



WORLD LEADERSHIP IN HEALTH OF RURAL PEOPLE

CCHSA **CCSSMA**
Canadian Centre for Health and Safety in Agriculture
Centre canadien de santé et sécurité en milieu agricole



CCHSA/CCSSMA News 2008-2009

Annual Report & Summary of Activities



Public Health & the Agricultural Rural Ecosystem

EDITORIAL

The Sixth International Symposium: Public Health and the Agricultural Rural Ecosystem (PHARE)

The Canadian Centre for Health and Safety in Agriculture was very proud to host its 6th International Symposium in Saskatoon from October 19-23, 2008. This symposium brought together researchers, practitioners, professionals and students from around the world to discuss and showcase the

most advanced and innovative research in public health and agricultural-rural ecosystems. Five previous International Symposia organized by CCHSA predecessors resulted in numerous significant advances in the Agricultural Health and Safety field.

Health and safety issues in agriculture and other rural industries pose ongoing and significant challenges. Through plenary sessions, symposium speakers, and scientific poster presentation sessions, the PHARE Symposium was able to offer participants an edge on multi/interdisciplinary research, knowledge translation techniques, sharing of research results, research feedback and possible new partnerships.

The immediate outcome of the Sixth International Symposium was the publication of relevant scientific papers in *The Journal of Agromedicine*. An entire issue (volume 14, issue 2) was dedicated to disseminating the symposium's research findings. The evening brain-storming sessions, the quiet back-table discussions, and the multiple workshops proposals that arose all held promise of further fostering advances in the agricultural and rural health and safety in Canada and around the world. The impact of the spinoff from this international meeting will continue for sometime.

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.

<http://cchsa-ccssma.usask.ca>
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UNIVERSITY OF
SASKATCHEWAN

We thank all our partners, who contributed immensely to the success of this meeting and, our faculty, students and staff for sharing the vision and enthusiasm with all participants. We look forward to planning the Seventh International Symposium!

Sincerely,
John R. Gordon, PhD, Director,
Canadian Centre for Health and Safety in
Agriculture



Services

The Agriculture Health and Safety Network

An agricultural occupational health and safety information program is delivered to 27,500 Saskatchewan farm families through the Network with funding from Saskatchewan Ministry of Agriculture, membership fees and external grants.

The Agricultural Health and Safety Network (The Network) began in 1988, as a joint venture between the Centre for Agriculture Medicine, Saskatchewan Association of Rural Municipalities (SARM) and six Rural Municipalities (RMs). The Network continues to benefit from the input of the Steering Committee comprised of six RM councilors each representing one of the six divisions of SARM.

PROMOTING USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE) TO NETWORK FARM FAMILIES

The promotion of the use of Personal Protection Equipment (PPE) on the farm as a Network annual package aligned with the Canadian Agricultural Safety Week (CASW) campaign from March 11-17th, 2009 entitled "PPE only works if you use it!" The campaign encourages producers to think through their work before starting so they can anticipate and correct any hazards that may occur. The second part encourages producers to ensure the correct access, use, and fit of personal protective equipment, when needed.

The CASW campaign was delivered by the Canadian Federation of Agriculture (CFA) and the Canadian Agricultural Safety Association (CASA) in partnership with Agriculture and Agri-Food Canada (AAFC).

SLEEPLESS IN SASKATCHEWAN® TOUR

In 2008 the Sleepless in Saskatchewan tour concluded with one final tour. Six rural Sleepless in Saskatchewan workshops were delivered in the communities of Whitewood, Moose Jaw, Eatonia, Fox Valley, Viscount and Bulyea. In addition to these presentations, corporate workshops were delivered to Husky Oil and Ipsco.

Sleepless in Saskatchewan workshops informs participants about the dynamics of sleep, reducing stress and fatigue, managing shift work and extended hours and easy, inexpensive tips for farmers to make sleep work more effectively for them as well as identify the links between stress, fatigue and the risk of injury.

The Sleepless in Saskatchewan tour was organized by the Network and the Farm Stress Unit with sponsorship from SARM, Saskatchewan Agriculture and Food, the Canadian Agricultural Safety Association and Agriculture and Agri-Food Canada in 2006.

SLEEPLESS IN SASKATCHEWAN DVD

The success of the "Sleepless in Saskatchewan tours" prompted the development of a "Sleepless in Saskatchewan® DVD". This documentary DVD is an educational resource for farmers, agricultural employees, employees in the industrial sector and health care field, farm families of shift workers, as well as the general public. *Funded by: Canadian Agricultural Safety Association (CASA) and Saskatchewan Agriculture.*



"GET PREPARED FOR FARM SAFETY" WORKSHOP

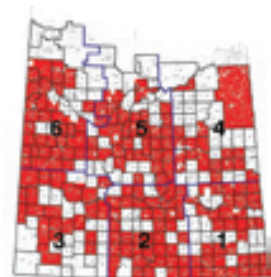
At the 6th International Symposium: Public Health and the Agricultural Rural Ecosystem held in Saskatoon from October 19-23, 2008, the Network provided the opportunity for researchers and Saskatchewan producers to participate at the Producers Day by attending presentations on (a) *Stress, Sleep, and Safety* presented by Chip Petrea, a dairy farmer from Iowa, and the (b) *Low Stress Cattle Handling* presented by Reg Stewart, a rancher from British Columbia.



Overwhelming positive feedback from the **Low Stress Cattle Handling Workshop** inspired the Network to schedule an additional workshop in the southern part of the province which focused on a manageable herd, reduced shrinkage at shipping, less stress, and increased safety for the handler. This workshop was held at a feed lot near Ceylon, SK, hosting farmers and workers from other southern feedlots as well as livestock trucking organizations. In the future is intended that the Network will have a train-the-trainer workshop for low stress cattle handling to increase workshop capacity.

RURAL MUNICIPALITIES RECRUITMENT DRIVE

Recruitment efforts for Rural Municipalities membership, resulted in 12 RMs joining the Network in 2008. As of April 2009, 180 RMs, which includes 27,500 farm families, are Network members. *Funding support: College of Medicine at the University of Saskatchewan.*



CN SAFETY PATROL PROGRAM – A partnership between CN, Agribition & The Network at Canadian Western Agribition

The University of Saskatchewan teamed up with CN and Agribition to ensure the safety of those who attended the 2008 Canadian Western Agribition. We expanded this partnership to include 4-H clubs throughout the province. The 4-H members helped to monitor and control traffic where livestock and people met at key intersections in the Agribition barns. The Canadian Western Agribition Committee, CN and the Network are looking forward to future partnerships as a result of the success of this event.



