

RESEARCH THAT MATTERS

TO SASKATCHEWAN HEALTH



SHRF

SASKATCHEWAN
HEALTH RESEARCH
FOUNDATION

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, 2020.



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, 2019, to March 31, 2020.

Respectfully submitted,



Cecile Hunt
Board Chair



THE BOARD

Cecile Hunt
Board Chair

Joe Vidal
Vice Chair

Jane Alcorn

Brent Brownlee
(Until August 14, 2019)

Josef Buttigieg

Jim Demeray
(Appointed May 30, 2019)

Phoebe De Ciman
(Appointed Aug 14, 2019)

Tami Denomie

Jordan Dutchak
(Appointed May 30, 2019)

Danya Kordan

Vivian Ramsden

Robert Sheldon

Brandy Winkist
(Appointed May 30, 2019)

THE TEAM

Patrick Odnokon
Chief Executive Officer

Catherine Klopoushak
Executive Assistant

Rostyk Hursky
Director of Impact and
Strategy

Karen Tilsley
Director of Funding Programs

Dani Robertson-Boersma
Funding Programs Officer

Tanya Skorobohach
Programs Coordinator

Lina Kazan
Director of Finance and
Corporate Services

Irene Blum
Senior Accountant

Nikki Desjardins
Communications and
Outreach Officer

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SHRF receives funding from the Government of
Saskatchewan through Innovation Saskatchewan.

SHRF INVESTS IN HEALTH RESEARCH THAT IS CURRENT, RELEVANT AND ALIGNED WITH THE NEEDS OF SASKATCHEWAN

AN OVERVIEW OF SOME RESEARCH AREAS FUNDED OVER THE PAST 5 YEARS (2015-2020)



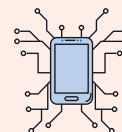
Indigenous Projects

Number of Projects

44

Value of Projects

\$5.1M



Technology Projects

Number of Projects

27

Value of Projects

\$2.2M



Rural and Remote Projects

Number of Projects

34

Value of Projects

\$1.9M



Mental Health Projects

Number of Projects

26

Value of Projects

\$2.7M



Dementia Projects

Number of Projects

20

Value of Projects

\$2.4M



Child and Youth Health Projects

Number of Projects

30

Value of Projects

\$2.3M

We fund, support and promote the impact of health research that matters to Saskatchewan.



HEALTH RESEARCH IS VITAL

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

SHRF IS VITAL

to enabling the best health research that supports Saskatchewan solutions to Saskatchewan health challenges by upholding a rigorous peer review process, measuring and sharing the impact of funded research, and collaborating with partners who can help maximize the impact of this work.

OUR STRATEGIC GOALS

- Strengthen research capacity and competitiveness
- Increase investment in research and innovation
- Align research with stakeholders' needs

KEY ACTIVITIES

Develop and execute research funding competitions aligned with the needs of the province

Uphold a rigorous peer review process that ensures quality and relevance of applications, and supports growth and capacity building for reviewers and researchers

Partner with other organizations to maximize efficiencies, reduce duplication and increase impact of health research investments and activities

Measure impact and share stories of our investments and activities on the overall health of the province

Act as a trusted and neutral convenor of multiple stakeholder groups, possessing in-depth knowledge, an unbiased view and expertise adding value and unique insights into the Saskatchewan research ecosystem

LETTER FROM THE BOARD CHAIR AND CEO

Ending the 2019-20 fiscal year facing an unprecedented situation in our province brings a new perspective to the importance of SHRF's work to support the health research community of Saskatchewan. As we physically distance from one another for our health and safety, we see the community come together in new ways to apply existing knowledge and expertise to finding solutions that will help us come through this pandemic stronger than before.

Reflecting on the past year's activities and achievements demonstrates how SHRF's strategic goals provide the framework to enable Saskatchewan health researchers to place themselves among the world's best.

This past year, SHRF began the process of refreshing our funding programs to better align with SHRF's strategic direction, while remaining fiscally responsible and reducing administrative workload. With our core values and strategic goals as the driving force, we met with stakeholders from across the province to listen to and gather insight into the needs, challenges and opportunities that exist in the current environment. It is with this information that we will be moving forward with funding opportunities that meet the varied needs of province and supports research that matters to building a healthier Saskatchewan.

Now more than ever we value our existing partnerships and continue to forge new relationships with those who share a common vision of investing in quality research that leads to better health care, healthier communities and brighter futures for us all. This year we reaffirmed our relationships with local organizations like the Alzheimer Society of Saskatchewan and even began the year with a commitment, in partnership with the Lung Association, Saskatchewan, of \$1 million to respiratory health research in Saskatchewan.

SHRF continued to be a player on the national health research scene by committing to the second phase of the Canadian Consortium on Neurodegeneration in Aging to support dementia research in Saskatchewan; connecting Saskatchewan researchers to national networks and funding to address Indigenous health concerns, including supporting Holly Graham as Saskatchewan's first Indigenous Research Chair in Nursing in partnership with the Canadian Institutes of Health Research (CIHR); and co-hosting a series of town hall meetings with CIHR's Institute of Health Services and Policy Research to bring Saskatchewan's research perspective to their organization's strategic direction.

COVID-19 and the related responses have highlighted that SHRF's goal of strengthening Saskatchewan's research capacity and competitiveness has enabled local experts to not only take advantage of some of the most advanced health research technologies and infrastructure that exist in our province, but shown the world that Saskatchewan is a leader in finding solutions to global health challenges.

We are grateful for the opportunity SHRF had this year to celebrate excellence at the 16th annual Santé Awards, held in conjunction with the Saskatchewan Health Authority's Research Showcase and hosted in partnership with the Saskatchewan Centre for Patient-Oriented Research. We also saw continued engagement from partners and SHRF funding recipients during Health Research Week as they shared their work, excitement and appreciation for SHRF's support.

As Board Chair, this year marks the end of my term with the SHRF Board. I'd like to thank Board members Brent Brownlee and Robert Sheldon whose terms also ended in 2019-20, and welcome new members who will continue to guide and support the leadership of SHRF. We thank the Board and staff for their continued dedication and for meeting the challenges of every day with a renewed commitment to our core values of accountability, adaptability, collaboration, excellence and integrity.

In uncertain times, there is comfort in knowing that there is a dedicated SHRF team and Board of Directors behind the work of the organization to contribute to the improved health of Saskatchewan citizens through a high-performing health ecosystem with a robust culture of research and innovation.



Cecile Hunt
Board Chair



Patrick Odnokon
CEO

MORE THAN A MATCH

WHY VALUE-BASED PARTNERSHIPS WORK

Partnering on health research is not a new idea. To oversimplify the concept, all you need are two or more organizations with dollars to invest in a common goal of preventing, diagnosing, treating or even curing a disease. It often equates to “leveraging” or making your money go further. However, a research funding partnership is more than doubling one’s dollars to put towards a common goal, it is an investment in hope and unwavering belief that together more can be achieved to advance the health outcomes of those we serve.

Each partner must bring a commitment or passion for a cause

When we can bring our passions together and support activities that are mutually beneficial, we can have a greater impact on the common vision. We believe collaboration between organizations can inspire and motivate the research community and our government and health system stakeholders about what can be accomplished together.

Each partner must bring complementary strengths

Not many organizations possess the resources and capacity to work in a silo and accomplish their goals alone. That’s why it is important to find others who possess complementary strengths. The benefit of working with partners is learning about how they do business and the strength and capacity existing within their organization. When we can lean on each other’s strengths,



Patrick Odnokon, SHRF CEO and Susan Cron, previous President & CEO, The Lung Association, Saskatchewan

see each other’s worth and significance, we can accelerate our success and have a greater impact.

Each partner must bring a set of shared values

Organizations with shared values tend to have positive long-standing relationships. When we can bring these values to the table and allow them to guide our efforts, we can trust the actions of our partners will benefit our common goals. Without these shared values, the rest is not possible.

