

# 2016-17 Annual Report

#### **Mandate**

Saskatchewan Health Research Foundation (SHRF) was established by an act of legislature in 2002. The mandate provided to SHRF by the Government of Saskatchewan is to:

- · Seek and receive funding to support health research
- · Encourage and facilitate health research
- Assist the Minister of Health in developing a provincial strategy
- Fund research according to the strategy
- Disseminate information about funded research

#### **Vision**

By 2021, SHRF will have led the establishment of a vibrant culture of health research and innovation for a stronger Saskatchewan.

#### Mission

SHRF leads strategic investments in high-impact, peer-reviewed health research aligned with provincial needs; builds and broadens Saskatchewan's health research and innovation capacity; and facilitates the use of health research findings for informed decision-making at all levels, from the individual to care providers to policy-makers.

#### **Values**

## **Excellence:**

SHRF's activities and investments serve as the catalyst for excellence in health research and innovation.

#### **Collaboration:**

SHRF's activities and investments facilitate the creation of partnerships among researchers, health care providers, patients and families, communities, not-for-profits and industry that support the creation and adoption of new knowledge and health innovations.

#### **Transparency and Accountability:**

SHRF's decision-making and business processes are open and accessible. We provide unbiased, peer-reviewed processes; evaluate and measure the impact of the research we fund; and report publicly on developments in health research across the province.

## **Efficiency and Effectiveness:**

SHRF's lean organization allows it to be flexible and nimble in responding to the health research and innovation priorities of Saskatchewan, and to ensure that we meet the needs of our stakeholders and funders.

#### **SHRF Team**

#### PATRICK ODNOKON

Director of Impact and Evaluation/ Interim CEO (as of January '17)

#### HEATHER MAGOTIAUX

Chief Executive Officer (until January '17)

#### LUAN NEUFELD

Executive Assistant (until February '17)

#### LINA KAZAN

Director of Finance

#### IRENE BLUM

Senior Accountant

#### KAREN GLAZEBROOK

Director of Funding Programs

#### DANIELLE ROBERTSON-BOERSMA

Funding Programs Officer

#### TANYA SKOROBOHACH

**Programs Coordinator** 

#### RICHARD KIES

Director of Communications and Outreach (as of September '16)

#### **N**IKKI **D**ESJARDINS

Communications and Outreach Officer

## PAMELA RIFFEL

Communications Coordinator

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# **Letter of Transmittal From the Minister Responsible for Innovation**



Her Honour, the Honourable Vaughn Solomon Schofield, Lieutenant Governor of Saskatchewan

May it Please Your Honour:

I respectfully submit the annual report of Saskatchewan Health Research Foundation for the fiscal year ending March 31, 2017.

Honourable Jeremy Harrison Minister Responsible for Innovation

# **Letter of Transmittal From the Board Chair**



The Honourable Jeremy Harrison Minister Responsible for Innovation

Dear Sir:

I am pleased to submit for your consideration the annual report of Saskatchewan Health Research Foundation for the fiscal year period April 1, 2016, to March 31, 2017.

Respectfully submitted,

Don Somers, PhD Board Chair

## **Letter From the Board Chair**

Saskatchewan's commitment to health research dates back to 1979 with the establishment of the Saskatchewan Health Research Board. From those first grants awarded in 1980, through the creation of SHRF in 2002 and up to today, SHRF has been working to create a vibrant culture of health research and innovation.

It's commonplace for an organization to be influenced by its environment, and the health research landscape is no exception. SHRF's strength was demonstrated in its ability to adapt to its surroundings while the research environment faced both change and growth.

We have seen changes at the federal level, including changes in leadership, funding mechanisms and peer review processes at the Canadian Institutes of Health Research (CIHR). Provincially, there is a substantive reshaping of the health care structure underway.

SHRF said goodbye to our CEO Heather Magotiaux, who moved on to a new leadership role in post-secondary education. The Board thanked Ms. Magotiaux for her contributions as CEO and was pleased to appoint Patrick Odnokon, Director of Impact and Evaluation, as Interim CEO while an executive search is conducted.

While this change occurred, SHRF continued to move forward. Growth was evident in SHRF's participation in patient-oriented research partnerships and support for our Saskatchewan Research Chair programs. We are prepared for continued growth in these areas, as well as in our work to build research capacity, advance knowledge and communicate the health and socioeconomic impacts of the important work we fund. Establishing partnerships is one of SHRF's greatest strengths and is a key activity we will focus on in the year ahead, to help build and broaden Saskatchewan's health research and innovation capacity.

SHRF is in a strong position to accomplish great things. The Board of Directors is confident in the abilities and enthusiasm of the SHRF team to lead in these times of change and growth. I would like to thank and commend SHRF's staff and management for their on-going dedication and commitment to operational excellence. I also thank our Board of Directors for their commitment of time and expertise to help move SHRF's mandate forward.

Don Somers, PhD Board Chair

## **Letter From the CEO**

This past year SHRF nimbly addressed changes to the health research environment with new initiatives, continued improvements to our research impact evaluation and communication efforts, and by working with our partners to collectively impact the health of Saskatchewan people.

In addition to the third Collaborative Innovation Development (CID) grant funding competition, SHRF awarded our first targeted call for patient-oriented research, a strategic area of focus both provincially and nationally. As an actively engaged partner in the development of the Saskatchewan Centre for Patient-Oriented Research (SCPOR), patient-oriented research will continue to be a focus of SHRF in the years ahead.

SHRF continued to measure, evaluate and communicate the impact of our investments in 2016-17. Demonstrating the impact of research on seniors' health and measuring the return on investment of our CID funding program are just two examples of the leading-edge work SHRF accomplished this year.

SHRF is thankful for the opportunity to collaborate with many partners in our efforts to achieve our vision of a vibrant culture of health research and innovation. In January 2017, we were able to realize that collective impact through the appointment of the inaugural Saskatchewan Research Chair in Multiple Sclerosis (MS) Clinical Research. This new Research Chair was the result of many years of hard work and collaboration between the Saskatoon City Hospital Foundation, MS Society, the University of Saskatchewan and SHRF, and is just one example of how SHRF's investments can leverage support from partners to build world-class health research capacity here in Saskatchewan.

I would like to take this opportunity to thank our volunteer peer reviewers who ensure that within our long-standing programs and new initiatives, we invest in the highest quality health research. To our newly funded researchers and our SHRF alumni, we sincerely appreciate the work you do in building the capacity of our health research community and advancing our collective knowledge through your research. Lastly, thank you to our stakeholders for your support and collaboration, to our Board members for your strategic guidance, and to SHRF staff for driving our vision forward to fund research that matters.

Patrick Odnokon

Interim Chief Executive Officer

# **Agency Overview**

SHRF's commitment to providing high-quality, peer-reviewed processes for health research that is responsive to provincial needs, its focus on accountability and impact, and its emphasis on partnerships and collaboration, enable Saskatchewan health researchers to place themselves among the world's best, allowing the province to be a global leader in creating and adopting new health innovations.

## Governance

SHRF's activities are guided by a board of directors whose membership is appointed by the Lieutenant Governor in Council. Membership can be drawn from the health research community, government, health delivery system, business and public at large.

Membership consists of not more than 12 members who hold office for a term not exceeding three years, renewable once. Each Board member also serves one of two current standing committees – Governance, and Finance and Audit.

A Governance Framework and Policies document sets out the Board's governance philosophy, its processes and policies for managing the affairs and business of SHRF. In 2016-17, a total of four board meetings were held. Figures in brackets indicate the number of meetings each board member attended.

#### 2016-17 Board of Directors

**Don Somers (Chair) (4)**Private Business, Consulting

PETRINA McGrath (VICE CHAIR) (3.5)

Saskatoon Health Region

JANE ALCORN (2)

University of Saskatchewan

Brent Brownlee (3)

Ministry of Advanced Education

**JOSEF BUTTIGIEG (3.5)**University of Regina

Tami Denomie (3) Ministry of Health

CECILE HUNT (2)

Prince Albert Parkland Health Region

David Katz (4)\*

Innovation Saskatchewan

VIVIAN RAMSDEN (4)

University of Saskatchewan

ROBERT SHELDON (2)
University of Calgary

JOHN THIEL (2)

University of Saskatchewan

JOE VIDAL (1)

Bioriginal Food and Science Corp.

<sup>\*</sup>As per Order in Council on March 30, 2017, Danya Kordan was appointed following David Katz's retirement.

## Year at a Glance

2016-17 was a year of opportunity and growth. SHRF experienced a change in leadership and welcomed new employees and Board members to the organization. SHRF continued to offer long-standing funding programs, and saw growth with a new Saskatchewan Research Chair and funding stream targeted at patient-oriented research. Work was conducted throughout the fiscal year to revamp the Research Connections grant program, which provides matching funds of up to \$10,000 to support short-term, targeted knowledge mobilization initiatives (such as events and outreach activities). Through these changes, which will be fully implemented in the 2017-18 fiscal year, SHRF will become a leader in supporting researchers to mobilize and share knowledge in new and novel ways, potentially reaching newer and larger audiences and, ultimately, creating greater impact on local and global health.

What has remained constant is SHRF's commitment to building a vibrant culture of health research and innovation that is responsive to provincial needs, focuses on accountability and impact, and emphasizes partnerships and collaboration. This commitment enables Saskatchewan health researchers to place themselves among the world's best, allowing the province to be a global leader in creating and adopting new health innovations.

SHRF's 2016-17 Annual Report provides highlights of activities in the following areas:

- · Peer Review;
- Investing in Research;
- Impact and Evaluation;
- · Communications and Outreach; and
- · Financial Statements.

## **Peer Review**

Applications received for SHRF research funding competitions are subject to a rigorous peer review process. SHRF recognizes the value and importance that peer review plays to ensure that funding is awarded to the most meritorious applications.

Committees of active researchers and health professionals are recruited by SHRF to sit on review committees. Reviewers prepare in-depth assessments based on program criteria and use a rating scale of excellence to assess research proposals. In general, peer review considers the following questions:

- Is it relevant and original?
- Is it feasible and ethical?
- Does it adhere to the objectives and priorities of the funding program?
- Does the researcher or team have the expertise and support to conduct the research?

