

## **ANNUAL REPORT** 2022-23



The provincial agency that funds, supports and promotes the impact of health research that matters to Saskatchewan.

### **LETTERS OF TRANSMITTAL**



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His Honour, the Honourable Russ Mirasty, 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, 2023.

Honourable Jeremy Harrison Minister Responsible for Innovation



The Honourable Jeremy Harrison, 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 period April 1, 2022 to March 31, 2023.

Respectfully submitted,

Joe Vidal Board Chair

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45 Financials

BOARD

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## **Getting to Know SHRF**

Saskatchewan Health Research Foundation (SHRF) is the provincial agency that funds, supports and promotes health research that matters to Saskatchewan. First established by an act of legislature in 2002, SHRF is celebrating its 20th year in Saskatchewan. We have strategically encouraged, facilitated and funded health research that is aligned with the changing needs of the province. SHRF takes a strategic approach to facilitating a rigorous peer-review process, collaborating with partners, stakeholders and institutions to expand the reach of our funding, and measuring and sharing the impact of the work we support. We are an important pillar of the Saskatchewan health research community, and are proud to foster a provincial research ecosystem that is innovative, forward-looking and responsive.

#### **Rigorous, Transparent, Strategic**

SHRF's activities are guided by the principles of excellence, transparency and neutrality. As an agency funded by the tax-payers of Saskatchewan, we recognize our role in facilitating and supporting research of the highest caliber. SHRF's Peer Review process plays a significant role in meeting this objective, where committees of expert researchers from across Canada assess the relevancy, feasibility, intent and capacity of submitted research applications. The result is funded research that is industry-leading, and researchers that are better positioned for success in applying to larger funding pools at the national and international level.

By actively embracing our role as 'trusted and neutral convenors', SHRF addresses the differing needs of many individuals, communities, organizations and institutions that comprise Saskatchewan's health research ecosystem. We work in careful balance with various parties, promoting interdisciplinary research and supporting or hosting events to bring together multiple perspectives and needs. SHRF is governed by a Board of Directors who represent the goals and perspectives of a variety of geographies and sectors.

#### **Looking Forward**

As SHRF enters our 20th year, we feel confident in our continued ability to address the ever-evolving social, organizational and economic needs of the provincial research community. We are proud to play our part in promoting health research excellence in Saskatchewan and will embrace the challenges and opportunities that the future holds.



## A Message from our Leaders

Entering our 20th year in Saskatchewan has been a cause for reflection and celebration. It has given the opportunity for SHRF's Board and Staff to clarify our goals, objectives and strategies. This important anniversary has also coincided with the ending of the pandemic — a stark reminder of the importance that health research plays in our province and the undeniable contribution of an organization like SHRF.

Research in this new era must be responsive and relevant. While the future needs of health and healthcare may remain unknown, it is strategically important for SHRF to respond swiftly and collaboratively to emerging challenges. Like many, SHRF has carried this perspective throughout the activities, development and planning of the past year.

An important mechanism for SHRF to fund health research that is meaningful and timely is the Solutions Program. This year marked the program's third year in Saskatchewan, where the focus areas of Virtual Care, Addictions, and Rural and Remote Health were strategically targeted. The interdisciplinary team requirements of SHRF's Solutions Program pulled together researchers and knowledge-users in new and exciting ways. We encourage you to read more about the program in the coming pages of this report.

Another avenue of SHRF's funding that addresses the needs of Saskatchewan is the Research Connections, Truth and Action Grant. Within the larger Connections Program, this grant specifically supports research mobilization projects that address reconciliatory activities or objectives, and include both Indigenous and non-Indigenous perspectives. The swift uptake of this funding, and the array of organizations, communities and leaders that it has engaged, affirms the importance of these initiatives, and is a reminder of our role in promoting and supporting Indigenous health research in Saskatchewan. We recognize that our efforts of reconciliation are a continuous process and enter the coming year with a commitment to strengthening and improving upon our funding initiatives to better address the needs of Indigenous communities.



Looking past our provincial borders, SHRF has assumed an important place on the national stage through our membership and collaboration with the National Alliance of Provincial Health Research Organizations (NAPHRO). While Saskatchewan's identity and priorities can often feel distinct from Canada's larger centres, our leadership role within NAPHRO has ensured alignment and relevance at the national level. Through NAPHRO, SHRF gains access to national research organizations and their decision-makers, contributes to the improvement of the Canadian research ecosystem, and collaborates interprovincially on projects that improve our programs, peer review and impact assessment.

This year was also an important year for partnership. SHRF's partnerships reflect the understanding that, together, we can accomplish more. In partnership with several organizations and agencies, SHRF has expanded the impact of our investments, maximized efficiencies and ultimately, better accomplished the goals of our partners, as well as our own. These have included fruitful and exciting collaborations with Mental Health Research Canada, Jim Pattison Children's Hospital Foundation and several provincial health charities. We encourage you to explore more details about SHRF's partnerships and the products of these collaborations later in this report.

The impact of SHRF's work in Saskatchewan is the product of many individuals and organizations. We would like to extend our thanks to the SHRF staff for their hard work and dedication. SHRF's important role in the provincial health research sector is a testament to the commitment and professionalism of our team. Thank you to the SHRF Board for their sound governance and critical-thinking. Board members contribute their time and energy in addition to their full-time commitments in Saskatchewan, and we are grateful for their service. Thank you to our many partners both provincially and nationally. These organizations are deeply committed to the health and wellbeing of their communities, and we are honoured to work alongside them. Thank you to the researchers of Saskatchewan for their innovation, passion and commitment to improving the health and wellbeing of our province. While not every research discovery makes national headlines, each contributes towards a shared goal of healthier and happier communities. Finally, we would like to thank the Government of Saskatchewan and Innovation Saskatchewan for the financial support that makes SHRF's work possible.