Each partner will grow and learn from the other

Organizations learn and grow every day. By sharing our organizational values, practices, conventions and processes each will improve, develop knowledge and expertise and grow organizational strengths and capacity. Successful partnerships need to go beyond the dollars invested. Bringing together a commitment or passion for a cause, complementary strengths, working from a place of shared values and learning from each other provides the foundation for a successful partnership and lasting relationship between two organizations. 

SHRF AND THE LUNG ASSOCIATION, SK COMMIT \$1 M TO RESPIRATORY RESEARCH FUNDING




Patrick Odnokon, SHRF CEO; Susan Cron, previous President & CEO, The Lung Association, Saskatchewan; Jenna Brewer, double lung transplant recipient & cystic fibrosis patient; Dr. Mark Fenton, SHRF-funded researcher & The Lung Association, Saskatchewan Board Member; MLA David Buckingham, Saskatoon Westview, at the partnership announcement on April 26, 2019.

When you can't breathe, nothing else matters. That's why two of Saskatchewan's leading health research funding organizations are looking to the future with a long-term investment of \$1 million over five years.

Saskatchewan Health Research Foundation (SHRF) and The Lung Association, Saskatchewan (LAS) have built a strong relationship over the years with a common objective of supporting health research in Saskatchewan.

This new investment, announced in April of 2019, will be dedicated to furthering health research in the areas of Indigenous people's health, respiratory disease control and management, patient-caregiver education, cannabis, sleep apnea and other areas related to lung health.

"That breath you just took, that is a gift. For many people they can only dream of breathing easily. Respiratory research is crucial to improving the quality of life and wellbeing for people living with lung disease, including myself" says Jennalee Brewer, double lung transplant recipient and cystic fibrosis patient. "Every piece of research gives hope that we are getting closer to ending lung disease. 

NATIONAL CONNECTIONS

LEADING FROM THE PRAIRIES ON NATIONAL HEALTH RESEARCH INITIATIVES

SHRF CEO was appointed co-chair of the National Alliance of Provincial Health Research Organizations (NAPHRO). NAPHRO's primary role is to facilitate coordination, communication, strategic alignment, convergence, and quality leadership through inter-provincial and national efforts. NAPHRO works closely with the Canadian Institutes of Health Research (CIHR) to discuss partnership opportunities, governance of large pan-Canadian research platforms and work together on initiatives that benefit the Canadian research ecosystem.

SHRF plays a prominent role in national initiatives like the Community of Practice in Peer Review group, which brings together provincial health research funders, health charities from across the country and CIHR. SHRF is part of the steering committee and most recently has been providing leadership to other organizations moving to online review meetings. SHRF is also a part of the NAPHRO Impact Assessment Group, where provincial funding organizations collaborate on providing impact and evaluation analysis of their funding efforts.



As part of a long-standing partnership with the CIHR Institute of Health Services and Policy Research (IHSPR), SHRF assisted in connecting the Institute with Saskatchewan's health research community and health system stakeholders to listen, engage and understand the needs, gaps and opportunities important to the province that will help inform their strategic direction over the next five years.

SHRF CEO presented virtually at the What's Next Canada Conference hosted by the Centre for Aging and Brain Health Innovations (CABHI). Co-presenting with Patrick was Dr. Carrie Bourassa, Scientific Director, Canadian Institutes of Health Research, Institute of Indigenous Peoples' Health, University of Saskatchewan. The presentation was on the challenges and opportunities to innovate in rural and remote and Indigenous communities.

INVESTING IN DEMENTIA-RELATED RESEARCH

SUPPORTING CONNECTIONS THAT PUT SASKATCHEWAN DEMENTIA CARE ON THE MAP

SHRF has been a contributing partner to the Canadian Consortium on Neurodegeneration in Aging (CCNA) since its inception in 2014, with an initial investment of \$500,000 that, combined with the CCNA's injection of \$1 million, saw Saskatchewan researchers leverage an extra \$4.5 million. That equals a Phase I investment of \$6 million that contributed to dementia-related research in Saskatchewan.

In Phase II, SHRF continues to support Saskatchewan researchers and the CCNA in fostering collaborations to better understand, manage and treat age-related cognitive decline and dementia, especially as it related to the specific challenges and opportunities that exist in our province.

Beyond the leveraged dollars, we have seen the impact that this research has had on the people of Saskatchewan. Here are two feature stories of the work that is being done to make Saskatchewan a healthier place for our aging population.



Members of the Rural Dementia Action Research (RaDAR) team Dr. Julie Kosteniuk, Dr. Megan O'Connell, Dr. Debra Morgan and Dr. Andrew Kirk. (Photo credit: Michael Robin)

BUILDING CAPACITY FOR RURAL AND REMOTE DEMENTIA CARE


Since 2003, SHRF has been a steadfast supporter of the work Dr. Debra Morgan and her team have been doing to improve the care of those with dementia in rural and remote areas of our province. In 2014, the Rural Dementia Action Research (RaDAR) team joined the Canadian Consortium on Neurodegeneration in Aging (CCNA), an initiative that fosters research collaborations across Canada as part of a national dementia strategy. The CCNA's mission is to accelerate and synergize research nationwide in dementia prevention, treatment and quality of life.


"With SHRF's support, we were able to be involved in the CCNA and, in Phase I, we have established a lot of partnerships and also put rural dementia care on the map," says Dr. Morgan.

Based on the Rural and Remote Memory Clinic (RRMC) that the RaDAR team developed at the University of Saskatchewan, Phase I work included the development of a team-based approach to dementia assessment and management in rural primary health care (PHC) clinics. Much like the specialist memory clinic in Saskatoon, which is now sustained as a provincial government-funded clinical resource in the province, these rural memory clinics are a one-stop shop to see a team of health care professionals that may include a physician, nurse practitioner, home care

nurse, occupational therapist, physical therapist, social worker and an Alzheimer Society First Link Coordinator.

In developing these rural memory clinics, RaDAR worked first with the Kipling PHC team to operationalize best practices in PHC for dementia in ways that were feasible and sustainable for rural settings. It was about support for caregivers, education for families, support for health care providers and providing coordinated care. The memory clinic model was then spread to PHC teams in Weyburn, Bengough, and Radville.

The benefits of these clinics are exponential and include more than just reducing the travel burden for patients and families to access specialized care. Primary health care providers have access to decision support tools, including standard guidelines and other resources. Specialist-to-provider support and education sessions mean the PHC teams are developing further skills and are better equipped to assess and manage dementia and recognize cases for referral. The team-based approach means patients and families receive care closer to home and the clinics are able to provide local services and community support throughout the dementia journey. 

This story is an excerpt from an original post on our blog. To read the the full story of this and other stories in this annual report, visit shrf.ca/Stories. 

BEYOND A DIAGNOSIS

LOOKING AT NEW WAYS TO SUPPORT PATIENTS AND CAREGIVERS LIVING WITH DEMENTIA IN RURAL AND REMOTE SASKATCHEWAN

Those who are living with dementia in Saskatchewan's rural and remote areas face many challenges, beginning with receiving a proper diagnosis, and continuing with disease management, care and support. Dementia is a progressive disease with no cure. It affects a person's memory and other thinking abilities to an extent that it can interfere with daily life and one's ability to participate in social activities. The impact on caregivers' health and wellness is also a concern.

Now in Phase II of the CCNA, as the RaDAR team continues to work with rural teams of health care professionals to operationalize best practices in primary health care for dementia in ways that are feasible and sustainable in rural settings, the team is also focusing on how to deliver a suite of interventions tailored to individual families' needs – supports for not only the patients, but also the caregivers.


Dr. Megan O'Connell is co-lead of the 'Issues in Dementia Care for Rural Populations' team in Phase II. She is an active member of the rural teams as a clinician and has seen first hand what needs are not being met.

