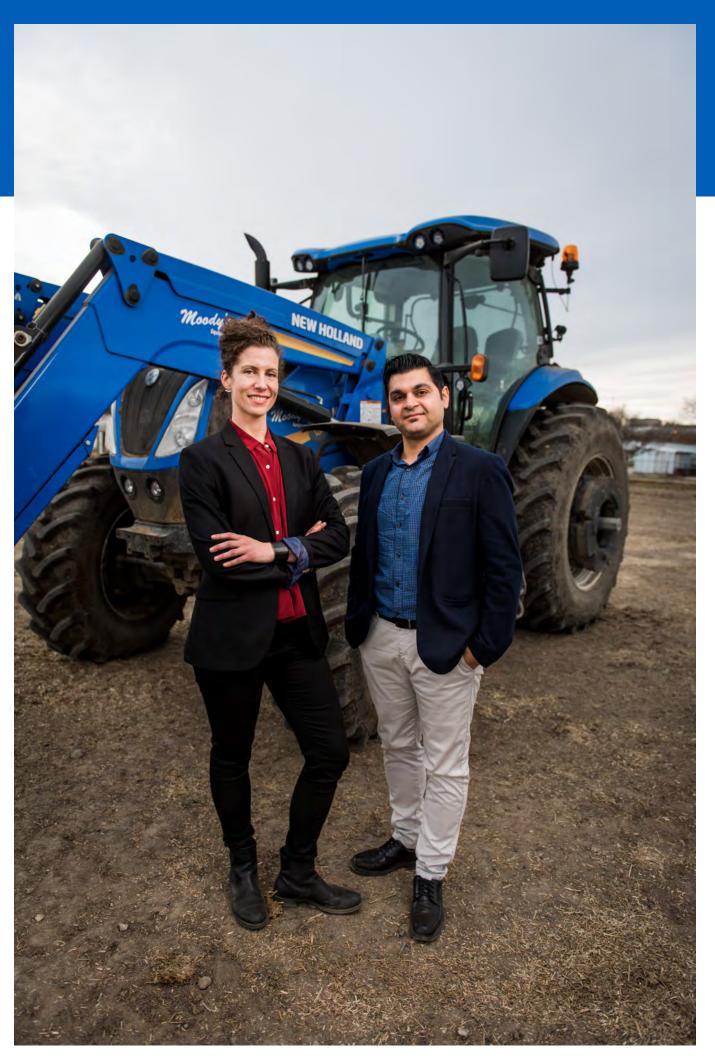
# ANNUAL REPORT 2018-19

RESEARCH THAT MATTERS

Behzad Bashiri, Supervisor: Catherine Trask, University of Saskatchewan, 2017-18 Research Fellow Research Area: Health and safety in agriculture

Cover Image: Supriya Bhat, Supervisor: Andrew Cameron University of Regina, 2017-18 Research Fellow Research Area: Antibiotic resistance



#### Letter of Transmittal from the Minister



His Honour, the Honourable W. Thomas Molloy, 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, 2019.

Honourable Tina Beaudry-Mellor Minister Responsible for Innovation

#### Letter of Transmittal from the Board Chair



The Honourable Tina Beaudry-Mellor Minister Responsible for Innovation

Dear Minister:

I am pleased to submit for your consideration the annual report of Saskatchewan Health Research Foundation for the fiscal year period April 1, 2018, to March 31, 2019.

Respectfully submitted,

Cecile Hunt

Cecile Hunt Board Chair

# WHO WE ARE

#### CONTENTS

- 5 Letter from the Board Chair
- 6 Letter from the CEO
- 8 Strategic Direction
- 10 Funding Research That Matters
- 20 SHRF Wins ROI Award
- 23 Peer Review
- 26 Process Makes Perfect
- 28 Working Together
- 35 2018-19 Funding Recipients
- 42 2018-19 Peer Review Committees
- 47 Financial Statements

Rooted in integrity and our reputation for excellence, we hold ourselves accountable to our stakeholders, enabling us to adapt and collaborate in supporting health research that matters to Saskatchewan, having a local and global impact. These values of accountability, adaptability, collaboration, excellence and integrity represent a vital part of SHRF's strategic foundation and exemplify our fundamental beliefs and guiding principles for how we work with each other and all stakeholders.

SHRF's investments in research will contribute to the improved health of Saskatchewan citizens through a highperforming health system with a robust culture of health research and innovation. We accomplish this purpose through our strategic goals to: strengthen research capacity and competitiveness; increase investment in research and innovation; and align research with stakeholders' needs.

# SHRF TEAM

#### **Our Board**

Don Somers, Chair (until November 2018) (3)

Petrina McGrath, Vice Chair (until September 2018) (2)

Jane Alcorn (3)

Brent Brownlee (4)

Josef Buttigieg (3.5)

Tami Denomie (5)

Cecile Hunt\* (5)

Danya Kordan (5)

Vivian Ramsden (4)

Bob Sheldon (4)

Joe Vidal\* (3)

Number in brackets denotes number of board meetings attended.

\*Chair and Vice Chair pro tem as of March 27, 2019

#### Our Staff

Patrick Odnokon Chief Executive Officer

Catherine Klopoushak Executive Assistant

Rostyk Hursky Director of Impact and Strategy

Karen Tilsley Director of Funding Programs (on leave as of June 2018)

Danielle Robertson-Boersma Funding Programs Officer

Olesya Hursky Funding Programs Officer

Tanya Skorobohach Programs Coordinator

Nikki Desjardins Communications and Outreach Officer

Pamela Riffel Communications Coordinator

Lina Kazan Director of Finance and Corporate Services

Irene Blum Senior Accountant

# LETTER FROM THE BOARD CHAIR

Taking the time to reflect on the organization's past can serve as inspiration for the future. For SHRF, this past year serves just that purpose as we reflect on all that has been accomplished. SHRF continued to build upon a solid reputation of excellence and acted according while being guided by its' values of accountability, adaptability, collaboration, excellence and integrity.

In 2018-19, SHRF marked its 15th year at the annual Santé Awards Evening. This event is a reminder, time and time again, of the level of support for SHRF that exists in Saskatchewan's research community. This year's event was no exception, as we saw the largest attendance numbers to date; a flood of supportive video messages from partners, researchers and institutional leaders; and the generous sponsor support which make the event possible.

This year also marked the end of Don Somers' term as Board Chair and Petrina McGrath's term as Vice Chair for the SHRF Board. I would like to extend my thanks, on behalf of the Board and staff, for their work and dedication to SHRF over the years. The Board exists to guide SHRF's leadership team and provide overall context and direction to SHRF within the provincial health landscape. However, it is the dedication of Patrick Odnokon and the entire SHRF team that continues to drive the organization forward, even in times of uncertainty and fiscal restraint.

The work that was accomplished to develop a new strategic direction for SHRF was instrumental as we work toward accomplishing SHRF's purpose - to contribute to the improved health of Saskatchewan citizens through a high-performing health system with a robust culture of health research and innovation.

The Board has every confidence in the SHRF team as it navigates through the provincial health research landscape while building partnerships for success.

Cecile Hund

**CECILE HUNT** Board Chair

### LETTER FROM THE CEO

As we marked the end of our 15th year as Saskatchewan Health Research Foundation, it was a time to look at where we've been and where we are headed as an organization. 2018-19 was a year defined by the hard work of our team to identify a new strategic direction and reaffirm our core values as not only an organization, but a group of colleagues working together to accomplish our goals.

Defining our values has helped us focus our efforts and guide our actions as we look to strengthen and build our network of partnerships and connections for success within the health research ecosystem in Saskatchewan. Defining our goals has helped position SHRF to fulfill our unique role within this same landscape.

Our researchers' success is our success and this year is one worth celebrating. SHRF-funded researchers represented Saskatchewan on Parliament Hill in Ottawa to speak to Saskatchewan's research priorities and strengths and inform policymakers; they were recognized on the international stage for their accomplishments and were invited to share their knowledge across the globe; and they made significant discoveries into the diseases threatening our health and quality of life and impacting our health system.