It is an honour to carry and convene the interests of the provincial government, research community, our partners and the Saskatchewan population towards shared goals of better health and healthcare. We thank you for your interest in the information and stories that follow, and invite you to stay engaged with SHRF via our website at **www.shrf.ca** 

Patrick Odnokon CEO

Joe Vidal Board Chair

### Investing in Saskatchewan Health Research

A central activity of the Saskatchewan Health Research Foundation is the design and execution of research funding competitions. SHRF's various funding programs serve as pillars for an approach to provincial health research that is innovative, aligned and relevant. Each program encompasses one or more grants, with specific application details, funding amounts, timelines and team requirements addressing the goals and objectives of the larger program. SHRF's range of funding opportunities allow for participation from a wide array of researchers, knowledge-users and community members, while enabling the strategic targeting of particular approaches to and areas of health research.



For comprehensive lists of all funded teams and projects in the 2022-23 year, see pages 30 - 43.



Funding designed to strengthen Saskatchewan's research capacity and competitiveness

### **ESTABLISHMENT GRANT**

#### Amount: Up to \$120,000

Term: Up to three years

The Establishment Grant helps early-career researchers in Saskatchewan establish an autonomous program of health research that addresses the province's challenges. This funding supports researchers in achieving the productivity necessary to obtain future funding from national and international agencies. By investing in early-career researchers, this grant expands opportunities and builds health research capacity and success for the province's future.

#### [ 20 ] APPLICATIONS RECEIVED [ 13 ] GRANTS AWARDED

\$1,534,698 INVESTED IN 2022-23

## SOLUTIONS PROGRAM

Funding that brings together interdisciplinary teams to address pressing health challenges

### **INNOVATION GRANT**

Amount: Up to \$50,000

Term: Up to one year

The Innovation Grant aims to drive creative problem-solving to catalyze innovative ideas and approaches. By supporting interdisciplinary research teams that include knowledge-users, this grant inspires new ideas in strategically targeted 'focus areas', paving the way for meaningful and collaborative health innovations.

[ 18 ] APPLICATIONS RECEIVED [ 8 ] GRANTS AWARDED \$398,671 INVESTED IN 2022-23

Totals include partner contributions.

### **IMPACT GRANT**

Amount: Up to \$150,000

Term: Up to two years

The Impact Grant aims to advance the translation of research into real world settings and practical applications. By supporting interdisciplinary research teams that include knowledge-users, this grant enacts meaningful change and impact within strategically targeted 'focus areas' in Saskatchewan.

#### [ 18 ] APPLICATIONS RECEIVED [ 12 ] GRANTS AWARDED

**\$1,780,767** INVESTED IN 2022-23 Totals include partner contributions.









Funding designed to align research activities and findings with the needs of Saskatchewan

Note: Connections investment totals include \$13,270 of 'Event Support' requests funded in 2022-23.

### **RESEARCH CONNECTIONS GRANT**

Amount: Up to \$10,000

Term: Up to one year

The Research Connections Grant supports and facilitates the sharing of health research knowledge in nonacademic settings or mediums, meaningful engagement between stakeholder groups, and the integration of health research knowledge into practice and decision-making.

[ 20 ] APPLICATIONS RECEIVED [ 18 ] GRANTS AWARDED

\$156,152 INVESTED IN 2022-23

### **RESEARCH CONNECTIONS, TRUTH AND ACTION GRANT**

The Research Connections, Truth and Action Grant supports the same objectives as the Research Connections Grant, with a specific focus on activities that address the Truth and Reconciliation Commission of Canada's Calls to Action, and are guided by both Indigenous and non-Indigenous perspectives.



### **ALIGN GRANT**

#### Amount: Up to \$10,000

#### Term: Up to one year

\$329,178 INVESTED IN 2022-23

The Align Grant supports activities wherein research teams can increase the relevance, coordination and potential for impact of research activities in Saskatchewan. This can also include supporting the quality and success of their applications to future peer-reviewed funding, and the development of professional trainees.

#### [ 45 ] APPLICATIONS RECEIVED [ 34 ] GRANTS AWARDED







# PARTNER-LED

Funding led by SHRF's partners and supported by strategic and targeted investment

#### **8 GRANTS SUPPORTED**

### \$258,000 SHRF INVESTMENT \$526,238 TOTAL GRANT VALUE

2022-23 partner-led projects included support for trainees doing embedded research in partnership with a community or health system organization. SHRF partnered with CIHR and MHRC on opportunities for Masters, PhD and Postdoctoral level trainees, with investments ranging from \$15,000 for 6 months to \$108,000 over two years. SHRF also partnered with CIHR to support two 1-year Saskatchewan health system policy research projects valued at \$150,000 each. These projects are part of a national cohort doing timely work to inform policy.

## Better, Together: Partnerships

Partnering with agencies, organizations, charities and institutions provincially and nationally allows the Saskatchewan Health Research Foundation to significantly expand the reach and impact of our funding. Doing so also aligns our activities with other leaders in our community and promotes collaborations that support shared priorities. We work alongside our partners to synchronize our efforts in support of the health and healthcare landscapes of Saskatchewan and Canada.

SHRF approaches partnerships with a wholistic perspective. We partner with those that share our values and goals, and who are open to building a relationship that draws on SHRF's strengths while benefiting both parties. To each partnership, SHRF brings:

- An understanding of the Saskatchewan research environment;
- Established policies and processes for delivering and managing research funding;
- Expertise in peer review;
- Networks of connections across the country that enable peer review; and
- Established relationships and agreements with research institutions.

Together, these assets are of great value to partners looking to make a difference by supporting excellent and relevant research with the potential to improve the health of Saskatchewan people. At the same time, our partners bring essential insight and connections within their areas of interest and expertise, helping to ensure Saskatchewan research is grounded in local needs to benefit local communities.



#### **Collaborations and Relationships**

SHRF's partnership activities are strengthened through sound and reciprocal relationships. These relationships reflect time, commitment, understanding and effort, with the shared goals of mutually beneficial outputs that are greater than the sum of our parts. Year after year, SHRF's team works hard to strengthen existing, and explore new, relationships of this nature.

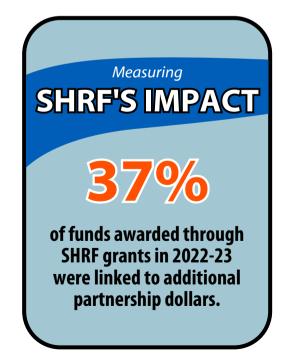
SHRF's relationship with Mental Health Research Canada (MHRC) reflects one such commitment. Finding alignment in our objectives and strategic goals, we partnered to provide the 'MHRC-SHRF Impact Studentships', which supported targeted and meaningful research initiatives in Saskatchewan. MHRC has also partnered to support mental health research through SHRF's Virtual Care Solutions Focus Area.

