centre canadien de santé et
sécurité en milieu agricole

2017 2018 | ANNUAL REPORT | CCHSA



The background of the entire page is a light, textured image of wheat stalks, showing the grain heads and long, thin awns. The color is a pale, warm yellow-green.

OUR MISSION

To conduct and stimulate research, education and health promotion programs aimed at enhancing the health and well-being of agricultural, rural and remote populations

OUR VISION

World leadership in the health of rural people

cchsa.ccssma@usask.ca

MESSAGE FROM THE DIRECTOR



It has been another busy and productive research and outreach year at the Canadian Centre for Health and Safety in Agriculture (CCHSA). I remain amazed and proud of our incredible team of faculty, staff, and students that drive our mission and vision forward.

Congratulations to Dr. Catherine Trask on the renewal of her Canada Research Chair! Next time you are at the Centre don't forget to check out the Ergonomics and Vibration lab. Exciting work on organic dust exposures and effects continues in Dr. Kirychuk's lab, including time on a Canadian Light Source beam line to assess lung inflammation changes from agricultural exposures. Drs. Dosman, Karunanayake, and Pahwa were successful with their Canadian Institutes of Health Research (CIHR) Project Grant titled *Assess, Redress, Re-assess: Addressing Disparities in Sleep Health among First Nations People*. The total funding amount was \$1.25M, and it was ranked 2nd out of 36! Work by the Rural Dementia Action Research (RaDAR) team continues and under the leadership of Dr. Morgan are well into their 7-year CIHR Foundation Grant. As well, the Rural and Remote Memory Clinic continues to provide dementia assessment and diagnosis, with over 600 patients seen to date. Other work in areas of respiratory exposure studies, population health studies, childhood asthma, clinical proteomics as well as diabetes and its complications among indigenous peoples continues. CCHSA remains home to over \$11 million dollars in research funds (total grant amounts, not including CFI operating dollars) with about \$2M research dollars spent in the 17-18 year. We are actively pursuing new faculty positions, including two proposals for consideration in the next round of Canada Research Chairs applications.

Our outreach activities through the Agricultural Health and Safety Network continue, with our Network membership fairly steady around 216 Rural Municipalities. The Network provides outreach activities to rural farm families including workshops, seminars, school-based programs (Agricultural Safety Discovery Days) and Occupational Health Clinics (hearing and respiratory health screening). Thank you to the Saskatchewan Wheat Development Commission and the Saskatchewan Canola Development Commission for partially sponsoring our Discovery Days program, and to Farm Credit Canada for contributing to the development of a national bilingual farm safety webinar series. CCHSA, through the Network, also completed an extensive Knowledge Translation (KT) resource for three important research projects via the applied AgriSafety research program through Agrivita. Don't forget to check out the Network's website at www.aghealth.usask.ca for more details.

I will be on sabbatical from July 1, 2018, until June 30, 2019. I look forward to this opportunity and leave the Centre in extremely capable hands under the acting directorship of Dr. Shelley Kirychuk with assistance from Dr. Debra Morgan. As I've said before, please come and check us out. We would be thrilled to show you our Centre and Labs. Wishing you a safe and productive year, as always,

Niels Koehncke, MD, MSc, FRCPC
Director, Canadian Centre for Health & Safety in Agriculture

RURAL DEMENTIA ACTION RESEARCH (RaDAR) TEAM



CCHSA Professor and Chair in Rural Health Delivery, Dr. Debra Morgan, has been leading the interdisciplinary Rural Dementia Action Research (RaDAR) team since 2003. The team's goal is to improve dementia care in rural and remote settings. Team members include Debra Morgan (PI), and co-investigators Andrew Kirk, Julie Kosteniuk, Haizhen Mou, Megan O'Connell, and Norma Stewart (University of Saskatchewan); Joanne Bracken (Alzheimer Society of Saskatchewan CEO); Vanina Dal Bello-Haas (McMaster University); Anthea Innes (University of Stirling and University of Salford, UK); and Edna Parrot (family caregiver).

CELEBRATING 10 YEARS OF RESEARCH IN PARTNERSHIP WITH COMMUNITY

The RaDAR research program is guided by The Knowledge Network in Rural and Remote Dementia Care. The Network includes front-line health care providers and managers, family members of people with dementia, health region representatives, international researchers, and individuals from governmental and community-based organizations. An annual rural dementia care Summit and regular communication between RaDAR and network members helps to ensure that research knowledge is relevant, shared broadly, and put into practice.

The RaDAR team celebrated 10 years of Summit meetings at the annual two-day meeting held in Saskatoon on October 23 & 24,

2017. The Summit featured a keynote presentation by Dr. Jenny Basran, associate professor of Medicine and Head of the Division of Geriatric Medicine at the University of Saskatchewan (and an early member of the Rural and Remote Memory Clinic team). RaDAR collaborators and partners including the Alzheimer Society of Saskatchewan also led sessions during the Summit. Special posters and presentations highlighting projects and milestones over the past 10 years were included to reflect on the impact of the work of the RaDAR team and community partners over the years. Funding support for the Summit is provided by the Canadian Institutes of Health Research, the Saskatchewan Health Research Foundation, and the Bilokreli Family RaDAR Trust Fund.



Dr. Jenny Basran, keynote presenter, at podium with Dr. Morgan



A celebratory cake to mark the 10th Annual Summit meeting



A photo from the 1st Summit in 2008, one of many team history photos shared at Summit 10 to highlight team projects over the years

BILOKRELI FAMILY TRUST FUND



Members of the Bilokreli family attended Summit 10 to present the students awards

The Bilokreli Family RaDAR Trust Fund provided support for the Student Poster prizes at Summit 10.

This year's Bilokreli Student poster prizes were awarded to:

1ST PLACE: Valerie Elliot

2ND PLACE: Kaeli Knudsen

3RD PLACE: (tied): Allison Cammer & Ben Gould

More information about the Summit, including a report, and photos from the event, can be found on the RaDAR team's website under the Summit tab:

www.ruraldementiacare.usask.ca

RURAL AND REMOTE MEMORY CLINIC

A cornerstone project of the RaDAR team is the Rural and Remote Memory Clinic (RRMC), located within the Health Sciences E-wing building. The focus of the clinic is diagnosis and management of atypical and complex cases of suspected dementia where an interdisciplinary team assessment is most needed. The RRMC streamlines processes to reduce repeated patient travel and coordinate a complete team assessment on one day. The Saskatchewan TeleHealth network is then used for follow-up appointments to reduce patient and caregiver travel burden. The RRMC was started as a research project and now receives funding from the Saskatchewan Ministry of Health to provide clinical services to Saskatchewan residents. Since 2004 over 622 patients have been seen in the clinic.

The RRMC provides valuable training to psychology graduate students who complete practica placements in the clinic. The clinic also hosted more than 18 medical students and visitors in the past year who observed a full clinic day and learned more about an interdisciplinary approach to working with people with dementia and their family members.

Several CCHSA-affiliated RRMC team members support the RRMC including: Leslie Holfeld (nurse); Duane Minish (psychometrist); Lynette Epp (data entry manager); Allison Cammer (dietitian); and Chandima Karunanayake (data analyst). Other clinic team members include Dr. Andrew Kirk (neurologist), Dr. Megan O’Connell (neuropsychologist), Katherine Stevenson (physical therapist), Rhonda Loeppky (physical therapist), as well as psychology graduate students who complete practicum placements in the clinic.

CANADIAN CONSORTIUM ON NEURODEGENERATION IN AGING (CCNA)

The Canadian Consortium in Neurodegeneration in Aging (CCNA) was established by the Canadian Institutes of Health Research in April 2014 to address the growing prevalence of neurodegenerative diseases affecting cognition, such as Alzheimer Disease and other dementias. CCNA Team 20 Rural includes RaDAR team members and is led by Debra Morgan (CCHSA).

CCNA Team 20 Rural focuses on developing and evaluating effective and sustainable models of primary health care for dementia by identifying current gaps in rural dementia care and priorities for intervention. Progress to date: In Phase 1, a baseline regional needs assessment was released. This report identifies gaps and strengths in dementia care best practices in the former Sun Country Health Region, based on interviews with patients/caregivers, regional decision-makers, and primary health care (PHC) team members. In Phase 2, the Rural PHC Dementia Model and RaDAR Handbook were developed, based on 3 key best practices: clinical support tools (eg. assessment instruments), coordinating team-based care, and providing specialist-to-rural primary health care provider skills training and decision support. The model and handbook are currently being tested and sustained in two PHC teams, and will be tested by a third PHC team starting in the summer of 2018. The model will be adapted to each new PHC team as they enroll in the RaDAR study.