SHRF was honoured this year with an international award for the most innovative approach to return on investment by the ROI Institute. This work to measure and demonstrate the impact of Saskatchewan health research represents only a fraction of the impact health researchers have on our provincial economy, health system, communities, citizens and patients.

Throughout the year, we strengthened partnerships and engaged new partners who share our common goal of a healthier province. Our partnerships include national representation, such as with the Canadian Institutes of Health Research to support researchers through the Health System Impact Fellowship program and the Pathways to Health Equity for Aboriginal Peoples initiative; and the Centre for Aging + Brain Health Innovation to support innovations that address challenges associated with dementia and other neurodegenerative diseases. To accomplish our goals, we work with our provincial nonprofit organizations who also fund health research, such as the Alzheimer Society of Saskatchewan, the MS Society, Saskatchewan Division, the Heart and Stroke Foundation, our hospital foundations, and the Lung Association, Saskatchewan. We will ensure we capitalize on these relationships and continue to build on this momentum for even greater impacts in the coming year.

Our accomplishments this year also included hosting our most successful Santé Awards Evening with over 200 researchers, partners and community members in the room to celebrate the health research excellence driven by SHRF's investments. We increased our efforts to share our stories with a new newsletter and website and the revitalization of Health Research Week in October. These accomplishments demonstrate our purpose and ability to support the work of Saskatchewan health researchers as they continue to answer the questions and study the health challenges facing our province.

Behind every one of our successes this year has been the SHRF team. I want to thank the team for their work and their participation in developing our new strategy and defining our values that will continue to drive our organization forward. Thank you also to the Board for their leadership and guidance

throughout this year of strategic development. I invite you to discover more about the past year and where SHRF is headed in this year's annual report.

PATRICK ODNOKON

CEO

#### SHRF's investments in research will contribute

to the improved health of Saskatchewan citizens through a high performing health system with a robust culture of health research and innovation.

#### Defining Our Strategic Direction for the Future

A well-laid strategic plan plays a key role in defining organizational success by providing direction and setting priorities. It promotes employee engagement and alignment of efforts, simplifies decision making and communicates clear messages to internal and external stakeholders. At the forefront of SHRF's work this past year has been the development of our new strategic direction and core values as an organization. The SHRF team and Board of Directors were engaged in the process to ensure our values and goals were reflective of the experiences and insight that we bring to the table, to create a stronger connection to the actionable plan.

As we move forward, this new strategic purpose and affiliated objectives will steer SHRF's investment decisions and activities

#### SHRF's Strategic Goals

Strengthen research capacity and competitiveness

Increase investment in research and innovation

Align research with stakeholders' needs

in the coming years. In achieving our strategic goals, we will adhere to our organization's core values and promote inclusiveness, excellence, creativity and breadth in health research.

Our three goals are built on the common thread that SHRF cannot do this alone and collaboration is a recurring theme that plays a major role in our strategy and approaches. Accountability, Adaptability, Collaboration, Excellence and Integrity; represent a vital part of SHRF's strategic foundation and exemplify our fundamental beliefs and guiding principles for how we work with each other and all stakeholders.

# FUNDING RESEARCH THAT MATTERS

SHRF invests in collaborative, innovative, high impact, peer reviewed health research that aligns with our stakeholders' needs and helps strengthen research capacity and competitiveness in Saskatchewan.

In 2018-19 we ran seven programs:

- Establishment Grant
- Research Fellowship
- Collaborative Innovation Development Grant
- Sprout Grant
- Patient-Oriented Research Leadership Grant
- Ideas That Inspire Grant
- Research Connections

For lists of this past year's funding recipients, see pages 35-41.

Steven Machtaler, University of Saskatchewan, 2017-18 Establishment Recipient Research Area: Designing microbubbles to image and treat disease





applications received



grants awarded



#### granted to SK health research initiatives in 2018-19

\*includes partner-led initiatives, Research Fellowship Top-Up Award and Impact Award \*\*includes partner funding on SHRF-led programs from the Saskatchewan Centre for Patient-Oriented Research, the Centre for Aging + Brain Health Innovation and the Lung Association, Saskatchewan

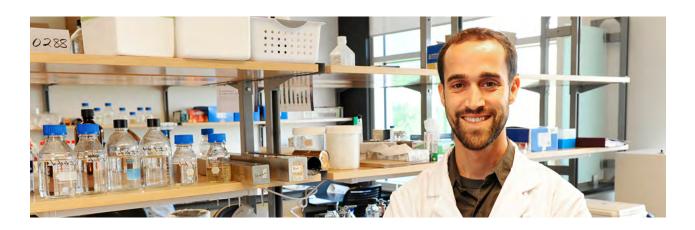
### **ESTABLISHMENT GRANT**

Helps new and newly resident to Saskatchewan health researchers build a program of research in the province and achieve the productivity necessary to obtain major funding from national and other external agencies, while working towards better health for Saskatchewan residents and beyond.

Funding available: up to \$120,000 for three years.



# \$1,394,430 TOTAL INVESTMENT



"SHRF support has been crucial and foundational for my research. I honestly cannot say enough about the importance of Establishment Grants for early career researchers like myself. My lab's Establishment Grant research has immediate benefits for the people of Saskatchewan by supplying and innovating molecular diagnostics for the identification and tracking of infectious disease outbreaks." Andrew Cameron, University of Regina, 2013-14 Establishment Grant Recipient

### **RESEARCH FELLOWSHIP**

Provides financial support to high-quality candidates for postdoctoral research in a health-related field under the supervision of an experienced, active researcher in Saskatchewan.

Funding available: up to \$100,000 for two years.



# \$800,000

#### TOTAL INVESTMENT

Top-Up Incentive: For funded SHRF Research Fellows who are successful at obtaining a Tri-Agency Research Fellowship that will be held in Saskatchewan, SHRF provides a top-up incentive of up to \$20,000 for two years. One Top-Up was awarded in 2018-19.

"SHRF is a key player in my research career. I was a recipient of SHRF postdoctoral Research Fellowship years ago. I was honoured to receive the SHRF Establishment Grant when I started to establish my own research lab. I believe that the research supported by SHRF will not only benefit people living in Saskatchewan, but it will also have significant impact nationally and internationally."

Yanbo Zhang, University of Saskatchewan, 2005-06 Research Fellowship and 2018-19 Establishment Grant Recipient

### COLLABORATIVE INNOVATION DEVELOPMENT GRANT

Fosters creativity, novelty and innovation in collaborative research, strengthening future funding applications by providing seed funding for ideas that are supported by a sound rationale and feasible plan, but not necessarily preliminary data.

Funding available: up to \$50,000 for 12-18 months.

Funding partner: Centre for Aging + Brain Health Innovation (CABHI): supporting innovations that address challenges associated with dementia and other neurodegenerative diseases.



"A major strength of the SHRF CID funding program is its support for Indigenous research methodologies, which have historically been under-valued in health-based research. The funding program provides an opportunity to develop, evaluate and build on existing tools and methods to better incorporate Indigenous concepts of wellness in the research design, and acknowledges the importance of traditional Elders, knowledge keepers, and community members as collaborators at every stage in the research process to increase the respect and relevancy of the research findings for Indigenous health and holistic wellness."

Angela McGinnis, University of Regina 2015-16 Collaborative Innovation Development Grant Principal Investigator

### **SPROUT GRANT**

Cultivates patient-oriented research teams in Saskatchewan and furthers the work of the Saskatchewan Centre for Patient-Oriented Research (SCPOR) to build capacity and collaborations to conduct responsive, equitable, innovative and patient-oriented research.

Funding available: up to \$180,000 for two years.

Funded in partnership with SCPOR.



**\$707,119** SHRF'S TOTAL

**INVESTMENT** 

# \$565,695

SCPOR'S TOTAL

**\$1,272,814** 

#### TOTAL INVESTMENT

SCPOR is one of 11 provincial/territorial units led by the Canadian Institutes of Health Research to build provincial and national capacity for patient-oriented research. With support from the governments of Canada and Saskatchewan, nine provincial organizations, including SHRF, provide funds and in-kind contributions.

# PATIENT-ORIENTED RESEARCH LEADERSHIP GRANT

Promotes dynamic applications of patient-oriented health research innovations by providing funds to an individual to carry out research. Two competitions were awarded in the 2018-19 year.