Similarly, our relationship with CIHR's Institute of Health Services and Policy Research (CIHR–IHSPR) supported embedded research and network-building locally and nationally. SHRF was proud to support three research fellows as they undertook embedded health system research projects in Saskatchewan through CIHR–IHSPR's Health System Impact Fellowship Program. These researchers also had the opportunity to join a national network where they could learn skills and build relationships beyond what is typically expected from a traditional academic fellowship.

Partnering with organizations such as MHRC and CIHR-IHSPR helps SHRF drive investments in targeted areas within Saskatchewan, while ensuring nation-wide impact and relevancy. We look eagerly forward to the products of these partnerships in the coming year.

#### **Complementary Commitments**

Partnerships with provincial charities are an important part of SHRF's work in Saskatchewan. These symbiotic relationships embrace SHRF's administrative procedures, expertise and peer-review processes alongside our provincial partners' target areas, constituency networks and donor funding. These collaborations not only help provincial charities connect their money with researchers who are driving innovation and enacting change; they also help keep Saskatchewan donor money with the province. The coordinated efforts of SHRF and various provincial health charities lay an important foundation for targeted and strategic health research investments in our communities. This year, our work with organizations like Lung Saskatchewan, Alzheimer Society of Saskatchewan and the Jim Pattison Children's Hospital Foundation have exemplified the importance and impact of these partnerships.

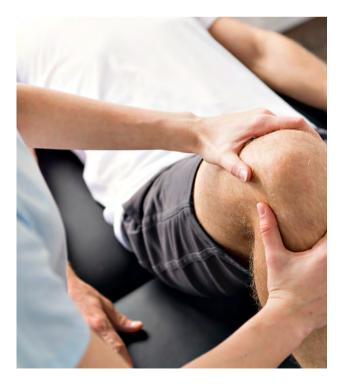


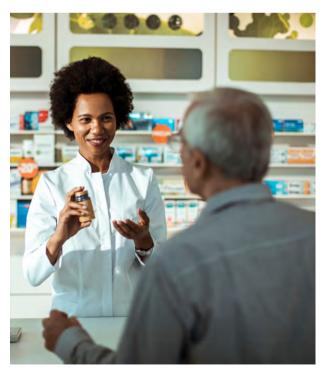
#### **Institutional Partnerships**

Finally, SHRF's health and academic institutional partnerships help keep provincial research supported and effective. We communicate closely with provincial institutions to support potential research applications and celebrate research impact, and together, work to fuel a culture of innovation and excellence.



SHRF would like to thank the many partners we have had the privilege of working with this year. We look forward to the many fruitful and innovative initiatives that lay ahead.





## **Creative Solutions**

Interdisciplinary and targeted approaches to pressing challenges

SHRF's Solutions Program was developed with the goal of addressing timely and localized health challenges through the coordination of diverse skills and perspectives. By directing funded research in given 'focus areas', SHRF and our partners can identify and address the areas in need of timely research investments in Saskatchewan.

Solutions Focus Areas are the product of several considerations, including provincial capacity, need, stakeholder alignment, partnership opportunities and potential for impact. We identify a series of focus areas for a given year, understanding that these will shift over time as contributing factors, capacity and provincial needs evolve.



SHRF and our partners are excited to have strategically-driven research funding investments in five focus areas:

SHRF-led FOCUS AREAS		Virtual Care Addictions Rural and Remote Healthcare
Partner-led	->	Lung Health Alzheimer's Disease and Other Dementias



### **Virtual Care**

While it has long been on the radar of rural and remote communities and those for whom travel presents a barrier, the pandemic made all of Saskatchewan aware of the importance of virtual care. The demand for instruments, assessment methods, policies and technologies that promote safe, effective and efficient virtual care was—and remains—a pressing need in Saskatchewan. Building on the momentum first established during the pandemic, this year's focus area of Virtual Care encouraged researchers to consider long-term, coordinated and accessible solutions that can become a mainstay of Saskatchewan's healthcare climate, connecting patients to the care they need, when and where they need it.

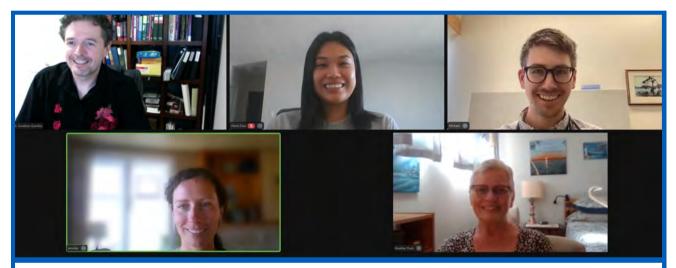


Image: Virtual team meeting, including (top left to bottom right): Dr. Jonathan Gamble, Maria Cruz, Dr. Michael Prystajecky, Dr. Jennifer O'Brien and Heather Dyck (submitted)

One such example is the recently funded work of Dr. Jonathan Gamble and his team of doctors, researchers, policy makers, knowledge-users and patient partners. Together, they are working to expand access to virtual multidisciplinary preoperative assessments to all Saskatchewan residents. Providing virtual options for preoperative assessments stands to reduce travel times and costs, improve accessibility and maximize system efficiencies. Gamble's team will utilize the existing 'Virtual Preoperative Assessment Pathway' developed and piloted by the same group beginning in 2021 with a SHRF Innovation grant. Over the coming two years, the team will adapt the developed processes in order to facilitate virtual assessments province-wide, then evaluate outcomes as they relate to healthcare quality, patient-identified priorities and clinician satisfaction

'Making Virtual Multidisciplinary Preoperative Assessment Possible for Everyone in Saskatchewan Jonathan Gamble [Saskatchewan Health Authority], Jennifer O'Brien [University of Saskatchewan] 2022-23 SHRF Solutions Impact Grant

DID YOU KINOW:

The average 2022-23 Solutions Program project sparked

### 8 collaborations

## Addictions

Addictions research is complex due to its multi-faceted lens that considers the intersection of physical, social and economic factors. Accordingly, the Addictions Focus Area is well suited for the interdisciplinary and creative projects supported by SHRF's Solutions Program. SHRF first introduced the Addictions Focus Area in 2021, in part due to the pressing overdose crisis happening in Saskatchewan. While the first year of funding introduced meaningful and impactful projects, we recognize that this work is far from complete and that trusting relationships take time to nurture and grow.