"Interventions are a missing puzzle piece that will help support not only patients and caregivers, but rural primary health care providers in providing support to rural patients," says O'Connell.

Many of these interventions will be made possible because of the novel approach of using Saskatchewan's Telehealth network for delivery.

"I think we are uniquely situated to do this work because of our province's investment in our Telehealth network," comments O'Connell. "It doesn't matter where you live, you see the specialist you need to see and who knows how to help you if you have dementia, and I really see that as exciting. Saskatchewan can be at the forefront of this way of delivering support."

The suite of interventions includes cognitive rehabilitation; cognitive behavioural therapy for insomnia adapted to dementia; driving cessation; social inclusion; RuralCARE app for caregivers of those living with dementia in rural areas; and Indigenous caregiver support. "Adding these supports is really exciting and means our memory clinics will deliver a more complete package, bringing together a triad of approaches for diagnosis, management and interventions," comments Morgan about the potential these new interventions will offer rural and remote patients and caregivers.

O'Connell reflects, "Nothing can change the course of dementia. However, you can change people's quality of life, which can make some profound differences in people's lives." 



2019 October 21 - 27 #HealthResearchWeek

Health Research Week helps raise awareness for the important research, world-class researchers and collaborative efforts that exist in Saskatchewan and that are contributing to the growth of a high-performing health system, building a culture of innovation and improving the health of our citizens.

In 2019, in addition to sharing stories of impact, we ran a user-generated campaign called 'Share Your #SHRFie'.

2019-20 EVENTS SPONSORED BY SHRF

- 5th Canadian Cancer Research Conference
- 20/20 Health Vision Conference
- Canadian Academy of Health Sciences Forum
- Pint of Science
- Regional Science Fairs (Saskatoon and Regina)

DID YOU KNOW?

#SHRFie

In 2019-20, SHRF supported 250+ interdisciplinary research team members through our five funding programs. Teams included academic and clinical researchers, patient partners, industry representatives, health system decision makers and other knowledge users who can help contribute to and share research results.



PROGRAM OVERVIEW

5	133	64
Funding Programs	Applications Received	Grants Awarded

CONNECTING WITH THE RESEARCH COMMUNITY

4
Information
Sessions

3
Orientations

2
Formal
Listening
Sessions

14
RootEd Committee
Meetings with Sprout and
Leadership Grant Teams

Numerous
Invited Presentations
and Meetings

234+ Attendees at Funding-
Related Events

INVESTMENT OVERVIEW

\$4,634,782*

newly invested in SHRF-led
initiatives to support
SK health research
including partner funding from the
Saskatchewan Centre for
Patient-Oriented Research and
The Lung Association, SK

\$908,500

newly invested by SHRF to
partner-led initiatives
to support SK health research

\$5,543,282

Committed to newly
awarded health
research initiatives
in SK in 2019-20

*Dollar amounts may differ from the financial statements in this
report due to the timing of expenses for multi-year grants.

ESTABLISHMENT GRANT

UP TO \$120,000 FOR UP TO THREE YEARS

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.

21
Applications
Received

10
Grants
Awarded

\$1,181,791
Invested

For lists of all funded teams and projects from all programs in the 2019-20 year, see pages 26-28.

RELATIONSHIP-CENTRED RESEARCH

When Dr. Holly Graham started in her faculty position at the College of Nursing, her interest was in teaching and practice. But on the path to tenure, Graham received a SHRF Establishment grant that would change her career path and ignite a new passion.

In 2013, Graham began an intervention research project to restore Indigenous miyo-mahcihowin (physical, mental, emotional and spiritual) well-being working with Thunderchild First Nation. By developing a community-based program to facilitate empowerment and improve health and well-being, Graham and her team hoped to add to evidence-informed strategies that facilitate empowerment in and with First Nation communities.

Looking at mental health and wellness, there were four clear areas that were identified to make a difference for people to cope. These were relationships, cultural values and practices, worldview or how they saw life, and determinants of health.




Dr. Holly Graham, 2012-13 Establishment Grantee and Indigenous Research Chair in Nursing

Relationships are also the first component of her newly awarded Indigenous Research Chair in Nursing. Co-funded by the Canadian Institutes of Health Research (CIHR), SHRF and the Canadian Nurses Foundation, the Chair research program will further the development of knowledge and best and wise practices in the area of nursing practice, education, research and administration.

The five-year chair program has many components to achieve the intended outcomes of mentorship and reconciliation within the nursing profession. The program will use both Indigenous and Western ways to address and evaluate the impact of mentorship with Indigenous students and will formalize an important first step towards collaborative reconciliation.

Graham credits her experience with her SHRF Establishment Grant as foundational to learning invaluable lessons – personal and professional – and to her growth as a strength-based and Indigenous researcher.

“There are no words to express the gratitude and appreciation I have for being awarded the SHRF Establishment Grant. The complete experience of working with SHRF has been positive, supportive, and reflexive – everything I needed as an Indigenous researcher to survive and thrive! I am so incredibly thankful for the support SHRF has provided me in my academic journey and attribute my research success to this initial relationship.” 

PARTNER-LED INITIATIVES

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 increase success in further funding. In 2019-20, SHRF contributed \$908,500 across the following initiatives:

Leah Ferguson University of Saskatchewan
Indigenous Youth Mentorship Program in Saskatchewan

Megan O'Connell University of Saskatchewan
Canadian Consortium on Neurodegeneration in Aging (CCNA) - Phase 2

Deborah Anderson University of Saskatchewan
Prairie Cancer Research Consortium

Paul Hackett University of Saskatchewan
Implementing the 'Patients' Charter of Tuberculosis Care' in High Incidence Indigenous Communities and Across Jurisdictional Borders

Holly Graham University of Saskatchewan
Indigenous Research Chair in Nursing – Saskatchewan

Jasmin Bhawra University of Waterloo
A patient-oriented evaluation of the Saskatchewan Ministry of Health Continuous Improvement Program

RESEARCH FELLOWSHIP

\$100,000 OVER TWO YEARS

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

24
Applications
Received

8
Grants
Awarded

\$800,000
Invested

PROVIDING SUPPORT TO SPRINGBOARD RESEARCH CAREERS

Dr. Catherine Trask is an expert in ergonomics and musculoskeletal health. She studies workplace risk factors for musculoskeletal disorders, including pain symptoms and injuries, and the prevention strategies that can be put in place to keep people healthy and active in the workforce.


Trask's Canada Research Chair in Ergonomics and Musculoskeletal Health and Associate Professor appointment with the Canadian Centre for Health and Safety in Agriculture (CCHSA) focused her work on agricultural and rural populations and the risk factors encountered while doing farm work.