Funding available: up to \$250,000 for up to three years.

Funded in partnership with SCPOR.

#### **COMPETITION I**



\$709,293 SHRF'S TOTAL

# **\$1,471,917** TOTAL INVESTMENT

\$762,624 SCPOR'S TOTAL INVESTMENT

#### **COMPETITION II**



\$598,220 SHRF'S TOTAL INVESTMENT

\$1,227,290 TOTAL INVESTMENT \$629,070 SCPOR'S TOTAL INVESTMENT

### **IDEAS THAT INSPIRE GRANT**

Supports the new Respiratory Research Centre with the shared goal of discovery for healthy breathing. This grant supports inter-disciplinary teams doing human health and translational research projects with the aim of applying that knowledge for the benefit of patients.

Funding available: up to \$25,000 for one year.

Funded in partnership with the Lung Association, Saskatchewan (LAS).



**\$75,000** SHRF'S TOTAL INVESTMENT **\$75,000** LAS's TOTAL

INVESTMENT

\$150,000

#### TOTAL INVESTMENT

"Together with SHRF, the Lung Association, Saskatchewan shares the common objective of supporting health research that will help Saskatchewan people breath easier. Supporting innovative research, like these projects supported by the Ideas That Inspire grant, move us closer to our mission to improve lung health one breath at a time." Susan Cron, President and CEO, Lung Association, Saskatchewan

### **RESEARCH CONNECTIONS**

Provides matching funds to support targeted events or activities that facilitate collaboration and mobilize research knowledge to improve health. The grant program supports short-term, targeted, human health research knowledge mobilization initiatives taking place in, and having a practical application for, knowledge users in Saskatchewan.

Matching funding available: up to \$10,000.





"The strength of this funding program is the focus on Saskatchewan, and the health care and research needs of persons in Saskatchewan." Cindy Peternelj-Taylor, University of Saskatchewan, 2017-18 Research Connections Recipient

"The program's strength lies in providing support for research events that promote the inclusion of national speakers who are world-renowned in their own field and the encouragement of a wider audience participation from our province." Francisco Cayabyab, University of Saskatchewan, 2017-18 Research Connections Recipient

# **MEET THE SHRF TEAM**

At SHRF, we take pride in being accessible to our research community. This goes beyond answering phone calls and emails. Every year we host several events and meetings driven by our funding programs and the need to connect with our research community, providing information and answering questions.

In November 2018, we introduced a new come-and-go session in both Regina and Saskatoon to meet SHRF's funding team.

These sessions provided an open forum to come and learn what's new at SHRF, find out more about our funding opportunities and ask questions about the application process. These sessions attracted currently funded researchers, potential applicants, research facilitators and partner representatives. Feedback from the events was that there was something for everyone and the audience appreciated the face time with those who run the funding programs for SHRF.

#### 2018-19 Funding-Driven Events and Meetings

#### **5 Information Webinars**

- **3 Orientations**
- 2 Training Sessions for Patient Reviewers
- 2 Come-and-Go Sessions

"SHRF staff are very helpful and make this process [of applying] as easy as possible."

"The SHRF team is professional and fun to work with!"



### SHRF Wins International Award for Most Innovative Approach to ROI

Among a record number of award submissions in 10 categories, Saskatchewan Health Research Foundation was recognized by the ROI Institute as one of their 2017-2018 award winners for most innovative approach to ROI (Return On Investment).

The ROI Institute gives this award "to the individual or organization that shows the most creativity in the implementation of the ROI Methodology. Innovation can occur in data collection, analysis, or reporting, or it can involve creativity in getting others involved, using data, and building capability".



The report states that measuring the impact of health research has several challenges including distinguishing between attribution and contribution, the time lag between research project and observing impact, and the fact that one research project adds to a body of knowledge and is not likely the only source of information for decision and policy makers. Although complex, examining new and innovative ways to measure the impact and return on provincial research investment is important and needed.

The application of the Phillips ROI Methodology to SHRF's Collaborative Innovation Development grant program showed that there is a direct return of \$2.62 and an indirect return of \$3.16 for every dollar invested into this program.

"It is an honour for SHRF to be recognized for the work we have done on measuring and demonstrating the impact of Saskatchewan health research," says Patrick Odnokon, CEO of SHRF. "This case study represents only a fraction of the impact health researchers have on our provincial economy, health system, communities, citizens and patients."

SHRF joins the list as the only Canadian organization among a list of global winners of ROI Institute's Awards.

**\$2.62** Attributable Direct Return

**\$3.16** Indirect Return

#### **Intangible Benefits**

Build capacity of students and research labs and research infrastructure

Contribution to advancing knowledge; potential scientific advancements building upon what we know now

Participation of non-academic collaborators and the potential to bring new knowledge into practice

Potential health benefits

Potential socio-economic benefits

SHRF has been a leader nationally in this area of impact assessment and measuring the ROI of health research investment. SHRF measures research impact for two reasons: public accountability, since research is funded by taxpayers; and learning, ensuring stakeholders, partners and government know the impact and importance of these investments. This ROI work was developed with and for our researchers to help SHRF advance the field of measuring the impact of science. Results should not be generalized for all research or SHRF programs of research.





What happens to your application once you hit the 'Submit' button?

Walk through the steps your application takes as SHRF works with multidisciplinary committees to ensure we are funding excellence in health research.



SHRF ensures process was followed and prepares results for follow up with applicants



once conditions are met, SHRF **authorizes payments** to researchers' host institutions

# FUNDING EXCELLENCE THROUGH PEER REVIEW

The strength of our peer review process lies at the heart of SHRF's ability to fund the best and most relevant health research for the benefit of Saskatchewan people. 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. We are able to adapt, grow and maintain the strength of our processes because of this feedback from all of our review committees.

#### 12 Committee Meetings 76 Peer Reviewers

# 13 Patient Reviewers65 External Reviewers

"The clarity of the process and expectations for me as a reviewer are why I agreed to do this again [for SHRF] this year."

> "It was a very positive experience. Thanks for all of [SHRF's] support in ensuring such a smooth and professional process."

> > For lists of this past year's review committee members, see pages 42-45.

# First Patient Review Committee



Patient involvement in research is not new to the health research landscape. In recent years there has been a national focus on engaging patients at every step of the process. The Canadian Strategy for Patient-Oriented Research (SPOR) ensures that the questions asked and investigated are patient-identified priorities with the ultimate goal of improving patient outcomes.

SHRF has taken patient engagement further with the introduction of the first Patient Review Committee. This innovative approach involved Patient Family Advisors (PFAs) who met and were trained as patient reviewers to review and rank applications for both our Sprout and POR Leadership grants. Our two patient-oriented research programs, offered in partnership with the Saskatchewan Centre for Patient-Oriented Research (SCPOR), require health researchers to actively engage patients throughout the research process. In asking this of our researchers, we needed to look at how to evaluate not only the extent of patient involvement, but if their participation was meaningful.

In 2017-18 we did this by having two PFAs sit in on the review of applications. They provided feedback to the peer review committee on aspects of the proposal that outlined how patients would be involved in the planning, conducting and knowledge sharing aspects of the research project. This was a great step. After listening to feedback from all involved, in 2018-19 we decided to push further and strengthen the patient voice in the review process. We developed review criteria based on the Patient-Oriented Research Evaluation Tool created by SCPOR and PFAs. The tool helps identify the degree to which patients are engaged throughout the proposed research.

Prior to the grant review period, SHRF and SCPOR held a training session for the patient reviewers. This session introduced them to the tool, outlined the specific review criteria, detailed the steps of a review process and defined terminology specific to patient-oriented research.

It's been a positive learning experience for all involved. "We had an enthusiastic response from patients with varying backgrounds and experiences as a PFA interested in reviewing for us," says SHRF program manager, Olesya Hursky.

"Reviewing applications is a lot of work, and these patient reviewers have volunteered and committed their time to help us ensure we are funding the best, truly patient-driven research."