The University of Regina's Dr. Andrew Eaton and a team from AIDS Programs South Saskatchewan (APSS) are taking a unique approach to effectively targeting harm reduction strategies for people living with addictions. Researchers will work to map 'hot-spots' for discarded needle incidences in Regina, then use this data to inform localized Naloxone training and harm reduction support groups. Their project will combine the efforts of knowledge-users, researchers and those with lived experience, and conclude with an evaluation of the feasibility and benefit of this approach in reducing addictions-related harm. This unconventional pairing of health and geographic research reflects the type of creative approaches inherent to the Solutions Program.

Image: APSS Needle Exchange Program (submitted)

Map Community Needles Incidence Data and Respond with Harm Reduction Interventions in Regina, Saskatchewan: A Community-Based Mixed Methods Study

Andrew Eaton [University of Regina], Sarah Ross, Shiny Mary Varghese, Vidya Dhar Reddy [AIDS Programs South Saskatchewan] 2022-23 SHRF Solutions Impact Grant

## Rural and Remote Healthcare

In partnership with a number of provincial health charities, the 'Rural and Remote Healthcare' Focus Area was introduced to address the roles that geography, accessibility and service provision play on communities outside of Saskatchewan's larger centres. This funding reflects the combined priorities of the Jim Pattison Children's Hospital Foundation, Lung Saskatchewan, Alzheimer Society of Saskatchewan, Heart and Stroke Foundation, Multiple Sclerosis Society of Canada, Hospitals Foundation of Regina and the Royal University Hospital Foundation. This focus area works to address Saskatchewan's context and needs, acknowledging that a significant portion of the provincial population live in rural, remote and northern communities where unique circumstances stand to impact residents' health and healthcare.



Image: Research team gathering, including (top left to bottom right): Dr. Jafar Soltan, Dr. Merle Massie, Dr. Penelope Sanz, Sheila Naytowhow, Dr. Kerry McPhedran, Brooke Thompson, Katie Thompson, Dr. Shelley Kirychuk, Dr. Wanda Martin, Dr. Tara Kahan, Dr. Lori Bradford, Dr. Pardis Keshavarz

A team of researchers and Saskatchewan First Nations, led by Dr. Shelley Kirychuk from the University of Saskatchewan, are utilizing Solutions funding to embrace a Saskatchewan-based approach to the reconciliation of housing to address the disparities in health for those living on-reserve. The team will bring together leaders and members from over 50 First Nations communities, academics, home builders, wellness providers, training and development providers and policy influencers to address and redress housing as a significant determinant of health. This project will co-create and action a framework for on-reserve housing and house maintenance with the goal of reducing health inequities. The intersectional nature of this project is an excellent reflection of the collective impact approach being taken within SHRF's Rural and Remote Healthcare Focus Area.

Enhancing Wellness in our Miyo Wāskahikan

Shelley Kirychuk, Kerry McPhedran, Lori Bradford, Wanda Martin [University of Saskatchewan] 2022-23 SHRF Solutions Impact Grant



In partnership with Lung Saskatchewan, the Lung Health Focus Area aims to direct funding toward research that improves the understanding and management of diseases of the lungs, and the quality of life of those who experience them. SHRF's partnership with Lung Saskatchewan allows our organizations to align our objectives, investments and reach to promote cutting-edge lung health research in our province.





One of the exciting Lung Health projects funded this year involves the identification of a novel biomarker that stands to enable the personalized chemotherapy treatment of lung cancer. Dr.'s Oleg Dmitriev (pictured), Franco Vizeacoumar, Andrew Freywald and Sunil Yadav from the University of Saskatchewan will spend the coming year testing and comparing the effects of 2,000 FDA approved drugs on high and low-MEMO1 cancer cell lines, to determine the potential of this biomarker for directing individualized drug interventions. In its completion, this work stands to identify new drug candidates to support the more effective treatment of lung cancer.

A Novel Biomarker for Personalized Chemotherapy of Lung Cancer Oleg Dmitriev, Franco Vizeacoumar, Andrew Freywald, Sunil Yadav [University of Saskatchewan] 2022-23 SHRF Solutions Innovation Grant



In partnership with the Alzheimer Society of Saskatchewan, the 'Alzheimer's Disease and Other Dementias' Focus Area enables localized health research that supports disease prevention and management, and improves the quality of life of caregivers and loved ones.

### Alzheimer Society



With this goal in mind, the University of Saskatchewan's Dr. Darrell Mousseau (pictured) is exploring innovative new approaches to slowing the progression of Alzheimer disease (AD). Embracing the concept of 'personalized medicine', Dr. Mousseau and his team will use cultured brain cells from suspected AD sufferers to confirm their risk of developing the disease and to inform early intervention strategies. At the same time, the team will work with mouse models to test the impact of injecting healthy brain cells into an AD-affected brain to assess the healthy cells' capacity to replace AD-affected cells and promote brain-saving function. As there is currently no cure for AD, and early diagnosis is often too late to be beneficial, both research activities stand to promote improved identification and management of AD in Saskatchewan.

Injecting Healthy Cells into the Brain to Slow the Progression of Alzheimer Disease Darrell Mousseau [University of Saskatchewan], 2022-23 SHRF Solutions Innovation Grant

We are excited to witness the success and impact of this year's funded Solutions projects, and to announce the 2023-24 focus areas of 'Child and Youth Health', 'Rural and Remote Health' and our continued partnered areas.

## **Seeding Home-Grown Research Capacity**

For over 20 years in Saskatchewan, SHRF has acted diligently to support and invest in research. While all funding applications and awards mark steps in a researcher's career, SHRF takes pride working with and engaging researchers through a wholistic, long-term approach. This involves supporting a research ecosystem that is forward-thinking, collaborating with partners and institutions to align opportunities and priorities, and empowering researchers to find success with national and international funders. We are privileged to engage with Saskatchewan researchers and teams, and to support their research alignment and success provincially and nationally.