RaDAR team at CCNA Science Day and Partners Forum in Toronto

CCNA hosts an annual Science Day and Partners Forum. Members of the Kipling PHC team attending this event in November, 2017 in Toronto, included the team’s nurse practitioner, occupational therapist, and home care nurse.

CIHR FOUNDATION GRANT

In July 2016, Dr. Debra Morgan was awarded a 7-year CIHR Foundation Grant for the research program “Design and evaluation of integrated primary health care practice for dementia in rural and remote settings”. The program consists of three linked research streams: 1) Interdisciplinary team-based care to support ongoing care management and education/support for patients and caregivers, 2) Remote specialist-to-primary care education and support through technology, and 3) Decision support tools for PHC providers that are embedded in the electronic medical record (EMR). A main research outcome will be the Rural PHC Model for dementia, an inventory of best practices that can be used by rural PHC teams to deliver comprehensive and integrated dementia care. An early prototype of the model is currently being tested in collaboration with rural PHC teams and will be evaluated in additional teams in the coming years.

Foundation team members include Debra Morgan (PI); co-investigators include Julie Kosteniuk, Megan O’Connell, Andrew Kirk, and Norma Stewart at the University of Saskatchewan, and other Canadian and international experts.

PARTNERSHIP WITH SASKATCHEWAN HEALTH QUALITY COUNCIL

Researchers from RaDAR and Saskatchewan Health Quality Council are using administrative health data to examine patterns of health service use before and after first identification of dementia in SK. As part of the Canadian Consortium on Neurodegeneration and Aging, RaDAR and HQC are also collaborating with members of CCNA Team 20 Indigenous to compare dementia epidemiology across SK and Ontario.

A new collaboration between RaDAR and HQC involves linkage and analysis of Rural and Remote Memory Clinic data and administrative health data. Research questions will focus on the factors contributing to patient referral to RRMC and variations in health service use before and after the initial RRMC visit.

PLANNING IS UNDERWAY FOR A CANADIAN DEMENTIA STRATEGY

Dr. Morgan is part of a 6-member Canadian Academy of Health Sciences (CAHS) Panel for the Assessment of Evidence and Best Practices for the development of a Canadian Dementia Strategy. The panel was convened in early 2018 to report on the state of knowledge regarding dementia to inform the upcoming National Strategies for Alzheimer’s Disease and Other Dementias Act.

AUSTRALIAN RESEARCH COLLABORATION

Dr. Irene Blackberry, Associate Professor at La Trobe University in Wodonga, Australia, and Dr. Jane Farmer, Professor at Swinburne University, Melbourne, spent almost a week in July, 2017 meeting with RaDAR Team members and other researchers at the University of Saskatchewan. Drs. Blackberry and Farmer co-lead a RaDAR Rounds presentation on their research programs and met with RaDAR community-based partners. Dr. Morgan and Dr. O’Connell are co-investigators on a \$1.7 AUD grant awarded to Dr. Blackberry to implement a Virtual Dementia Friendly Rural Community (VERILY) project.



Drs. Blackberry and Farmer with Dr. Morgan meet with Alzheimer Society of Saskatchewan staff



L to R: Debra Morgan, Duane Minish, Irene Blackberry, Jane Farmer at CCHSA

BILOKRELI FAMILY TRUST FUND

The Bilokreli family have established the Bilokreli RaDAR Trust Fund and generously committed \$25,000 per year from 2015 through to 2017, and recently renewed the funding for another 3-year period. The fund supports RaDAR’s research and knowledge exchange activities, including providing support to student researchers by funding the Student Poster Prize at the annual Summit event.

2017 RaDAR TRAINEE AWARD RECIPIENTS

- **ALLISON CAMMER**, PhD Candidate, Nutrition, thesis: *Nutritional care best practices for urban and rural long-term care residents with dementia.*
- **TRACY DANYLYSHEN-LAYCOCK**, PhD Candidate, Health Sciences, thesis: *Examining the relationship between facilitation and sustainability of a dementia care training program in rural long-term care homes.*
- **SHARLEEN JAHNER**, PhD Candidate, Nursing, thesis: *Impact of secondary (vicarious) trauma on nurses in small rural hospitals.*
- **ALLEN MCLEAN**, PhD Candidate, Health Sciences. *Allen’s research with RaDAR involves building a computational simulation model forecasting dementia care needs across rural and remote Saskatchewan*
- **ANDREA SCERBE**, PhD candidate, Psychology, thesis: *Assessment of Primary Health Care learning needs in a rural area.*

TRAINEES ASSOCIATED WITH THE RADAR TEAM

- **MELANIE BAYLY**, PhD, Postdoctoral Fellow. Dr. Bayly is working with RaDAR on needs and supports for individuals with dementia and their caregivers living in rural areas.
- **RACHEL BURTON**, PhD, Psychology, thesis defended September, 2017: *Cognitive rehabilitation and telehealth videoconferencing: Developing an accessible intervention for subjective cognitive impairment, mild cognitive impairment, and dementia.*
- **CAMILLE BRANGER**, PhD Student, Psychology. Camille is exploring informal caregivers' experiences of 'finding meaning' while caring for persons with dementia: a qualitative examination of non-familial caregivers and Indigenous caregivers and a quantitative examination of finding meaning and burden.
- **GILLIAN FLUERY**, BA Honours student, Psychology. Gillian's honours project focused on sleep and persons with dementia.
- **AMANDA FROELICH CHOW**, PhD, Postdoctoral Fellow. Dr. Froehlich Chow is working with RaDAR on interprofessional team care for individuals with dementia and their caregivers.
- **BEN GOULD**, PhD student, Psychology. Ben is exploring Mi'kmaq community Mental Wellness needs, identifying and discovering appropriate approaches to improving aging and quality of Life.
- **AUGUST KORTZMAN**, Masters student, Psychology. August's work focuses on the caregivers of people with dementia.
- **KATHLEEN KULYK**, Masters, Nursing, thesis defended August, 2017: *Evaluating a questionnaire assessing healthcare provider perceptions of rural dementia care.*
- **JAKE URSENBACH**, PhD candidate, Psychology, thesis: *Remote dementia specialist-to-rural primary care provider support for cognitive assessment.*

TOWARDS IMPROVED CLINICAL EVALUATION OF THE SHOULDER: Defining Upper Limb Motion of Breast Cancer Survivors During Functional Evaluation Tasks

Breast cancer survivors are known to experience many restrictions at the upper limb. Problems such as reduced range of motion, lymphoedema, reduced strength, and pain are common following surgery and can last for years after curative treatment.

The goal of this study is to define kinematics, or motion, of breast cancer survivors during a range of clinically and functionally relevant shoulder-centre tasks. These measured kinematics of breast cancer survivors will be compared to kinematics of non-cancer controls and a rotator cuff injury group to determine the presence of alterations and to help to identify if the alterations are similar to those displayed with rotator cuff injury.

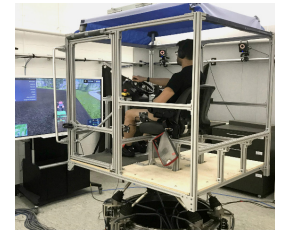


SHAKE AND BREAK: The Effects of Whole-Body Vibration on Farm Machinery Egress

Machinery is the most important cause of injury in agriculture and it can expose farmers to both whole-body vibration during operation and to risk of falls during egress.

Occupational whole-body vibrations have a number of effects on health and performance, and can adversely influence balance, coordination, and perception; all these can increase risk of falls from machinery.

Understanding the effects of whole-body vibration on egress will allow for the development of preventive interventions that will ultimately enhance the health and economic productivity of Saskatchewan farmers.



ERGO-VET: Assessing The Ergonomic Demands Of Large Animal Veterinarians

This ongoing project assesses the prevalence of musculoskeletal disorders and frequency of rectal examinations performance among large animal practitioners, and applies objective ergonomic assessment methods to describe upper limb exposures during common large animal vet tasks like rectal exams. To address the knowledge gaps, this study will address these objectives:

- (1) Collaborate with Veterinarians in a Stakeholder Advisory Group;
- (2) Determine scope of the issue in Western Canada;
- (3) Assess Vet tasks using state-of-the-art methods;
- (4) Develop prevention strategies and;
- (5) Test the strategies.

ANKYLOSING SPONDYLITIS STUDY

Ankylosing spondylitis (AS) is a form of Spondyloarthritis that causes inflammation in the sacroiliac joint (the lower back).