# Observation for Growth

SHRF introduced a peer review observation opportunity to support the growth and development of a strong research environment in Saskatchewan. Previous and current Establishment Grantees from the past five years were invited to observe a peer review committee process from beginning to end. This contributes toward achieving our goal of enhancing expertise in the area of peer review. By introducing the observation opportunity, new researchers gain an understanding of the process, setting them up to be future reviewers for SHRF and other organizations, as well as improving their own grant writing with a deeper understanding of what review committees discuss and look for. This observation opportunity has been a success, with great interest from the research community and positive feedback that is allowing us to grow and improve.

# **PROCESS MAKES PERFECT**

SHRF is committed to optimizing and improving our organizational processes. This is accomplished by gathering and responding to feedback from our stakeholders when appropriate. Over the past year, SHRF has worked to improve aspects of our work, from our funding programs, to our impact assessments and our communication efforts.

#### **Application Packages**

SHRF made changes to our program guides to create a more complete Application Package and improve consistency across all programs. The packages include:

- A Program Guide section, detailing the purpose, eligibility and requirements of
- the funding opportunity;
- An Application Instructions section, mirroring the required information to be provided in the SHRF Research Management System (RMS) application form; and
- A brief Checklist, to help ensure you have completed the necessary steps in the application process.

#### **Eligibility Check**

SHRF introduced an Eligibility Check across all programs (except Research Connections) to help streamline the process and provide consistency. This step functions in place of previous letters of interest or registration processes. This process checks principal applicant eligibility, team member requirements, fit with program purpose and partner focus areas. This process formalizes SHRF eligibility decisions with applicants and gives reviewers access to understand any exceptional circumstances.

#### **Research Progress Reports**

SHRF asks our funded researchers to report on their progress and results related to their SHRF funding. This keeps us accountable to our stakeholders and helps us measure and track our return on investment. In the past year, we worked to improve the reporting process by updating reporting questions for all programs to better capture information regarding partnerships, project results, knowledge translation, health and socio-economic benefits and secondary funding.

# SHRF's Research Management System

We work to ensure our granting application and management system is reliable and easy to use. Besides regular system updates, we work to ensure the functionality of the software meets the needs of our researchers. This year we made it easier to add contacts to applications and organized more aspects of the granting processes into easy to navigate tabs. The overall look of the SHRF RMS also got an update to reflect our branding and style.

To help facilitate these changes, we created a series of How-To Videos and posted them to our YouTube channel. These helpful videos walk through the different stages and steps of applying to and managing SHRF funding.

# Telling SHRF's Story

In 2018-19 we increased our storytelling efforts with the introduction of new channels of communication and the improvement of existing channels.

We launched our Facebook page during Health Research Week as a tool that will help us better share stories about the impact of our funded research. We launched a new monthly newsletter that delivers information on our programs, results, events and news straight to our audiences' inbox.

An essential tool for telling SHRF's story is our website. In March 2019 we launched our new website that will help us facilitate the growth of our storytelling.



### WORKING TOGETHER TO ACCOMPLISH MORE

Partnerships are about working together to accomplish common goals. By developing collaborative relationships, we can strengthen Saskatchewan's health research ecosystem with the intent to do more with the resources we have. SHRF seeks out partnerships that increase the investment in research and innovation in Saskatchewan to augment researchers' capacity and competitiveness while aligning with the unique needs of the province.

SHRF works with other funding agencies, non-profit organizations, industry leaders and other health research supporters who help us accomplish our goals. We work with these partners to benefit the Saskatchewan health research community. The following stories highlight our work in 2018-19.



From left to right: Anish Shah (CABHI), Danya Kordan (Innovation Saskatchewan), Mel Barsky (CABHI), Suellen Beatty (Sherbrooke Community Centre), Patrick Odnokon (SHRF), Alisha Tharani (CABHI), Joanne Bracken (Alzheimer Society of Saskatchewan), and MLA Eric Olauson at an event to celebrate the partnership agreement between SHRF and CABHI at the Sherbrooke Community Centre on Thursday, June 14, 2018.

# SHRF invites partners to provide support through our existing suite of funding programs

This year SHRF announced a new partnership with the Centre for Aging + Brain Health Innovation to bolster the development, testing and adoption of aging and brain health innovations in seniors' care in Saskatchewan. This partnership was a combined commitment of \$300,000 to support aging and brain health solutions, with attention to research projects focusing on Indigenous and rural communities, new technologies, dementia care and caregiver support. Five recipients were awarded this partner funding through our Collaborative Innovation Development grant. This funding partnership is one example of how SHRF collaborates to bring federal dollars into the province.

"CABHI's provincial partnerships, like this one with the Saskatchewan Health Research Foundation, enable us to advance the most innovative aging and brain health solutions in Canada, taking into account the unique needs and priorities of different regions," said Dr. Allison Sekuler, Vice-President Research, Baycrest and Managing Director, CABHI. "Saskatchewan's creativity shines through in these projects, which aim to help individuals with dementia and their caregivers live better lives."

# SHRF and partners combine resources to offer new or targeted opportunities

In 2018-19, in partnership with the Lung Association, Saskatchewan, SHRF awarded six research teams, with expertise varying from medicine and clinical practice to computer science and veterinary medicine, to address respiratory health and well-being in the province. The Ideas That Inspire grants were awarded in support of the new Respiratory Research Centre, Saskatoon with the shared goal of "discovery for healthy breathing". Each team received up to \$25,000 for one-year grants to launch original research projects that will provide new knowledge in the respiratory research field.

# SHRF contributes to required matching dollars on partner-led opportunities

The innovative work happening in the province can have a big impact when properly supported. SHRF works with individual researchers and partners to provide matching funding support to strengthen the capacity and competitiveness of Saskatchewan researchers. This matching support helps connect Saskatchewan researchers to national and international networks in important areas and increases success in further funding.

In 2018-19, SHRF supported Natasha Gallant through the Canadian Institutes of Health Research's (CIHR) Health System Impact Fellowship program which embeds researchers within the health system. Her work, under the supervision of Dr. Thomas Hadjistavropoulos, will look at harnessing the power of technology to assist older adults in long-term care.

# SHRF works with other provincial funders to build research capacity and competitiveness in Saskatchewan

Over the past year, SHRF brought together a select group of provincial charitable organizations and hospital foundations that have a mandate to fund health research in Saskatchewan. The purpose of these meetings is to share information, build relationships and begin a dialogue to discuss how to further our impact in Saskatchewan.

This group has identified that coming together to discuss trends and building provincial capacity for health research is something SHRF is uniquely positioned to do.

SHRF will continue to facilitate these meetings and lead the group in potential collaborations for the benefit of the province.

# SHRF works with the National Alliance of Provincial Health Research Organizations (NAPHRO)

As a provincial health research funding agency, SHRF is an active member of NAPHRO. Through working groups and committees, SHRF contributes to dialogues of advocacy and influences national funding policies and works towards improving practices in the areas of impact and evaluation, programs and knowledge translation.

# SHRF works with partners to support events relevant to the health of Saskatchewan people

Nearly 150 people representing the province's health research community, provincial health authority, federal and provincial governments, and community-based and Indigenous organizations gathered in Saskatoon on May 4, 2018, for a half-day forum addressing the current HIV crisis facing Saskatchewan, particularly within the Indigenous population.

Indigenous Health: The Mysteries and Myths of the HIV Crisis in Saskatchewan was co-hosted by Saskatchewan Health Research Foundation (SHRF) and the Canadian Academy of Health Sciences (CAHS) Saskatchewan Regional Network.

Forum attendees heard the personal experience of a woman who has lived with HIV for seventeen years, as well as keynote presentations from three Indigenous health researchers, who presented their work and perspectives:

- Dr. Carrie Bourassa, the Scientific Director of the Institute of Indigenous Peoples' Health, Canadian Institutes of Health Research
- Dr. JoLee Sasakamoose, Assistant Professor in Educational Psychology and Counselling at the University of Regina
- Dr. Alexandra King, the inaugural Cameco Chair in Indigenous Health and Wellness at the University of Saskatchewan



From left to right: Kishor Wasan (CAHS), Patrick Odnokon (SHRF), Caroline Tait, Carrie Bourassa, JoLee Sasakamoose, Jay Kalra, Lynn Thompson and Alexandra King at the Indigenous Health: The Mysteries and Myths of the HIV Crisis in Saskatchewan Conference on Thursday, May 4, 2018.