Committees meet to discuss, rate and rank all applications, with those receiving the highest scores recommended for funding. SHRF's Board of Directors reviews the committees' recommendations and offers grants and awards to as many recommended applicants as resources permit.

Peer review for programs where SHRF is partnering with other funding agencies may be done by the other agency, as long as SHRF requirements are met.

Our volunteer reviewers are not only instrumental in evaluating proposals and providing feedback to applicants; they also provide valuable insight to SHRF about procedures, programs, practices and trends in the health research community.

#### **Peer Review Evaluations**

SHRF conducts evaluations of the peer review process following all funding competitions. The following survey highlights are from reviewers for this year's Collaborative Innovation Development (CID) competition:

- 90% "Agreed" or "Strongly Agreed" that the review criteria used for evaluating grants was appropriate.
- 100% "Agreed" or "Strongly Agreed" that the review meeting format was efficient and facilitated appropriate discussion.
- 100% "Agreed" or "Strongly Agreed" that their workload as a committee member was reasonable.
- 100% "Agreed" or "Strongly Agreed that communications with SHRF staff were positive and helpful.

This survey process confirms that SHRF's peer review process is robust and that volunteer reviewers enjoy participating in the process. Their feedback and recommendations also help SHRF build upon a strong foundation of best-practices in policies and procedures.

## 2016-17 Peer Review Committee Membership

Committee membership is typically for a three-year term. In 2016-17, the following peer reviewers provided their expertise. Figures in parenthesis indicate number of years served, including current year.

#### **BIOMEDICAL ESTABLISHMENT GRANT REVIEW COMMITTEE**

## Keith Bonham (Chair) (4)

Saskatchewan Cancer Agency

#### Andrew Cameron (2)

Biology

Science

University of Regina

#### LINDA CHELICO (3)

Microbiology and Immunology

Medicine

University of Saskatchewan

#### ALI HONARAMOOZ (3)

Veterinary Biomedical Sciences Western College of Veterinary Medicine

University of Saskatchewan

#### KIRK McManus (2)

Research Institute in Oncology and

Hematology

University of Manitoba/Cancer Care Manitoba

#### **BOGDAN POPESCU (1)**

Anatomy and Cell Biology

Medicine

University of Saskatchewan

#### HEATHER WILSON (1)

Vaccine and Infectious Disease Organization - International Vaccine Centre

## **BIOMEDICAL RESEARCH FELLOWSHIP REVIEW COMMITTEE**

THOMAS FISHER (CHAIR) (2)

Physiology Medicine

University of Saskatchewan

Mohan Babu (2)

Chemistry and Biochemistry Science

University of Regina

JANET HILL (1)

Veterinary Microbiology Western College of Veterinary Medicine

University of Saskatchewan

SCOT LEARY (3)

Biochemistry Medicine

University of Saskatchewan

HELEN NICHOL (3)

Anatomy and Cell Biology

Medicine

University of Saskatchewan

SURAJ UNNIAPPAN (1)

Veterinary Biomedical Sciences Western College of Veterinary Medicine

University of Saskatchewan

Franco Vizeacoumar (1)

Oncology Medicine

University of Saskatchewan

AARON WHITE (2)

Vaccine and Infectious Disease Organization -

International Vaccine Centre

JIAN YANG (1)

Pharmacy and Nutrition

University of Saskatchewan

## SOCIO-HEALTH, SYSTEMS & CLINICAL ESTABLISHMENT GRANT AND RESEARCH FELLOWSHIP REVIEW COMMITTEE

COLLEEN DELL (CHAIR) (1)

Sociology Arts and Science

University of Saskatchewan

CAROL BULLIN (1)

Nursing

University of Saskatchewan

Paul Bruno (1)

Kinesiology and Health Studies

University of Regina

TODD DUHAMEL (1)

Kinesiology and Recreation Management

University of Manitoba

RACHEL ENGLER-STRINGER (3)

Community Health and Epidemiology Medicine

University of Saskatchewan

CHRISTOPHER HERGOTT (1)

Respiratory Medicine Cumming School of Medicine

University of Calgary

SHELLEY KIRYCHUK (1)

Canadian Centre for Health and Safety in Agriculture

Medicine

University of Saskatchewan

Joshua Lawson (3)

Canadian Centre for Health and Safety in

Agriculture

Medicine

University of Saskatchewan

ANNE LEIS (1)

Community Health and Epidemiology

Medicine

University of Saskatchewan

LYNN LOUTZENHISER (1)

Psychology

Arts

University of Regina

ELIZABETH QUINLAN (1)

Sociology

Arts and Science

University of Saskatchewan

#### TARGETED SPOR COLLABORATIVE INNOVATION DEVELOPMENT GRANT REVIEW COMMITTEE

ALEX CLARK (CHAIR) (3)

Nursing

University of Alberta

LESLEY BAINBRIDGE (1)

Rehabilitation Services University of British Columbia JAYNE HOLROYD-LEDUC (1)

Medicine and Community Health Sciences University of Calgary

BOHDAN NOSYK (1)

Health Sciences Simon Fraser University DEBORAH RADCLIFFE-BRANCH (1)

Neurology and Neurosurgery

Medicine

McGill University

GRACE WARNER (1)

Occupational Therapy Dalhousie University

## **COLLABORATIVE INNOVATION DEVELOPMENT GRANT REVIEW COMMITTEE**

## RACHELLE ASHCROFT (CHAIR-SOCIO-HEALTH, Systems & Clinical) (3)

Social Work

University of Toronto

## LEIGH ANNE SWAYNE (CHAIR-BIOMEDICAL) (3)

**Medical Sciences** University of Victoria

#### JOAN ALMOST (3)

Nursing Health Sciences Queen's University

#### SILVIA CARDONA (2)

Microbiology and Medical Microbiology University of Manitoba

#### VALERIE CHAPPE (2)

Physiology and Biophysics Dalhousie University

#### BRIAN CHRISTIE (3)

**Medical Sciences** University of Victoria

#### JEAN-PHILIPPE GOUIN (1)

Psychology Arts and Science Concordia University

#### MICHAEL JONZ (2)

Biology Science

University of Ottawa

#### ETIENNE LEYGUE (3)

Research Institute in Oncology and Hematology University of Manitoba/Cancer Care Manitoba Pharmacology and Therapeutics

#### Marion Maar (2)

Northern Ontario School of Medicine Laurentian University

## Paola Marignani (1)

Biochemistry and Molecular Biology Medicine Dalhousie University

## Maria Mathews (2)

Health Policy/Health Care Delivery Memorial University of Newfoundland

## Amanda Newton (3)

Pediatrics Medicine and Dentistry University of Alberta

#### MICHAEL NOSEWORTHY (2)

Electrical and Computer Engineering McMaster University

#### ALISON NOVAK (3)

Toronto Rehabilitation Institute

#### FIONA PARKINSON (1)

Max Rady College of Medicine University of Manitoba

#### SHERI LYNN PRICE (3)

Nursina

Dalhousie University

#### TABREZ SIDDIQUI (1)

Physiology and Pathophysiology University of Manitoba

#### SANDRA WEBBER (1)

Medical Rehabilitation University of Manitoba

## STEPHANIE WILLERTH (1)

Mechanical Engineering Medical Sciences University of Victoria

# **Investing in Research**

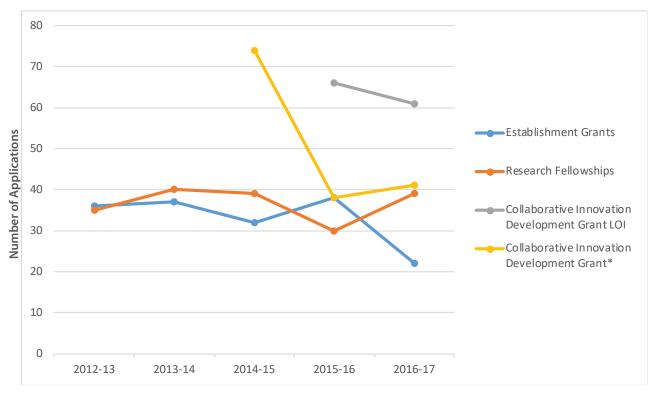
Funding world-class health research is at the core of what we do. In 2016-17, SHRF executed a varied suite of funding programs designed to support researchers at all stages of their careers to innovate and collaborate for the benefit of Saskatchewan people.

#### **Programs Overview**

SHRF's grants and awards are intended to achieve the following goals:

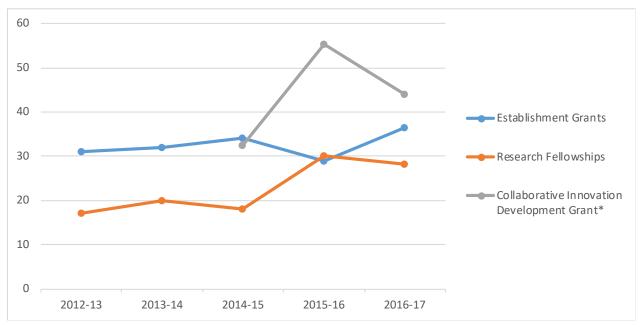
- Recruit best-in-class researchers
- Train and support next-generation researchers
- · Enable knowledge translation
- Focus on innovation, new ideas and applications
- Address long-term needs specific to Saskatchewan

## **Demand by Program and Year**



<sup>\*</sup> Decrease due to introduction of LOI process

## **Percent Success Rates by Program and Year**



<sup>\*</sup> Calculation does not include LOI applications that did not go forward

## Applications Received, Recommended and Awarded 2016-17

SHRF Program	Red	ceived	Rec	ommended		Awarded	*
						Term	
	No.	\$	No.	\$	N	o. (yrs)	SHRF \$
Collaborative Innovation Development							
Grants **	41	1,907,489	27	1,288,299	1	8 1	849,154
Targeted SPOR Collaborative Innovation							
Development Grants***	13	926,957	7	489,320		5 2	340,998
Establishment Grants	22	2,298,654	8	916, 941		8 3	916,941
Research Fellowships	39	3,900,000	27	2,700,000	1	1 2	1,100,000
Research Connections Grants	15	74,401	14	64,401	1	4	64,401
Total	130	9,107,501	83	3,028,961	5	6	3,271,494

<sup>\*</sup>Awarded amounts are for the full term of the grant

#### **Establishment Grants**

The purpose of the Establishment grant program is to assist new health researchers in building a program of research in the province and achieving the productivity necessary to obtain major funding from national and other external agencies.