#### **Supporting Expansive Research Careers**

SHRF's Establishment Grant—our longest standing funding opportunity—directly supports early-career researchers in Saskatchewan. These grants work to attract and retain research excellence in the province, and to promote successful health research careers in our communities. For many researchers, an Establishment Grant marks an important career milestone and initiates ongoing support and connection with SHRF. Follow-ups with researchers who receive early-career funding from SHRF, and who have continued successful and impactful research careers in Saskatchewan, provide important insight into SHRF's impact.



Dr. Rachel Engler-Stringer (pictured) was awarded a SHRF Establishment Grant in 2010-11 for her research examining the availability, accessibility and quality of food in Saskatoon neighbourhoods for families with children. Dr. Engler-Stringer's work demonstrated that a lack of physical proximity to healthy food options disproportionately impacts low-income communities, and that complex social and cultural factors are also relevant. She later led a SHRF Collaborative Innovation Development Grant to study food access and eating behaviours in the context of low-income neighbourhoods. This innovative pilot project used an existing smartphone app in a new way to collect real-time information to better inform future interventions. In parallel, SHRF partnered with CIHR to co-fund Dr. Engler-Stringer's Population Health Intervention Research Grant, where she evaluated interventions to change and improve inner-city food environments and address nutritional inequities. (cont.)

As Dr. Engler-Stringer's research program has grown, it has provided the foundation for projects such as 'Exploring Universal School Lunch Programs and Practices', funded by the Public Health Agency of Canada. In 2022-23, SHRF's Research Connections Grant supported phase 1 of this larger national project by promoting the exchange of knowledge surrounding the role of traditional Indigenous food in schools serving Indigenous children. This work engages stakeholders such as the Meadow Lake Tribal Council Education, Saskatoon Public Schools, the Coalition for Healthy School Food, Canadian Feed The Children, CHEP Good Food and school food programs across the country. Now, it will direct phase 2 of the project where school food pilot programs will be implemented, furthering the goals of the program of research to increase access to traditional and healthier foods for children in Saskatchewan and beyond.

#### **Supporting an Ecosystem**

SHRF's activities support the capacity of the provincial health research ecosystem by providing opportunities for researchers and knowledge-users to connect, supporting research as it progresses to a stage for larger national funding opportunities, and offering peer-review committee experience. Human capacity is also essential for a robust research ecosystem. In addition to early-career support through the SHRF Establishment Grant, we work with national partners to support important training opportunities.



An example of researchers and a local organization who have benefited from the ecosystem SHRF aims to support includes Dr.'s Holly McKenzie (pictured, left) and Erika Penz (pictured, right) involvement with Sanctum 1.5. As a 10-bed pre and postnatal care home in Saskatoon, Sanctum 1.5 provides stabilization and support to high-risk and HIV-positive pregnant women at-risk of having their infants apprehended at birth. Sanctum 1.5's goals include: preventing vertical transmission of HIV, improving health outcomes for mom and baby, and preventing infant apprehension at birth. Sanctum 1.5 works to encourage health and social interventions with effective outcomes by providing 'the right services at the right time'. Research that supports Sanctum 1.5 to achieve and advance their goals is crucial.

Hope Through Strength: Using a Social-Return on Investment Analysis to Represent a Wholistic View of the Value Produced Through Investing in Sanctum 1.5

Holly McKenzie [University of Saskatchewan], 2022-23 SHRF-CIHR Health System Impact Fellowship Recipient

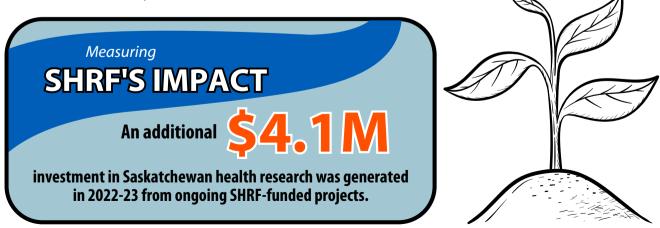
What is the Wholistic Value Produced Through Investing in Sanctum 1.5, the First HIV Prenatal Care Home in Canada?

Erika Penz, Alexandra King, Amanda Froehlich-Chow, Sithokozile Maposa [University of Saskatchewan], Katelyn Roberts [Sanctum Care Group], Alana Cattapan [University of Waterloo] 2022-23 SHRF Solutions Impact Grant This year, SHRF co-funded post-doctoral fellow Dr. Holly McKenzie's CIHR Health System Impact Fellowship to enable her embedded work with Sanctum Care Group. The Health System Impact program was developed by CIHR to modernize health services and policy research. Dr. McKenzie's work at Sanctum focuses on collaboratively adapting a Social Return on Investment Framework to attend to Indigenous values and realities and applying it to an analysis of the Sanctum 1.5 model of care. Dr. McKenzie is engaging this work alongside a council of Indigenous Elders, Indigenous scholars, leaders in health and social services, leaders in social value and people with lived and living experience. In addition to her primary supervisor, Sanctum Care Group's Executive Director and co-founder Katelyn Roberts, Dr. McKenzie is supervised in this work by Dr. Erika Penz and Dr. Alana Cattapan.

In addition, a team of researchers led by Dr. Erika Penz received a SHRF Solutions Impact Grant to analyze and communicate the impact of Sanctum 1.5 using the new framework. The project is an off-shoot of the CIHR-funded "Sanctum 1.5 Hope Through Strength project" (NPI: Dr. S. Maposa – USask College of Nursing), which is working to develop an evidence base for Sanctum 1.5's model of care. The SHRF project team includes many researchers previously funded by SHRF, and is comprised of members of the CIHR team along with new co-investigators, including two mothers with lived experience as clients at Sanctum 1.5.