RESPIRATORY HEALTH AND HEARING CONSERVATION PROGRAM FOR FARMERS

In their local communities, farmers and their families receive free Respiratory Health and Hearing Conservation programs. The Registered Nurse (RN), with expertise in agricultural health and safety, uses the clinics as an opportunity to address various health concerns with farmers in a confidential environment.

The *Respiratory Health Program Clinics* includes demonstration of respiratory personal protective equipment; blood pressure and lung function screening, counseling and referral based on participants' respiratory health questionnaires and screening results.

The *Hearing Conservation Program* focus on increasing awareness of noise hazards on the farm, developing methods to reduce their exposure to harmful noise and instruction on how to best monitor the effects of hazardous noise on their hearing. The hearing screening component includes demonstration of hearing protection, counseling and referrals based on participants' questionnaires and screening results.

90TH SASKATCHEWAN ASSOCIATION OF RURAL MUNICIPALITIES (SARM) SCHOLARSHIP

Initiated in 1995 with the Saskatchewan Association of Rural Municipalities (SARM) and through continued support of the National Partners Fund, the 90th SARM anniversary scholarship is awarded each year to a grade 12 student for the best essay on farm safety. This \$1000 scholarship is to be applied to the winner's post-secondary education tuition. This year's winner was Courtney Cave from the RM of Eyebrow #193. Courtney is planning to enter the College of Nursing at the University of Saskatchewan in the fall of 2009.



Courtney Cave

For more information on the Network resources and programs please visit: aghealthandsafetynetwork.usask.ca

Research

Dementia care in rural and remote communities

Saskatchewan has the highest proportion of seniors in Canada and the largest proportion over age 80. Rural communities in the province have a larger proportion of seniors than cities, which affects the types of health care services that are needed. The risk of developing Alzheimer Disease or other dementia increases dramatically with age, from 8% of those over age 65, to about 35% of those over age 85. People with dementia experience memory loss and changes in behavior, mood, personality, and functional ability. These symptoms become worse over time and often necessitate placement in nursing homes when family caregivers can no longer manage care at home. There are approximately 18,000 people with dementia in Saskatchewan, many of whom live in rural and northern communities.

WHAT IS BEING DONE TO ADDRESS THE GROWING NUMBER OF PEOPLE WITH DEMENTIA?

For the last 5 years a research team at the University of Saskatchewan has been conducting research aimed at improving dementia care in rural and remote areas. Team members come from a wide range of disciplines,



Left to right: Back row: Carol Ellingboe, Duane Minish, Joseph Wickenhauser, Allison Cammer; Front row: Drs. Norma Stewart, Debra Morgan

including nursing, medicine, psychology, sociology, physical therapy, and geography. In March 2009, team leader Dr. Debra Morgan was awarded new funding to continue the team's research for a 5-year period. Studies will focus on improving early detection and diagnosis of dementia, identifying and addressing the needs of family caregivers, improving access to services for Aboriginal seniors, and investigating ways to provide better care to nursing home residents with dementia.

WHAT IS DIFFERENT ABOUT THIS RESEARCH PROGRAM?

An important aspect of the new funding program is the involvement of potential research users in all stages of the research process-- from identifying what studies are needed, to helping researchers get their results into the hands of those who can use it. To accomplish this, a 27-person Decision Maker Advisory Council was created. Members include family members of individuals with dementia, nursing home managers and front-line staff, family physicians, and regional health authority and government representatives. The team is also connecting with researchers from other provinces, the United States, and Scotland.

WHAT DO RURAL COMMUNITY MEMBERS AND HEALTH CARE PROFESSIONALS SEE AS THE PRIORITIES?

The Decision Maker Advisory Council and the research team had their first meeting on November 20th and 21st, 2008 at the 1st Annual Summit titled *Knowledge Network in Rural and Remote Dementia Care*. Before the meeting, the council members were asked to identify their top three issues in rural and remote dementia care. Five priority areas were identified from their responses: (1) expertise and specialized care; (2) best practices and client-centered care; (3) access issues; education of formal and informal caregivers; (4) and supporting patients, caregivers, and (5) communities. These themes will help to focus the direction of the research team's work in the next five years. The 2nd Summit will take place in October, 2009. These annual face-to-face meetings provide an opportunity for 2-way knowledge exchange between those on the "front lines" and the research team.

This Applied Chair in Health Services Policy and Research program is funded equally by the Canadian Institutes of Health Research (Institute of Health Services & Policy Research) and the Saskatchewan Health Research Foundation. For more information online, visit <http://www.cchsa-ccsma.usask.ca/ruraldementiacare/>

Endotoxin and the Lung Study (Humboldt Study 2002-2010) – Update

Now in the 6th year of this study, we have completed a survey of residents in Humboldt and surrounding areas that included lung function, genetic testing for those genes associated with respiratory disease, a respiratory questionnaire and testing for allergies.

A sub study of children with and without asthma and exposure to tobacco smoke and endotoxin was completed by Dr. J. Lawson from CCHSA.

WHAT WERE SOME OF OUR FINDINGS?

- More children exposed to the emptying or filling of grain bins had asthma.
- Symptoms such as cough, wheeze or phlegm were more often found in children who were playing on or near hay bales or near the cleaning of pens.
- High tobacco smoke was associated with increased wheeze frequency in children with asthma
- We have reported an increase in obesity since 1977 especially in our younger study populations that will need future study to find some of the reasons for this concerning trend.
- Farmers were less likely to be allergic to common allergens than were non-farmers.

The project has provided opportunities for several masters and PhD students and a post doctoral fellow to participate in research and complete a program of advanced study.

WHO ARE THESE FORMER AND CURRENT STUDENTS?

Merri-Lynn MacDonald,

Masters in Interdisciplinary Studies, US (completed)

Pamela Farthing,

Masters in Community Health and Epidemiology (completed)

Joshua Lawson,

Doctor of Philosophy (completed)

Chandima Kararunayake,

Post Doctoral Fellow (completed)

Robyn Kydd,

Masters Community Health and Epidemiology (ongoing)

Sarak Sokoluk,

Masters in Nursing (ongoing)

Zhewei Gao,

Doctor of Philosophy (ongoing)

WHAT'S NEXT?

We will continue to analyze and report our findings. We have started to bring these findings back to the communities. The respiratory studies with the Humboldt population are unique and since the first study in 1977 have continued to add to our understanding of both personal and environmental factors with respiratory disease.

The Saskatchewan Farm Injury Project (SFIP)

WHAT IS THE SASKATCHEWAN FARM INJURY PROJECT (SFIP)?

SFIP is a large population based study of injuries that occur on Saskatchewan farms. The study was conducted in 50 rural municipalities spread across the province. The study population is comprised of 5402

people living on 2490 farms in the province. The farms involved in the study are representative of the types of production and acreage sizes in Saskatchewan agriculture. The farms were followed for a period of two years.