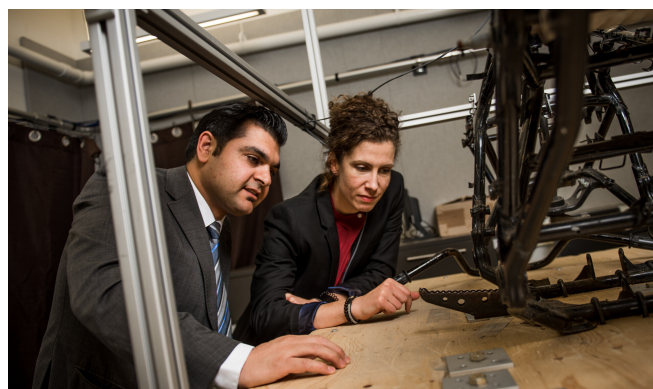
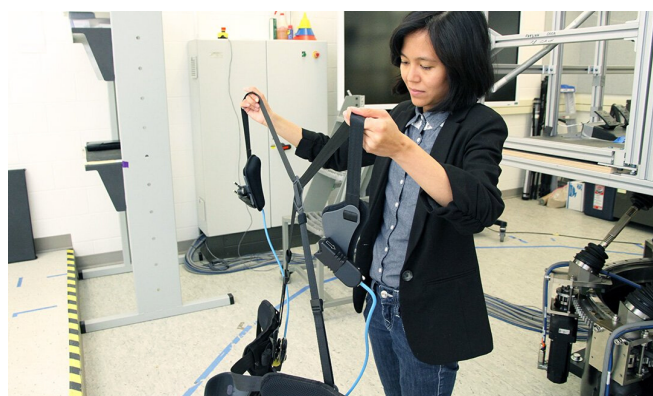
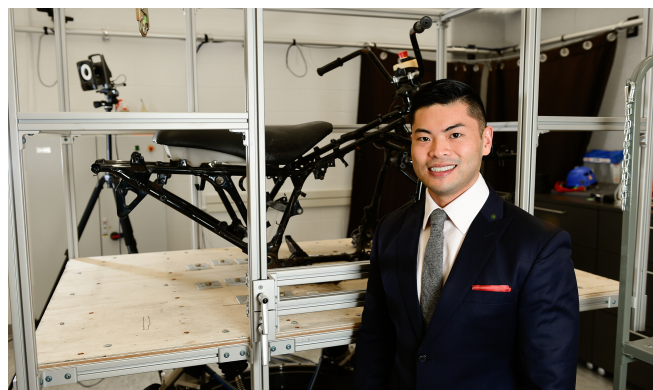
Trask has mentored four postdoctoral fellows (PDF) over the past four years with the support of SHRF's Research Fellowship program. Their work together has looked at whole body vibration from farm machinery as a risk factor for back pain, as well as a risk factor for loss of balance, coordination and reaction time. Another potential risk factor for musculoskeletal injury and back pain is awkward postures, including how often people are bending or twisting, how long they have to maintain those positions and how deeply they have to move into awkward positions. Force or physical exertion is another risk factor they have looked at, due to the stress that it puts on the joints and musculoskeletal system.

“My trainees were able to interact with Saskatchewan farmers in their worksite and collect data in realistic settings. They also interacted with the stakeholder advisory groups and got to witness firsthand the interplay of knowledge exchange between researchers and the knowledge users,” said Trask about the benefits of SHRF’s trainee support.

Beyond the benefits of gaining technical skills, Trask explains that this type of training experience and support can act as a career springboard. “Postdocs in general are poised at the stage in their career where they are looking to develop skills in mentorship, supervision and leadership. Being able to delegate research project responsibilities to them and then to see them take that on and move into these leadership roles while still having active mentorship, I have seen it go really well for these trainees,” Trask comments in reference to her PDFs who have gone on to a faculty position and to a research and development position within industry.

“SHRF’s support has been tremendous in being able to attract and recruit these highly qualified personnel and to be able to embark on more ambitious types of research projects,” concludes Trask.

This work has helped plan and evaluate interventions and prevention strategies for farmers with back pain. Keeping farmers healthy and productive helps maintain an important aspect of many peoples’ lives in Saskatchewan. 



Photos top to bottom: Postdoctoral Fellows Drs. Marcus Yung; Ornwipa Thamsuwan; David Kingston; Behzad Bashiri with Catherine Trask

COLLABORATIVE INNOVATION DEVELOPMENT GRANT

UP TO \$50,000 FOR 12-18 MONTHS

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.

36
Applications
Received

13
Grants
Awarded

\$634,091
Total Investment

SHRF's Open Call Investment: \$499,486
SHRF's Tech Priority Investment: \$45,740
SHRF and The Lung Association, SK
Partnered Investment: \$88,864

B R E A T H E
the lung association

EASING THE JOURNEY TO AN EPILEPSY DIAGNOSIS

Facing a suspected epilepsy diagnosis can be complex and emotional for patients and their families and caregivers. Add in the need to travel long distances from rural and remote areas of Saskatchewan to reach specialists for diagnosis and treatment and this adds additional stress and costs to a patient's journey.

That's where Dr. José Téllez-Zenteno and his research team come in to play. With funding from a Saskatchewan Health Research Foundation (SHRF) Collaborative Innovation Development grant, his team is investigating the use of Telehealth and a portable EEG device to see patients a little closer to home for the initial steps toward a diagnosis and decisions for an appropriate treatment plan.

"The time that it takes, not only the time the patient spends travelling, but the time it takes to arrange the travel, is a long time," says Dr. Lizbeth Hernández-Ronquillo, epidemiologist in the epilepsy research initiative. "This Telehealth approach will mean that patients will be seen easier and faster. This research is working to prove the concept so that patients can be assessed, and they can have answers faster."


In research, you need to start slow. That's why the team is beginning the validation process before taking the technology further to rural and remote locations of Saskatchewan.

The research team is excited for the potential this innovative technology and approach holds for meeting the needs of patients across Saskatchewan. There is a huge advantage with this new system to transfer information. In real time, physicians and technologists can view the EEG and video recording at the same time that it is being administered.

"If you can see the patient via Telehealth and you have the EEG, you have everything you need for the initial assessment to plan further care and follow up," says Téllez-Zenteno. "That is why we are working towards this."

The increased accessibility is just the beginning of a long list of potential benefits that this innovative technology and approach could mean for the people of Saskatchewan. Looking at the big picture, using Telehealth for epilepsy will cut down on travel time and costs for individuals and for the health care system. It will lead to faster and easier diagnosis which in turn leads to reduced wait times to be seen in person by a specialist in clinic.

"Though this approach won't eliminate the need for further EEGs or visits to the clinic for further assessment, the accessibility of using Telehealth ensures that the patients coming in for these more thorough assessments are the right patients," says Téllez-Zenteno.

Most importantly is the impact this will have for patients. The ability to receive specialized care, no matter your location in the province, drastically reduces stress during what can be a complex time in a patient's life. Telehealth for epilepsy can bring peace of mind and ease those first steps toward a diagnosis. 



Chelsea Maskos, EEG technologist at the Saskatchewan Epilepsy program (SEP), Pat Paulo, administrative support at the SEP, Sareh Miranzadeh, master's degree student involved in the project, Dianne Dash, neurophysiology coordinator at Royal University Hospital, Dr. Lizbeth Hernández-Ronquillo, epidemiologist at the SEP, Karen Waterhouse, nurse at the SEP and Dr. José Téllez-Zenteno, leader of the epilepsy research initiative.

SPROUT GRANT

UP TO \$180,000 FOR UP TO TWO YEARS

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.

25
Applications
Received

11
Grants
Awarded

\$1,896,978
Total Investment

SHRF's Investment: \$948,489

SCPOR's Investment: \$948,489

Funded in partnership with:



SCPOR

Saskatchewan Centre for
Patient-Oriented Research

ELEVATING PATIENT-ORIENTED RESEARCH FOR A HEALTHIER SASKATCHEWAN

Patient-oriented research goes beyond merely involving patients in the research process and instead focuses on answering questions and researching topics that are driven by patient concerns and priorities. This engagement of patients as partners has been changing the research landscape in Saskatchewan over the past five years. As part of the national Strategy for Patient-Oriented Research, Saskatchewan's support unit, SCPOR, was created through a partnership of eight provincial organizations, including SHRF.

Over the past four years, SHRF and SCPOR have offered six funding competitions that have supported the growth of patient-oriented research in Saskatchewan. The latest funding recipients of Sprout Grants include research teams that are tackling topics such as developing mental health interventions for Saskatchewan farmers and their families; improving emergency care for patients who use opioids; and developing a better understanding of medicinal cannabis use for inflammatory bowel disease.

The changes to Saskatchewan's health research ecosystem go beyond the impacts of the 44 projects and multidisciplinary teams that have been funded by SHRF and SCPOR over the years. In offering these funding opportunities that asked teams of


researchers, health care practitioners, decision makers, and patients to come together, it was necessary to look at the processes used to review and evaluate these research proposals.