The current gold standard of early diagnosis of AS is the detection of active inflammation with an MRI. Unfortunately, the cost of MRIs is high, while the availability is low. As such, this exploratory study developed by a team of researchers in the College of Medicine at the U of S is designed to determine if a physical battery of tests of the sacroiliac joint (SIJ), in combination with validated self-reported measures, can be used to reliably identify MRI-confirmed SIJ inflammation.

EVALUATING USE OF NEEDLE-LESS INJECTORS IN SWINE PRODUCTION

The goal of this project is to develop a suite of performance measures (a 'toolkit') which can be applied to decision-making about new technologies. The specific technology we are investigating in this study is needle-less injectors, and we are comparing them with conventional needle injectors in a comprehensive evaluation that attempts to incorporate all the decision-making factors.

This last summer we conducted ergonomic evaluations at the Prairie Swine Centre during nursery pig injections and piglet processing. More than 650 injections were assessed using electromyography (EMG) to measure muscle activation and forces in the hand and wrist, as well as a posture sensor glove which records finger, hand, and wrist position during injection tasks. Processing is currently underway to determine muscle force and hand/wrist posture for each injection method. The study is ongoing. This year we will conduct interviews on worker preferences, compare injury rates before and after the adoption of the needle-less injector, and evaluate the occupational health and safety benefits.



*Ankylosing Spondylitis Study Team
at the Mass Spectrometry Lab*

RURAL CHILDHOOD ASTHMA

The Rural Health Lab has been continuing its research line looking at childhood asthma prevalence along an urban-rural gradient. This has included research looking at differences in asthma prevalence between urban and rural locations as well as reasons for this existence. Dr. Oluwole, who recently graduated with his PhD has looked at several hypotheses to explain the differences between locations including both access and labeling explanations as well as environmental explanations. In addition to this, an interdisciplinary group has been working together along with the Saskatchewan Thoracic Society and Certified Asthma Educators to look at a birth cohort of children with asthma to investigate health care utilization and medication use across an urban-rural gradient. Students and faculty have been focused on research questions specifically around hospitalization, continuity of care, asthma phenotypes and natural progression, medication adherence, and asthma control. Dr Lawson and Dr. Rennie continue to lead a team of international researchers looking at childhood asthma as a way of further investigating geographic differences in asthma prevalence.

INFORMING AN INTERPROFESSIONAL CHRONIC BACK PAIN CLINIC IN PARTNERSHIP WITH A NORTHERN SASKATCHEWAN FIRST NATION COMMUNITY

Chronic back disorders (CBD) are a substantial burden on individuals and societies. People living in rural and remote regions in Canada are nearly 30% more likely to report having CBD than urban dwellers, with Indigenous people reporting disproportionately higher rates. Reduced access to appropriate care is a factor that can magnify pain, physical function, quality of life and costs associated with CBD. Western-based pain approaches to CBD management and health services may not accurately reflect Indigenous ways of knowing and Indigenous approaches to managing pain. Therefore, Cree community perspectives and experiences will inform this project as we engage with community by applying community-based participatory action research methods.



*Research Team:
Brenna Bath, Sarah Oosman,
Stacey Lovo Grona, Veronica
McKinney*

Using a Two-Eyed Seeing approach, our team will actively engage with a remote Cree First Nation community to: 1) identify community needs and preferences regarding management of chronic back disorders; and 2) determine the feasibility and acceptability of an interprofessional spine clinic using remote presence robot technology for chronic back pain assessment and management that honours and builds on First Nations community culture, protocols and worldview.

*This project is funded by a U of S College of Medicine,
CoMRAD grant*



*The community's view of the robot (L)
A view from the driver's seat (R)*

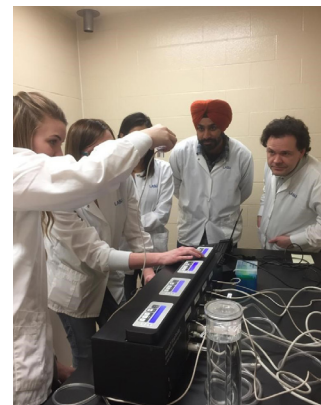
MASS SPECTROMETRY LABORATORY

Under Dr. Katselis the CCHSA mass spectrometry lab in the Health Sciences building continues to run at high capacity for CCHSA and collaborating researchers, with his ongoing primary focus on urine mass spectrometry-based proteomics for monitoring children's health. In addition, another focus of Dr. Katselis' research is on biomarker discovery, identification, characterization and validation which will assist towards discovery treatment tools in the areas of diabetes, kidney, asthma, arthritis, cystic fibrosis, Parkinson's and musculoskeletal disorders.

NATIONAL AGRICULTURAL INDUSTRIAL HYGIENE LABORATORY (NAIHL)

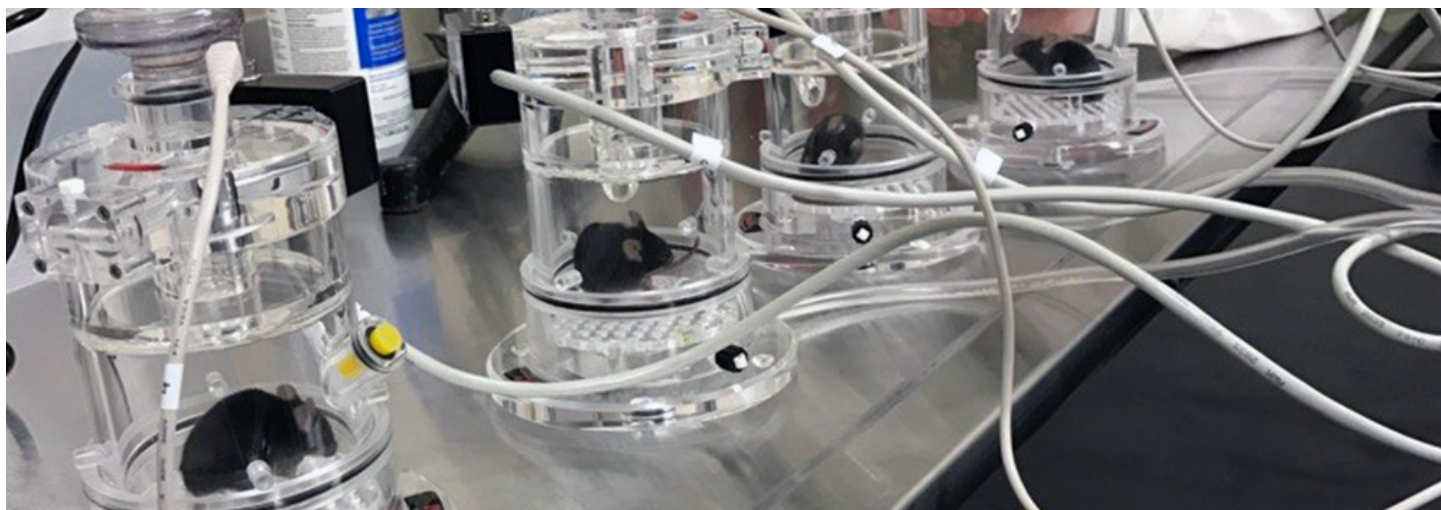


Dr. Kirychuk's lab continues its work in respiratory exposures and health effects including utilizing the animal exposure chambers (agricultural inhalation exposures and respiratory inflammatory health) and population health activities (Housing and Health). They have received 3 grants (Schneberger, Kirychuk, Singh) in support of agricultural exposure studies in mice to look at the respiratory inflammatory effects from co-exposure to common agricultural airborne exposures (carbon dioxide, endotoxin, and glyphosate), as well as to look at the effect of barn based exposures in pregnant mice in respiratory health of their offspring. This work includes a Research Assistant (Schneberger) a Post-doctoral fellow (Nascimento) and 2 PhD students (Pander and Merkowsky). They have received Canadian Light Source beam time to assess lung inflammation changes from agricultural exposures (organic dust and glyphosate).



They (Zhang, Hui, Kirychuk) have also received funding (SHRF, ADF) to assess the impact of engineering controls (ESP, nanospray) on dust reduction in poultry operations. They are using the mass dosing chamber to create a mini-poultry barn (Post Doc – Martel) and will test the effectiveness of engineering technologies in this mini-barn, and up-scaling to small barns (with IRDA in Quebec) and then full-scale commercial barns. Their work has also recently extended to zoonotic viral potential in swine farming in Canada (Murcia) as well as being a member of the Canadian Infectious Bioaerosols Network (CANIBAN - <http://www.virology.esy.es/>) in which they have applied to the CIHR-Collaborative Health Research Program to look at the 'Influenza Virus Surveillance and Mitigation at the human-animal Interface'.