This project team represents a truly interdisciplinary approach and reflects the impact of SHRF's funding individually and collectively. Dr. Penz (Principal Investigator) has received multiple SHRF grants, including an Establishment Grant that explored the value of money spent on healthcare programs and technologies, and the use of large administrative databases to examine population health outcomes. Dr. Alexandra King (co-Principal Investigator) was recently awarded a SHRF Establishment Grant to create culturally-responsive research frameworks and bring Indigenous and Two-Eyed seeing lenses to her work in health systems and service transformation. Dr. Amanda Froehlich-Chow (co-Principal Investigator) was a SHRF Research Fellowship Award recipient with a background in child and youth health promotion. This team also includes co-Principal Investigators Dr. Alana Cattapan, Dr. Sithokozile Maposa and Sanctum Care Group Executive Director and co-founder, Katelyn Roberts. They will continue their work together with Sanctum 1.5 over the next two years.

The needs, priorities and characteristics of the Saskatchewan health research climate are distinct, and benefit significantly from a local approach to funding, partnerships and collaborations. SHRF is proud to play our part in supporting such an ecosystem, and to witness the impact on the health and healthcare of those who call the province home.



### **Research That Matters:** Embracing Knowledge Mobilization

Knowledge Mobilization—a term that encompasses the range of activities where research is connected to the individuals, organizations or policy makers who will utilize it (i.e., knowledge-users)—is a significant driver behind SHRF programming. While all SHRF programs require knowledge mobilization activities to be incorporated, SHRF is also proud to have developed our Connections Program—a series of grants that support the integration of knowledge-users within short-term and targeted projects specific to knowledge mobilization activities. This focus on knowledge mobilization helps ensure that SHRF-funded research is informed by the needs of Saskatchewan and embraced to promote better health and healthcare.

#### **Knowledge Mobilization at Each Step**

All SHRF programs require researchers to connect with knowledge-users in some way, including building relationships, co-developing projects to ensure the research is relevant and has potential for impact, being part of the research team, and/or sharing research knowledge outside academic audiences. All three phases of a SHRF grant application's lifecycle—proposal, peer review and follow-up reporting—embrace the importance of knowledge mobilization.



- Applicants identify target audiences for given research
- Proposals must address knowledge translation plans, including how information will be shared with audiences within and outside of the academic community, and expected benefits to these communities
- SHRF requires that some budget or in-kind resources are dedicated to sharing the knowledge gained with stakeholders and/or target audiences outside of the academic community



#### PEER REVIEW STAGE

- Reviewers rate grants on criteria specific for that funding opportunity, including the relevancy/importance/need and potential for impact of the proposed research
- Specifically, this criteria looks at strategies and plans to mobilize knowledge with stakeholders and target audiences

#### **PROGRESS & FOLLOW-UP REPORTING**

- Recipients report on 'Research Impact', which includes:
  - Knowledge mobilization activities (list of different types/formats) and relevant audiences
  - Collaborations built
  - Levels of Impact CAHS Framework rating

The relevance to knowledge-users and a focus on knowledge mobilization is evident throughout the wide range of research funded this year.

One such example is the work of Dr.'s Tasha Epp (pictured) and Jordan Woodsworth who will build on previous SHRF-funded research to explore community perspectives on dog populations, the influence of dog-human interactions on community health and welfare, and the role of animal health professionals beyond vaccine provisions. The 2022-23 Solutions Impact project will begin and end with a gathering of non-academic communities called "Dog Days", where those interested in sharing and learning about dog population and community health will participate. Successful knowledge mobilization strategies such as the Community Dog Book (freely available online), Dog Days (the outcome of past SHRF Research Connections funding that included a workshop series with Saskatchewan First Nations communities) and artwork underlie the research team and their strengths in continuing the next stages of this ongoing community research.



Pets and People in the Gap: Identifying Perspectives on Pet and Pet Health, Working Towards Community-Derived Interventions to Promote Community Health in Communities Under-Served by Veterinarians in Saskatchewan

Tasha Epp [University of Saskatchewan], 2018-19 SHRF Sprout Grant

A One Health Approach to Prevent and/or Respond to Dog-Related Issues, Including Aggressive Encounters in Rural and Remote Communities in Saskatchewan

Tasha Epp, Jordan Woodsworth [University of Saskatchewan], 2022-23 SHRF Solutions Impact Grant

#### **Connecting Research to What Matters**

SHRF's Connections Program was first envisioned in 2020 as part of a 'programs refresh' with the goal of reaching outside of academic settings to fund health research knowledge mobilization and alignment activities. The Align Grant, first offered this year, helps researchers engage and build robust interdisciplinary research teams—including those outside of academia—and to support the completion of activities that will help shape future research to align with the needs of the province. The Research Connections Grant works to increase research relevance, usability and uptake by connecting the people of Saskatchewan to health research evidence they can use. Often, SHRF researchers will integrate Align and Research Connections Grants before, during or after larger SHRF projects, helping to ensure alignment and impact. These projects bring SHRF-funded research outside of academic settings and into the communities, systems and practices it seeks to support.





An excellent example of how early knowledge mobilization activities can inform effective future research is Dr. Cameron Mang's (pictured) 2022-23 Research Connections Grant. Dr. Mang's overarching goal is to improve access to, and quality of, exercise services for people living with chronic neurological conditions in Saskatchewan. Evidence shows that exercise can enhance health, fitness and physical function among those with chronic neurological conditions, but that in practice, participation in regular exercise is not common among these groups. As a part of his Research Connections Grant, Dr. Mang will host five roundtable events in Swift Current, Regina, Yorkton, Saskatoon and Prince Albert to bring together those living with chronic neurological conditions, exercise professionals, related healthcare providers and health researchers to guide actionable recommendations for future initiatives and research. This knowledge-sharing process that embraces both exercise professionals and those with lived experience will allow all involved groups to benefit and move forward together.

Time for Action: Connecting People with Chronic Neurological Conditions to the Long-Term Benefits of Exercise Cameron Mang [University of Regina], 2022-23 SHRF Research Connections Grant



The work of Dr.'s Trish Goulet (pictured, left) and Amrinderbir Singh (pictured, right) provides an excellent example of the role of knowledge mobilization activities to action and communicate research findings within the community. Previous research has shown that a barrier commonly experienced by Indigenous Canadians when seeking dental care is a lack of understanding of their rights and entitlements within the Non-Insured Health Benefits (NIHB) program. Research also shows a lack of understanding of after-care and at-home instructions that negatively impact treatment outcomes. With funding provided by a 2022-23 Research Connections, Truth and Action Grant, Dr.'s Goulet and Singh are developing plain language resources in Cree and Dene that explain the NIHB program to Indigenous communities in Saskatchewan. These resources will also include oral health topics determined in consultation with community members, with the objective of improving dental outcomes and aftercare adherence among Indigenous patients. By making this knowledge more accessible, communities within Saskatchewan will be better able to utilize research evidence to make positive decisions about their personal health.