WHY IS THIS PROJECT IMPORTANT FOR SASKATCHEWAN?

Farmers and their families represent 9% of the population of Saskatchewan. Farming is among the three most dangerous occupations together with mining and construction. Unlike other industry, farms are both homes and workplaces exposing persons younger and older than the typical working population to the risks of the work environment. Prevention efforts to date have not had a measurable effect on reducing the rate of injury on the province's farms.

WHAT ARE THE GOALS OF THIS PROJECT?

The goal of this project is to understand individual operational risk factors (individual exposures) and settings (contextual or environmental exposures) associated with agricultural injury, with the long-term goal of informing the development of interventions directed at the prevention of injury within both farm populations and agricultural production settings

WHO ARE THE INVESTIGATORS ON THIS PROJECT?

The principal investigators on this project are Dr. James Dosman, University of Saskatchewan, and Dr. Will Pickett, Queens' University. Our research team is comprised of scientists from the University of Saskatchewan, Queens' University, Monash University in Australia, the Marshfield Clinic Research Foundation in the United States and the University of Alberta.

For more information about the Saskatchewan Farm Injury Project including study results and publications go to our website at: <http://www.cchsa-ccssma.usask.ca/skfarminjuryproject/index.php>

This project was funded by the Canadian Institutes for Health Research (CIHR).

The Saskatchewan Rural Health Study

WHAT IS THE SASKATCHEWAN RURAL HEALTH STUDY (SRHS)?

SRHS is a large population based study of respiratory health in rural dwellers in Saskatchewan. The study will take place in 36 rural municipalities and 16 rural towns and villages across the province. The study will be conducted over a six year period beginning in January 2010. Participation in the study will involve a baseline survey, breathing and allergy tests and environmental measurements as well as a follow-up study four years after baseline measurements.

IMPORTANCE OF PROJECT FOR SASKATCHEWAN

In Saskatchewan 36% of the population live in rural areas. There is evidence that environmental, social and health services delivery circumstances may adversely affect the respiratory health of rural people and lead to chronic bronchitis, chronic obstructive pulmonary disease and asthma. Despite this impact on respiratory health, the risk factors influencing respiratory health in the rural population is not fully understood.

GOALS OF THIS PROJECT

The goal of the SRHS is to develop a better understanding of the factors that influence respiratory health in rural Saskatchewan. Our hope is that this will lead to more effective respiratory health promotion and respiratory disease prevention efforts.

INVESTIGATORS ON THIS PROJECT

The principal investigators on this project are Dr. James Dosman and Dr. Punam Pahwa of the University of Saskatchewan. Our research team is comprised of scientists from the University of Saskatchewan, University of Alberta, Queens' University and Laurentian University.

This project was funded by the Canadian Institutes of Health Research (CIHR)

Saskatchewan Farm Injury Surveillance Project

WHAT IS THE SASKATCHEWAN FARM INJURY SURVEILLANCE PROGRAM (SFISP)?

SFISP is an ongoing surveillance program that counts the number of fatal and hospitalized farm injuries in the province each year. At present this information is available for the period from 1990-2007. These data are used to describe the frequency of serious farm injuries, to observe trends over time and to describe the patterns and causes of farm injuries. This information is important to the development of targeted and effective injury prevention programs in the province.

WHO ARE THE INVESTIGATORS ON THIS PROJECT?

The co-investigators on this project are Dr. Niels Koehncke and Louise Hagel, University of Saskatchewan. Our collaborator on this project is the Occupational Health and Safety Division of the Ministry of Advanced Education, Employment and Labor, Government of Saskatchewan.

WHO PROVIDED THE FUNDING FOR THIS PROJECT?

This project was funded the Canadian Centre for Health and Safety in Agriculture, the Occupational Health and Safety Division of the Ministry of Advanced Education, Employment and Labor, Government of Saskatchewan, the Canadian Agricultural Injury Surveillance Program, the Canadian Agriculture Safety Association and Agriculture and Agri-Food Canada.

Longitudinal Change in Lung Function in a Saskatchewan Potash Mine: Pilot Study

WHAT IS THE PILOT PROJECT?

This pilot project is reviewing lung function data for the past 10-20 years from only one Saskatchewan potash mine. This data has been collected for years on these potash mine workers but has never been analyzed for unusual trends or changes. The results of the analysis of the data will tell us whether or not to expand to other mines at a later date. This one year pilot study started in 2009 with data collection and will be completed in early 2010.

THE GOALS AND IMPORTANCE FOR SASKATCHEWAN POTASH WORKERS.

There are a number of respiratory concerns in the potash mining environment such as dust, diesel exhaust, and chemicals. We are analyzing the lung function data to see if there are any unusual trends or declines in workers.

INVESTIGATORS AND FUNDERS OF THIS PROJECT

The investigators of this pilot project are: Dr. N. Koehncke, Dr. J. A. Dosman, Dr. P. Pahwa, Dr. John Gjevre, L. Hagel, and L. Kapronczai. The funding for this project was provided by the Saskatchewan Workers Compensation Board.

Graduate Training Program in Public Health and the Agricultural Rural Ecosystem (PHARE)

Since 2002, the CIHR Strategic Training Program entitled, "Public Health and the Agricultural Rural Ecosystem" (PHARE) had provided scholarship support along the development continuum from Masters through to Post Doctoral Fellows to train and mentor young scientists. To date 54 graduate student scholarships have been awarded to trainees from over 14 Canadian universities. Funded students participate in a web-based course with credits going to their home university and in monthly seminars, through a web conferencing system.

In 2008 – 2009, the following training scholarships were awarded:

Post Doctoral Fellow – Chandima Karunanayake, University of Saskatchewan. **PhD** – Leah Boutilier, Dalhousie University; Chandrashekhar Charavaryamath, University of Saskatchewan; Julie Kosteniuk, University of Saskatchewan; Valérie Létourneau, Université Laval; Tara-Leigh McHugh, University of Saskatchewan; Sarah Oosman, University of Saskatchewan; David Schneberger, University of Saskatchewan; Jack Teng, University of British Columbia; Natasha Thiessen, University of Saskatchewan; and Silvia Vilches, University of British Columbia; Masters – Annick Demanche, Université Laval; Gopinath Narasimhan, Queen's University; and Afshin Vafaei, Queen's University

Centre for Research Development Program

The overall goal of the Canadian Centre for Health and Safety in Agriculture – Centre for Research Development (CRD) Program is to address the health of people as a result of working and living in the agricultural rural ecosystem. The CRD Program has grown to involve over 60 scientific collaborators and 54 students representing 14 Canadian Universities across 9 provinces and 15 non-Canadian Universities and other organizations. It provides funding through the Junior/Senior Faculty Release Time Support Program in which applicants devote their research activities to one or more of the four themes: What we breath (Genetic and environmental determinants of lung dysfunction), What we eat and drink (Determinants of infections), How we work (Occupational health issues), and How we live (Physical and mental health, and social issues).