On the population health side, Ramsden and Kirychuk have received funding to look at the impact of in-home smoking cessation on home environmental exposures (CIHR) in a First Nation community. They have great momentum as a result of the Housing and Health Symposium held in June 2017. They are moving forward on several initiatives with Bands and Councils, FSIN, and industry partners relating to housing and health for Saskatchewan First Nations people. They applied to the CIHR project scheme (fall 2017) and are applying to additional provincial and federal funding opportunities. A working group (industry, First Nation, and academic) has been established to hold a Global Housing and Health Symposium in Saskatoon in November 2018. The symposium would have a focus on best practices and opportunities for housing and health in First Nation communities in Canada.





THE AGRICULTURAL HEALTH AND SAFETY NETWORK

The Canadian Centre for Health and Safety in Agriculture (CCHSA) partnered with the Saskatchewan Association of Rural Municipalities (SARM) and six Rural Municipalities in 1988 to found the Agricultural Health and Safety Network with the mission “to improve health and safety on the farm through education, service, and evaluation research.” The Network is now in its 30th successful year, providing occupational health and safety services to 216 RMs that are members of the Network reaching over 27,000 farm families.

MEMBERSHIP RECRUITMENT AND FUNDING

Currently there are 216 member RMs. These RMs pay an annual fee of \$4.60 per active farm family to benefit from the Network resources and services. The maximum membership fee continues to be capped at \$1,200 per RM. These partnerships are the foundation of the Network and provide leverage to draw additional resources to better serve Saskatchewan farmers, their families and agricultural workers. The Saskatchewan Ministry of Agriculture also provides funding to the Network.

STEERING COMMITTEE

The Steering Committee is an Advisory Group composed of RM Councilors and a Saskatchewan Ministry of Agriculture representative. These committee members, who represent the voice of Saskatchewan farmers, their families and their workers, provide direction and feedback on programs delivered in the Network. Their support and input are invaluable to the Network.

The members of the Steering Committee are as follows:

- Division 1 Ken Aldous, Reeve, RM of Willowdale No. 153
- Division 2 Robert Lax, Councillor, RM of Pense No. 160
- Division 3 Floyd Thunstrom, Councillor, RM of Coteau #255
- Division 4 Brenda Zemluk, Councillor, RM of Elfros #307
- Division 5 Walter Kabaroff, Councillor, RM of Blaine Lake No. 434
- Division 6 Bonnie Mills-Midgley, Reeve, RM of Frenchman Butte No. 501

Saskatchewan Ministry of Agriculture, Andre Bonneau,

NETWORK AGRICULTURAL SAFETY DISCOVERY DAYS



Discovery Days is a highly successful farm safety presentation delivered by representatives from the Agricultural Health and Safety Network who travel directly to schools throughout Saskatchewan. The events are designed for children in grades 4-6 who are immersed in agriculture at home or in their community. During each event, children are guided through fun and interactive farm safety activities. This opportunity is free to schools who operate within RMs who are members of the Agricultural Health and Safety Network. From March 2017-March 2018, Network Discovery Days reached 1264 children at 23 schools across Saskatchewan.

NETWORK NEWSLETTER & OTHER PUBLICATIONS



Spring Issue 2017

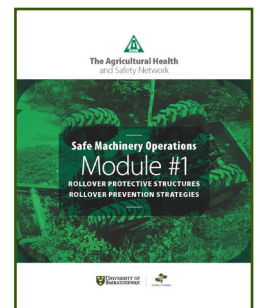
This issue focused on senior farmers. We also highlighted the Saskatchewan Farmers Back Study, physiotherapy in regards to lower back pain, and exciting research that is looking at a cure for allergies.



Winter Issue 2017

Our Canada 150 issue noted 150 years of agricultural safety advancements, our ongoing stress initiative, Ag in Motion safety activities, our winter safety challenge, machinery noise and hearing, and included an update of the final phases of the Canadian AgriSafety Applied Research Program.

The Network continues its collaboration with the Canadian AgriSafety Applied Research Program to develop integrated knowledge translation (KT) materials related to the outputs of the research project. This year the project partnered with the Network to develop a resource for producers. Inside is information and case studies for training family and workers regarding ROPS.



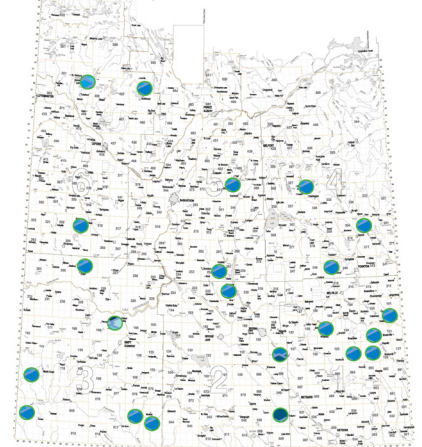
HEALTH AND SAFETY CLINICS



ONE2ONE Health and Safety Clinics for Farmers offer the unique opportunity for farm families and farm workers to meet with a trained agricultural health nurse in a confidential environment for a health and safety check tailored specifically to their agricultural exposures and risks.

These clinics are offered to Network RM members in the form of either a Respiratory Health and Safety Clinic or a Hearing Loss Prevention Clinic that is hosted in their local RM. Farmers also have the option to book an appointment for these tests at the ONE2ONE Network Clinic located at the Canadian Centre for Health and Safety in Agriculture at the University of Saskatchewan in Saskatoon.

Location of Health & Safety Clinics in the last year



OCCUPATIONAL HEALTH AND SAFETY PROGRAM FOR COLLEGE AGRICULTURE STUDENTS



Invest in Your Health
Educate. Prevent. Protect.

In 2017, the Invest in Your Health Program was delivered to college students from the University of Saskatchewan College of Agriculture, Masters of Public Health Program, Parkland College of Ag Machinery Technicians from Yorkton and Olds Alberta College. Students benefited from an interactive lecture, demonstration of personal protective equipment, review of appropriate resources and a PPE Start-Up Kit. Students also had the opportunity to receive blood pressure screening, BMI and hearing screening. 3M Canada generously donated personal protective equipment for the 295 college students that participated in the program.



BE GRAINSAFE TRAILER LAUNCH IN SASKATCHEWAN



BeGrainSafe, developed by the Canadian Agriculture Safety Association (CASA), is a program that reaches all ages with grain safety messages. The program uses awareness-raising displays and demonstrations at farm shows to educate producers about grain safety and also to train firefighters in rescue techniques.

The Network partnered with CASA to assist with the official launch of the BeGrainSafe trailer at the Farm Progress Show, Regina SK in June 2017 and at Ag In Motion Farm Show, Langham SK in July 2017. Network staff were active participants in using the mobile training and demonstration unit that entraps a mannequin in flowing grain in a controlled manner to demonstrate the dangers of grain entrapment and rescue training procedures.

This trailer will travel across western Canada for the next three years. The Network looks forward to assisting CASA with future producer awareness and professional rescue training opportunities when the demo is present in Saskatchewan.

CAPACITY BUILDING

THE NATIONAL PARTNERS FUND

The Founding Chairs Program was established in 1989 as an endowment fund to create a secure financial base for CCHSA and provide opportunities for new program initiatives. Interest from the fund is used for graduate students scholarships and knowledge translation. Subsequently the National Partners Program Enhancement Trust was set up to provide funds for research projects and new program initiatives.

The Founding Chairs Management Committee administers the funds, invested by the University of Saskatchewan, and makes recommendations regarding their use.

The Committee is comprised of 3 members who are Contributors and 3 members from the University of Saskatchewan. Current Contributor members are: Garnett Volk, Senior Director, Credit Policy and Process Management, Farm Credit Canada; Terry Baker, former Chair, Viterra Board, Rob Bubnick, Vice President Safety, Health and Environment, Potash Corp; U of S members: Dr. Niels Koehncke, Director, Canadian Centre for Health and Safety in Agriculture, Dr. Marek Radomski, Assistant Dean, College of Medicine; Sue Verhille-Long, Financial Services Division.

Maura Gillis-Cipywnyk, Director of Institutional Advancement, coordinates the program in consultation with the Director and the Management Committee.

In 2017-18 the focus was to secure funding to develop specific projects for knowledge translation. Thank you to our Sponsors: Farm Credit Canada who contributed to the development of a new National Farm Safety Webinar series; Saskatchewan Wheat Development Commission and Saskatchewan Canola Development Commission who provided funding for the Farm Safety Discovery Days Program for School children.