The following are	the eight recipients of 2016-17	Establishment Grants:
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#### **JEFFREY CHEN**

Vaccine and Infectious Disease Organization - Psychology International Vaccine Centre

University of Saskatchewan

Towards a Porcine Model of Tuberculosis

Aerosol Transmission

#### **CHRISTOPHER ESKIW**

Food and Bioproduct Sciences Agriculture and Bioresources University of Saskatchewan

The Impact of Amino Acid Depletion and Metformin Treatment on Hutchinson Gilford Progeria Syndrome Genome Function and

Structure

## **CHARITY EVANS**

Pharmacy and Nutrition University of Saskatchewan

Establishing the Incidence and Prevalence of Multiple Sclerosis in Saskatchewan

#### JENNIFER GORDON

Arts

University of Regina

Estradiol Variability and the Emergence of Depressive Symptomatology During the

Menopause Transition

## TARUN REDDY KATAPALLY

Johnson-Shoyama Graduate School of Public Policy University of Regina Smart Active Living Policy

#### LISSA PEELING

Surgery Medicine

University of Saskatchewan

A Novel, High-Resolution, In Vitro Technique to Assess Hemodynamic Flow in Cerebral

Aneurysms

#### **CHRISTOPHER PHENIX**

Chemistry Arts and Science

University of Saskatchewan

PET Imaging GBA1 Activity, a Potential Marker of Early Parkinson's Disease

## KISHOR WASAN

Pharmacy and Nutrition University of Saskatchewan

Chronic In Vivo Study of lanthanide Compounds in an Osteoporosis Model (OVX Rat) for the Treatment of Bone Density

Disorders

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<sup>\*\*61</sup> Letters of Intent were received and 47 were recommended to submit a full application

<sup>\*\*\*26</sup> Expressions of Interest were received and 15 were deemed relevant and invited to submit a full application

## **Research Fellowships**

The Research Fellowship program is intended to advance the research career development of the award holder and to enhance the research productivity of the supervising Saskatchewan university faculty member. It provides financial support to high-quality candidates for a period of postdoctoral research in a health-related field under the supervision of an experienced, active researcher. These awards are intended to support recipients in becoming independent investigators.

## The following are the 11 recipients of 2016-17 Research Fellowships:

#### AMR EL ZAWILY

Andrew Freywald (Lead Supervisor) Pathology and Laboratory Medicine Medicine

University of Saskatchewan

Targeting Resistance to Anti-EphA2 Treatment in Breast Cancer

#### ALLA GAGARINOVA

Miroslaw Cygler (Lead Supervisor)

Biochemistry

Medicine

University of Saskatchewan

Elucidating the Roles of Pathogen Virulence Factors in Subverting Host Cell Processes

#### LAYLA GOULD

Michael Kelly (Lead Supervisor)

Jonathan Farthing (Supervisor)

Surgery

Medicine

University of Saskatchewan

Assessing the Neurobiology of Motor Recovery After Stroke With and Without Cross-Education Rehabilitation

## KIMBERLY JETT

Scot Leary (Lead Supervisor)

Biochemistry

Medicine

University of Saskatchewan

Functional Genetic Investigation of a Novel Inter-Organ Signaling Pathway Critical to Integrity of the Immune System

#### SERENE KERPAN

Sylvia Abonyi (Lead Supervisor) Sarah Oosman (Supervisor) Community Health and Epidemiology

Medicine

University of Saskatchewan

Bringing Together Physical Activity and Culture to Promote Mental Health for Indigenous Youth

#### KEITH MACKENZIE

Andrew Cameron (Lead Supervisor)

Biology

Science

University of Regina

Molecular Epidemiology and Functional Genomic Discovery of Pathogenicity Factors in Community-Acquired MRSA in Saskatchewan First Nations Communities

#### LESLIE MALLOY-WEIR

Debra Morgan (Lead Supervisor)

Canadian Centre for Health and Safety in

Agriculture

Medicine

University of Saskatchewan

Development and Pilot Testing of a Decision Aid for Dementia Patients in Long-Term Care in Saskatchewan and their Surrogate Decision Makers

#### RAMY MALTY

Mohan Babu (Lead Supervisor) Chemistry and Biochemistry

Science

University of Regina

Deciphering the Mechanistic Role of Newly Identified Mitochondrial Interactions in Parkinson's Disease

#### WENDIE MARKS

John Howland (Lead Supervisor)

Physiology

Medicine

University of Saskatchewan

Behavioural and Neural Network Comorbidities of a Psychiatric Phenotype in a Rat Model of Absence Epilepsy: Effects of the T-Type Calcium Channel Blocker Z944

#### ARASH PANAHIFAR

David Cooper (Lead Supervisor)

Anatomy and Cell Biology

Medicine

University of Saskatchewan

Understanding the Role of Subchondral Angiogenesis and Bone Turnover in Progression of Osteoarthritis

#### Marcus Yung

Catherine Trask (Lead Supervisor) Stephan Milosavljevic (Supervisor)

Canadian Centre for Health and Safety in

Agriculture

Medicine

University of Saskatchewan

Shaken, and Stirred: Exploring the Bonds Between Whole Body Vibration and Human

Performance

One 2015-16 Research Fellow received the salary top-up award this year in lieu of full SHRF funding due to success at the national level.

#### CHANTAL KAWALILAK

Mechanical Engineering

Engineering

University of Saskatchewan

Optimizing In Vivo Assessments of Cortical Bone Porosity and Strength: A Validation Study Linking Advanced Imaging, Mechanical Testing and Finite Element Modeling

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## When Coping Strategies Aren't Enough in a Highly Pressured and Complex Environment

"I remember talking with one nurse manager in an acute facility and asking her what it was like being a nurse manager on her unit. She began to cry," describes Dr. Sonia Udod. "That's a strong reason to undertake this research."

Dr. Sonia Udod, Assistant Professor in the College of Nursing at the University of Saskatchewan, began her research as a 2013-14 SHRF Establishment Grant recipient during a time of high turnover for nurse managers in Saskatchewan's acute care health system. Little research had been done in Canada in the areas of stress and the coping mechanisms of nurse managers in this setting. With the help of SHRF funding, Udod and her team have shed light on the top role stressors and coping strategies of nurse managers.

#### Top Role Stressors

- 1. Senior Management's Disconnection from Practice Understanding what nurse managers face in their everyday work practice.
- 2. Working with Limited Resources Referring to budget and human resources, and the idea of time scarcity.
- 3. Fragile Interpersonal Relationships Focusing on the pressure that staff feel when they're forced to deal with change without resources in place.

## Top Coping Strategies

- 1. Planful Problem Solving This includes being aware and being proactive.
- 2. Reframing Situations This is a psychological process that involves reflecting, reorienting and reconciling situations as a way to downplay anxiety and fear.
- 3. Having Social Support This comes from all directions, including directors, colleagues, family and friends.

A major finding of Dr. Udod's research is that the nurse manager is the person who creates and sustains a healthy work environment for the unit.

A nurse manager's efforts are compromised due to overwhelming stressors that extend beyond the top three mentioned earlier to include adherence to changing policies and standards, meeting union agreements and the introduction of new nitiatives, such as the Lean management system. Increasing patient needs, such as patients facing comorbidities, the fact that people are living longer, or that they may have to travel a long way for care, add to the stress of nurse managers.

Nurse managers want to do meaningful work, which is important for senior leaders. However, nurse managers face huge organizational stressors, and coping strategies aren't always enough given the intensity of their role in the delivery of effective health care.

As Saskatchewan's acute care health system faces another wave of nurse manager turnover, and with the impending amalgamation of health regions in the province, the onus will be on the organizations to decrease the number of stressors and reduce chronic stress that can affect long term health when the ability to cope is not enough.

Dr. Udod and her team continue to find ways to share their results with nurse managers and senior leadership in Saskatchewan's acute care health system to improve not only the work environment, but to affect positive patient outcomes.

## **Collaborative Innovation Development Grants**

SHRF offered two Collaborative Innovation Development (CID) Grant opportunities to teams of health researchers this past year, one open call and one targeted to patient-oriented research.

The purpose of the CID Grant program is to provide seed money to support collaborative, interdisciplinary and innovative research activities that represent the first steps toward pursuit of more comprehensive funding. SHRF funding is intended to foster creativity, novelty and innovation in research that has potential to benefit the health of Saskatchewan residents and strengthen future funding applications. Ideas are supported by a sound rationale and feasible experimental plan, but not necessarily preliminary data.

In 2016, SHRF released its strategic plan for the next four years, "Saskatchewan's Future in Health Research and Innovation." The CID program advances SHRF's strategic priorities of supporting collaborations involving researchers, industry partners and end-users, addressing provincial health needs, mobilizing knowledge and maximizing return on provincial research investments.

## The Value of SHRF's Seed Funding

SHRF developed the Collaborative Innovation Development (CID) Grant program, first awarded in 2014-15, with the intention of providing Saskatchewan researchers with the initial seed funding to move their innovative ideas from concept to reality. This seed funding is often what is needed to take those initial steps to develop the needed evidence to secure further funding and grow an effective team.

In 2016-17, one of our first CID recipients received much media attention for his project, which will assess the safety and appropriate dosage of cannabidiol (CBD), a compound found in marijuana extract with no known psychoactive effect, for children who have frequent and difficult to control seizures. Given that marijuana has been a controlled substance, current understanding and scientific evidence of this incredibly complex plant does not provide enough insight into the over 100 different cannabinoids that are potentially neurologically active.

Dr. Richard Huntsman, a pediatric neurologist at the University of Saskatchewan, and his team's work comes at a time of huge demand from desperate parents who are finding limited benefit from available treatments that often have significant side-effects. With recent reports in medical and social media turning attention to medical marijuana products for the treatment of seizures in children, it adds to the urgency to have a solid scientific understanding of the effects and any safety concerns with administering this kind of treatment in children.

Dr. Huntsman's team includes world experts in pediatric epilepsy research with clinical, technical and basic science expertise. From SHRF's initial CID seed funding of \$28,600, the team has secured more than \$350,000 from other sources. With this additional funding in place, Dr. Huntsman's team is set to carry out their research and begin recruiting children for this potentially life-changing study.