WHAT IS RELEASE TIME STIPEND?

A release time stipend is used for salary replacement for teaching duties in order to increase the time for CCHSA-CRD research. In 2008-2009 CCHSA provided release time stipends to: Dr. Donnie Rennie, University of Saskatchewan; Caroline Duchaine, Université Laval, and Rob Jamieson, Dalhousie University.

WHAT IS THE PILOT PROJECT PROGRAM?

The Pilot Project Program is a funding opportunity provided by the CCHSA-CRD which is intended to (a) address research gaps in one or more of the four CCHSA-CRD theme areas, (b) encourage new collaborations among researchers, and (c) provide funds for initial meetings and other communications leading to the development of research proposals for submission to national granting agencies. In 2008-2009, pilot project support was provided to Dr. James Dosman, University of Saskatchewan, Dr. Shelley Kirychuk, University of Saskatchewan and Caroline Duchaine, Université Laval.

WHAT ELSE DOES THE CCHSA-CRD PROGRAM SUPPORT?

It also supports Postdoctoral and PhD scholarships through the CIHR Strategic Training Program "Public Health and the Agricultural Rural Ecosystem" (PHARE). Financial assistance for undergraduates is also available through the CCHSA-CRD Summer Student Training Stipend, which provides funds to research faculty who have student candidates being trained in a study area that address the health of people as a result of working and living in the agricultural rural ecosystem. In the spring of 2009, CCHSA-CRD awarded Student Training Stipends to: Louis Gendron/Caroline Duchaine, Université Laval; Shivani Trivedi/Shelley Kirychuk, University of Saskatchewan; and Eduardo Huesca/Kerry Preibisch, University of Guelph.

Student's Research

RHONDA BRYCE: Master's student in the Department of Community Health and Epidemiology, University of Saskatchewan and Founding Chairs Recipient. **Thesis title:** Demographic risk factors for late pregnancy stillbirth in Saskatchewan women

SHIVANI TRIVEDI: Working under Dr. S. Kirychuk, Shivani was a Biomedical Summer Student Research Project award recipient as well as a CIHR-CRD-CCHSA summer student recipient. Shivani was a summer student in CCHSA and worked on characterizing the components of dusts from houses and poultry and swine operations.

Capacity Building

OCCUPATIONAL MEDICINE CLINIC

Occupational Medicine is that branch of preventive medicine dealing with the effects of work on health (occupational illness and injury) and the effects of ill health on ability to work. The goal of occupational medicine is to recognize, prevent, diagnose and treat occupational illness and injury and to promote health and productivity. Dr. N. Koehncke maintains the Occupational Medicine clinic at Royal University Hospital. In addition, he is the Chief Occupational Medical Officer for the Province of Saskatchewan.

THE CCHSA KNOWLEDGE TRANSLATION PROGRAM

The Knowledge Translation program was aimed mainly at developing KT resources to promote the 2009 Canadian Agricultural Safety Week and its theme "Personal Protective Equipment". With the collaboration of researchers from the National Scientific Network, KT resources were developed including a poster illustrating a "Noise Thermometer" as a tool for hearing protection. A special issue of the national newsletter "Agricultural Health and Injury Prevention; Research and Control" was published in January 2009 on Personal Protective Equipment. In collaboration with the *Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)* a brochure entitled « Agricultural Bioaerosols: Protect Yourself » was developed. All KT resources were developed both in French and English and are also rendered available on CASA and CCHSA web sites.

The CCHSA Knowledge Translation program was supported by the Canadian Agricultural Safety Association (CASA).

CANADIAN AGRISAFETY APPLIED RESEARCH PROGRAM

Agrivita Canada Inc., a not for profit company, is still developing a long-term sustainability plan called *Canadian AgriSafety Applied Research Program (CAARP)* to assist CCHSA in seeking additional resources. The program includes an important knowledge translation component and is being promoted to Agriculture and Agri-Food Canada and provincial governments.

Annually, members of the CCHSA National Scientific Network meet to share current research projects, jointly developing research questions, and to forge new relationships that will ultimately enhance research project applications, knowledge translation activities and policy initiatives.

Funded by: Canadian Institutes of Health Research (CIHR) Centres for Research Development (CRD) Institute for Population and Public Health (IPPH), "Understanding and Addressing the Impacts of Physical and Social Environments on Health" Strategic Initiative.

NATIONAL PARTNERS FUND

To reflect our expanded national focus the Founding Chairs Program was renamed the National Partners Fund. The Founding Chairs Program was established in 1989 to create an Endowment Fund for the Centre. Since its inception in 1989 almost \$5 million has been placed in the Endowment Fund and the new Enhancement Fund. This provides funds for special research projects, scholarships for graduate students and knowledge translation.

The Fund continues to be directed by a Management Committee comprised of 3 members who are Contributors and 3 members from the University of Saskatchewan. Current members include, **Chairperson Glen Tully, President, Federated Co-operatives Inc; Terry Baker, Viterra, Lyndon Carlson, Vice-President, Marketing and Product Development, Farm Credit Canada and University of Saskatchewan members: Dr. John Gordon, Director, Canadian Centre for Health and Safety in Agriculture, Dr. William Albritton, Dean, College of Medicine; Matt Webster, Trust Advisory Services.**

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

The focus of activities this year was re-establishing contact with former Founding Chairs in addition to connecting with new companies. The CCHSA Director and the Director of Institutional Advancement met with company Executives across Canada.

New promotional material for the National Partners Fund was developed through the generous technical and production support of Farm Credit Canada.

We also recognized the support of our Founding Chairs by hosting them at the October 2008 Symposium Banquet in Saskatoon.

More than \$7,000.00 has been contributed to the Dr. Helen Harris McDuffie Fellowship on Interdisciplinary Research in Agricultural Health. The Fellowship will be awarded on an annual basis through an application review process.

The National Partners Fund is an integral part of CCHSA helping to develop a secure financial base and to provide the opportunity to initiate new programs. The next year will see increased travel as we continue to expand our network of contacts and identify potential new supporters.

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Invited Lectures and Invited Conference Presentations:

McCrosky, J. *"Yoga therapy and empowerment: take control of your health"* Crohn's and Colitis Foundation of Canada Symposium, Saskatoon, SK, March 21, 2009.