The 15th annual Santé Awards Evening was another great success. With attendance of well over 200 researchers, students, institution leadership, partners and other health research supporters, this was the largest audience we have had for this annual event.

The evening included MLA David Buckingham who brought greetings on behalf of the provincial government. We had over

25 researchers, community members and partners take part in a showcase of more than 18 SHRF-supported research projects. In celebration of our 15th year, many SHRF supporters submitted video messages of congratulations and thanks. You can see highlights of the night on our YouTube channel.

This annual event and awards presentation would not be possible without the generous financial support of our sponsors.

#### **Excellence Awards**

These awards recognize the top-ranked applications from researchers and teams in the past year's funding competitions. All applications to SHRF's funding competitions are ranked according to our rigorous peer review process by committees of active researchers and health professionals.

#### Winners:

Eric Price University of Saskatchewan Top Establishment Grant – Biomedical

Emily McWalter University of Saskatchewan Top Establishment Grant – Socio-Health

**Renuka Dahiya** University of Saskatchewan Supervisors: Andrew Freywald and Franco Vizeacoumar Top Research Fellowship – Biomedical

Ornwipa Thamsuwan University of Saskatchewan Supervisors: Catherine Trask and Stephan Milosavljevic Top Research Fellowship – Socio-Health





Xiongbiao Daniel Chen University of Saskatchewan Top Collaborative Innovation Development Grant – Biomedical

Louise Racine University of Saskatchewan Top Collaborative Innovation Development Grant – Socio-Health Systems, and Clinical

Angela Bowen University of Saskatchewan Top Sprout Grant

Jennifer Gordon University of Regina Top Patient-Oriented Research Leadership Grant (Competition I)

Mark Fenton University of Saskatchewan Top Ideas That Inspire Grant



### **Achievement Award**

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 an expert panel of national and local experts from a range of fields.

Ingrid Pickering University of Saskatchewan





### **Impact Award**

Presented to one researcher from our 2013-14 Establishment Grant recipients. It recognizes their work over the past five years to build capacity, advance knowledge, inform decision making, and to provide health, economic and social impacts in Saskatchewan. This award is determined by a merit review committee.

Brenna Bath University of Saskatchewan





Health Research Week was held October 22-28, 2018, to raise awareness of the important health research happening in Saskatchewan and the many ways SHRF supports researchers who are making a difference to the health of our province. Highlights of the week include:

- Launch of SHRF's Facebook page
- Sharing infographics created to educate the research community on our processes and program history
- Launch of our newsletter
- Increased engagement from our partners, institutions and other NAPHRO organizations on Twitter using #HealthResearchWeek

### 2018-19 SHRF-Sponsored Events

- Canadian Academy of Health Sciences (CAHS) Annual Forum & General Meeting: Beyond the Morass: A National Strategy for Chronic Pain in Canada
- Canadian Academy of Health Sciences (CAHS) Annual Forum & General Meeting: Promoting Health for Refugees in an Era of Forced Migration
- Med.Hack(+) Hackathon
- Pint of Science Festival
- Regina Regional Science Fair
- Saskatchewan Seniors Mechanism Annual Conference
- Saskatoon Regional Science Fair

## **ESTABLISHMENT GRANT**

#### Shadi Beshai University of Regina

Efficacy of a Self-Compassion Intervention to Prevent Relapse and Recurrence of Depression: Fostering Trait Resilience to Disrupt the Cycle of Depression

Kara Fletcher University of Regina

Mental health and substance abuse treatment in a Saskatchewan context: Who accesses and benefits from treatment? Who is missing?

Gary Groot University of Saskatchewan

A Journey With You: Indigenous Peer Navigation in Saskatchewan Cancer Care

**Robert Laprairie** University of Saskatchewan Modulation of the endocannabinoid system in the GAERS rat model of absence epilepsy.

**Michael Levin** University of Saskatchewan Acquired DNA mutations contribute to neurodegeneration in MS

Jessica Lieffers University of Saskatchewan Nutrition and Tooth Decay in Children: An analysis of parental perspectives and publicly available written information

**Emily McWalter University of Saskatchewan** The Forgotten Tissues of Knee Osteoarthritis: Quantitative MRI of Synovium, Muscle, Tendons and Ligaments

T. Dylan Olver University of Saskatchewan Importance of endothelial function on sympathetic-mediated cerebral vasomotor control in health and disease

**Eric Price** University of Saskatchewan Synthesis of Modular Linkers Towards Next-Generation Peptide-Based Radiopharmaceuticals

Maarten Voordouw University of Saskatchewan Know your enemy: Characterization of Borrelia burgdorferi strains bringing Lyme disease to Saskatchewan

**Scott Widenmaier** University of Saskatchewan Guarding Cholesterol Homeostasis to Treat Chronic Disease

Yanbo Zhang University of Saskatchewan

The Effects of Low-Field Magnetic Stimulation on Neuroprotection, Microglia Modulation and Myelin Repair: A Potential Therapy for Cognitive impairment and Depression in Multiple Sclerosis

# **RESEARCH FELLOWSHIP**

Alexandra Belotta University of Saskatchewan Supervisors: Monique Mayer and Shelley Kirychuk Dose to the Lens of the Eye in Veterinary Workers Performing Diagnostic Radiology Procedures

**Renuka Dahiya** University of Saskatchewan Supervisors: Andrew Freywald and Franco Vizeacoumar Development of new effective combination therapy for triple-negative breast cancer

Amit Gaba University of Saskatchewan Supervisor: Linda Chelico Role of APOBEC3 enzymes in restriction of HIV-1

Tetiana Katrii University of Saskatchewan Supervisor: Andrew Freywald The role of mitochondrial fission in triple-negative breast cancer tumor-initiating cells

Thaísa Sandini University of Saskatchewan Supervisor: John Howland Attentional deficits in a developmental model of schizophrenia and their relationship to brain activity patterns in prefrontal cortex.

Ornwipa Thamsuwan University of Saskatchewan Supervisor: Catherine Trask and Stephan Milosavljevic Take a load off: an ergonomic evaluation of exoskeletons for Saskatchewan farmers

Xingui Tian University of Saskatchewan Supervisor: Yan Zhou Development of novel vaccines for highly pathogenic avian influenza viruses with pandemic potentials

**Emilio Vélez** University of Saskatchewan Supervisor: Suraj Unniappan Nesfatin-1 and Nesfatin-1-Like Peptide Regulation of Growth

## **TOP UP AWARD**

Thiago Seraphim University of Regina Supervisor: Mohan Babu Global Analysis of Cellular Functions of the Human R2TP Chaperone Complex Through Physical and Genetic Interaction Mapping

# COLLABORATIVE INNOVATION DEVELOPMENT GRANT

Amira Abdelrasoul University of Saskatchewan Investigations on Blood-Hemodialysis Membrane Interactions for Enhancing Biocompatibility

Angela Bowen University of Saskatchewan Bridging the generations: Cultural mentorship to promote aging Indigenous women's health

**Francisco Cayabyab** University of Saskatchewan Targeting HERG-STAT1 Interaction for Novel Anti-Cancer Therapy

Tanya Dahms University of Regina A novel class of antifungals for preventing fungal infections.

Sarah Donkers University of Saskatchewan Rehabilitation Dogs: a novel approach to improving mobility for children living with Cerebral Palsy

Donna Goodridge\* University of Saskatchewan Improving Access to Support: Development and Evaluation of a Novel App for Family Caregivers of People with Dementia

George Katselis University of Saskatchewan Investigating the Role of Diabetic Pregnancies in Kidney Disease Among Type 2 Diabetes Mellitus Adolescents Using Urine Proteomics

Saija Kontulainen University of Saskatchewan Bone Strength development in children with type 1 Diabetes (BSD Pilot)

Geoffrey Maina University of Saskatchewan Engaging and empowering youth at risk of alcohol and drug use in Prince Albert: An artbased intervention Jennifer Nicol\* University of Saskatchewan Using the E-music box in dementia care: Supporting social bonding and advancing brain research

Megan O'Connell\* University of Saskatchewan RAIIN - Remote Assessment and Interprofessional Intervention with Neuropsychology - Remote Treatment of Sleep Disturbance for Persons with Dementia and their Caregivers

Shelley Peacock\* University of Saskatchewan Adapting a caregiver co-designed mental wellness app for rural caregivers of persons with dementia: RuralCARES

Louise Racine University of Saskatchewan Towards an Understanding of Indigenous Perspectives on Cognitive Impairment and Dementia in Saskatchewan.