Co-Creating Indigenous-Specific Oral Health Education Resources in Saskatchewan Trish Goulet, Amrinderbir Singh [University of Saskatchewan], 2022-23 SHRF Research Connections, Truth and Action Grant With funding from SHRF's 2022-23 Align Grant, Dr. Brian Eames (pictured) is embracing a 'bench to bedside' approach to therapeutics for osteoarthritis in Saskatchewan. This effort to translate results from the laboratory into the clinic to directly benefit patients, will include orthopaedic surgeon Dr. William Dust. Together, they will study cartilage development similarities between humans and zebrafish, and use these results to direct future therapeutic interventions. Samples from osteoarthritic joint replacement patients will be tested to evaluate whether a novel genetic pathway—identified by Dr. Eames to be similar between zebrafish and humans—is present in these patients. If successful, this project will guide future research initiatives, to allow the team to work alongside orthopaedic surgeons and rheumatologists to determine treatment options, previously tested on zebrafish, for local osteoarthritis patients.



Evaluating a Molecular Mechanism Towards New Therapeutics for SK Osteoarthritis Patients Brian Eames [University of Saskatchewan], 2022-23 SHRF Align Grant

In the coming year, the Research Connections Grant will be replaced with the new 'Mobilize' Grant. This change reflects evolutions within the Connections Program, and better acknowledges a clear focus on knowledge mobilization activities that connect knowledge-users with research outside of an academic setting. We look forward to the many important and engaging projects that will follow.



## **Reconciliation Through Research**

Supporting responsive, engaged and strength-based Indigenous health research in Saskatchewan has long been a priority of SHRF. Doing so inspires the honest and open consideration of research funding opportunities and processes, markers for success and traditional ways of knowing. We recognize the importance of supporting research to address health equity for First Nations, Inuit and Métis peoples, and that this can only happen by researchers working with and for these communities. SHRF is proud to have funded an array of projects this year in which Indigenous communities play a leading or central role.

SHRF also works to create a space where excellence includes diverse approaches to research. We are cognizant that research and granting processes, which were built for colonial institutions, can represent obstacles to Indigenous collaboration in research. We are committed to continuing to learn about and address these obstacles so that health research that is important to Indigenous people and communities can happen meaningfully—from developing the application to sharing the knowledge.

#### **Heeding the Call**

The Truth and Reconciliation Commission of Canada (TRCC) clearly outlines the role of health and health research in their 94 Calls to Action. As part of our commitment to these calls, SHRF established the Research Connections, Truth and Action Grant in 2021. This funding supports knowledge mobilization projects that specifically address one or more of the TRCC's Calls to Action and embrace both Indigenous and non-Indigenous perspectives. The projects funded through this grant reflect meaningful steps towards the engagement of knowledge-users, community members and individuals with lived/living experience into Indigenous health research and practice.



The TRCC's Call 62ii directly addresses the need for the federal, provincial and territorial governments, in consultation and collaboration with survivors, Aboriginal peoples and educators, to support post-secondary institutions in educating teachers on how to integrate Indigenous knowledge and methods into classrooms. Dr. Vincent Ziffle's (pictured) Research Connections, Truth and Action Grant aims to correct misconceptions of and speak about long-held Indigenous traditions by facilitating Teaching Circles and conversations in First Nations languages regarding the therapeutic, ceremonial and spiritual aspects of Indigenous plants and their science. This process will reflect the perspectives of Elders from across several bands and regions in Western Canada, which will be represented and documented through an open-access survey manuscript and shared orally in both public and academic spheres.

Elders' Residency on Medicinal Plants and Languages: A Series of Truth and Action Workshops Connecting Knowledge Keepers and Community Through Medicinal Plant Traditions and Indigenous Languages Vincent Ziffle [First Nations University of Canada], 2022-23 SHRF Research Connections, Truth and Action Grant

#### Supporting Indigenous Community-Based Research in Saskatchewan

Across SHRF's many grants, Indigenous-based health research is addressing and supporting the unique systems, circumstances and goals of the Indigenous communities of Saskatchewan. We are proud to witness the engagement, consultation and consideration inherent to this work, and are eager to participate in its continual evolution as a primary pillar of Saskatchewan health research.

Dr. Amira Abdelrasoul's (pictured) research program focuses on improving hemodialysis, a field of medicine presently challenged by the bioincompatibility of current membranes and the poor clearance of certain toxins from the blood. As she works to engineer novel hemodialysis membranes that can overcome these shortcomings and moves toward the development of a wearable artificial kidney (research initially supported by a 2019-20 SHRF Establishment Grant), she is also utilizing funding from a 2022-23 Research Connections Grant to build relationships with Indigenous hemodialysis patients—a group 30% more likely to be hospitalized due to complications. By fostering these relationships and learning about outcomes that matter to Indigenous patients, Dr. Abdelrasoul is focusing her research direction and embracing a patient-oriented approach to hemodialysis advancements.



Fundamental Studies and In Vivo Data Analyses for Hemodialysis Membrane Biocompatibility Development Towards Artificial Kidney

Amira Abdelrasoul [University of Saskatchewan], 2019-20 SHRF Establishment Grant



Establishing Connections with Indigenous Hemodialysis Patients in Saskatchewan Towards Improved Patient Outcomes

Amira Abdelrasoul [University of Saskatchewan], 2022-23 SHRF Research Connections Grant

Dr. Stacey Lovo (pictured) is working in partnership with Indigenous community members and scholars to address inequities and challenges faced by Indigenous peoples seeking care for neuropathic pain in Saskatchewan. Through a 2022-23 Solutions Innovation Grant, she and her team are working to understand the experiences and expressions of neuropathic pain amongst Indigenous populations living remotely, and developing culturally responsive virtual care interventions for the management of neuropathic pain. The team will co-develop a culturally responsive interprofessional virtual assessment process for neuropathic pain that respects Indigenous experiences and language descriptions, with the goal of supporting the feasibility and accessibility of future virtual neuropathic pain care options.