"We wouldn't have gotten to where we are without [SHRF's] initial support," says Dr. Huntsman. "When we started recruiting our first patients in Saskatoon last month, the excitement of their parents and families to be able to have their children take part in this study was incredible. As a team, this is what inspires us to do this type of research."

## The following are the 18 recipients of 2016-17 CID Grants:

#### G. CAMELIA ADAMS

Psychiatry Medicine

University of Saskatchewan

The Relationship Between Attachment, Recidivism and Treatment in Forensic Patients with Mental Illness

#### JOHN BARDEN

Kinesiology and Health Studies University of Regina

Evaluation of Gait Variability in Individuals with Relapsing-Remitting MS Using an iOS Gait Variability App

#### SHADI BESHAI

Psychology

Arts

University of Regina

Does Matching Treatment Rationale with Individuals' Explanatory Models of Depression Improve Perceptions of Cognitive-Behavioural Therapy for Depression?

## VERONICA CAMPANUCCI

Physiology Medicine

University of Saskatchewan

Mechanisms Underlying Autonomic Neuropathy in Cystic Fibrosis

## FRANCISCO CAYABYAB

Surgery

Medicine

University of Saskatchewan

Therapeutic Potential of Novel Dimer Drugs in a New Rat Model of Parkinson's Disease

#### XIONGBIAO (DANIEL) CHEN

Mechanical Engineering Engineering

University of Saskatchewan

CFD-Based Visualization of Cerebral Aneurysms Treated with Flow-Diverting Stents

#### Andrew Freywald

Pathology and Laboratory Medicine Medicine

Unversity of Saskatchewan

Research Study to Initiate a Clinical Trial for Targeting Synthetic Lethality between EPHB6 and SRC in Breast Cancer

#### DONNA GOODRIDGE

Respirology, Critical Care and Sleep Medicine Medicine

University of Saskatchewan

How Do Material and Social Deprivation Affect Health Care Utilization of High System Users with Multimorbidity? A Retrospective Cohort Study

#### Nancy Gyurcsik

Kinesiology

University of Saskatchewan

Exploring the Effectiveness of an In-Person Integrated Counselling Training Module to Increase Exercise Providers' Knowledge and Beliefs to Instruct and Educate Saskatchewan Adults with Chronic Non-Cancer Pain

#### MARCELLA OGENCHUK

Nursing

University of Saskatchewan

Exploring Oral Health With Indigenous Communities: Collaborative Pathways for Early Intervention

#### TRACIE RISLING

Nursing

University of Saskatchewan

Developing a Mobile Application to Support Healthcare Transition Success for Adolescents with Inflammatory Bowel Disease

#### **ALAN ROSENBERG**

Pediatrics

Medicine

University of Saskatchewan

Prenatal Determinants of Chronic Inflammation-mediated Diseases

#### JENNIFER ST.ONGE

Research and Performance Support Regina Qu'Appelle Health Region 3D Multiple Object Tracking Training in Persons with Multiple Sclerosis

#### MARUTI UPPALAPATI

Pathology and Laboratory Medicine Medicine

University of Saskatchewan

Development of Protein Inhibitors Targeting SREBP1 for Targeted Therapy of Glioblastoma

#### JOAN WAGNER

Nursina

University of Regina

Improving Emergency Department Care Provider and Patient Outcomes Using a Synergy Tool

#### YULIANG WU

Biochemistry

Medicine

University of Saskatchewan

Targeting HAGE (DDX43) Helicase in Acute Myeloid Leukemia

#### JIM XIANG

Oncology

Medicine

University of Saskatchewan

Beneficial Cytotoxic T Lymphocyte Responses Derived from Irreversible Electroporation (IRE-NanoKnife) of Pancreatic Cancer for Improvement of IRE-Ablation Cancer Therapy

#### LIFENG ZHANG

Chemical and Biological Engineering Engineering

University of Saskatchewan

Dust Exposure Reduction for Workers: Airborne Dust Removal in Poultry Houses by Electrostatic Space Charge System (ESCS)

## The following are the five recipients of 2016-17 Targeted CID Grants for Patient-Oriented Research:

#### CATHERINE ARNOLD

Physical Therapy Medicine

University of Saskatchewan

Improving Capacity to Reduce Fall-Related

*Injury Risk in Older Adults* 

#### DONNA GOODRIDGE

Respirology, Critical Care and Sleep Medicine Medicine

University of Saskatchewan

Creating a Culture of Patient and Family Engagement in Health Care: Impact of Interdisciplinary Bedside Rounds on

Patient Experience and Team Collaboration

#### **B**HANU **P**RASAD

Nephrology Internal Medicine

Regina Qu'Appelle Health Region

Predicting Risk of Disease Progression in Patients with Chronic Kidney Disease in

Saskatchewan

#### MICHAEL SCHWANDT

Community Health and Epidemiology

Medicine

University of Saskatchewan

The Patient-Provider Toolkit: Using a Community-Based Research Approach to Support HIV+ Patients Accessing Health

Care

#### **ALEXANDER WONG**

Infectious Disease Clinic

Regina Qu'Appelle Health Region

A Combined Bio-Statistical and Behavioral Approach to Understanding Outcomes in Patients Living with HIV in Saskatchewan

## **Patient-Oriented Research Funding**

Canada's Strategy for Patient-Oriented Research (SPOR), as defined by the Canadian Institutes of Health Research (CIHR), is "about ensuring that the right patient receives the right intervention at the right time."

Patient-oriented research refers to a continuum of research that engages patients as partners, focusses on patient-identified priorities and improves patient outcomes. This research, conducted by multidisciplinary teams in partnership with relevant stakeholders, aims to apply the knowledge generated to improve healthcare systems and practices.

Source: CIHR Website

In Saskatchewan, SHRF is one of nine provincial partners, along with CIHR at the national level, in the Saskatchewan Centre for Patient-Oriented Research (SCPOR). SCPOR aims to build capacity and collaborations to conduct responsive, equitable and innovative patient-oriented research.

As one of the coalition partners, SHRF provides support to SCPOR's development in the areas of governance, as a member of the oversight committee; communications, with representation on the Communications Cluster; and special initiatives, such as the Share the Vision day, an event held on May 17, 2017. With the strength of our funding mechanisms in place, SHRF's largest contribution and support to SCPOR is by doing what we do best – funding world-class health research.

After awarding five teams through the SPOR targeted CID program, it was decided that the unique needs of this type of research could be better met with a stand-alone opportunity. SHRF worked closely with SCPOR through the year to develop a new SHRF program that would both support the development of SCPOR and advance patient-oriented research in the province.

The new Sprout patient-oriented grant program launched in early 2017-18. After a relevancy review process and full application steps which will occur in the summer and fall of 2017, the next round of patient-oriented research will be awarded and funding will begin January of 2018.

## Saskatchewan Research Chair Program

The Saskatchewan Research Chair Program is intended to attract, support and retain top-quality research leaders who are working in a provincial priority area and who contribute to capacity-building and knowledge-sharing in those areas.

With the addition of Dr. Michael Levin as the new Chair in MS Clinical Research, there are now three Chairs funded by SHRF and partnering organizations. Dr. Levin began his position at the University of Saskatchewan on March 1, 2017. SHRF and the Saskatoon City Hospital Foundation are each contributing \$500,000 over five years for the Saskatchewan Research Chair portion of the position.

Dr. Michael Kelly was awarded the \$1million Research Chair in Clinical Stroke Research in 2012, in partnership with the Heart and Stroke Foundation. Dr. Kelly's Chair will be eligible for a five-year renewal beginning on November 1, 2017. Discussions and evaluations are underway with the Heart and Stroke Foundation and Dr. Kelly regarding the renewal of this Chair.

Dr. Darrell Mousseau was renewed in 2015 as the \$1million Research Chair in Alzheimer's Disease and Related Dementia in partnership with the Alzheimer's Society.

## The End of the Beginning

Canada has the highest rates of Multiple Sclerosis (MS) in the world, with Saskatchewan having the highest national rates, leaving no question that this province wants to see the end of this debilitating disease of the central nervous system. 2016-17 marked an important milestone when the inaugural Saskatchewan Research Chair in MS Clinical Research was filled by Dr. Michael Levin.

Dr. Levin comes to Saskatchewan from Memphis, Tennessee, where he was a neurologist and professor in the College of Medicine at the University of Tennessee Health Science Center, and Director of the Multiple Sclerosis Center and Laboratory of Viral and Demyelinating Diseases.

In partnership with the Saskatoon City Hospital Foundation and with the support of the Multiple Sclerosis Society of Canada, the University of Saskatchewan and the Saskatoon Health Region, SHRF was pleased to help welcome Dr. Levin and his family to Saskatchewan where he will lead research that strives to identify causes, new improved treatments and therapies, and ultimately the cure for MS.

With the cause of MS unknown, Dr. Levin's research interests focus on acquired mutations versus inherited ones. Dr. Levin identified that "it will take a village" to find a cure for MS, and to accomplish this, he believes all patients will be able to contribute. It is Saskatchewan's people, the organizations and the collaborations that will ensure continued improvements to diagnosis and access to care, and an effective integration of clinical practice and research.

Though part of science is being patient, in coming to Saskatchewan Dr. Levin believes in the words of Winston Churchill:

"Now is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning."

## **Health Research Group Grants**

In May 2014, SHRF announced that the Health Research Group Grants program was cancelled. Though there are no new competitions under this grant program, SHRF honoured its commitments through the 2016-17 fiscal year. The cancellation of this program is part of the evolution of funding opportunities and acting in response to the changing research environment.

#### **Research Connections Grants**

The Research Connections program provides matching funds to support knowledge exchange through health research conferences, major meetings, research days and like events that are organized and held in Saskatchewan. Events promote sharing and using of health research knowledge, as well as encourage linkages between and among researchers and others.

SHRF is leading the way in response to the need for more funding to support varied activities and events aimed at sharing research knowledge with end-users in the broader community. Work that was undertaken during this year to revamp and update the Research Connections program will be rolled out in the 2017-18 fiscal year.