McCrosky, J. *"Yoga therapy: An alternative understanding of chronic disease"* (a) The Crohn's and Colitis Foundation of Canada (CCFC) Educational Symposium, Saskatoon, SK, 2008. (b) CCFC Symposium, Winnipeg, MB. (c) Regional meeting of the Canadian Association of Enterostomal Nurses, 2008.

Morgan D. Rural and remote dementia care in Saskatchewan, Canada: Innovative service delivery models. University of Bangor, School of Healthcare Sciences Seminar. Wales, January 30, 2009.

Morgan D. Dementia in rural areas: Experience from Canada. Research in Specialist and Elderly Care in Wales (RESEC – Wales) Conference, University of Bangor, Wales, January 23, 2009.

Morgan D. Development and evaluation of a one-stop telehealth-assisted rural and remote memory clinic. Department of Applied Social Sciences Seminar, University of Stirling, Scotland. February 11, 2009.

Morgan D, Cammer A. Physical assault of special care aides in long-term care: Implications for continuing education. Physical Assault Response Training (PART) Program Advisory Committee, Saskatchewan Association of Health Organizations. Moose Jaw, SK, September 4, 2008.

Conference Proceedings & Abstracts:

Andrews ME, Morgan D, Stewart N, Forbes D. An exploration of dementia care in Northern Saskatchewan: The perspectives of Northern registered nurses. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23.

Andrews ME, Stewart N, Morgan D, Crossley M, Kirk A. North-south differences in rural nursing services for dementia caregiving in Canada. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

Cammer A, Morgan D. Swimming the river of care: A participant-led group activity as a data collection strategy in a grounded theory study. **Presented:** Innovations in Qualitative Research Conference, University of Saskatchewan, Saskatoon, SK, June 3-4, 2008.

Cammer A, Morgan D. Transitions from "home" to "the home": Rhetoric and policy in Canadian long-term care. **Presented:** Congress of the Humanities and Social Sciences, Carleton University, Ottawa, ON, May 23-31, 2009.

Cammer A, Morgan D. Negotiating culturally incongruent systems: The process of accessing dementia care for Aboriginal older adults living in Northern Saskatchewan. **Presented:** Canadian Association on Gerontology 37th Annual Scientific & Educational Meeting. London, ON, Oct 23-26, 2008.

Chen Y, Rennie D, Cormier Y, Dosman JA. Atopy, obesity and asthma in a rural community. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.71, Saskatoon, SK, October 19-23, 2008.

Day L, Voaklander D, Sim M, Wolfer R, Langley J, Dosman J, Hagel L, Ozanne-Smith J. Risk factors for farm work related injury among male farmers. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.50, Saskatoon, SK, October 19-23, 2008.

Day L, Dosman J, Hagel L, Dostaler S, Snodgrass P, Thiessen J, Brison R, Biem J, Marlena B, Koehncke N, Crowe T, Pahwa P, Pickett W. Saskatchewan farm injury cohort study 3: Application of novel communication technologies to the study of farm families – A randomized controlled trial. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.23, Saskatoon, SK, October 19-23, 2008.

Dosman JA, Chenard L, Rennie D, Senthilselvan A. Atopy is protective of symptoms in females. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.16, Saskatoon, SK, October 19-23, 2008.

Estabrooks CA, Norton P, Degner L, Teare G, Morgan D, Sales A, Cummings G, Menec V. Translating Research in Elder Care (TREC): A five year program of research. **Presented:** The Gerontological Society of America 61st Annual Scientific Meeting, National Harbour, Maryland, November 21 – 25, 2008.

Forbes D, Hawranik P, Jansen L, Markle-Reid M, Morgan D, Peacock S, Leipert B. Looming dementia crisis: Is rural home care ready? **Presented:** 22th Annual Research Conference. Arthur Labatt Family School of Nursing, University of Western Ontario and the Iota Omicron Chapter of Sigma Theta Tau International Honor Society of Nursing, London, ON, May 1, 2009.

Forbes D, Markle-Reid M, Hawranik P, Jansen L. Symposium: Role of Home Care in Dementia Care Study. **Presented:** Canadian Association on Gerontology 37th Annual Scientific & Educational Meeting, London, ON, October 23-26, 2008.

[1] Testing a Theoretical Model to Explain Community Service Use by Unpaid Caregiver of Persons with Dementia. Markle-Reid M, Kingston D, Forbes D, Henderson S, Browne G, Hawranik P, Morgan D, Leipert, B.

[2] The Perspectives of Rural Formal and Informal Caregivers on Community Dementia Services. Hawranik P, Forbes D, Morgan D, Leipert B, Markle-Reid M, Henderson S, Kingston D, Peacock S, Jansen L, Normand S.

[3] Enhancing In-home Care of Persons with Dementia: Perspectives of Formal Community Service Providers. Jansen L, Forbes D, Markle-Reid M, Hawranik P, Kingston D, Peacock S, Henderson S, Leipert B, Normand S.

[4] Role of home care in dementia care study: Lessons learned. Forbes D, Markle-Reid M, Hawranik P, Morgan D, Henderson S, Leipert B, Jansen L, Peacock S, Kingston D.

Forbes D, Jansen SL, Markle-Redi M, Hawranik P, Morgan D, Henderson S, Leipert B, Peacock S, Kingston D. How gender influences use of community-based services in persons with dementia. **Presented:** Alzheimer's Association International Conference on Alzheimer's Disease, Chicago, IL, July 26-31, 2008.

Forbes S, Forbes D, Morgan D, Markle-Reid M, Wood J, Culum I. Effects of physical activity programs on persons with dementia: A Cochrane review. **Presented:** Alzheimer's Association International Conference, Chicago, IL, July 26-31.

Forbes D, Markle-Reid M, Hawranik P, Peacock S, Kingston D, Morgan D, Henderson S, Leipert B, Jansen L, Normand S. What is needed to prevent dementia from causing a health and economic crisis: Perceptions of family caregivers. **Presented:** International Nursing Research Conference, Jerusalem, Israel, June 30 – July 3, 2008.

Gawaziuk J, Van Den Hurk J, Dosman J, Babiuk L, Gerdtz V. Protegrin-1 (PG-1) and sheep myeloid-associated peptide (SMAP-29) have broad antimicrobial activity *in vitro* and *in vivo*. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.77, Saskatoon, SK, October 19-23, 2008.

Goodridge D, Lawson JA, Marciniuk D, Rennie DC, Duggleby W. End of life care quality for patients with COPD and lung cancer: hospital days in the last 12 months of life and place of death. **Presented:** American Thoracic Society International Conference, American Journal of Respiratory and Critical Care Medicine, 177 Abstracts issue:A829, Toronto, ON, May 2008.