CANADIAN AGRISAFETY APPLIED RESEARCH PROGRAM

2017-2018 was the final year of Agrivita Canada's Canadian AgriSafety Applied Science Program supported through Agriculture and Agri-Food Canada's (AAFC) Growing Forward 2. A summary of the Program can be found at <http://agrivita.ca>. The Program, which began in 2014, was successful in completing its objectives contributing to applied research in Canadian agricultural health and safety. The outcomes are building into a subsequent set of projects under the proposed Canadian AgriSafety

Applied Science Program: Today's Innovation to Tomorrow's Prevention. An application for this initiative has been submitted to AAFC under the Canadian Agricultural Partnership Program and is currently under review.

CANWORKSAFE

CANWORKSAFE provides occupational health surveillance and screening for workplaces in Saskatchewan. CANWORKSAFE programs provide an opportunity for workers to have regular health screening focused on their occupational exposures. Workers receive current health resources and education specific to the workplace that assists to reduce the risk of developing occupational health diseases and disabilities. Appropriate personal protective equipment is fit-tested and referrals to occupational medicine physicians are arranged. Regular occupational health screenings promote healthy lifestyles and productivity that is well received by CANWORKSAFE program participants.

CANWORKSAFE 2017-2018 programs delivered:



- Hearing loss prevention screening for Saskatchewan rural municipal employees.
- Medical screening program for the Sheet Metal Occupational Health Institute Trust (SMOHIT) to detect asbestos-related disease among members of the International Association of Sheet Metal, Air, Rail and Transportation Workers.
- Novozymes Bio Ag Limited Saskatoon employees: respiratory health screening, quantitative fit testing and audiometric screening.
- Periodic referrals of industry workers and medical students for lung function testing, hearing tests and quantitative respirator fit testing.

KTE, TECHNICAL REPORTS & INVITED PRESENTATIONS

KNOWLEDGE TRANSLATION (KTE)

Kosteniuk J, & Morgan D. (Co-editors). RaDAR Newsletter available at www.ruraldementiacare.usask.ca under the News tab.

Morgan D. (Editor), Rural Dementia Care: Strategies to Improve the Care of Persons with Dementia in Rural and Remote Areas (www.ruraldementiacare.usask.ca). A website highlighting team-based research in rural and remote dementia care. April 2008 to present.

Morgan D. (Founding Editorial Member), Gateway to Rural International Initiatives in Dementia (GRIID) (<http://www.ruraldementia.com>). A website for sharing dementia initiatives and information hosted by an international team of dementia researchers, practitioners and service providers seeking to advance the provision of dementia care support and services in rural areas internationally. Countries represented in this collaboration include: Australia, Canada, India, Sweden, The United Kingdom. April 2014 to present.

Morgan D. (Chair & Presenter) Summit 10 - Knowledge Network in Rural and Remote Dementia Care - 10th Annual Summit. Knowledge exchange meeting of research team and Decision-Maker Advisory Council, Saskatoon, SK, Oct 23 & 24, 2017.

Morgan D. Team 20 Rural: A community-based participatory research approach to designing and evaluating rural dementia care best practices in primary health care teams. Presentation in session: CCNA Highlights: a series of TEDx-style featured presentations at CCNA Annual Partners Forum and Science Day, Toronto, ON, Nov 2, 2017.

TECHNICAL REPORTS

Morgan D, Minish D. (February 2018). Summit 10 Final Report. Final report from the tenth annual summit of the knowledge network in rural and remote dementia care, Oct 23rd & 24th 2017. Report printed at the University of Saskatchewan (18 pages).

MacLeod M, Stewart N, Kulig J, Olynick J, Jonatansdorrrir S, Kosteniuk J. (August, 2017). Registered Nurse National Survey Report: Nursing Practice In Rural and Remote Canada. Prince George, BC: Nursing Practice in Rural and Remote Canada II. RRN2-04-01.

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INVITED PRESENTATIONS

Bath B. Use of teams and technology to improve access to underserved rural and remote populations with chronic back pain. Center for Interdisciplinary Research in Rehabilitation and Social Integration, Laval University. Québec City, QC.

Lovo Grona S, Bath B. The Use of Teams and Technology to Enhance Access to Physical Therapy Care in Rural and Remote Areas. Alberta Physiotherapy Congress. Connect and Learn 2018. Canmore, AB.

Bath B, Lovo Grona S. Use of Interprofessional Teams and Technology to Improve Access to Healthcare in Rural and Remote Regions. Interprofessional Annual Students Symposium September 2017. Saskatoon, SK.

Lawson J. Childhood Asthma Across an Urban-Rural Gradient. *Presented to:* the Respiratory Research Center.

Lawson J. Childhood Asthma Across an Urban-Rural Gradient. *Presented to:* the Saskatoon Allergy Interest Group.

Morgan D, & Kosteniuk J. Development of a Rural Primary Health Care Model: Opportunities for scaling up in Saskatchewan. *Presented to:* Saskatchewan Medical Association, Primary Care Committee. Saskatoon, SK, September 29, 2017.

Morgan D, & Kosteniuk J. Development of a Rural Primary Health Care Model: Opportunities for scaling up in Saskatchewan. *Presented to:* Saskatchewan Medical Association, Family Practice Committee. Saskatoon, SK, September 27, 2017.



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Elliot V, Hagel L, Dosman J, Rana M, Lawson J, Marlenga B, Trask C, Pickett W. Resilience of farm women working the third shift. *Journal of Agromedicine*. 2017; 23:70-77.

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CONFERENCE & ABSTRACTS

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Kirk A, Philippon O, Karunanayake C, Morgan D. Differences between men and women referred to a rural and remote memory clinic. **Presented:** XXIII World Congress of Neurology, Kyoto, JP, Sept 16-21, 2017.

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Kiryuchuk S, Roberts C. "Assess/Re-assess": Housing Environmental Assessments. **Presented:** Disparities in Respiratory Health Among First Nations People: Assess, Redress, Re-assess. Sharing Knowledge & Experience, revealing Priorities & Directions; 2017 Jun 13; Saskatoon, SK.

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Kiryuchuk S, Russell E, Ramsden V, Rennie D, Karunanayake C, Thompson B, Roberts C, Bird D, Seesequasis E, Petit RC, Abonyi S, Pahwa P, Dosman J. Household Environment and Health in First Nations Communities. **Presented:** AIHce; 2017 Jun 5-7; Seattle, WA.

Kiryuchuk SP, Russell E, Karunanayake C, Rennie DC, Thompson B, Ramsden V, Lawson JA, Abonyi S, Dosman J, Pahwa P. Association between endotoxin, damp housing, and current wheeze in adults living in two First Nations communities. In: American Journal of Respiratory and Critical Care Medicine. **Presented:** American Thoracic Society International Conference; 2017; Washington DC, USA. 195, 2017.

Kosteniuk J, Stewart N, Karunanayake C, Wilson E, Penz K, Kulig J, Kilpatrick K, Martin-Misener R, Morgan D, MacLeod M. Exploratory factor analysis and reliability of the Primary Health Care Engagement (PHCE) scale. **Presented:** 45th North American Primary Care Research Group Annual Meeting, Montreal, QC, November 17-21, 2017.

Lawson J, Rennie D, Dyck R, Cockcroft D, Afanasieva A. The relationship between childhood asthma and mental health conditions. In: European Respiratory Journal. **Presented:** European Respiratory Society International Congress; 2017; Milan, Italy. 2017.

Lawson JA, Rennie DC, Goodridge D, Blackburn D, Penz E, Kleiboer L, Turner D, Litzenberger T, Khanam U. Urban-rural differences in health care utilization and management of childhood asthma in the year following diagnosis. In: American Journal of Respiratory and Critical Care Medicine. **Presented:** American Thoracic Society International Conference; 2017; Washington DC, USA. 195, 2017.

Le NPK, Nascimento A, Schneberger D, Quach CC, Zhang X, Wojciech D, Liu L, Gordon J, Singh B. Deficiency of Leukocyte-specific protein 1 (LSP1) alleviates asthma by regulating inflammatory cell recruitment in mouse model. **Presented:** Experimental Biology, April 21-25 - 2018, San Diego, CA, USA.

Lindenbach J, Jacklin K, Larocque S, Morgan D. Older adult mistreatment, dementia, and the natural caregiver in the rural Northeastern Ontario home: The influence of context on professional agency. Canadian Gerontological Nursing Association: Gerontological Nursing: Shaping Healthcare for those who shaped Canada. **Presented:** 19th

Biennial Conference of the CGNA, Ottawa, ON, May 4-6, 2017.