## The following is a list of recipients and events that were awarded 2016-17 Research Connection Grants:

#### LALITA BHARADWAJ

Public Health

University of Saskatchewan

Indigenous Water Forum: Bridging Cultural Knowledges on Water and Health

#### ADAM CLAY

Research and Performance Support Regina Qu'Appelle Health Region

Academic Health Sciences Student Research Day 2016

#### JAMES DOSMAN

Canadian Centre for Health and Safety in Agriculture

Medicine

University of Saskatchewan

National Summit on the Control of Agricultural Injury and Death in Canada: Transforming Today's Science Into

Tomorrow's Prevention

#### LISA KALYNCHUK

Medicine

Medicine

University of Saskatchewan

Life and Health Sciences Research

Exposition

#### TARUN REDDY KATAPALLY

Johnson Shoyama Graduate School of Public Policy University of Regina

Closing the Gap: Indigenous Health Innovations Forum

## WOLFGANG KOESTER

Bacterial Vaccine Development VIDO-InterVac

University of Saskatchewan

Offiversity of Saskatchewari

Protein Structure, Function and Malfunction Conference (PFSaM) 4th

Annual Meeting

#### **E**DWARD **K**ROL

Pharmacy and Nutrition University of Saskatchewan

5th Western Canadian Medicinal Chemistry

## MANSFIELD MELA

**Psychiatry** 

Workshop

Medicine

University of Saskatchewan

Advancements in FASD Symposium: Diagnostic Training and Development of Recommendations for a Psychotropic

Algorithm

## INGRID PICKERING

Geological Sciences
Arts and Science

University of Saskatchewan

Seventh CIHR-THRUST Retreat

#### MICHAEL SCHWANDT

Community Health and Epidemiology

Medicine

University of Saskatchewan

Sustain the Gains: Sustainability in Global Health

## COREY TOMCZAK

Kinesiology

University of Saskatchewan

Knowledge Translation Seminar in Heart Failure Pathophysiology and Rehabilitation

## MEGAN VANSTONE

Research and Performance Support Regina Qu'Appelle Health Region

Research Showcase 2016

#### FRANCO VIZEACOUMAR

Oncology Medicine

University of Saskatchewan

Saskatchewan Cancer Research Conference

#### **B**RANDACE WINQUIST

Performance and Quality Management Cypress Regional Health Authority Epidemiology for Understanding our Changing World

## **Partnerships**

SHRF values strong partnerships, which are at the core of innovative health research. SHRF aims to build partnerships that work toward our vision of a vibrant culture of health research and innovation for a stronger Saskatchewan.

SHRF has partnerships with other funding agencies, non-profit organizations and the health research community to encourage effective investment in Saskatchewan health research. These partnerships are leveraged by SHRF to expand the amount of funding available to conduct health research in the province. Since 2010, SHRF has matched more than \$3 million in partnership dollars from non-profits such as the Lung Association of Saskatchewan, the Alzheimer Society of Saskatchewan, the Heart and Stroke Foundation, and the Saskatoon City Hospital Foundation.

Beyond just the dollars available, partnerships help to build and broaden Saskatchewan's health research and innovation capacity. Partnerships work toward our goal of mobilizing knowledge for the physical, mental, social and economic well-being of Saskatchewan citizens. Our various partnerships focus on different aspects of our work: funding; setting research priorities; sharing knowledge and impact stories; peer review; building capacity; leveraging resources for health research; and sharing best practices.

Offering matching funding on partner-led programs and initiatives helps to connect Saskatchewan researchers to national and international networks. Since 2003, SHRF has leveraged \$15 million in additional research dollars for Saskatchewan in partnership with the Canadian Institutes of Health Research (CIHR).

PARTNER-LED PROGRAM CIHR Pathways to Health Equity for Aboriginal Peoples – Implementation Research Team Grants	RECIPIENT/AFFILIATION Leah Ferguson Kinesiology University of Saskatchewan	TITLE OF PROJECT Indigenous Youth Mentorship Program in Saskatchewan	Term (yrs) 1	SHRF \$ 75,000
	Paul Hackett Georgraphy and Planning Arts and Science University of Saskatchewan	Implementing the "Patient's Charter of Tuberculosis Care" in High Incidence Indigenous Communities and Across Jurisdictional Borders	3	150,000
Pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations - Knowledge Synthesis Grants	<b>Debra Morgan</b> CCHSA Medicine University of Saskatchewan	Identifying and Understanding the Health and Social Care Needs of Older Adults with Multiple Chronic Conditions and their Caregivers: A Scoping Review	1	5,000
	Nazeem Muhajarine Community Health and Epidemiology Medicine University of Saskatchewan	Case Management in Primary Care to Improve Outcomes Among Frequent Users of Health Care Services with Chronic Conditions: A Realist Synthesis of What Works, for Whom and in What Circumstances	1	5,000
	<b>Thomas Rotter</b> Pharmacy and Nutrition University of Saskatchewan	Interventions and Policies Influencing Primary Healthcare Professionals Managing Chronic Diseases: An Evidence Synthesis	1	3,500
SPOR Patient-Oriented Research Collaboration Grants	Krista Baerg Department of Pediatrics Medicine University of Saskatchewan	Building Sustainable Partnership with Patients to Guide Pediatric Chronic Pain Research	1	5,000

## **Funding Programs and Organizational Support**

Once again in 2016-17, the online Research Management System (RMS) was used to collect and review funding applications. Significant upgrades were made to the appearance and functionality of the RMS to improve the user experience for applicants and reviewers. Work was also started to expand the functionality of the RMS to support additional SHRF operations, such event management, and sponsorship applications and tracking. The benefits of this developmental work will be seen more fully in 2017-18. SHRF meets with the RMS vendor, SmartSimple, on a regular basis to ensure continual improvement of this key tool for effective operations.

SHRF continues to use the Canadian Common CV (CCV) as part of the funding application process. In 2016-17, the CCV templates were expanded and revamped based on users' feedback, and this process will continue in the future. After every funding competition deadline, surveys are conducted and information gathered is used to improve the SHRF processes, policies and procedures.

In collaboration with Impact and Evaluation, the Funding Programs team revamped progress and follow-up reporting for the CID program. These changes allow SHRF to capture information relevant to the Canadian Academy of Health Sciences (CAHS) Framework for measuring return on investment. This framework, and the new reporting questions developed, more accurately measure in-tangible, as well as tangible, impacts of the health research we are funding.

# **Impact and Evaluation**

As part of our commitment to achieving our organizational goals and vision, SHRF measures and demonstrates the impact of health research in Saskatchewan. The importance of accurate and relevant reporting goes beyond the assessment of current SHRF investments into the health research community. It is important to be able to recognize the needs of our province and compare our successes and opportunities to the national health research scene so we can continue to improve our results.

In 2016-17, SHRF again sat as an active member of multiple national committees and groups focused on improving indicators and the measurement of health research impacts. As part of the National Alliance of Provincial Health Research Organizations (NAPHRO) Impact Analysis Group (IAG), SHRF continues to be a leader in the research impact assessment area. This year, SHRF's Director of Impact and Evaluation was appointed as co-chair of the IAG. The IAG continued to work on harmonizing a core set of indicators that align with the Canadian Academy of Health Sciences (CAHS) Return on Investment (ROI) Framework.

In addition, SHRF, was part of a subgroup of organizations that led pilot testing of data and analysis from UberResearch, with the goal of developing the first NAPHRO Annual Investment Report. This work with partners at a national level helps SHRF to meet its strategic goal of measuring and demonstrating the impact of health research in Saskatchewan and the positive impact this research has on local and global health.

SHRF's Director of Impact and Evaluation is also a member of the Canadian Health Services and Policy Research Alliance Impact Analysis Working Group. SHRF has collaborated on the design of a logic model and developing measures specific to informing decision making in health services and policy research.

## **Aging-Related Research Assessment**

The research impact assessment on aging-related research funded by SHRF was completed in this fiscal year. The purpose of this project was to evaluate the impact of health research on the topic of aging on health policy and practice decision-making and the health of seniors in Saskatchewan. Methods included the use of case studies by interviewing and profiling the work of researchers studying this topic and by interviewing community partners about their awareness and use of health research on aging.

SHRF is also working on a paper that will focus on how research impact is measured, general trends in aging and health in Saskatchewan; how health research and SHRF help address health issues facing seniors; and how we can better use and improve the impact of funded research.

## Return on Investment of Collaborative Innovation Development (CID) Program

SHRF completed a project using Return on Investment (ROI) methodology in the evaluation of the Collaborative Innovation Development (CID) program.

Given today's economic climate, increasing demands for public dollars, obligations for accountability and transparency and the need to demonstrate the benefits of investments in health research, SHRF saw a need to take a different approach to evaluating its programs and decided to use the Phillips Methodology for Measuring ROI.

To obtain data for all levels of the Phillips Methodology, SHRF administered surveys to researchers at the application stage, funded stage and the annual report stage (one year post award). Funding applications to the CID program were also analysed to provide data on monetary values and levels of collaboration, innovation and development.

After loading all costs of the CID program (\$818,853), isolating the effects and converting data into monetary values (program partners = \$60,000; in-kind contributions = \$59,113.50; secondary sources of leveraged research dollars = \$361,300; and estimated subsequent leveraged research dollars = \$679,200; totalling monetary benefits = \$1,159,613), an ROI calculation was completed.

#### Return on Investment (ROI %)

At the annual report stage, an ROI of 41.6 per cent means that the costs of the CID program were recovered and an additional 41.6 per cent of the costs were returned.

<u>Net Monetary Benefits x 100</u> = (\$1,159,613-\$818,853) x 100 = 41.6% Program Costs \$818,853

## **Benefit-Cost Ratio (BCR)**

At the annual report stage, for every dollar invested in the CID program \$1.41 in benefits was returned.

<u>Monetary Benefits</u> = \$1,159,613 = 1: 1.41 Program Costs \$818,853

There were several intangible benefits stemming from the CID program that could have significant future impact. From project specific results to improvements in the research environment and/or system, intangible benefits include: increased capacity of students, research labs and research infrastructure; contribution to advancing knowledge and potential scientific advancements; participation of non-academic collaborators and the potential to bring new knowledge into practice; and potential health and socio-economic benefits.

In the year ahead, SHRF plans to work with other health research funders to attempt to monetize other intangible impacts and examine what contributing factors are related to high ROI researchers/projects. SHRF will also communicate the outcomes of this ROI project as results become available.