That is how patients became involved in the review process. This involvement grew from two patient and family advisor representatives involved in the review of applications, to training and executing a full patient review committee for patient-oriented research funding competitions. Now research proposals are evaluated by both patient and peer reviewers who collectively determine the success of projects based not only on scientific merit, determined by peer reviewers, but also in the quality and depth of patient engagement and patient-driven priorities, determined by patient reviewers.

“This was my second opportunity to review research grants, evaluating applications from a patient engagement lens,” says Brenda Andreas, patient reviewer for SHRF and SCPOR. “This research goes beyond merely including patients and takes a deeper dive into the how and the where patients are embedded from the beginning of the process to the knowledge translation. Most importantly it supports collaboration and brings the voice of the patient into the conversation.”

“As SHRF’s initial investment and SCPOR’s first phase comes to an end,

the longevity of this initiative is in the ways it has not only increased the involvement of patients in health research, but in the new processes that have influenced and become embedded in the way we do our work moving forward to ensure we are funding research that matters to Saskatchewan people,” says SHRF CEO, Patrick Odnokon.

“What we have been able to accomplish over the last five years is a testament to what is possible when we work together,” says SCPOR Executive Director, Jackie Mann. “These grants represent an elevated patient-oriented research collaboration that engages patients, families, clinicians, researchers and policy-makers with the purpose of improving patient care and the health system in Saskatchewan.” 

SHRF and SCPOR Partnership Overview



RESEARCH CONNECTIONS

UP TO \$10,000 IN MATCHING FUNDS

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.

19
Applications
Received

16
Grants
Awarded

\$121,922
Invested

FUNDING PROGRAM REFRESH

ALIGNING OUR FUNDING OPPORTUNITIES WITH OUR STRATEGIC GOALS AND THE NEEDS OF OUR STAKEHOLDERS

At SHRF, we value our ability to adapt to changing trends and align with the needs and priorities of the province. We accomplish this through our partnerships and funding opportunities while maintaining an unwavering commitment to excellence, integrity and accountability through our processes.

In 2019-20, SHRF began a funding programs refresh to look for ways to streamline our funding opportunities to increase alignment with our strategic goals, reduce administrative workload internally and externally, all while ensuring our funding has strong impact and return on investment.

After initial conversations with our varied stakeholders and guidance from our Board of Directors, SHRF met with the research community through Listening Sessions and other meetings to gather insight into the needs, challenges and opportunities that exist in the current environment.

The 2020-21 year will be used to transition from our existing suite of programs to new and pilot programs that will better promote collaboration with partners, and support and invest in talent development, early career researchers, innovative projects, and the sharing and use of research knowledge, while striving for operational excellence.

PEER REVIEW

10 Review
Committee
Meetings

6
Committee
Chairs

8
Patient
Reviewers

44
Peer
Reviewers

47
External
Reviewers

105 Volunteer experts
TOTAL providing review
service

DID YOU KNOW?

During our rigorous peer review process, expert reviewers assign a score to each application that reflects their assessment of its quality and merit for funding, using the scale below. Only those rated 3.5 or higher are funded by SHRF.

Rating Scale:

4.5 - 4.9 outstanding: highest funding priority

4.0 - 4.4 excellent: very high funding priority

3.5 - 3.9 very good: high priority, should be funded

3.0 - 3.4 good: acceptable, but low priority

2.5 - 2.9 fair: not acceptable for funding but shows promise

2.0 - 2.4 poor: needs major revision

<2.0 seriously flawed

ACHIEVING OPERATIONAL EXCELLENCE

- 86% of researchers surveyed agreed or strongly agreed that SHRF's application processes and delivery were positive
- 91% of reviewers surveyed agreed or strongly agreed that SHRF's review process and delivery were positive
- 100% of reviewers surveyed strongly agreed that communications with SHRF staff were positive and helpful

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.



applicants/teams who make it through eligibility **submit their applications**



SHRF staff screen applications for **completeness**



committee chair, with SHRF staff, assigns applications to reviewers



committee recommends **exemplary applications** for funding



committee meets to **discuss, rate and rank** all applications



reviewers prepare **in-depth assessment** based on program criteria and excellence



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



SHRF offers **grants** to as many recommended applications as resources permit



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

2019-20 BIOMEDICAL ESTABLISHMENT GRANT REVIEW COMMITTEE

Tanya Dahms (Chair) University of Regina
 Paul Babyn Saskatchewan Health Authority
 Adelaine Leung University of Saskatchewan
 David Marchant University of Alberta
 Scott Murphy University of Regina
 Maruti Uppalapatti University of Saskatchewan

2019-20 BIOMEDICAL FELLOWSHIP AWARD REVIEW COMMITTEE

Volker Gerdtz (Chair) VIDO-Intervac
 Lane Bekar University of Saskatchewan
 Francis Bui University of Saskatchewan
 Hector Caruncho University of Victoria
 Michael Jackson University of Manitoba
 Erick McNair University of Saskatchewan
 Donald Miller University of Manitoba
 Scott Napper University of Saskatchewan

2019-20 SOCIO-HEALTH, SYSTEMS, AND CLINICAL GRANT REVIEW COMMITTEE

Lynn Loutzenhiser (Chair) University of Regina
 Maryam Sharifzadeh-Amin University of Alberta
 Brenna Bath University of Saskatchewan
 Tracy Christianson Thompson Rivers University
 Mark Fenton University of Saskatchewan
 Holly Graham University of Saskatchewan
 Rozzet Jurdi-Hage University of Regina
 Shelley Kirychuk University of Saskatchewan
 Corey Tomczak University of Saskatchewan

2019-20 COLLABORATIVE INNOVATION DEVELOPMENT GRANT REVIEW COMMITTEE: BIOMEDICAL

Brian Christie (Chair) University of Victoria
 Emilio Alarcon
 University of Ottawa Heart Institute
 Joana Gil-Mohapel University of Victoria
 Tony Kiang University of Alberta
 Patrick Lajoie University of Western Ontario
 Afshin Raouf University of Manitoba
 Ben Rotstein University of Ottawa
 Fabio Variola University of Ottawa

2019-20 COLLABORATIVE INNOVATION DEVELOPMENT GRANT REVIEW COMMITTEE: CLINICAL

Christopher Hergott University of Calgary
 Elizabeth Borycki University of Victoria
 Dzifa Dordunoo University of Victoria
 Jodie Gawryluk University of Victoria
 Sachin Katyal University of Winnipeg
 Collette Smart University of Victoria

2019-20 COLLABORATIVE INNOVATION DEVELOPMENT GRANT REVIEW COMMITTEE: SOCIO-HEALTH & SYSTEMS

Erin Wilson (Chair)
 University of Northern British Columbia
 Catherine Donnelly Queen's University
 Christine Kelly University of Manitoba
 Graham McCaffrey University of Calgary
 Alison Phinney University of British Columbia
 Dallas Seitz University of Calgary

2019-20 SPROUT GRANT REVIEW COMMITTEE

Martha MacLeod (Chair)
 University of Northern British Columbia
 Jennifer Bethell Toronto General Hospital Research
 Institute, University Health Network
 Anita Benoit University of Toronto
 Amy Salmon Centre for Health Evaluation and
 Outcomes Sciences (CHEOS)
 Gillian Strudwick
 Centre for Addiction and Mental Health
 Robb Travers Wilfrid Laurier University
 Kristy Wittmeier
 Children's Hospital Research Institute of Manitoba

2019-20 SPROUT GRANT PATIENT REVIEW COMMITTEE

Martha MacLeod (Chair)
 University of Northern British Columbia
 Brenda Andreas Maple Creek, SK
 Kevin Belitski Balgonie, SK
 Diana Ermel Regina, SK
 Crystal Greenwood Saskatoon, SK
 Janet Gunderson Glaslyn, SK
 Donna Milbrandt Yorkton, SK
 Shane Travis Saskatoon, SK

2019-20 ESTABLISHMENT GRANT RECIPIENTS

Amira Abdelrasoul University of Saskatchewan
Fundamental Studies and In vivo Data Analyses for Hemodialysis Membrane Biocompatibility Development towards Artificial Kidney

James Benson University of Saskatchewan
Towards a cutting edge extensible computational tool for optimization of cryopreservation of Vascularized Composite Tissues for Allotransplantation

Heather Foulds University of Saskatchewan
Jigging our Health

Kristen Haase University of Saskatchewan
A prospective mixed-methods study of self-management in older adults with cancer and multimorbidity in two Canadian provinces

Kerry Lavender University of Saskatchewan
Differential effects of IFN α subtypes on HIV-1-associated dysfunctional CD8⁺ T cells.