Changiz Taghibiglou University of Saskatchewan Effect of Low Field Magnetic Stimulation (LFMS) on Restoring Dopaminergic Neurons, Cognitive and Motor Functions in an experimental model of Parkinson's Disease

Susan Tupper\* Saskatchewan Health Authority Pain Knowledge Needs of Family Caregivers and Persons with Dementia: Role of Virtual Reality as a Training Modality

J. Stephen Wormith University of Saskatchewan Older Offenders in Correctional Service Canada

\* Funded in partnership with CABHI

## **SPROUT GRANT**

Paul Babyn University of Saskatchewan Improving lung cancer diagnosis with novel artificial intelligence imaging analytics

Jill Bally University of Saskatchewan

Supporting Indigenous Family Caregivers of Children with Life-Threatening and Life-Limiting Illness in Saskatchewan

Brenna Bath University of Saskatchewan

A Community-Informed Team and Technology Approach to Chronic Back Pain Management in Partnership with a Northern Saskatchewan Cree First Nation

Roslyn Compton University of Saskatchewan

Towards Improving the Quality of Life for Long Term Care Residents: Exploring the Current Factors Affecting Healthcare Provision and Health Outcomes.

Anthony de Padua University of Saskatchewan

Exploring the Experiences of Spirituality and Healing for Indigenous people living with HIV and the Co-creation of a Circle for Healing

Sarah Donkers University of Saskatchewan Individualized Behaviour Change Strategies for Physical Activity in Multiple Sclerosis

Tasha Epp University of Saskatchewan

Pets and people in the gap: identifying perspectives on pets and pet health, working towards community-derived interventions to promote community health in communities under-served by veterinarians in Saskatchewan

Juan-Nicolas Pena-Sanchez University of Saskatchewan Understanding and advocating for Miyo-Māhcihowin (good health and well-being) among Indigenous Peoples living with Inflammatory Bowel Disease

Noelle Rohatinsky University of Saskatchewan Healthcare Utilization and Access to Care in Patients with Inflammatory Bowel Disease in Rural Saskatchewan

# PATIENT-ORIENTED RESEARCH LEADERSHIP GRANT

## **COMPETITION I**

Angela Bowen University of Saskatchewan Walking with mothers: The journey to culturally secure birth in Saskatchewan

Jennifer Gordon University of Regina Improving Women's Mental Health in Saskatchewan

Gary Groot University of Saskatchewan The Indigenous Health Collective: Advancing Indigenous Health Knowledge in Saskatchewan

Vivian Ramsden University of Saskatchewan Wellness – Building on Strengths: Working with Sturgeon Lake First Nation

JoLee Sasakamoose University of Regina Muskowekwan First Nation: Regaining and Using Our Culture to Heal Generations Together

Kristi Wright University of Regina Transforming Mental Health Prevention Service Delivery for Children and Adolescents with Cystic Fibrosis: A Program of Research

## **COMPETITION II**

Heather Hadjistavropoulos University of Regina Partnering with Patients to Expand Internet-Delivered Cognitive Behaviour Therapy in Saskatchewan to include Programs Addressing Alcohol Misuse and Sleep Problems

**Tarun Katapally** University of Regina SMART Youth: A Digital Platform for Population Health Interventions

Saija Kontulainen University of Saskatchewan Patient-oriented Evidence-based Exercise Program for Osteoporotic Fracture Prevention

Silvana Papagerakis University of Saskatchewan Evaluate the contribution of biological clock disruption in patients with rheumatoid arthritis and design of novel therapeutic interventions based on patients' perceptions and needs to improve patients' quality of life

Tracie Risling University of Saskatchewan No Patient Left Behind: Collaborating with Saskatchewan Residents to Support the Use of Electronic Health Records

# **IDEAS THAT INSPIRE GRANT**

#### Mark Fenton University of Saskatchewan

Synchrotron Imaging to Characterize Chronic Allograft Rejection in a Swine Orthotopic Lung Transplantation Model.

**Shelley Kirychuk** University of Saskatchewan Ambient Air Quality and Respiratory Health in Saskatchewan: the influence of PM2.5.

Joshua Lawson University of Saskatchewan Patterns of Exposure to Conventional and Electronic Cigarette Smoking and their Relationship to Lung Health Outcomes Among Children and Adolescents.

Holly Mansell University of Saskatchewan Pharmacokinetics of Apixaban + Tacrolimus or Cyclosporine in Lung Transplant Recipients.

**Erika Penz** University of Saskatchewan An Examination of Patient Reported Outcomes in COPD Patients Utilizing a Novel Mobile Application.

Robert Skomro University of Saskatchewan

Study of the Pathogenesis and Progression of Bleomycin-Induced Idiopathic Pulmonary Fibrosis in the Distal Airway and Alveoli Using Synchrotron-Based Imaging.

# **RESEARCH CONNECTIONS**

Jane Alcorn University of Saskatchewan Life and Health Sciences Research Exposition

June Anonson University of Saskatchewan Connecting community leaders, service providers, and homeless persons to address homelessness in Prince Albert: An outreach activity that builds upon SSHRC funded research

Lloyd Balbuena University of Saskatchewan Potential or Trouble: Marijuana in Mental Health

James Benson University of Saskatchewan Extreme Cryo: Frozen Fertility

Ann Bishop University of Regina RESOLVE Research Day 2018 - Circles of Care: The Impact of Intimate Partner Violence on Children, Families and Communities

Linda Chelico University of Saskatchewan 28th Annual Canadian Conference on HIV/AIDS Research

Adam Clay Saskatchewan Health Authority Research Showcase 2018

Donna Goodridge University of Saskatchewan Advances in Respiratory Health Research: What Patient and Families Need to Know

Bonnie Jeffery University of Regina Policy Maker-Community Summit to Address Social Isolation of Older Adults

**Steven Jones** University of Saskatchewan Planetary Health: Connecting Food, People and Planet Lori Kleiboer Lung Association, Saskatchewan Inspired Breathing Conference

Edward Krol University of Saskatchewan Western Canadian Medicinal Chemistry Workshop

**Kiven (Erique) Lukong** University of Saskatchewan 5th Annual Saskatchewan Cancer Research Conference 2018

Yu Luo University of Saskatchewan 2018 PSFaM (Protein Structure Function & Malfunction) Symposium

Joshua Marko Saskatchewan Health Authority Saskatchewan Epidemiology Association's 18th Annual Fall Symposium & Workshop

Jennifer May Lung Association, Saskatchewan Lung Transplant Video Series

Martin Phillipson University of Saskatchewan Medical-Legal Partnerships in Saskatchewan: disseminating information to key stakeholders

Elizabeth Quinlan University of Saskatchewan Cataloguing and Capturing Community Health Services Association's Social History

Eddie Rooke University of Saskatchewan 7th Annual Global Health Conference: "Building Bridges, Breaking Barriers: Accessible Healthcare for Vulnerable Populations"

Jason Vanstone Saskatchewan Health Authority 2nd Annual Saskatchewan Antimicrobial Stewardship Symposium

J. Stephen Wormith University of Saskatchewan 17th Biennial Violence and Aggression Symposium 2018

# PEER REVIEW COMMITTEES

Committee membership for standing programs is typically for a three-year term. In 2018-19, the following peer reviewers provided their expertise.