Hagel L, Pickett W, Pahwa P, Day L, Brison R, Marlenga B, Crowe T, Sodgrass P, Ulmer K, Dosman J. Saskatchewan farm injury cohort study 2: Prevention of agriculture injuries and the need for application of the full public health model. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.22, Saskatoon, SK, October 19-23, 2008.

Hawranik P, Forbes D, Morgan D, Leipert B, Markle-Reid M, Henderson S, Kingston D, Peacock S, Jansen L, Normand S. The perspectives of rural formal and informal caregivers on community dementia services. **Presented:** Canadian Association on Gerontology 37th Annual Scientific & Educational Meeting. London, ON, October 23-26, 2008.

Hossain A, Reeder BA, Janzen B, Pahwa P. Multilevel modeling technique and bootstrap variance estimation in longitudinal and cross-sectional complex survey datasets. **Presented:** Joint Statistical Meetings (JSM2008), Denver, Colorado, August, 2008.

Hossain A, Reeder BA, Janzen B, Pahwa P. Prevalence of type 2 diabetes and associated risk factors among Canadians: rural vs urban comparisons. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Saskatoon, SK, October, 2008.

Hawranik P, Forbes D, Morgan D, Peacock S. Rural caregiving and dementia. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

Karunanayake C, Pahwa P, Rennie D, Dosman J. Trends in prevalence of COPD, asthma and chronic bronchitis from 1983-2003 in a rural population: Humboldt Study. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Saskatoon, SK, October 19-23, 2008.

Karunanayake C, Pahwa P, Rennie D, Dosman J, McGuigan CF. The effects of genetic and environmental factors on longitudinal changes in pulmonary function values in a rural population: The Humboldt study. **Presented:** American Statistical Association, Joint Statistical Meetings, Denver, CO, USA, August 3-8, 2008.

Karunanayake CP, Pahwa P, Rennie D, Dosman JA. Predictors of longitudinal respiratory symptoms in a rural population: The Humboldt Study. **Presented:** CIHR-ICRH Young Investigators (YI) Forum, Montreal, PQ, May 8-11, 2008.

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Kiryuchuk S, Reynolds SJ, Koehncke NK, Lawson J, Willson P, Senthilselvan A, Marciniuk D, Classen HL, Crowe T, Dosman J. Levels of endotoxin and dust at respirable and non-respirable particle sizes are not consistent between cage and floor-housed poultry operations. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.13, Saskatoon, SK, October 19-23, 2008.

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Kirk A, Crossley M, Harder S, Basran J, Dal Bello-Haas V, Morgan D, Stewart N, D'Arcy C, Biem J, Forbes D, Holfeld L. Design of a multidisciplinary memory clinic using telehealth technology to serve a rural and remote population. **Presented:** XIth Congress of the European Federation of Neurological Societies, Madrid, Spain, August 25, 2008. European Journal of Neurology 15: Supplement 3:223, 2008.

Kirk A, Crossley M, Harder S, Basran J, Dal Bello-Haas V, Morgan D, Stewart N, Biem J, Forbes D, Holfeld L. Design of a multidisciplinary rural and remote memory clinic using telehealth technology. **Presented:** XLIIIrd Congress of the Canadian Neurological Sciences Federation, Victoria, BC, June 19, 2008. The Canadian Journal of Neurological Sciences, 35:2(S1): S38, 2008.

Kosteniuk J, D'Arcy C, Morgan D. Dimensions of continuing medical education as an information source: Findings from a study of Saskatchewan family physicians. **Presented:** Canadian Association of Continuing Health Education (CACHE), Toronto, ON, May 22-24, 2009.

Kosteniuk J, D'Arcy C, Morgan D. Rural physician experience with mood and anxiety disorders in family practice (with urban comparisons). **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

Kosteniuk J, D'Arcy C, Morgan D. What family physicians need to effectively diagnose and treat patients with mood and anxiety disorders. **Presented:** World Psychiatric Assoc., Epidemiology & Public Health Section Conference. Saskatoon, SK, May 11-14, 2008.

Lawson JA, Dosman JA, Rennie DC, Beach J, Newman S, Senthilselvan A. The effect of tobacco smoke exposure on the relationship between endotoxin and lung function in children and adolescents with or without asthma and wheeze. **Presented:** The Canadian Respiratory Conference, Canadian Respiratory Journal 15 (Suppl C): 48C; Montreal, PQ, June 2008.

Lawson JA, Dosman JA, Rennie DC, Newman S, Beach J, Senthilselvan A. Influence of age and endotoxin source on the relationship between endotoxin exposure and asthma and wheeze in children and adolescents. **Presented:** American Thoracic Society International Conference, American Journal of Respiratory and Critical Care Medicine, 177 Abstracts issue: A187; Toronto, ON, May 2008.

Lawson JA, Dosman JA, Rennie DC, Beach J, Newman S, Senthilselvan A. Associations between the environment and indicators of asthma severity among a primarily rural dwelling population of children and adolescents. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Book of Abstracts, p.27, Saskatoon, SK, October 19-23, 2008.

Lawson JA, Dosman JA, Rennie DC, Beach J, Newman S, Senthilselvan A. Gender differences in the association between endotoxin and tobacco smoke exposure related to respiratory outcomes among children. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Book of Abstracts, p.14, Saskatoon, SK, October 19-23, 2008.

Lilley R, Day L, Koehncke N, Pickett W, Dosman J, Hagel L & the Saskatchewan Farm Injury Cohort Study Team. Saskatchewan farm injury cohort study 4: The relationship between fatigue-related factors and injuries. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.23. October 19-23, 2008, Saskatoon, Canada.

Madani K, Reeder B, Pahwa P. Risk factors for the metabolic syndrome in Canadian adults. *Journal of Vascular and Diabetes Research.* **Presented:** 6th Annual World Congress on the Insulin Resistance Syndrome, 5(3): 219, 2008.

McNally JD, Leis K, Matheson LA, Sankaran K, Karunanayake C, Rosenberg AM. Vitamin D deficiency in young children with acute lower respiratory tract infection. **Presented:** The Canadian Critical Care Society Conference, Toronto, ON, November 11-13, 2008. [Great West Life Award for Best Oral Abstract Presentation. The Canadian Critical Care Society Conference, Toronto, ON (November 2008)].

Morgan D, Estabrooks C, Norton P, Stewart N, Teare G, Cammer A, Walls-Ingram S, Caulfield J. Examining context in long-term care: The Translating Research in Elder Care (TREC) program. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

Narasimhan G, Pickett W, Hagel L, Crowe TG, Dosman JA & the Saskatchewan Farm Injury Cohort Study Team. Machinery-related factors as determinants of traumatic injury on Saskatchewan farms. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.24, Saskatoon, SK, October 19-23, 2008.