## **Five Year Follow-Up**

SHRF recently completed its five-year follow-up survey, sent out to Establishment grantees and Postdoctoral Fellowship supervisors from 2011-12. Data was collected on retention, impact, subsequent grants and knowledge translation activities, as well as new questions on activities related to collaboration and further capacity building. Results of the follow-up were consistent with past years, such as respondents experiencing the greatest impact in the areas of career development, leveraging additional dollars, subsequent research and student/trainees. Compared to historical data collected, this year's results would suggest that researchers are starting to do more non-academic knowledge translation activities than in the past.

## **Communications and Outreach**

## **Sponsorships**

Sponsorships are another way to further SHRF's vision and build relationships with other organizations that are strongly aligned with our mission, values and strategic goals.

SHRF sponsored the following events in 2016-17:	
<b>EVENT</b> Med.Hack Hackathon	<b>Location</b> Saskatoon
STIC Awards (Science, Technology, Innovation, Collabration)	Saskatoon
Saskatoon Regional Science Fair	Saskatoon
Regina Regional Science Fair	Regina
Bridging the Gap	Saskatoon
Doctoral Nursing Network Conference	Regina
Canadian Academy of Health Sciences (CAHS) Forum	Ottawa
18th International Congress of Comparative Endocrinology	Lake Louise
Saskatchewan Nurse Practitioner Education Conference	Saskatoon

#### **Events**

## **Santé Awards Evening**

SHRF's 13th annual Santé Awards Evening was held on December 1, 2016, in Saskatoon to celebrate excellence, innovation and impact in Saskatchewan's health research community.

The event is a chance to:

- Recognize researchers for their contributions to a vibrant culture of health research and innovation;
- Raise awareness of the outstanding health research happening in Saskatchewan; and
- Foster and strengthen connections with the research community, our partners and other provincial supporters.

For 2016, some format changes were made to highlight particular focus areas of research and SHRF's collaborations with partners in those areas. A showcase session was held prior to the evening's program, which featured partners, researchers and their collaborators in diverse areas such as seniors' health, stroke care, and mental health care for Indigenous youth. The program included a patient voice on Alzheimer's and dementia that underlined the value of research into diagnosis and treatment. The event attracted close to 150 attendees, including top researchers, students, partners, provincial government officials and other health research supporters. SHRF also received strong sponsorship support from various organizations this year totalling \$16,000.

Three categories of awards were presented at the event – the Achievement Award, Excellence Awards and an Impact Award, which was presented for the first time.

#### **Achievement Award**

This annual award is presented to an individual in health research whose exemplary career achievements have inspired us with their drive, leadership and ingenuity. Candidates are nominated by their peers and considered by a panel of national and local experts from a range of fields.

This year's award was presented to Dr. Daniel Chen from the College of Engineering at the University of Saskatchewan (U of S).

Since joining the U of S in 2003, Dr. Chen has created and led an interdisciplinary and international team of researchers, including the Tissue Engineering Research Group, spanning both fields of engineering and health sciences. His pioneering work to develop advanced technologies for the challenging task of designing and fabricating artificial tissue/organ substitutes or scaffolds that can grow within patients has significant promise for ultimately providing a permanent solution to damaged tissues/organs.

Dr. Chen has garnered international recognition and respect in two fields of study for his breakthrough research discoveries, his ability to actively initiate effective interdisciplinary collaborations, and his accomplishment as a supervisor to a total of 45 graduate students and four postdoctoral fellows.

#### **ACHIEVEMENT AWARD PANEL**

#### ADAM BAXTER-JONES

Dean
College of Graduate and Postdoctoral
Studies
University of Saskatchewan

## **B**EV **H**OLMES

Vice President, Research and Impact Michael Smith Foundation for Health Research

#### LORNE BABIUK

Vice-President Research University of Alberta

## **Impact Award**

Recognizing the importance of measuring the impact of funded health research led to the introduction of a new award in 2016, the Impact Award. This award was presented to one researcher from our 2011-12 Establishment Grant recipients, in recognition of the impacts of their work over the past five years and to provide further support to encourage innovative knowledge translation efforts.

Using the Canadian Academy of Health Sciences Framework for measuring the impact of health research, the candidates' five-year follow-up reports were reviewed by a merit review committee looking at how the recipient has built capacity, advanced knowledge, informed decision-making, and provided health, economic and social impacts in Saskatchewan. The inaugural Impact Award, consisting of a prize in the amount of \$3,000 to be used for knowledge translation efforts, was presented to Dr. J. D. Johnston, Associate Professor, Department of Mechanical Engineering at the University of Saskatchewan.

#### **Excellence Awards**

These awards are given to the top-ranked researchers and teams from the past year's funding competitions.

The following are the Excellence Awards wi	inners from the 2016 Santé A	Awards Evening:
Award Name Establishment Grant: Biomedical Research	RECIPIENT JEFFREY CHEN University of Saskatchewan	PROJECT TITLE Towards a Porcine Model of Tuberculosis Aerosol Transmission
Establishment Grant: Socio-Health, Clinical and Systems Research	<b>Jennifer Gordon</b> University of Regina	Estradiol Variability and the Emergence of Depressive Symptomatology During the Menopause transition
Research Fellowship: Biomedical Research	<b>Arash Panahifar</b> University of Saskatchewan	Understanding the Role of Subchondral Angiogenesis and Bone Turnover in Progression of Osteoarthritis
Research Fellowship: Socio-Health, Clinical and Systems Research	<b>Serene Kerpan</b> University of Saskatchewan	Bringing Together Physical Activity and Culture to Promote Mental Health for Indigenous Youth
Strategy for Patient-Oriented Research, Collaborative Innovation Development Grant	<b>Donna Goodridge</b> University of Saskatchewan	Creating a Culture of Patient and Family Engagement in Health Care: Impact of Interdisciplinary Bedside Rounds on Patient Experience and Team Collaboration
Collaborative Innovation Development Grant: Biomedical or Clinical Research	<b>Janet Hill</b> University of Saskatchewan	Redefining the Role of Gardnerella Vaginalis in the Vaginal Microbiome
Collaborative Innovation Development Grant: Health Services or Population Health	<b>Michael Schwandt</b> University of Saskatchewan	The Patient-Provider Toolkit: Using a Community- Based Research Approach to Support HIV+ Patients Accessing Health Care

## **Funding-Related Events**

SHRF holds both information and orientation events, in Saskatoon and Regina, that tie in to our funding competitions. The Funding Information Sessions are held to provide potential applicants with the information about what opportunities are available and what SHRF is looking for in successful applications. Funding Orientations are held for successful applicants to outline specific expectations and provide tips on successfully carrying out their responsibilities.

These sessions are an important way for SHRF to stay connected to the research community in the province, keeping researchers advised of funding opportunities and changes, answering general questions and also gathering feedback from the researchers who apply for SHRF funding. For more specific or individual questions, the Funding Programs team also offers researchers a help desk service that is available via email, through SHRF's website and by toll-free telephone access within Canada and the United States.

In 2016-17, SHRF held a total of five information sessions and five orientations.

## **Sharing our Stories**

With digital and social media playing such an integral role in effective communications, SHRF made a concerted effort this past year to increase our presence and activity on Twitter and Linkedln. SHRF will continue to evaluate and explore these and other channels to reach key audiences and to share the stories of health research, impact and innovation.

A robust website is a must-have for any organization and in 2016-17 SHRF worked with a supplier to redesign and launch the new shrf.ca. The new website provides the foundation needed to engage in effective digital communications and provides users with a responsive design. The launch of the new website took place the first week of October 2016, with an external promotion to users in mid-October. Overall feedback received has been positive. SHRF recognizes that a website is not a static tool, and will continue to use analytics and organizational needs as a basis for continuous improvements.

Communication is not exclusively digital, however, and SHRF recognizes the importance of traditional media. Working closely with Impact and Evaluation, the Communications team worked in 2016-17 to create a publication that demonstrates the value of aging-related research in Saskatchewan, called Impacting Seniors' Health. This 32-page publication highlights the work of many SHRF-funded researchers across the province to address the complex challenges posed by an aging population. The report will be officially released in the 2017-18 fiscal year.

# **Looking Back, Moving Ahead**

In 2016-17, SHRF continued to make progress towards its vision to lead the establishment of a vibrant culture of health research and innovation for a stronger Saskatchewan. In addition to the achievements outlined in this report, groundwork was laid throughout the year that will have measurable impacts in 2017-18 and beyond, in areas such as patient-oriented research, knowledge mobilization and research impact assessments.

Saskatchewan has always been at the forefront of health research innovation. We are the province that pioneered Medicare and are on the cutting edge of modern nuclear medicine. Today, Saskatchewan enjoys an unprecedented opportunity to capitalize on investments in the infrastructure and environment needed for world-class health research. As the provincial health care system undergoes transformational change, SHRF will continue to play its part to help ensure this legacy of innovation continues – and that the health research talent and assets here are utilized and leveraged to their fullest potential, for the benefit and health of Saskatchewan's citizens.

# **Saskatchewan Health Research Foundation**

**Financial Statements** 

For the year ending March 31, 2017

# **Report of Management**

Management is responsible for the integrity of the financial information reported by the Saskatchewan Health Research Foundation.

Fulfilling this responsibility requires the preparation and presentation of financial statements and other financial information in accordance with Canadian generally accepted accounting principles that are consistently applied, with any exceptions specifically described in the financial statements.

The accounting system used by the Foundation includes an appropriate system of internal controls to provide reasonable assurance that:

- o transactions are authorized;
- o the assets of the Foundation are protected from loss and unauthorized use; and
- o the accounts are properly kept and financial reports are properly monitored to ensure reliable information is provided for preparation of financial statements and other financial information.

To ensure management meets its responsibilities for financial reporting and internal control, board members of the Foundation discuss audit and financial reporting matters with representatives of management at regular meetings. Foundation board members have also reviewed and approved the financial statements with representatives of management.

The Provincial Auditor of Saskatchewan had audited the Foundation's statement of financial position, statements of operations, change in net financial assets and cash flow. Her responsibility is to express an opinion on the fairness of management's financial statements. The Auditor's report outlines the scope of her audit and her opinion.