### **Biomedical Establishment Grant Review Committee**

Tanya Dahms (Chair) University of Regina

Daniel MacPhee University of Saskatchewan

David Marchant University of Alberta

Bogdan Popescu University of Saskatchewan Maruti Uppalapati University of Saskatchewan

Valerie Verge University of Saskatchewan

Heather Wilson University of Saskatchewan

### Socio-Health, Systems & Clinical Grant Review Committee (Establishment & Fellowship)

Jonathan Farthing (Chair) University of Saskatchewan

Paul Bruno University of Regina

Todd Duhamel University of Manitoba

Holly Graham University of Saskatchewan

Christopher Hergott University of Calgary Lorraine Holtslander University of Saskatchewan

Shelley Kirychuk University of Saskatchewan

Corey Tomczak University of Saskatchewan

Elaine Wiersma Lakehead University

Kristi Wright University of Regina

### **Biomedical Fellowship Award Review Committee**

Volker Gerdts (Chair) University of Saskatchewan

Hector Caruncho University of Victoria

Brian Eames University of Saskatchewan

Janet Hill University of Saskatchewan Michael Jackson University of Manitoba

Scott Napper University of Saskatchewan

Suraj Unniappan University of Saskatchewan

Jian Yang University of Saskatchewan

## Collaborative Innovation Development Grant Review Committee: Socio-Health, Systems & Clinical

Rachelle Ashcroft (Chair) University of Toronto

Catherine Donnelly Queen's University

Nathan Lachowsky University of Victoria Dallas Seitz Queen's University

Sandra Webber University of Manitoba

Erin Wilson University of Northern British Columbia

Josée Lavoie University of Manitoba

## Collaborative Innovation Development Grant Review Committee: Biomedical

Brian Christie (Chair) University of Victoria

Emilio Alarcon University of Ottawa Heart Institute

Khaled Barakat University of Alberta

Francois Benard University of British Columbia Tony Kiang University of Alberta

Patrick Lajoie University of Western Ontario

Tabrez Siddiqui University of Manitoba

### **Sprout Grant Review Committee**

Sara Kreindler (Chair) University of Manitoba

Leanne Currie University of British Columbia

Jayna Holroyd-Leduc University of Calgary

Jeffrey Leyton University of Sherbrooke

Jon McGavock Children's Hospital Research Institute of Manitoba Amy Salmon Centre for Health Evaluation and Outcomes Sciences (CHÉOS)

Rick Sawatzky Trinity Western University

Robin Urquhart Dalhousie University

### **Sprout Grant Patient Review Committee**

Sara Kreindler (Chair) University of Manitoba Donna Milbrandt

Diana Ermel

Tyler Moss

Ray Van Dusen

Crystal Greenwood

Bernadette Heintz

### Patient-Oriented Research Leadership Grant (Competition I) Review Committee

Christopher Fletcher (Chair) Université Laval

Anita Benoit University of Toronto

Anna Durbin St. Michael's Hospital

Alanaise Goodwill Simon Fraser University Jennifer Leason University of Calgary

Javier Mignone University of Manitoba

Rebecca Saah University of Calgary

## Patient-Oriented Research Leadership Grant (Competition II) Review Committee

Martha MacLeod (Chair) University of Northern British Columbia Jennifer Leason University of Calgary

Maureen Ashe University of British Columbia

Anita Benoit University of Toronto Javier Mignone University of Manitoba

Gillian Strudwick Centre for Addiction and Mental Health

## Patient-Oriented Research Leadership Grant (Competition II) Patient Review Committee

Martha MacLeod (Chair) University of Northern British Columbia

Janet Gunderson

Raymond Laliberte

Brenda Andreas

Barbara Martin

Kevin Belitski

### **Inspire Grant Review Committee**

Andrew Halayko (Chair) University of Manitoba

Valerie Chappe Dalhousie University

Harvey Coxson University of British Columbia Saeid Ghavami University of Manitoba

Bradley Quon University of British Columbia

Mohsen Sadatsafavi University of British Columbia

## ANNUAL REPORT 2018-19



40 43 46 34 37 **FINANCIAL STATEMENTS** For the year ending March 31, 2019

#### **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
- 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.

Cecile Hund

Cecile Hunt Chair

Patrick Odnokon Chief Executive Officer



#### **INDEPENDENT AUDITOR'S REPORT**

#### To: The Members of the Legislative Assembly of Saskatchewan

#### Opinion

We have audited the financial statements of Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2019, and the statement of operations, statement of change in net financial assets and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Saskatchewan Health Research Foundation as at March 31, 2019, and the results of its operations, changes in net financial assets, and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

#### **Basis for Opinion**

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Saskatchewan Health Research Foundation in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Responsibilities of Management and Those Charged with Governance 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.

In preparing the financial statements, management is responsible for assessing Saskatchewan Health Research Foundation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Saskatchewan Health Research Foundation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Saskatchewan Health Research Foundation's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.



As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Saskatchewan Health Research Foundation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Saskatchewan Health Research Foundation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Saskatchewan Health Research Foundation to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control identified during the audit.

Regina, Saskatchewan June 20, 2019

Judy Ferguin

Judy Ferguson, FCPA, FCA Provincial Auditor Office of the Provincial Auditor

#### **STATEMENT OF FINANCIAL POSITION**

As at March 31

		2019	-	2018
Accrued interest receivable Accounts receivable	\$	1,158,730 57,101 130,639	\$	2,245,110 23,280 160,940
Short-term investments (Schedule 2)		5,000,000 6,346,470	-	3,400,000 5,829,330
Liabilities Deferred Revenue (Note 4) Accounts payable and accrued liabilities Payroll liabilities Grants payable		235,655 61,430 25,078 5,385,428 5,707,591	-	50,677 141,559 21,880 3,982,572 4,196,688
Net financial assets (Statement 3)		638,879	-	1,632,642
<b>Non-financial assets</b> Tangible capital assets (Note 3) Prepaid expenses		14,486 11,775 26,261		23,668 11,207 34,875
Accumulated surplus (Statement 2)	\$ =	665,140	\$ ;	1,667,517

Contractual Obligations (Note 5) Contractual Rights (Note 6(3)(i))

#### STATEMENT OF OPERATIONS

For the Year Ended March 31

	2019			2018	
	Budget Actual		_	Actual	
	(Note 10)			_	
Revenues					
Government Contributions					
Innovation Saskatchewan \$	5,349,000	\$	5,349,000	\$	5,630,000
Non-Government Contributions					
Alzheimer's Society of Saskatchewan	100,000		100,000		100,000
CABHI	150,000		-		-
Emerging Partnerships	50,000		-		-
Heart and Stroke Foundation of Canada	100,000		100,000		100,000
Saskatoon City Hospital Foundation	100,000		100,000		100,000
SCPOR	174,000		225,694		203,561
The Lung Association	-		75,000		-
Donations and Sponsorships Other Revenue (Note 7)	22,000 129,000		20,604		25,623 312,763
Other Revenue (Note 7)	129,000	-	358,836	_	512,705
Total Revenues	6,174,000		6,329,134		6,471,947
Expenses		-		-	
Research funding					
SHRF-led awards (Note 6(1))	5,432,163		5,708,455		4,267,669
Partner-led awards (Note 6(2))	229,120		144,120		327,713
Program support	450,297		475,311		385,336
Communication and Outreach	373,659		194,824		341,663
Impact and Evaluation	152,576		128,874		25,173
Leadership and management					
Board	29,200		22,571		18,787
Administrative	767,109		657,356	_	663,672
Total Expenses (Schedule 1)	7,434,124	_	7,331,511		6,030,013
Annual (deficit) surplus (Statement 3, 4) \$	(1,260,124)	-	(1,002,377)	-	441,934
Accumulated surplus, beginning of year			1,667,517		1,225,583
Accumulated surplus, end of year (Statement 1)		\$	665,140	\$ -	1,667,517
		-		=	

#### STATEMENT OF CHANGE IN NET FINANCIAL ASSETS

For the Year Ended March 31

	2019	_	2018
Annual surplus (deficit) (Statement 2)	\$ (1,002,377)	\$	441,934
Acquisition of tangible capital assets Disposal of capital assets Amortization of tangible capital assets	(3,003) - 12,185		(4,263) 2,728 14,309
	9,182	-	12,774
Acquisiton of prepaid expense Use of prepaid expense	(24,607) 24,039		(32,078) 37,465
	(568)	-	5,387
Increase in net financial assets	(993,763)	-	460,095
Net financial assets, beginning of year	1,632,642		1,172,547
Net financial assets, end of year (Statement 1)	\$ 638,879	\$_	1,632,642