Pahwa P, Nakagawa K, Koehncke N, McDuffie H. Effects of genetic polymorphisms and occupational exposure to canary seed dust on longitudinal decline in pulmonary function. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, October 19-23, 2008

Pahwa P, Karunanayake C, Rennie D, Chen Y, Schwartz DA, Dosman JA. Association of the Asp299Gly TLR4 polymorphism with lung function in relation to Body Mass Index. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Book of Abstracts, p.73, Saskatoon, SK, October 19-23, 2008.

Pahwa P, Karunanayake C, Rennie D, Dosman J, McGuigan CF. Relationship between Chronic Obstructive Pulmonary Disease and TLR4 polymorphism (Asp299Gly)-BMI interaction in a Canadian population. **Presented:** American Statistical Association, Joint Statistical Meetings, August 3-8, 2008, Denver, Colorado, USA.

Pahwa P, Karunanayake C, Rennie D, Dosman J, McGuigan CF. Relationship between Chronic Obstructive Pulmonary Disease and TLR4 polymorphism (Asp299Gly)-BMI interaction in a Canadian population. **Presented:** American Statistical Association, Joint Statistical Meetings, Denver, CO, USA, August 3-8, 2008.

Pickett W, Day L, Hagel L, Brison R, Marlenga B, Pahwa P, Koehncke N, Crowe T, Snodgrass P, Dosman J. Saskatchewan farm injury cohort study 1: Rationale and methodology. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.22, Saskatoon, SK, October 19-23, 2008.

Rennie DC, Senthilselvan A, Nakagawa K, Chen Y, Dosman J. Role of TLR Asp200Gly in the relationship between atopy and wheeze in children: The Humboldt studies. **Presented:** American Thoracic Society International Conference, San Diego, CA, USA. *American Journal of Respiratory and Critical Care Medicine*; 179: A5432. May 15-20, 2009.

Rennie DC, Dosman JA, Lawson JA, Karunanayake C, Pahwa P. Gender variation in activity tolerance in a population of Canadian adults: the Humboldt studies. **Presented:** The Canadian Respiratory Conference, Canadian Respiratory Journal 15 (Suppl C): 46C; Montreal, PQ, June 19-21, 2008.

Rennie DC, Lawson JA, Senthilselvan A. Childhood asthma, wheeze and lifestyle: What's the connection? **Presented:** American Thoracic Society International Conference, American Journal of Respiratory and Critical Care Medicine, 177 Abstracts issue: A714; Toronto, ON, May 2008.

Rennie DC, Chen Y, Lawson J, Dosman JA. Risk factors for asthma and wheeze in a school age population of rural children. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.90, Saskatoon, SK, October 19-23, 2008.

Rennie D, Dosman J, Senthilselvan A, Pahwa P, Karunanayake C, Schwartz D, Chen Y. Associations between TLR4 299 variant polymorphisms and wheeze/asthma in a general population. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.14, Saskatoon, SK, October 19-23, 2008.

Shah S, Melenchuk J, Koehncke N, Lim H, Gordon JR, Dosman J. Work-related musculoskeletal disorders in agriculture in Saskatchewan, 1996-2005. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.93, Saskatoon, SK, October 19-23, 2008.

Senthilselvan A, Dosman JA, Chenard L, Burch LH, Predicala B, Sorowski R, Schneberger D, Hurst T, Kirychuk S, Gerdtz V, Cormier Y, Rennie DC, Schwartz DA. Reduced respiratory response in TLR4 variants at high endotoxin exposure. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem Program and Book of Abstracts, p.12, Saskatoon, SK, October 19-23, 2008.

Voaklander D, Pickett W, Dosman J, Warsh J, Hagel L & the Saskatchewan Farm Injury Cohort Study Team. Saskatchewan farm injury cohort study 5: Farm work exposure of older male farmers in Saskatchewan. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.24, Saskatoon, SK, October 19-23, 2008.

Voaklander DC, Dosman J, Pickett W. Farm work exposure of older male farmers in Saskatchewan. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.49, Saskatoon, SK, October 19-23, 2008.

Willson PJ, Khozani TT, Juurlink BHJ, Senthilselvan A, Rennie DC, Gerdtz V, Dosman J. *In vitro* production of TNF-alpha by human monocytes stimulated with LPS is positively correlated with increased blood monocytes after exposure to a swine barn. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem, Book of Abstracts, p.54, Saskatoon, SK, October 19-23, 2008.

Willson PJ, Senthilselvan A, Chenard L, Predicala B, Schwartz D, Burch L, Rennie D, Dosman J. Effect of genetic variants and gender on serum TNF-alpha as a result of high dose endotoxin exposure. **Presented:** Sixth International Symposium: Public Health & the Agricultural-Rural Ecosystem. Book of Abstracts, p.16, Saskatoon, SK, October 19-23, 2008.

Wormsbecker K, Stewart N, Semchuk K, Morgan D. Registered nurses in rural and remote Canada: Satisfaction in nurse practitioner vs. non-nurse practitioner roles. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

Seven abstracts: Improving Access to Dementia Care: Development, Operation, and Evaluation of a Rural and Remote Memory Clinic. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Saskatoon, SK, October 19-23, 2008.

[1] Morgan D, Kirk A, Crossley M, Dal Bello-Haas V, Harder S, Basran J, Stewart N, D'Arcy C, Biem J, Forbes D, McBain L. The Rural and Remote Memory Clinic: An overview.

[2] Dal Bello-Haas V, Morgan D, Stewart N, Cammer A, Crossley M, Kirk A. Rural and remote dementia care challenges and needs: Formal and informal care provider perspectives.

[3] Crossley M, Holfeld L, Morgan D, Henry C. Pre-clinic teleconferencing prepares families and health professionals for a subsequent Rural and Remote Memory Clinic assessment.

[4] Cammer A, Morgan D, D'Arcy C, Stewart N. Does satisfaction matter? Evaluation interviews of a Rural and Remote Memory Clinic.

[5] McBain L, Morgan D, Crossley M, Kirk A, D'Arcy C, Stewart N, Biem J, Forbes D. Evaluating patient, caregiver, and telehealth coordinator responses to a telehealth-assisted Rural and Remote Memory Clinic.

[6] Holfeld L, Morgan D, Crossley M, Kirk A, Dal Bello-Haas V, Cammer C. Is a nurse necessary? The role of an RN in an integrated interprofessional Rural and Remote Memory Clinic.

[7] Kirk A, VanBuren W, Morgan D, Crossley M, Henry C. Utility of telehealth in following cognition in memory clinic patients from rural and remote areas.