Don Somers Board Chair Patrick Odnokon Interim Chief Executive Officer

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#### INDEPENDENT AUDITOR'S REPORT

To: The Members of the Legislative Assembly of Saskatchewan

I have audited the accompanying financial statements of Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2017, the statement of operations, statement of change in net financial assets, the statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards for Treasury Board's approval, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of Saskatchewan Health Research Foundation as at March 31, 2017 and the results of its operations, changes in its net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Regina, Saskatchewan June 29, 2017 Judy Ferguson, FCPA, FCA Provincial Auditor

STATEMENT 1

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

## STATEMENT OF FINANCIAL POSITION

As at March 31

	2017		2016
Financial assets Cash and cash equivalents (Schedule 2) Accrued interest receivable Accounts receivable Short-term investments (Schedule 2)	\$	218,529 \$ 39,965 208,789 4,500,000	32,127 208,469 2,850,124
Long-term investments (Schedule 2)		5,267,283	5,399,789
<b>Liabilities</b> Accounts payable and accrued liabilities Payroll liabilities Grants payable		52,240 12,881 4,029,615	232,222 18,534 4,320,125
		4,094,736	4,570,881
Net financial assets (Statement 3)		1,172,547	828,908
Non-financial assets Tangible capital assets (Note 3) Prepaid expenses		36,442 16,594 53,036	45,358 25,572 70,930
Accumulated surplus (Statement 2)	\$	1,225,583 \$	899,838
Commitments (Note 5)		<del></del> :	

(See accompanying notes to the financial statements)

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

## **STATEMENT OF OPERATIONS**

For the year Ended March 31

	2017			2016		
		Budget		Actual		Actual
		(Note 10)				
Revenues						
Government Contributions						
Innovation Saskatchewan	\$	5,630,000	\$	5,630,000	\$	5,630,000
Ministry of Health		-		-		200,000
Health Quality Council		60,000		60,000		60,000
Non-Government Contributions						
Alzheimer's Society of Saskatchewan		100,000		100,000		100,000
Heart and Stroke Foundation of Canada		100,000		100,000		100,000
Saskatoon City Hospital Foundation		-		100,000		-
Other Contributions (Note 12)		370,000		-		134,988
Donations and Sponsorships		50,000		16,483		11,161
Other Revenue (Note 7)		127,721		200,506		118,533
Total Revenues		6,437,721		6,206,989		6,354,682
Expenses						_
Research funding						
Saskatchewan Health Research Foundation-led programs		4,196,000		3,983,817		4,083,167
Partner-led programs (Note 6a)		375,000		338,750		395,000
Program support		303,998		283,721		243,819
Communication and Outreach		479,191		332,347		310,799
Impact and Evaluation		199,429		127,636		103,557
Leadership and management						
Board		53,350		27,163		28,371
Administrative		908,398		787,810		796,167
Total Expenses (Schedule 1)	_	6,515,366		5,881,244		5,960,880
Annual (deficit) surplus (Statement 3, 4)	\$	(77,645)		325,745	_	393,802
Accumulated surplus, beginning of year	=			899,838		506,036
Accumulated surplus, end of year (Statement 1)			\$	1,225,583	\$	899,838
			=		=	

(See accompanying notes to the financial statements)

STATEMENT 3

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

## STATEMENT OF CHANGE IN NET FINANCIAL ASSETS

For the Year Ended March 31

	2017			2016		
Annual surplus (Statement 2)	\$	325,745	\$	393,802		
Acquisition of tangible capital assets Disposal of capital assets		(22,051)		(37,182) 252		
Amortization of tangible capital assets		30,967		53,066		
	_	8,916		16,136		
Acquisiton of prepaid expense		(56,735)		(74,068)		
Use of prepaid expense		65,713		61,320		
	_	8,978		(12,748)		
Increase in net financial assets		343,639		397,190		
Net financial assets, beginning of year		828,908		431,718		
Net financial assets, end of year (Statement 1)	\$ _	1,172,547	\$	828,908		

(See accompanying notes to the financial statements)

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

## **STATEMENT OF CASH FLOWS**

For the Year Ended March 31

	2017			2016	
Operating transactions					
Annual surplus (Statement 2)	\$	325,745	\$	393,802	
Non-cash items included in annual surplus:					
Amortization of tangible capital assets		30,967		53,066	
Loss on disposal of capital assets		-		252	
Bond amortization		1,124		3,318	
Net change in non-cash working capital items:					
Accrued interest receivable		(7,838)		18,904	
Accounts receivable		(320)		34,903	
Prepaid expenses		8,978		(12,747)	
Accounts payable and accrued liabilities		(179,982)		191,409	
Payroll liabilities		(5,653)		(881)	
Grants payable	•	(290,510)		(1,293,846)	
Cash (used) by operating transactions		(117,489)		(611,819)	
Capital transactions	•				
Cash (used) to acquire tangible capital assets		(22,051)		(37,182)	
Cash applied to capital transactions		(22,051)		(37,182)	
Investing transactions	:				
Purchase of investments		(5,650,000)		(700,000)	
Proceeds from disposal and redemption of investments		3,999,000		3,250,000	
Cash provided (used) by investing transactions		(1,651,000)		2,550,000	
Increase (Decrease) in cash and cash equivalents		(1,790,540)		1,900,999	
Cash and cash equivalents, beginning of year	,	2,009,069	•	108,070	
Cash and cash equivalents, end of year	\$	218,529	\$	2,009,069	

(See accompanying notes to the financial statements)

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION NOTES TO THE FINANCIAL STATEMENTS MARCH 31, 2017

#### 1. Establishment of the Foundation

On January 31, 2003, *The Saskatchewan Health Research Foundation Act* (S.S. 2002, c.S-21.1) came into force establishing the Saskatchewan Health Research Foundation (refered to as The Foundation or SHRF). The Foundation is responsible for organizing, managing and allocating most provincial health research funding in Saskatchewan and for ensuring that supported research fits with the province's health research priorities and leads to benefits for health and the health system in Saskatchewan.

#### 2. Accounting Policies

Pursuant to standards established by the Public Sector Accounting Board (PSAB) and published by the Chartered Professional Accountants (CPA) Canada, the Foundation is classified as an other government organization. The Foundation uses Canadian Public Sector Accounting Standards. The following accounting principles are considered to be significant.

## a) Basis of accounting

The financial statements are prepared using the accrual basis of accounting.

#### b) Revenue

Historically, the Foundation's main revenue for operations has been contributions from the Ministry of Health – General Revenue Fund. Effective April 1, 2015, responsibility for the Foundation, including the provision of annual grant funding, was transferred from the Ministry of Health to Innovation Saskatchewan. Other revenue comes from partnerships, interest, recoveries and miscellaneous revenue.

Funds not spent during the term of a research grant or award compose recoveries if the grant or award expense was recognized in the prior years.

Government contributions are recognized as revenue when the transfer is authorized and any eligibility criteria are met, except to the extent that contribution stipulations give rise to an obligation that meets the definition of a liability. Contributions are recognized as designated assets when contribution stipulations give rise to a liability. Contributions are recognized in the statement of operations as the stipulation liabilities are settled.

#### c) Measurement uncertainty

The preparation of financial statements in accordance with Public Sector Accounting Board (PSAB) accounting principles requires the Foundation's management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of commitments at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

#### d) Tangible capital assets

The recognition and measurement of tangible capital assets is based on their service potential.

Purchases of furniture, office equipment, and computer hardware and software over \$1,000 are recorded at cost as a capital asset. Purchases below these amounts are expensed as incurred. Amortization is recorded on a straight-line basis as follows:

Furniture 10 years
Office Equipment 5 years
Computer Hardware and Software 3 years
Leasehold Improvements length of lease

Normal maintenance and repairs are expensed as incurred.

#### e) Research grants and awards expense

Grants and awards expense is recorded when eligibility has been determined and the grant and or award has been authorized. Awarded funds are sent to the recipients' home institution to manage and disburse. Funds not spent during the term of a research grant or award reduce the respective expense if the expense was recognized in the same year.

#### SHRF-led awards:

The Foundation holds annual funding competitions through which applications are adjudicated by experts based on excellence and relevance. Terms vary and are often multi-year. For SHRF-led multi-year grants and awards, the Foundation assesses eligibility and provides authorization on a yearly basis.

#### Partner-led awards:

For some partnership programs, the Foundation's partner administers the grants and awards. Multi-year partner-led grants and awards are recorded by SHRF either in full in the year that authorization is received by the partner or on a year-by-year basis depending on the terms defined in the agreement between the partner organization and SHRF.

#### f) Investments

Investments are valued at amortized cost.

## g) New accounting standards not yet in effect

A number of new Canadian public sector accounting standards and amendments to standards are not yet effective for the Foundation and have not been applied in preparing these financial statements. The following standards will become effective as follows:

- i. PS 2200 Related Party Disclosures (effective April 1, 2017), a new standard defining related parties and establishing guidance on disclosure requirements for related party transactions.
- ii. PS 3210 Assets (effective April 1, 2017), a new standard providing guidance for applying the definition of assets and establishing disclosure requirements for assets.
- iii. PS 3320 Contingent Assets (effective April 1, 2017), a new standard defining and establishing guidance on disclosure requirements for contingent assets.
- iv. PS 3380 Contractual Rights (effective April 1, 2017), a new standard defining and establishing guidance on disclosure requirements for contractual rights.
- v. PS 3420 Inter-Entity Transactions (effective April 1, 2017), a new standard establishing guidance on accounting for and reporting on transactions between organizations in the government reporting entity.

The Foundation plans to adopt, when applicable, these new and amended standards on the effective date, and is currently analyzing the impact this will have on these financial statements.

## 3. Tangible Capital Assets

	Furniture and Equipment	Leasehold Improvements	2017 Totals	2016 Totals
Opening cost	\$238,372	\$13,007	\$251,379	\$276,686
Additions during the year	22,051	-	22,051	37,182
Disposals during the year	1,788	-	1,788	62,489
Closing cost	258,635	13,007	271,642	251,379
Opening accumulated amortization	199,517	6 504	206,021	215,192
Amortization for the year	24,464	6,503	30,967	53,066
Disposals during the year	1,788	-	1,788	62,237
Closing accumulated amortization	222,193	13,007	235,200	206,021
Net book value of tangible capital assets	\$36,442	-	\$36,442	\$45,358

#### 4. Designated Assets

As of March 31, 2017, the Foundation has dispersed all the funds held in designated assets.