Paul Mick University of Saskatchewan
Hearing and Thinking from Cradle to Grave: Building the Capacity for Sensory-Cognitive Research in Saskatchewan

Schroder Sattar University of Saskatchewan
Testing the feasibility and effects of the STABLE program on reducing fall risk among community-dwelling older adults with cancer: A randomized controlled trial

Behzad M. Toosi University of Saskatchewan
A comparative oncology approach to investigate the EphA receptors as novel targets for cancer therapy in dogs and humans

Cheng-Wei Wu University of Saskatchewan
Targeting the Integrator complex and RNA metabolism to combat heavy metal-induced pathologies

Audrey Zucker-Levin University of Saskatchewan
Wheeling to Healing: A novel method to improve healing of diabetic foot ulceration

2019-20 RESEARCH FELLOWSHIP RECIPIENTS

Margo Adam University of Saskatchewan
Women athletes' experiences of the Female Athlete Triad: A holistic mixed methods approach
Supervisor: Marta Erlandson

Anjuman Ara University of Saskatchewan
Regulating T-cell Fate by Targeting mTORC1-KIF13A-M6PR Axis to Enhance Immunity against Cancer
Supervisor: Jim Xiang

Ebrahim Asadi University of Saskatchewan
Novel solutions for male infertility: Innovative 3D culture systems for in vitro spermatogenesis
Supervisor: Ali Honaramooz

Milaid Granadillo Rodríguez University of Saskatchewan
Role of APOBEC3 deoxycytidine deaminases in somatic mutagenesis
Supervisor: Linda Chelico

Zeinab Hosseini University of Saskatchewan
"Efficacy and safety of high-intensity exercises in older people with low bone mass"
Supervisor: Philip Chilibeck

Behlol Khan University of Saskatchewan
Targeting EGFR/EpHA2 receptor using bispecific radioimmunoconjugates against triple negative breast cancer.
Supervisor: Humphrey Fonge

David Kingston University of Saskatchewan
An impactful step: Investigating lower limb joint loads during farm machinery egress
Supervisor: Catherine Trask

Ivan Trus University of Saskatchewan
Human dendritic cell responses to infection with CpG-recoded viruses
Supervisor: Uladzimir Karniychuk

2019-20 COLLABORATIVE INNOVATION DEVELOPMENT GRANT RECIPIENTS

Mohan Babu University of Regina

Understanding the Role of a Mitochondrial Orphan Gene in a Rare Metabolic Disorder

Josef Buttigieg University of Regina

Antibody mediated targeting of autoimmune cells in multiple sclerosis

Francisco Cayabyab University of Saskatchewan

Low Frequency Magnetic Stimulation (LFMS): Non-Invasive and Low Cost Option for Treating Post-Stroke Depression

Donna Goodridge University of Saskatchewan

(Partner Funding Recipient The Lung Association, SK)
The influence of health literacy and self-efficacy on treatment acceptance and adherence in patients with Obstructive Sleep Apnea

Nicole Hansmeier University of Regina

(Partner Funding Recipient The Lung Association, SK)
Molecular effects of second-hand cannabis exposure

Paulette Hunter St. Thomas More College

Using video-assisted patient education to support discussions about palliative care in long-term care

Donald Leidl University of Saskatchewan

(Priority Funding Area Recipient for Technology Solutions Within the Saskatchewan Health Care System)
Integrating Virtual Reality into Clinical Education

Marla Mickleborough University of Saskatchewan

Impact of Neurofeedback-based Meditation on Migraine Chronification

Michael Moser University of Saskatchewan

Enhancement of Irreversible Electroporation (NanoKnife) through the use of prodrugs activated by the electrical current.

Bhanu Prasad Saskatchewan Health Authority

Feasibility study of a randomized controlled trial investigating renal denervation as a possible treatment option in patients with Loin Pain Hematuria Syndrome

Hassanali Vatanparast University of Saskatchewan

Promoting wellness through oral and nutritional health of older Métis adults in a northern Saskatchewan Métis community

Joyce Wilson University of Saskatchewan

Pro- and anti-viral roles for host Argonaute protein and RNA interference in vitro and in vivo.

Yuliang Wu University of Saskatchewan

Molecular Pathogenesis and Targeting of DDX41 in MDS/AML

2019-20 SPROUT GRANT RECIPIENTS

Marta Erlandson University of Saskatchewan

Inventing Chronic Disease Management for Children with Congenital Heart Disease

Barbara Fornssler University of Saskatchewan

Perspectives, pathways and priorities of people with lived and living experience of substance use: Informing policies

Sharyle Fowler University of Saskatchewan

Medicinal Cannabis in Inflammatory Bowel Disease: The experience of patients in Saskatchewan

Thomas Hadjistavropoulos University of Regina

Development, Implementation and Evaluation of a Large Scale Social Media Campaign to Mobilize Evidence-Based Knowledge About Pain in Dementia

John Paul Kuwornu Saskatchewan Health Authority

Care pathways analytics: Integrating patient-centered outcomes in economic evaluations of care pathways in Saskatchewan

CONTINUED

Stephanie Madill University of Saskatchewan

TRANS: Trans Research and Navigation Saskatchewan -
Evaluating the Impact of Peer Navigators on the Health
of People who are Trans and Gender Diverse

Megan O'Connell University of Saskatchewan

Rural and Remote Memory Clinic 2.0: An Integrated
Approach to Accessible Dementia Care

Michelle Pavloff Saskatchewan Polytechnic

Saskatchewan Agricultural Producer & Family Mental
Health Initiative

James Stempien University of Saskatchewan

Improving emergency care among patients who use
opioids: Novel integration of patient-oriented mixed
methodology and supervised machine learning

Caroline Tait University of Saskatchewan

Donation and Transplantation: Examining Culturally Safe
Public Health Education and Health Care Services with
Indigenous Peoples

Susan Tupper Saskatchewan Health Authority

Improving pain care through emerging Saskatchewan
health networks: a community-based participatory
approach

2019-20 RESEARCH CONNECTIONS RECIPIENTS

Jane Alcorn University of Saskatchewan

The Animal-Human Relationship

Keith Bonham University of Saskatchewan

6th Annual Saskatchewan Cancer Research
Conference

Angela Bowen University of Saskatchewan

Sharing mothers' voices to increase culturally safe
birth in Saskatchewan

Francisco Cayabyab University of Saskatchewan

An Evening with Clinical Investigators – Perspectives on
Strengthening the Healthcare System

Francisco Cayabyab University of Saskatchewan

Sharing Health Research Knowledge Through Research
Videos

Sarah Donkers University of Saskatchewan

The Provincial MS Care Pathway Implementation Project

Gary Groot University of Saskatchewan

Childbearing/childbirth (Midwifery) workshop,
Traditional Health Gathering

Lori Hanson University of Saskatchewan

Bringing Global Health Home

Troy Harkness University of Saskatchewan

Protein Structure Function and Malfunction (PSFaM)

Steven Jones University of Saskatchewan

2019 Life and Health Sciences Research Exposition

Michael Kelly University of Saskatchewan

Workshops on Conducting Clinical Research

Robert Laprairie University of Saskatchewan

Second Annual Saskatchewan Cannabinoid Research
Symposium

Donald Leidl University of Saskatchewan

Blended Learning Strategies for the Circumpolar North:
Leveraging Technology to Make Higher Education More
Accessible

Kerry Mansell University of Saskatchewan

Dissemination of the REACH (Real Education About
Cannabis and Health) Program to Saskatchewan Youth

Nazeem Muhajarine University of Saskatchewan

Health System Integration Summit

Corey Tomczak University of Saskatchewan

Canadian Association of Cardiovascular Prevention and
Rehabilitation Spring Meeting

2019 RESEARCH SHOWCASE AND SANTÉ AWARDS

In 2019, SHRF held our annual Santé Awards event in conjunction with the Saskatchewan Health Authority's (SHA) Research Showcase in Regina. This combined event provided a forum for knowledge sharing, networking and recognition of current health research happening in our province, while bringing together a diverse audience to be inspired to play a role in accelerating a robust culture of health research and innovation for a healthier Saskatchewan.