Luu J, Kirychuk S, Karunanayake C, Lawson J, Pahwa P, Rennie D, Hugel L, Dosman J. Access to Routine Medical Care and Cardiovascular Disease Outcomes in a Rural Canadian Population. **Presented:** Canadian Cardiovascular Congress; 2017 Oct 21-24; Vancouver, BC.

MacLeod M, Kosteniuk J, Olynick J, Wilson E, Stewart N, Kulig J, Banner D. Licensed/Registered Practical Nurses in rural and remote Canada: Key concerns for recruitment and retention. **Presented:** Canadian Association for Health Services and Policy Research 2017 Annual CAHSPR Conference, Toronto, ON, May 24-26, 2017.

Malloy-Weir L, Morgan D, Kirk A. Development and pilot testing of a decision aid for dementia patients in long-term care in Saskatchewan and their surrogate decision makers. **Presented:** The Canadian Association of Health Services and Policy Research (CAHSPR) Annual Conference, Toronto, ON, May 24-26, 2017.

Morgan D, Kosteniuk J, Seitz D, O'Connell M E, Kirk A, Stewart N, Holroyd-Leduc J, Daku J, Kennett-Russill D, Hack T. A community-based participatory research approach to developing rural dementia care best practices in primary health care teams. **Presented:** CCNA Annual Partners Forum and Science Day, Toronto, ON, Nov 1-2, 2017.

Morgan D, Kosteniuk J, Seitz D, O'Connell M., Kirk A, Stewart N, Holroyd-Leduc J, Daku J, Kennett-Russill D, Hack T. Developing rural dementia care best practices in partnership with primary health care teams (CCNA Team 20 Rural). **Presented:** CCNA Annual Partners Forum and Science Day 2017, Toronto, ON, Nov 1-2, 2017.

Morgan D, Kosteniuk J, Seitz D, O'Connell ME, Kirk A, Stewart N, Holroyd-Leduc J, Daku J, Kennett-Russill D, Hack T. A community-based participatory research approach to developing rural dementia care best practices in primary health care teams. **Presented:** 9th Canadian Conference on Dementia, Toronto, ON, Nov 2-4, 2017.

Morgan D, Kosteniuk J, Seitz D, O'Connell ME, Kirk A, Stewart N, Holroyd-Leduc J. A community-based participatory research approach to developing rural dementia care best practices in primary health care teams. **Presented:** SCPOR: Share the Vision, Saskatoon, SK, May 17, 2017.

Nascimento A, Le NPK, Schneberger D, Quach CC, Zhang X, Wojciech D, Liu L, Gordon J, Singh B. Deficiency of Leukocyte-specific protein 1 (LSP1) alleviates asthma by regulating inflammatory cell recruitment in mouse model. **Presented:** American Association of Veterinary Anatomists (AAVA), June 29-July 1 -2017, Auburn, AL, USA.

Nascimento A, Kirychuk S; Bernardi MM; Felício L. The influence of LPS and zinc on interaction between mother and offspring. **Presented:** Experimental Biology April 21-25 - 2018, San Diego – CA, USA.

O'Connell ME, Gould B, Scerbe A, Morgan D, Carter J, Bourassa C, Owl N, Jacklin K, Warry W. Unmet needs of rural/remote older adults: Opportunities for technology development. **Presented:** Canadian Association on Gerontology 46th Annual Scientific and Educational Meeting, Winnipeg, MB, Oct 19-21, 2017.

O'Connell ME, McLean M, Morgan D. Remote training for technology needed to meet needs of rural/remote older Canadians. **Presented:** AGE-WELL's 3rd Annual Conference, Winnipeg, MB, Oct 17-19, 2017.

O'Connell ME, Wiley K, Scerbe A, Gould B, Morgan D. Rural and remote older adults user needs & attitudes toward technology. **Presented:** Canadian Association on Gerontology 46th Annual Scientific and Educational Meeting, Winnipeg, MB, Oct 19-21, 2017.

Oluwole O, Rennie DC, Senthilselvan A, Dyck R, Afanasieva A, Adamko DJ, Lawson JA. Asthma diagnosis along an urban-rural gradient in Saskatchewan, Canada. In: American Journal of Respiratory and Critical Care Medicine. **Presented:** American Thoracic Society International Conference; 2017; Washington DC, USA. 195, 2017.

Pandher U, Kirychuk S, Schneberger D, Sethi RS, Liu L, Gerdt V, Koehncke N, Thompson B, Singh B. Unravelling the Molecular Basis of Glyphosate and Endotoxin Interaction. **Presented:** U of S Health Sciences Research Expo; 2017 May 4-5.

Pandher U, Schneberger D, Thompson B, Kirychuk S. Lung Inflammation following glyphosate and lipopolysaccharide (LPS) exposure. **Presented:** U of S CoM 2nd Floor Research Day 2018; 2018 Apr 23-23.

Pandher U. Unraveling the Inflammatory Nature of Glyphosate and Endotoxin Inhalation Exposure. **Presented:** Health Sciences Program Seminar Series, UoFS, March 7, 2018 & Canadian Centre for Health and Safety in Agriculture Seminar Series, March 6, 2018.

Philippon O, Kirk A, Karunanayake C, Morgan D. Sex differences in patients referred to a rural and remote memory clinic. **Presented:** Canadian Neurological Sciences Federation 52nd Annual Congress, Victoria, BC, June 20-23, 2017.

Rennie D, Lawson J, Karunanayake C, Dosman J, Pahwa P, Senthilselvan A. Predictors of early and late onset asthma in a rural population of children: The Saskatchewan Rural Health Study. In: European Respiratory Journal. **Presented:** European Respiratory Society International Congress; 2017; Milan, Italy. 2017.

Rennie DC, Karunanayake C, Lawson JA, Dyck R, Pahwa P, Dosman J. Distance to health care and asthma morbidity in rural children. **Presented:** In: American Journal of Respiratory and Critical Care Medicine. American Thoracic Society International Conference; 2017; Washington DC, USA. 195, 2017.

Schneberger D, Thompson B, Pandher U, Kirychuk S. Environmental CO2 Modification of Innate Immune Responses to LPS and Organic Dust. **Presented:** U of S CoM 2nd Floor Research Day 2018; 2018 Apr 23-23.

Shah T, Milosavljevic S, Trask C, Bath B. Geospatial access to physiotherapy services in Canada: mapping physiotherapist use and distribution. **Presented:** Canadian Association of Health Services and Policy Research Conference: Shaping the Future of Canada's Health Systems; 2018 May; Montreal, QC.

Shah T, Milosavljevic S, Bath B. Geographic Accessibility to Commu-

nity-based Physiotherapist Services across the Canadian Prairie Provinces. **Presented:** 2017 Annual Meetings of the Canadian Association of Geographers; 2017 May; Toronto, ON.

Shah T, Milosavljevic S, Bath B. Access to Primary Health Care in the Canadian Prairie Provinces: Determining geographic accessibility scores for combined family physician and nurse practitioner services. **Presented:** American Association of Geographers Annual Meeting; 2017 May; Boston, USA.

Verity R, Kirk A, Karunanayake C, Morgan D. The “Worried Well”?: characteristics of cognitively normal patients presenting to a rural and remote memory clinic. **Presented:** Canadian Neurological Sciences Federation 52nd Annual Congress, Victoria, BC, June 20-23, 2017.

Vlashki E, Cvejaska-Colakovska V, Kimovska M, Ristevska T, Micevska V, Lawson J. Body mass index and risk of asthma and asthma-like symptoms in childhood. **Presented:** European Academy of Allergy and Clinical Immunology; 2017; Helsinki, Finland.

RESEARCH GRANTS

Bath B (PI), Oosman S, Lovo Grona S (Co-investigators), McKinney V, Mendez I, Ballantyne B, Keith H, Michel R, Weber-Beeds A, Johnson R, Tung T (Collaborators). *Informing an Interprofessional Spine Clinic in Partnership with a Northern Saskatchewan First Nation Community.* College of Medicine Research Award (COMRAD). Total: \$28,147.00 for 2018-01 to 2018-12.

Bath B (PI), Milosavljevic S, Shah T (Co-investigators). *Geographic Access to Optometry Services Across Canada: Mapping distribution, need and self-reported use.* Canadian Association of Optometrists. Total: \$18,750.00 for 2018-01 to 2018-12 (Research Contract).