#### STATEMENT OF CASH FLOWS

For the Year Ended March 31

	2019	_	2018
Operating transactions			
Annual surplus (Statement 2) \$ Non-cash items included in annual surplus:	(1,002,377)	\$	441,934
Amortization of tangible capital assets Net change in non-cash working capital items:	12,185		14,309
Accrued interest receivable	(33,821)		16,685
Accounts receivable	30,301		47,849
Prepaid expenses	(568)		5,387
Deferred revenue	184,978		50,677
Accounts payable and accrued liabilities	(80,129)		89,319
Payroll liabilities	3,198		8,999
Grants payable	1,402,856	_	(47,043)
Cash provided by (used in) operating transactions	516,623		628,116
Capital transactions			
Cash (used) to acquire tangible capital assets	(3,003)		(1,535)
Cash applied to capital transactions	(3,003)	_	(1,535)
Investing transactions			
Purchase of investments	(5,000,000)		(5,600,000)
Proceeds from disposal and redemption of investments	3,400,000	_	7,000,000
Cash provided by (used in) investing transactions	(1,600,000)	_	1,400,000
Increase (Decrease) in cash and cash equivalents	(1,086,380)		2,026,581
Cash and cash equivalents, beginning of year	2,245,110		218,529
<b>Cash and cash equivalents, end of year</b> \$	1,158,730	\$ =	2,245,110

#### SASKATCHEWAN HEALTH RESEARCH FOUNDATION NOTES TO THE FINANCIAL STATEMENTS MARCH 31, 2019

#### 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 (referred 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.

These statements do not include a Statements of Re-measurement Gains and Losses as the Foundation does not have Remeasurement Gains or Losses.

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 deferred revenue 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 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 a	s incurred.

#### e) Investments

Investments are valued at amortized cost.

#### 3. Tangible Capital Assets

	Furniture and Equipment	Leasehold Improvements	2019 Totals	2018 Totals
Opening cost	\$ 211,011	\$ 13,007	\$ 224,018	\$ 271,642
Additions during the year	3,003	-	3,003	4,263
Disposals during the year	-	-	-	51,887
Closing cost	\$ 214,014	\$ 13,007	\$ 227,021	\$ 224,018
Opening accumulated amortization	187,343	13,007	\$ 200,350	235,200
Amortization for the year	12,185	-	12,185	14,309
Disposals during the year	-	-	-	49,159
Closing accumulated amortization	\$ 199,528	\$ 13,007	\$ 212,535	\$ 200,350
Net book value of tangible capital assets	\$ 14,486	-	\$ 14,486	\$ 23,668

#### 4. Deferred Revenue

The Foundation is holding \$184,910 which was bequeathed from an estate and will be used for future research projects. \$50,745 is for the Saskatchewan Centre for Patient Oriented Research (SCPOR) for projects in future years.

#### 5. Contractual Obligations

At March 31, 2019, the Foundation had the following obligations:

	2020
Office Lease*	\$ 93,511
Total	\$ 93,511

\*The office lease was renewed in 2017 for two years. The current lease expires October 31, 2019. The postage meter was in contract with Pitney Bowes and expired October 31, 2018 and was not renewed.

#### 6. 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.

#### (1) 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.

SHRF partners with other organizations to fund excellent health research in target areas and increase funding available through SHRF funding programs. Partnership agreements may be in place before or after the application deadline.

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.

#### (2) Partner-led awards

Provided that SHRF standards are met, SHRF partners strategically on funding opportunities offered by other organizations. These partnerships improve the ability of Saskatchewan researchers to participate in national and international research initiatives by showing local support and providing matching funding. In this scenario, the Foundation's partner administers the funding competition and, if a grant is authorized by the partner, SHRF provides matching funding to the recipient's host institution in Saskatchewan. 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.

Below is a breakdown of these partner-led grant expenses for 2018-19:

#### i) Pathways to Health Equity for Aboriginal Peoples

SHRF provided partnership funding starting in 2016-17 for a grant funded through this Canadian Institutes of Health Research (CIHR) initiative; in a 3-year commitment, the Foundation provided total partnership funding of \$133,240 to a project on indigenous youth mentorship for diabetes prevention. In 2018-19 SHRF's investment was \$29,120.

#### 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) CIHR New Investigator

In 2018-19 SHRF provided partnership funding with CIHR for 1 year in the area of health system research. SHRF's total of \$15,000 was granted.

#### (3) Other Partnerships

#### i) Saskatchewan Centre for Patient-Oriented Research (SCPOR)

SCPOR Core Capacity is for the administration of the SCPOR initiative. This is a contractual right and will result in the following economic resources being transferred to SHRF in future years:

Fiscal Year	Core Capacity Funds
2019/20	\$182,000
2020/21	\$188,000
Total	\$370,000

During 2016-17, SHRF entered into a partnership agreement with SCPOR, the provincial entity funded through the national SPOR initative. SCPOR is mandated to build provincial and national capacity for patient-oriented research. SCPOR is a partnership of organizations that support and promote patient-oriented research in Saskatchewan and is funded 50% by CIHR, with the matching support coming from both cash and in-kind contributions from nine Saskatchewan partner organizations, including SHRF.

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. In 2018-19, SHRF invested \$2,014,632.

#### 7. Other Revenue

In 2018-19 other revenue generated by the Foundation included interest of \$113,477 and recoveries of \$245,315.

#### 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, as well as key management personnel and their close family members (collectively referred to as "related parties"). Related party transactions with the Foundation are in the normal course of operations and are recorded at fair market value.

#### 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.

#### 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 (GIC's). 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

#### 10. Budget

The operating budget was approved by the Foundation's Board on April 19, 2018.

#### 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 \$68,593 (2017-18 \$60,224).

#### 12. Future Research Funding Cash Commitments (Schedule 3)

This schedule shows the cash commitment that is scheduled to be paid over the next five years. This is an ever changing chart, as new grants are awarded, grants are completed and recoveries are recorded the commitment of total cash being paid out changes.

#### SCHEDULE OF EXPENSES BY OBJECT

For the Year Ended March 31

	2019			2018		
	_	Budget		Actual		Actual
		(Note 10)				
Advertising and promotion	\$	7,600	Ś	8,403	Ś	7,186
Amortization	•	16,500		12,185	•	14,309
Board		29,200		22,571		18,787
Employee benefits		192,786		148,107		135,684
Employee salaries		910,303		742,555		671,029
Grants and awards		5,686,283		5,868,875		4,617,382
Office expenses		79,640		46,692		82,424
Office lease		154,354		144,885		135,694
Professional fees		130,450		45,513		98,793
Publications		16,000		322		15,358
Review committee		41,400		26,018		28,203
SCPOR expenses		111,808		225,694		170,427
Travel and meetings	_	57,800	_	39,691		34,737
	\$	7,434,124	\$	7,331,511	\$	6,030,013

#### SCHEDULE OF INVESTMENTS

As at March 31, 2019

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
<b>Cash and cash equivalents</b> (Statement 1) Cash TD Waterhouse - Investment Savings Account	\$	49,627 1,109,103 1,158,730	1.60
<b>Short-term investments</b> (Statement 1) RBC GIC Equitable Bank GIC Bank of Nova Scotia GIC RBC GIC BMO GIC	9-Sep-2019 9-Sep-2019 10-Sep-2019 10-Sep-2019 6-Nov-2019	400,000 100,000 1,000,000 1,000,000 2,500,000 5,000,000	2.25 2.35 2.25 2.25 2.60
	\$	6,158,730	

#### SCHEDULE 3

#### SASKATCHEWAN HEALTH RESEARCH FOUNDATION

#### SCHEDULE OF FUTURE FUNDING CASH COMMITMENTS As at March 31, 2019

	SASKATCHEWAN HEALTH RESEARCH FOUNDATION				
YEAR	PF	PROGRAMS			
2020 2021 2022 2023 2024	\$	4,041,660 2,107,894 782,583 159,958 13,333			
	\$	7,105,428			



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