The three co-hosting organizations, SHRF, SHA, and the Saskatchewan Centre for Patient-Oriented Research (SCPOR), brought together opportunities for researchers, clinicians and patients throughout the day. Activities included poster presentations; speakers discussing their active research in Saskatchewan; a fireside chat hosted by SHRF on the topic of artificial intelligence and the impact on health research and health care delivery; a keynote presentation from Dr. Craig Fleisher, Chief Learning Officer, Aurora WDC, discussing 'Insight and Foresight: How looking to the future can help innovate healthcare and research today'; and award recognitions, including SHRF's Excellence, Impact and Achievement Award.

Thank you to our generous sponsors who make our annual awards event possible, to MLA Eric Olauson for bringing greetings on behalf of the Saskatchewan Government this year, and to our research community for continued support and attendance.



Top: Our fireside panel, Paul Babyn, Mike Wesolowski, Tracie Risling, Joshua Giambattista, and our SHRF moderator Rostyk Hursky.

Left: Elan Paluck (SHA), Rostyk Hursky (SHRF), Dr. Craig Fleisher (keynote) and Patrick Odnokon (SHRF).

Right: MLA Eric Olauson, Cecile Hunt (SHRF Board Chair), Dr. Susan Whiting (Achievement Award winner) and Patrick Odnokon (SHRF CEO).



The 2019 event took place at Conexus Arts Centre in Regina on November 21, 2019 and attracted approximately 275 attendees.

ACHIEVEMENT AWARD

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

Dr. Susan Whiting
College of Pharmacy and Nutrition,
University of Saskatchewan

One of Canada's leading nutrition scholars and an internationally recognized authority in vitamin D and calcium supplementation, Dr. Whiting's body of work and life-long commitment to affect change have directly influenced nutrition policy and practices in Saskatchewan, Canada, and around the world.

IMPACT AWARD

This award is presented to one researcher from our 2014-15 Establishment grant recipients in recognition of their contributions to building capacity, advancing health research knowledge, informing decision making and contributing to health and socioeconomic impacts five years from beginning their SHRF Establishment grant. The award recognizes those individuals who are early in their careers but have had significant impact on health research and the health ecosystem with their efforts. This award is determined by a merit review committee.

Dr. Josef Buttigieg
Faculty of Science, University of Regina

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 from Saskatchewan and across the country.

Dr. Kerry Lavender
College of Medicine, University of Saskatchewan
Top Establishment Grant: Biomedical

Dr. Paul Mick
College of Medicine, University of Saskatchewan
Top Establishment Grant: Socio-Health, Systems and Clinical

Dr. Ivan Trus
VIDO-Intervac, University of Saskatchewan
Top Research Fellowship: Biomedical

Dr. David Kingston
College of Medicine, University of Saskatchewan
Top Research Fellowship: Socio-Health, Systems and Clinical

Dr. Francisco Cayabyab
College of Medicine, University of Saskatchewan
Top Collaborative Innovation Development Grant: Biomedical

Dr. Saija Kontulainen
College of Kinesiology, University of Saskatchewan
Top Collaborative Innovation Development Grant: Socio-Health, Systems and Clinical

Dr. Juan-Nicolas Pena-Sanchez
College of Medicine, University of Saskatchewan
Top Sprout Grant (Patient Oriented Research)

Dr. Heather Hadjistavropoulos
Faculty of Arts, University of Regina
Top Patient-Oriented Research Leadership Grant

Saskatchewan Health Research Foundation

Financial Statements

For the year ended March 31, 2020

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:

- transactions are authorized;
- 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 Hunt
Board Chair



Patrick Odnokon
CEO



INDEPENDENT AUDITOR'S REPORT

To: The Members of the Legislative Assembly of Saskatchewan

Opinion

We have audited the financial statements of the Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2020, 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, 2020, 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 the 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 18, 2020

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

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**STATEMENT 1****STATEMENT OF FINANCIAL POSITION**

As at March 31

	2020	2019
	<u> </u>	<u> </u>
Financial assets		
Cash and cash equivalents (Schedule 2)	\$ 681,435	\$ 1,158,730
Accrued interest receivable	51,455	57,101
Accounts receivable	246,512	130,639
Short-term investments (Schedule 2)	4,700,000	5,000,000
	<u>5,679,402</u>	<u>6,346,470</u>
Liabilities		
Deferred Revenue (Note 4)	184,910	235,655
Accounts payable and accrued liabilities	17,471	61,430
Payroll liabilities	27,385	25,078
Grants payable	5,381,670	5,385,428
	<u>5,611,436</u>	<u>5,707,591</u>
Net financial assets (Statement 3)	67,966	638,879
Non-financial assets		
Tangible capital assets (Note 3)	8,675	14,486
Prepaid expenses	4,237	11,775
	<u>12,912</u>	<u>26,261</u>
Accumulated surplus (Statement 2)	<u>\$ 80,878</u>	<u>\$ 665,140</u>

Contractual Rights & Contractual Obligations (Note 5)

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**STATEMENT 2****STATEMENT OF OPERATIONS**

For the Year Ended March 31

	2020		2019
	Budget	Actual	Actual
	(Note 11)		
Revenues	\$ 4,849,000	\$ 4,849,000	
Innovation Saskatchewan			5,349,000
Partnerships (note 7)	607,000	591,273	600,694
Other Revenue (note 8)	305,000	241,992	379,440
Total Revenues	<u>5,761,000</u>	<u>5,682,265</u>	<u>6,329,134</u>
Expenses			
Program Expenditures			
SHRF-led awards (Note 6(1))	4,252,881	4,206,660	5,708,455
Partner-led awards (Note 6(2))	305,850	611,700	144,120
Program delivery	635,628	585,216	692,496
Program support	525,705	509,674	446,002
	<u>5,720,064</u>	<u>5,913,250</u>	<u>6,991,073</u>
Corporate Expenses	<u>371,590</u>	<u>353,277</u>	<u>340,438</u>
Total Expenses (Schedule 1)	<u>6,091,654</u>	<u>6,266,527</u>	<u>7,331,511</u>
Annual (deficit) (Statement 3, 4)	<u>\$ (330,654)</u>	<u>(584,262)</u>	<u>(1,002,377)</u>
Accumulated surplus, beginning of year		665,140	1,667,517
Accumulated surplus, end of year (Statement 1)		<u>\$ 80,878</u>	<u>665,140</u>

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**STATEMENT 3****STATEMENT OF CHANGE IN NET FINANCIAL ASSETS**

For the Year Ended March 31

	2020	2019
	<u> </u>	<u> </u>
Annual (deficit) (Statement 2)	\$ (584,262)	\$ (1,002,377)
Acquisition of tangible capital assets	-	(3,003)
Disposal of capital assets	-	-
Amortization of tangible capital assets	5,811	12,185
	<u>5,811</u>	<u>9,182</u>
Acquisition of prepaid expense	(26,684)	(24,607)
Use of prepaid expense	34,222	24,039
	<u>7,538</u>	<u>(568)</u>
Increase in net financial assets	(570,913)	(993,763)
Net financial assets, beginning of year	638,879	1,632,642
Net financial assets, end of year (Statement 1)	<u>\$ 67,966</u>	<u>\$ 638,879</u>