Barzi F (PI) (Menzies School of Health Research, Darwin Australia), **Maple-Brown L, Guthridge S, Dyck R, Singh G, Barr E.** (Co-Applicants). *Time trends in diabetes in pregnancy, inter-generational risk of type 2 diabetes and complications of diabetes in the Northern Territory: a retrospective longitudinal study of 100,000 mothers and offspring born between 1986 to 2015: Diabetes Australia Research Program.* \$60,000 (AUD) over 1 year beginning January 2018.

Dosman JA, Pahwa P, Abonyi S, King K, (PIs); Fenton M, Karunanayake C, Kirychuk S, Koehncke N, Lawson J, Rennie D, Skomro R. Co-PIs). *Assess, Redress, Re-assess: Addressing Disparities in Sleep Health among First Nations People.* Canadian Institutes of Health Research (CIHR), Cdn\$1,250,775 over 5 years.

Kirychuk S (PI), Katselis G, Lawson J, Ramsden V (Co-investigators). *Mould as a risk factor for rural populations.* Saskatchewan Health Research Foundation - Collaboration and Innovation Development. Total: \$50,000.00 for 2018.

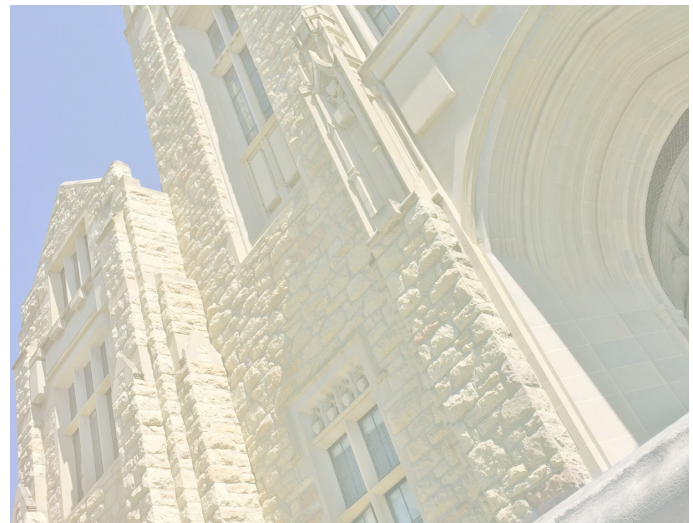
Morgan D. *Design and evaluation of integrated primary health care practice for dementia in rural and remote settings.* Canadian Institutes of Health Research (CIHR) Foundation Grant for 7-years. Cdn\$ 2,336,411.00.

Ramsden V (PI), Bighead S, Rabbitskin N, Gaspar C, Kirychuk S, Sawchuk K, Jacobson N, Karunanayake C (Collaborators). *Wellness - Building on Strengths: Working with Sturgeon Lake First Nation.* Saskatchewan Health Research Foundation, Saskatchewan Centre for Patient-Oriented Research. Total: \$244,141.00 for 2018-05 to 2021-05.

Ramsden V (PI), Kirychuk S, Rabbitskin NJ, Abonyi S, Dolovich LR, Dosman J, Fenton M, Graham H, Lamarche L (Co-investigators), Bighead S, Davis B, Jacobson N, Karunanayake C, McKay S, Turner T (Collaborators). *Māmwōhkamātowin: Enhancing & Integrated Pathways to Wellness.* Canadian Institutes of Health Research. Total: \$150,000.00 for 2017-03 to 2018-03.

Rosenberg A (PI), Adamko D, Erlandson M, Gordon J, Nour M, Inman M, Amubarak S, Bradley T, Martel MJ, Dyck RF, Baxter-Jones A, Agrey N, Magee F, Vatanparast H, Bowen A, Strueby L, Kusalik A.(Co-I's). *Intrauterine Inflammation as a Determinant of Pregnancy Outcome and Child Health: Children's Hospital Foundation of Saskatchewan.* \$122,773 over 2 years beginning July 1, 2017.

Zhang L (PI), Kirychuk S, Guo H (Co-investigators). *Dust exposure reduction for worker disease prevention. Airborne dust removal by an electrostatic space charge system.* Collaborative Innovation Development Grant SHRF. Total: \$47,000.00 for 2017-03 to 2018-04.



FACULTY, STUDENTS & STAFF NEWS & AWARDS

2017- 2018 FOUNDING CHAIRS FELLOWSHIP AWARDEES!

MASTER OF SCIENCE

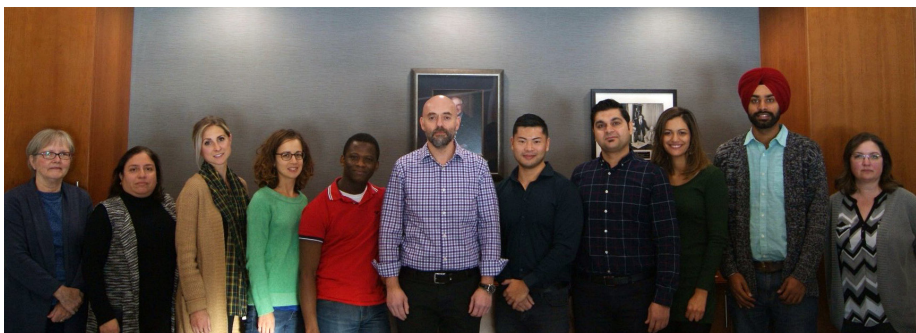
- **ROBYN REIST**, Project Title: *Ergo-Vet: Ergonomic assessment and prevention of musculoskeletal disorders among large animal veterinarians*

DOCTOR OF PHILOSOPHY

- **ULFAT KHANAM**, Project Title: *Predicting and validating asthma among rural and urban children*
- **UPKAR PANDHER**, Project Title: *Unravelling the molecular and inflammatory nature of endotoxin and glyphosate inhalation exposure*
- **ADRIANA ANGARITA FONSECA**, Project Title: *Physical activity and chronic back disorders in Canadian adults: a comparison between rural and urban dwellers*
- **MAURICE M'BANG'OMBE**, Project Title: *Assessment of the source of cholera outbreak at Lake Chilwa in Malawi*

POSTDOCTORAL RESEARCH AND CLINICAL FELLOWS

- **AMANDA FLORENTINA DO NASCIMENTO**, Project Title: *Allergic lung inflammation in offspring of pregnant mice exposed to organic dust*
- **AMANDA FROEHLICH CHOW**, Project Title: *Supporting Rural Dementia Patients and Their Caregivers: Identification of Rural Team-Based Primary Health Care Approaches for Dementia*
- **MARCUS YUNG**, Project Title: *Shaken, and Stirred: Exploring the Bonds Between Whole Body Vibration and Human Performance*
- **BEHZAD BASHIRI**, Project Title: *Investigating whole-body vibration impacts on farm machinery egress performance*
- **OLUWAFEMI OLUWOLE**, Project Title: *Asthma Phenotypes and Severity among Children in Saskatchewan*



The CCHSA Founding Chairs Fellowship awardees with members of the competition committee. From left to right: Dr. Donna Rennie (committee member), Adriana Angarita Fonseca, Dr. Amanda Froehlich Chow, Robyn Reist, Dr. Oluwafemi Oluwole, Dr. George Katselis (committee chair), Dr. Marcus Yung, Dr. Behzad Bashiri, Dr. Amanda Florentina Do Nascimento, Upkardeep Pandher and Dr. Julie Kosteniuk (committee member) (Absent from the photo: Ulfat Khanam, awardee; Maurice M'bang'ombe, awardee; and Dr. Catherine Trask, committee member)

STUDENTS CREDENTIALS & AWARDS

ADRIANA ANGARITA FONSECA, PhD student co-supervised by Brenna Bath and Catherine Trask was awarded \$1,000.00 to attend the Canadian Student Health Research Forum (June 12-15, 2018 in Winnipeg), where she presented the poster entitled, "Chronic Back Disorders in Canadian adults: Results of the 2007-2014 Canadian Community Health Survey.

DR. BEHZAD BASHIRI was awarded a postdoctoral fellowship by the Saskatchewan Health Research Foundation. This two year award will support his project titled: "*Shake and Break: The Effects of Whole-Body Vibration on Farm Machinery Egress*". The work will be conducted in at CCHSA's NAIHL-affiliated Ergonomics Lab under the supervision of Dr. Catherine Trask and Dr. Stephen Milosavljevic.

APRIL LIU, PhD student in the joint Biostats program under the supervision of Dr. Punam Pahwa, was awarded a 2017 Saskatchewan Innovation and Opportunity Scholarship.