Yang I, Dosman JA, Schwartz DA. Endotoxin responsiveness candidate genes: The rationale for choosing them. **Presented:** Sixth International Symposium: Public Health & the Agricultural Rural Ecosystem. Book of Abstracts, p.15, Saskatoon, SK, October 19-23, 2008.

Research Grants Received:

Gordon JR, Cockcroft D. *Research Group Development Grant. Airways Research Group.* Saskatchewan Health Research Foundation (SHRF). March 2009-March 2011. \$50,000/annum for two years.

Gordon JR. *Public Health in the Agricultural Rural Ecosystem.* CIHR Strategic Training Initiative in Health Research. April 2009- March 2014. \$325,000/annum for six years

Gordon JR. *Airways Research Group.* Saskatchewan Health Research Foundation Group Development Grant. 2009-11. \$100,000.

Gordon JR. Mechanisms mediating the effects of tolerogenic dendritic cells. Canadian Institutes of Health Research. 2008-13, \$675,000.

Gordon JR. *Sixth International Symposium: Public Health and the Agricultural Rural Ecosystem. Workshop Grant, Oct 19-23, 2008,* Saskatoon, SK. Canadian Institutes of Health Research, 2008. \$20,000.

Gordon JR. *ELR-CXC chemokines in bacterial inflammation.* NSERC Discovery Grant. 2008-09. \$30,000.

Gordon JR & Collaborators. *Saskatchewan Agricultural Producers Day.* Canadian Agricultural Safety Association Knowledge Translation Program. 2008, \$13,915

Gordon JR & Collaborators. Canadian Agricultural safety Association Knowledge Translation Program: National Program. 2008, \$30,000

Janzen B, Reeder B, Prekumar K, Backman A, Pahwa Punam. *Technology Enhanced Learning (TEL) projects for Course Development Grant.* 2008-2009 \$128,000

Janzen B, Semchuk K, Prekumar K, Backman A, Pahwa P. *Technology Enhanced Learning (TEL) projects for Course Development Grant.* 2009-2010. \$128,000

Kiryuchuk, S. *Cardiovascular disease risk in swine confinement workers with chronic respiratory symptoms.* College of Medicine. New Faculty Start-up Funds. January 2009-January 2011. \$35,000.

Kiryuchuk, S. *Characterizing the constituents of dusts: specific emphasis on poultry, swine and house dusts.* CIHR-Canadian Centre for Health and Safety in Agriculture – Centres for Research Development Grant – Pilot Project January 2009- January 2010. \$20,000.

Kiryuchuk, S. *New faculty equipment funds.* University of Saskatchewan, VP Academic and Provost. January 31, 2009- January, 2012. \$15,000

Koehncke N, Pahwa P. *Longitudinal analysis of lung function data in a Saskatchewan potash mine.* 'BC Workers' Compensation Board. 2008-2009. \$30,000

Lee B, Gordon JR, Rennie D, Koehncke N, Pahwa P, Dosman JA, de Freitas S, & Collaborators. *Sixth International Symposium: Public Health and the Agricultural Rural Ecosystem. Oct 19-23, 2008,* Saskatoon, SK. National Institute for Occupational Safety and Health (U.S.) grant. 2008, \$55,511

Morgan D. *CIHR applied chair in health services & policy research, healthcare delivery across the continuum for rural and remote seniors with dementia,* \$925,000. Canadian Institutes of Health Research in partnership with Saskatchewan Health Research Foundation. Awarded October 2008 for 5-year period March 1, 2009 to April 30, 2014.

Morgan D. *Quality of life in early stage dementia: longitudinal analysis of patient and family caregiver ratings.* College of Medicine Summer Student Research Project, University of Saskatchewan. 2008. \$4,251

Schmaltz H, Silvius J, Hogan D, McCulloch K, Gilbert K, Jennett P, Watanabe M, Morgan D, Robertson D, Bexfield D, Rolfson D, Perrier L, Khandwala F, Straus S. *Improving the care of older adults through optimal use of telehealth.* Medical Services Incorporated Foundation, Edmonton, AB. Funded Aug 2008. \$49,994.

Continuing Research Grants:

Chilibeck P, Whiting S, Biem J, Case A, Pierson R, Olatunbosun O, Pahwa P. Effect of Combined Exercise Therapy and Phytoestrogen Supplementation on Prevention of Osteoporosis. Funded by: Canadian Institutes of Health Research, March 2004-2009.

Dosman JA and Collaborators. Canada Foundation for Innovation. National Agricultural Industrial Hygiene Laboratory. 2007-12. 14.6M (CFI contribution, 5.8M).

Dosman J, Pahwa P, Rennie D, Senthilselvan A, Lawson J, Kiryuchuk S, Gordon J, Pitblado R, Dyck R, Jensen B, Pickett W. Saskatchewan Rural Health Study. Funded by Canadian Institutes of Health Research (CIHR) 1.7M, 2008-2014.

Estabrooks C, Cummings G, Degner L, Dopson S, Laschinger H, Leiter M, Morgan D, Norton P, Profetto-McGrath J, Rycroft-Malone J, Smith M, Sales A. Translating Research in Elder Care (TREC). Canadian Institutes of Health Research, Canadian Institutes of Health Research. Awarded January 2007.

Katamayzk P, Reeder B, Elliot S, Raine K, Joffres M, McLean D, Pahwa P. Understanding the Individual and Socio-Environmental Health Risks of Obesity: The Canadian Heart Health Surveys Follow-up Study. CIHR, 2004-2009.

Morgan D, Stewart N, Crossley M, D'Arcy C, Biem J, Kirk A. (Co-Investigators). CIHR New Emerging Team (NET) "Strategies to Improve the Care of Persons with Dementia in Rural and Remote Areas. Canadian Institutes of Health Research and partners (Saskatchewan Health Research Foundation, University of Saskatchewan, Alzheimer Society of Saskatchewan), 2003-2009.

Awards: Faculty, Students & Staff



Dr. Debra Morgan was awarded a 5-year CIHR-SHRF funded Chair in Health Services and Policy Research for the Program Health Care Delivery across the Continuum for Rural and Remote Seniors with Dementia. Only 7 Chairs were awarded this year in Canada.



Dr. Niels Koehncke was awarded the 2009 Excellence in Teaching Award by the School of Public Health Students Association.



Dr. James A. Dosman was named one of the University of Saskatchewan "100 Alumni of Influence". This award recognized the ways in which U of S graduates worldwide have contributed to enriching the province, the country, and the world and, how their contributions impact the profile and reputation of the University.

Annual Report compiled and edited by Sueli B. de Freitas



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