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**STATEMENT 4****STATEMENT OF CASH FLOWS**

For the Year Ended March 31

	2020	2019
	<u> </u>	<u> </u>
Operating transactions		
Annual deficit (Statement 2)	\$ (584,262)	\$ (1,002,377)
Non-cash items included in annual surplus:		
Amortization of tangible capital assets	5,811	12,185
Net change in non-cash working capital items:		
Accrued interest receivable	5,645	(33,821)
Accounts receivable	(115,872)	30,301
Prepaid expenses	7,538	(568)
Deferred revenue	(50,745)	184,978
Accounts payable and accrued liabilities	(43,959)	(80,129)
Payroll liabilities	2,307	3,198
Grants payable	(3,758)	1,402,856
	<u> </u>	<u> </u>
Cash provided by (used in) operating transactions	(777,295)	516,623
Capital transactions		
Cash (used) to acquire tangible capital assets	-	(3,003)
	<u> </u>	<u> </u>
Cash applied to capital transactions	-	(3,003)
	<u> </u>	<u> </u>
Investing transactions		
Purchase of investments	(4,700,000)	(5,000,000)
Proceeds from disposal and redemption of investments	5,000,000	3,400,000
	<u> </u>	<u> </u>
Cash provided by (used in) investing transactions	300,000	(1,600,000)
	<u> </u>	<u> </u>
(Decrease) in cash and cash equivalents	(477,295)	(1,086,380)
Cash and cash equivalents, beginning of year	1,158,730	2,245,110
	<u> </u>	<u> </u>
Cash and cash equivalents, end of year	\$ 681,435	\$ 1,158,730
	<u> </u>	<u> </u>

(See accompanying notes to the financial statements)

**SASKATCHEWAN HEALTH RESEARCH FOUNDATION
NOTES TO THE FINANCIAL STATEMENTS
MARCH 31, 2020**

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 as incurred.	

e) Investments

Investments are valued at amortized cost.

3. Tangible Capital Assets

	Furniture and Equipment	Leasehold Improvements	2020 Totals	2019 Totals
Opening cost	\$ 214,014	\$ 13,007	\$ 227,021	\$ 224,018
Additions during the year	-	-	-	3,003
Disposals during the year	12,470	-	12,470	-
Closing cost	\$ 201,544	\$ 13,007	\$ 214,551	\$ 227,021
Opening accumulated amortization	199,528	13,007	212,535	200,350
Amortization for the year	5,811	-	5,811	12,185
Disposals during the year	12,470	-	12,470	-
Closing accumulated amortization	\$ 192,869	\$ 13,007	\$ 205,876	\$ 212,535
Net book value of tangible capital assets	\$ 8,675	-	\$ 8,675	\$ 14,486

4. Deferred Revenue

The Foundation is holding \$184,910 which was bequeathed from an estate in 2019 and will be used for future research projects.

5. Contractual Rights & Obligations

At March 31, 2020, the Foundation had a contractual right with the Saskatchewan Center for Patient Oriented Research (SCPOR) for Core Capacity funding to cover for the administration of patient oriented research programs and grants. This contractual right results in the following economic resources being transferred to SHRF in future years:

	2020/21
Core Capacity Funds	\$ 188,000
Total	<u>\$ 188,000</u>

At March 31, 2020, the Foundation had the following contractual obligation:

	2020	2021	2022	2023	2024
Office Lease*	\$ 148,826	\$ 148,826	\$ 148,826	\$ 148,826	\$ 86,816
Total	<u>\$ 148,826</u>	<u>\$ 148,826</u>	<u>\$ 148,826</u>	<u>\$ 148,826</u>	<u>\$ 86,816</u>

*The office lease was renewed in 2019 for five years. The current lease expires October 31, 2024.

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 sometimes multi-year. For SHRF-led multi-year grants and awards, eligibility and authorization for all years may be granted in the year the grant is awarded or on a yearly basis depending on the grant program terms and conditions.

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.

Below is a breakdown of SHRF-led grant expenses for 2019-20:

Establishment Grants	\$1,181,791
Sprout	\$948,489
Post Doctoral Research Fellowship	\$722,500
Collaborative Innovation Development (CID)	\$634,091
Research Chairs	\$600,000
Research Connections	\$119,789
	<u>\$4,206,660</u>

(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 2019-20:

Pathways for Health Equity for Aboriginal People	\$285,000
The Canadian Consortium on Neurodegeneration in Aging (CCNA)	\$200,000
Indigenous Nursing Chair	\$61,700
Terry Fox Research	\$50,000
CIHR Health System Impact (HSI) Fellowship	\$15,000
	<u>\$611,700</u>

7. Revenues from Partnerships

In 2019-20, revenues generated by the Foundation through its partnerships were as follows:

Alzheimer's Society of Saskatchewan	\$100,000
Heart & Stroke Foundation of Canada	\$100,000
Saskatoon City Hospital Foundation	\$100,000
SCPOR	\$246,841
The Lung Association	\$44,432
	<u><u>\$591,273</u></u>

8. Other Revenue

In 2019-20 other revenue generated by the Foundation included revenues from:

Interest	\$137,100
Recoveries	\$63,422
Review Services	\$30,000
Sponsorship & Donations	\$10,920

9. 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.

10. Financial Instruments

The Foundation has the following financial instruments: accrued interest receivable, accounts receivable, investments, accounts payable, grants payable and payroll liabilities. 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

11. Budget

The operating budget was approved by the Foundation's Board on April 11, 2019.

12. 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 \$66,711 (2018-19 \$68,593).

13. 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 to be paid out changes.

14. Comparative Figures

Prior year figures have been reclassified to conform to current year presentation.

15. COVID-19

The COVID-19 pandemic is complex and rapidly evolving. It has caused material disruption to businesses and has resulted in an economic slowdown. The Foundation continues to assess and monitor the impact of COVID-19 on its financial condition. The magnitude and duration of COVID-19 is uncertain and, accordingly, it is difficult to reliably measure the potential impact on the Foundation's financial position and operations.

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**SCHEDULE 1****SCHEDULE OF EXPENSES BY OBJECT**

For the Year Ended March 31

	2020		2019
	Budget	Actual	Actual
	(Note 11)		
Grants and awards	\$ 4,558,731	\$ 4,818,360	\$ 5,852,575
Salaries & Benefits	1,126,362	1,095,644	1,079,040
Goods & Services	344,461	308,006	347,077
Board	25,500	16,230	22,571
Travel	36,600	28,287	30,248
	<u>\$ 6,091,654</u>	<u>\$ 6,266,527</u>	<u>\$ 7,331,511</u>

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**SCHEDULE 2****SCHEDULE OF INVESTMENTS**

As at March 31, 2020

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
Cash and cash equivalents (Statement 1)			
Cash		\$ 31,176	
TD Waterhouse - Investment Savings Account		650,259	0.71
		<u>681,435</u>	
Short-term investments (Statement 1)			
Bank of Montreal GIC	24-May-2020	300,000	2.23
TD Mortgage GIC	22-Aug-2020	1,300,000	2.10
Royal Bank of Canada GIC	27-Sep-2020	1,500,000	2.09
Bank of Montreal GIC	13-Nov-2020	1,600,000	2.15
		<u>4,700,000</u>	
		<u>\$ 5,381,435</u>	

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH FOUNDATION**SCHEDULE 3****SCHEDULE OF FUTURE FUNDING CASH COMMITMENTS**

As at March 31, 2020

YEAR	SASKATCHEWAN HEALTH RESEARCH FOUNDATION PROGRAMS
2021	\$ 4,132,612
2022	1,950,776
2023	407,532
2024	140,033
2025	47,517
	<u>\$ 6,678,470</u>

(See accompanying notes to the financial statements - Note 13)



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