LUAN MANH CHU, PhD student in Health Sciences program, College of Medicine, UoF, was awarded the \$20,000 Saskatchewan Innovation & Opportunity Scholarship by the College of Graduate Studies and Research. These scholarships support innovative research in the University of Saskatchewan's signature areas and recognize graduate students who have demonstrated research potential and academic excellence.

MELANIE BAYLY, Postdoctoral Fellow supervised by Debra Morgan was given a CIHR travel award to attend the CIHR Institute of Aging's Summer Program in Aging, focused on technology and innovation supporting the health of older adults (May 28-June 1st, Harrison Hot Springs, BC).

UPKARDEEP PANDHER, ITraP Externship Award (\$2,000). Accommodation and travel expenses to complete the externship at Laval University, Quebec in Dr. Caroline Duchaine Lab, Feb 1-28, 2018.

UPKARDEEP PANDHER, Graduate Professional Skills Certificate, Gwnna Moss Centre for Teaching and Learning (GMCTL), UofS. (Received at Spring Convocation, 2017).

UPKARDEEP PANDHER, Award for participation at the Canadian Light Source Summer School, Saskatoon, SK, August, 2017.

AMANDA NASCIMENTO, Images of Research Competition - Viewer's choice, First Place - University of Saskatchewan, 2018. Cell Party in Asthmatic Lung by authors: Le NPK, Nascimento A, Schneberger D, Quach CC, Zhang X, Wojciech D, Liu L, Gordon J, Singh B.

AMANDA NASCIMENTO, Travel Grant. American Association of Veterinary Anatomists (AAVA), 2017, Auburn, AL, USA. The influence of LPS and zinc on interaction between mother and offspring.

SARM SCHOLARSHIP WINNERS

In 1995, the Saskatchewan Association of Rural Municipalities (SARM) auctioned off the first copy of its history book "The Building of a Province: Commemorating the 90th Anniversary of the Saskatchewan Association of Rural Municipalities." This auction netted the sum of \$2,600 which the SARM Board of Directors contributed to the Canadian Centre for Health and Safety in Agriculture (CCHSA). These funds initiated the \$1,000 SARM 90th Anniversary Student Scholarship in Agricultural Safety and Rural Health. The Founding Chairs Program at CCHSA now maintains the scholarship.

This year two scholarships of \$1500 each were awarded to grade 12 students, **Cassidy McMunn** from Star City, RM #428 and **Natasha Iluk**, from Glenavon, RM of Chester # 125. Students were asked to submit essays about (a) *The importance of safety and health on our farm* or (b) *Safety and health hazards on our farm*.



"Personal safety precautions are very important. Wearing PPE, gloves, and tying hair back are very important factors that contribute to the safety on farm, but the number one safety precaution is being trained and taught properly about the farm setting and how to prevent accidents from happening. There can't be a price put on safety."
Cassidy McMunn



"Growing up on a farm has taught me so much and I want to be able to encourage others to pay attention to safety and health hazards and then use the power they have to change the future of the farming industry to ensure it is not looked at as more risk than potential. As they say, a farmer has to be an optimist or he wouldn't still be a farmer."
Natasha Iluk

FACULTY CREDENTIALS & AWARDS

On May 4, 2017, **DR. JOSH LAWSON**, Associate Professor, College of Medicine and Canadian Center Health and Safety in Agriculture, U of S was recognized with the 2017 Best Supervisor Award. As mentioned in the nomination, Dr. Lawson demonstrates excellence in scholarship and serves as an extraordinary role model for his students. Congratulations Dr. Lawson!



DR. CATHERINE TRASK, Faculty in the Department of Medicine, College of Medicine was awarded, on May 30, 2017, the "Best Research Presentation title in the Biomedical and Population Health Category" during the Department of Medicine Research Retreat.

DR. ROLAND DYCK was appointed Professor Emeritus, College of Medicine: July 2017. **DR. DYCK** was honored at Pipe Ceremony in February 2018 for his role in envisaging and establishing Cameco Chair in Indigenous Health. Dr. Alexandra King was appointed as the Inaugural Chair in October 2017.



On July 1st, 2017, **DR. GEORGE KATSELIS** became a tenure-track faculty member in Clinical Proteomics and Metabolomics in the Department of Medicine, Division of the Canadian Centre for Health and Safety in Agriculture, College of Medicine.

NEW SPONSORSHIP:


Thank you to the Saskatchewan Wheat Development Commission and the Saskatchewan Canola Development Commission who have recently become sponsors of the **Agricultural Safety Discovery Days**.



RETIREMENT:



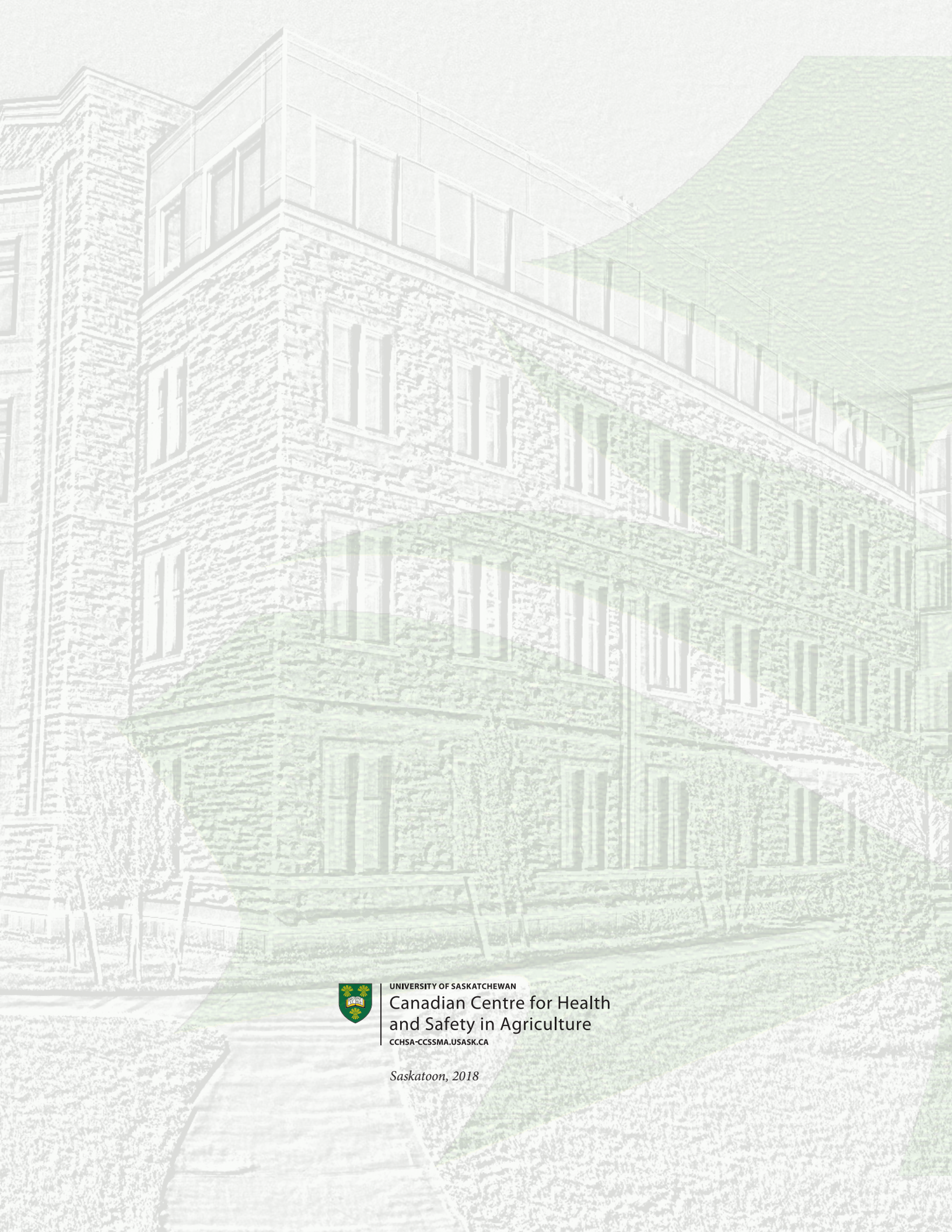
In 2017, **Sue Dosman** retired from the Canadian Centre for Health & Safety in Agricultural. She has volunteered her time with the Centre for almost 3 decades. Her dedication and passion to the Centre will always be cherished. We thank and wish her a happy retirement.



*Annual Report compiled & designed by Sueli B. de Freitas
Edited by: Maura Gillis-Cipywnyk*

2018

cchsa.ccssma@usask.ca



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Saskatoon, 2018