#### 5. Lease Commitments

At March 31, 2017, the Foundation had the following lease commitments:

	20	18 2019	
Office Lease*	\$ 78,8	55 -	
Postage meter lease	1,98	36 1,159	
	\$ 80,8	41 \$ 1,159	_

<sup>\*</sup>The office lease that was renewed for five years during 2012-13 was revised as the office moved to a new office space in the same building. The lease expires October 31, 2017.

#### 6. a) Partner-led Programs

The Foundation periodically enters into funding partnerships, often spanning more than one year, to help achieve its goals and objectives. Below is a breakdown of these partner-led grant expenses for 2016-17:

## i) Pathways to Health Equity for Aboriginal Peoples

SHRF provided partnership funding starting in 2016-17 for two grants funded through this CIHR initiative; in a 3-year commitment, the Foundation provided partnership funding of \$150,000 to a project on tuberculosis care in indigenous communities, and with a 1-year commitment provided \$75,000 in partnership funding to a project on aboriginal youth mentorship for diabetes prevention.

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ii) Partnership with the Canadian Consortium on Neurodegeneration in Aging (CCNA)
A five-year partnership started in 2014-15 in which the Foundation matches funding of \$100,000 per year from the CIHR on a 1:1 basis to support Saskatchewan researchers and research projects in the area of aging.

## iii) Strategy for Patient-Oriented Research (SPOR)

SHRF provided partnership funding starting in 2016-17 for four grants funded through programs part of this CIHR initiative: In a 1-year partnership, the Foundation invested \$13,750 for three separate knowledge synthesis grants in the area of primary health care as well as \$5,000 for a patient-oriented research collaboration grant in the area of pediatric chronic pain.

#### b) Saskatchewan Research Chairs

Since 2009-10, the Foundation has been funding a five-year Saskatchewan Research Chair in Alzheimer Disease and Related Dementia, in a 1:1 funding partnership with the Alzheimer Society of Saskatchewan (ASOS). This funding was renewed for an additional five years with ASOS. A five-year Saskatchewan Research Chair for Clinical Stroke Research was awarded in 2012-13 in equal partnership with the Heart and Stroke Foundation, and it is anticipated to be renewed for another five-year term. The Foundation also has a research chair partnership with the City Hospital foundation in Multiple Sclerosis (MS) where the award has been made in 2016-17. For research chairs, the Foundation receives the partner's contribution on a quarterly basis, expenses the chair awards on an annual basis, and sends the partner and Foundation funds together to the award holder's home institution.

#### c) Other Partnered Grants and Awards

During 2016-17, SHRF entered into a partnership agreement with the Saskatchewan Centre for Patient-Oriented Research (SCPOR). SCPOR is a partnership of organizations that support and promote patient-oriented research in Saskatchewan and is funded in part by the Canadian Institutes of Health Research (CIHR), as well as both cash and in-kind contributions from nine Saskatchewan partner organizations, including SHRF.

SCPOR is mandated to build provincial and national capacity for patient-oriented research. SCPOR will co-ordinate with SHRF to support a wide range of patient-oriented research funded through competitive opportunities offered by SHRF. Through this agreement, SHRF commits to invest in Patient-Oriented Research a total of \$4.1 million between April 1, 2016, and March 31, 2021. \$340,998 was invested by SHRF in 2016-17 through the CID Patient-Oriented Research grant program.

#### 7. Other Revenue

In 2016-17, other revenue generated by the Foundation included interest of \$77,232 and recoveries of \$117,202.

#### 8. Related Party Transactions

Included in these financial statements are transactions with various Saskatchewan Crown corporations, ministries, agencies, boards and commissions related to the Foundation by virtue of common control by the Government of Saskatchewan, and non-Crown corporations and enterprises subject to joint control or significant influence by the Government of Saskatchewan (collectively referred to as "related parties").

Routine operating transactions with related parties are recorded at the agreed upon rates charged by those organizations and are settled on normal trade terms. These transactions and amounts outstanding at year-end are as follows:

	2017		2016	
Miscellaneous revenue:				
Health Quality Council	\$	62,500	\$	62,500
Innovation Saskatchewan		5,630,000		5,630,000
Ministry of Health		-		200,000
Saskatchewan Polytechnic		1,500		-
Saskatchewan Workers' Compensation Board		1,486		782
University of Regina		15,306		2,500
University of Saskatchewan		112,896		30,148
Research grant, administrative and occupancy expenses:				
Public Employees Pension Plan (PEPP) – employee benefits		67,122		55,163
Regina Qu'Appelle Health Region		171,104		143,431
St. Thomas More College – University of Saskatchewan		-		80,000
Saskatchewan Opportunities Corporation – Innovation Place		150,416		172,636
Saskatchewan Polytechnic		-		20,000
SaskTel		9,267		9,985
University of Regina		474,312		661,448
University of Saskatchewan		3,667,149		3,580,682
Other		1,845		1,532
Accounts receivable				
University of Saskatchewan		19		10,000
Accounts payable, grants payable and accrued liabilities Grants payable				
University of Saskatchewan		3,433,843		3,366,653
University of Regina		457,793		742,395
Regina Qu'Appelle Health Region		120,959		137,431
Saskatchewan Polytechnic		-		20,000
St. Thomas More – University of Saskatchewan		22,021		53,646
Other		60		97

The Foundation pays Provincial Sales Tax to the Ministry of Finance on all its taxable purchases. Taxes paid are recorded as part of the cost of those purchases.

Other transactions with related parties and amounts due to or from them are described separately in these financial statements and the notes thereto.

#### 9. Financial Instruments

The Foundation has the following financial instruments: accrued interest receivable, accounts receivable, investments, accounts payable and grants payable. The following paragraphs disclose the significant aspects of these financial instruments. The Foundation has policies and procedures in place to mitigate the associated risks.

#### a) Significant terms and conditions

There are no significant terms and conditions associated with the financial instruments, other than investments, that may affect the amount, timing and certainty of future cash flows. Significant terms and conditions for investments are described separately on Schedule 2 of these financial statements.

#### b) Interest rate risk

The Foundation is exposed to interest rate risk when the value of its financial instruments fluctuates due to changes in market interest rates. As the Foundation seldom disposes of investments prior to maturity, this risk is minimal.

The Foundation's receivables and payables are non-interest bearing. Due to the short-term nature of these, as well as cash and short-term investments, interest rate risk is minimal.

As market interest rates fluctuate, the market value of long-term investments moves in the opposite direction. This risk will affect the price the Foundation could sell the investments for prior to maturity.

#### c) Credit risk

The Foundation is exposed to credit risk from potential non-payment of accounts receivable or investment income and principal.

Most of the Foundation's receivables are from registered charities with which the Foundation has partnership agreements. The credit risk is assessed to be minimal based on the history of these organizations honouring their financial commitments to the Foundation in a timely manner.

The Foundation's investments consist of guaranteed investment certificates (GICs). Therefore, credit risk for investments and related accrued interest receivable is minimal.

#### d) Fair value

For the following financial instruments, the carrying amounts approximate fair value due to their immediate or short-term nature:

Accrued interest receivable Accounts receivable Short-term investments Accounts payable Grants payable Payroll liability

The fair value of long-term investments is \$300,000. The quoted market values of the long-term investments are considered to be the fair values.

## 10. Budget

The operating budget was approved by the Foundation's Board on April 15, 2016.

#### 11. Pension Plan

The Foundation is a participating employer in the Public Employees Pension Plan, a defined contribution pension plan. Eligible employees make monthly contributions of 7% of gross salary with the Foundation contributing 7.6% of gross salary. The Foundation's financial obligation is limited to making required contributions. During the year, the Foundation's total contributions were \$67,122 (2015-16 \$55,163).

#### 12. Other Contributions

Other contributions represent revenues from other partnerships the Foundation explores from the non-government sources. In 2016-17, two partnered grants had recoveries; therefore, half of these recoveries were returned to the partnered organization (\$5,000 to the Terry Fox Institute and \$11,250 to Crohn's & Colitis Canada).

The budgeted amount included \$350,000 assumed revenues from the Saskatchewan Centre for Patient-Oriented Research (SCPOR). These revenues didn't materialize in 2016-17 due to a change in the proposed financial terms of this partnership from what was originally assumed in the budget.

SCHEDULE 1

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

## **SCHEDULE OF EXPENSES BY OBJECT**

For the Year Ended March 31

	2017				2016	
	Budget Act		Actual	Actual		
	(Note 10)					
Advertising and promotion \$	56,500	\$	25,969	\$	31,989	
Amortization	59,824		30,966		53,066	
Board expenses	53,350		27,163		28,371	
Employee benefits	189,799		191,348		146,072	
Employee salaries	927,554		881,809		729,086	
Grants and awards	4,571,000		4,322,567		4,478,167	
Office expenses	74,050		73,209		112,251	
Office space	150,589		136,357		157,455	
Professional Fees	234,050		120,465		140,858	
Publications	59,000		16,305		23,606	
Review committee expenses	43,050		26,283		29,734	
Travel and meetings	96,600		28,802		30,225	
\$	6,515,366	\$	5,881,243	\$	5,960,880	

SCHEDULE 2

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

# SCHEDULE OF INVESTMENTS

As at March 31, 2017

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
Cash and cash equivalents (Statement 1) Cash TD Waterhouse - Investment Savings Account	\$	61,250 157,279 218,529	0.75
Short-term investments (Statement 1)			
RBC GIC	10-Jul-2017	1,600,000	1.40
Bank of Montreal GIC	12-Jul-2017	200,000	1.40
Royal Bank GIC	11-Aug-2017	1,400,000	1.40
Bank of Montreal GIC	14-Dec-2017	1,000,000	1.35
Bank of Nova Scotia GIC	18-Dec-2017	300,000	2.13
		4,500,000	
Long-term investments (Statement 1)			
B2B Bank GIC	8-Jul-2018	100,000	1.65
Canadian Western Bank GIC	8-Jul-2018	100,000	1.60
Equitable Bank GIC	8-Jul-2018	100,000	1.60
	·	300,000	
	\$	5,018,529	



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