Community-Directed Virtual Care Strategies for the Management of Neuropathic Pain in Remote Indigenous Communities: A Collaborative Approach to a Culturally Responsive Virtual Care Process Stacey Lovo, Gary Linassi [University of Saskatchewan], 2022-23 SHRF Solutions Innovation Grant

## 19th Annual Santé Awards

The Santé Awards celebrate health research excellence in Saskatchewan, and provide a chance to recognize local researchers for their contributions to a robust culture of health research and innovation. They also allow SHRF to foster and strengthen connections between members of the research community, our partners and other provincial supporters. The 19th Annual Santé Awards were celebrated virtually on January 26, 2023.







#### **Achievement Award**

#### **Dr. Volker Gerdts** Vaccine and Infectious Disease Organization, Western College of Veterinary Medicine University of Saskatchewan

This award is presented to one senior researcher currently residing in Saskatchewan, whose exemplary career achievements have inspired us with their drive, leadership and ingenuity. It recognizes the recipient's work over their career to build capacity, advance knowledge, inform decision-making, and provide health, economic and social impacts in Saskatchewan. Candidates are nominated by their peers and considered by an expert panel of local and national experts from a range of fields.

#### Mid-Career Award Dr. Nicholas Carleton Faculty of Arts, University of Regina

This award is presented to one mid-career (5-15 years) researcher currently active in Saskatchewan. It recognizes the recipient's work over their career to build capacity, advance knowledge, inform decision-making, and to provide health, economic and social impacts, and future potential to continue their impact, in Saskatchewan. Candidates are nominated by their peers and considered by an expert panel of local and national experts from a range of fields.

#### Early-Career Award Dr. Lloyd Balbuena College of Medicine, University of Saskatchewan

This award is presented to one researcher from our five-year follow-up group of SHRF 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. Award selection is determined by a merit review committee.

#### **Excellence** Awards

These awards recognize the top-ranked applications from researchers and teams in the 2021-22 fiscal year. All applications to SHRF's funding competitions are ranked according to our rigorous peer review process by committees of active researchers and health professionals.

Top Establishment Grant, Biomedical Dr. Jessica Sheldon College of Medicine, University of Saskatchewan

Top Establishment Grant, Socio-Health Dr. Janine Brown Faculty of Nursing, University of Regina Top Solutions Program, Impact Grant Dr. Ivar Mendez College of Medicine, University of Saskatchewan

Top Solutions Program, Innovation Grant Dr. Stuart Skinner College of Medicine, University of Saskatchewan

## **Peer Review Committee Members**

**Kiffer Card** Simon Fraser University

Valerie Chappe Dalhousie University

Linda Chelico (Chair) University of Saskatchewan

**Tracy Christianson** Thompson Rivers University

Jaime Cidro University of Winnipeg

**Ekaterina Dadachova** University of Saskatchewan

**Bruce Dick (Chair)** University of Alberta

**Dzifa Dordunoo** University of Victoria

**Christopher Eskiw** University of Saskatchewan

**Danya Fast** University of British Columbia

Kara Fletcher University of Regina

**Shannon Freeman** University of Northern British Columbia

**Sonia Grandi** University of Toronto **Agnes Grudniewicz** University of Ottawa

Adrian Guta University of Windsor

**Lindsay Hedden** Simon Fraser University

**Christopher Hergott (Chair)** University of Calgary

**Rachel Herron** Brandon University

Lindsay Jibb University of Toronto

**Andrew Kim** Toronto Metropolitan University

**Steven Machtaler** University of Saskatchewan

Zack Marshall University of Calgary

**Angela McGinnis** University of Regina

**Amy Metcalfe** University of Calgary

**Paul Mick** University of Saskatchewan

**Robert Murphy** University of Regina **Alison Oates** University of Saskatchewan

**Dana Olstad** University of Calgary

**Tanya Park** University of Alberta

**Erika Penz** University of Saskatchewan

**Gillian Strudwick** Centre for Addiction and Mental Health

**David Thompson** Lakehead University

**Corey Tomczak (Chair)** University of Saskatchewan

**Guido van Marle** University of Calgary

**Candice Waddell-Henowitch** Brandon University

**Christina West** University of Manitoba

**Erin Wilson (Chair)** University of Northern British Columbia

**Igor Yakovenko** Dalhousie University

Thank you to all those who volunteered their time and expertise to review, discuss and provide feedback on a number of grant applications as part of SHRF's grant competitions.

## **Other Reviewers**

Michelle Anderson

Sunnybrook Health Sciences Centre

Jason Andrade Vancouver Coastal Health Research Institute

**Devi Atukorallaya** University of Manitoba

**Lynn Barwin** University of Ottawa

**Cyndy Baskin** Toronto Metropolitan University

**Lola Baydala** University of Alberta

Karen Benzies University of Calgary

**Tamara Bodnar** University of British Columbia

**Stephen Bornstein** Memorial University of Newfoundland

Philip Britz McKibbin McMaster University

Brenda Bruner Nipissing University

Hector Caruncho University of Victoria

Zhenyu Cheng Dalhousie University

**Loren Chiu** University of Alberta

Brian Christie University of Victoria

Fiona Clement University of Calgary

**Denise Cloutier** University of Victoria Marceline Côté University of Ottawa

Nicole Dalmer McMaster University

Noriko Daneshtalab Memorial University of

**Belinda Daniels** University of Victoria

Newfoundland

**Rodney DeKoter** Western University

Sarah Dow-Fleisner University of British Columbia

Martin Drapeau McGill University

**Pamela Durepos** University of British Columbia

**David Eisenstat** University of Alberta

**Ayman ElAli** Université Laval

**Andrew Estefan** University of Calgary

Spencer Glbson University of Alberta Wendy Gifford

University of Ottawa John Gordon

University of Saskatchewan Rebecca Hancock-Howard

University of Toronto Joe Harrison University of Calgary

Marnin Heisel University of Western Ontario Dan Henhawk

University of Manitoba

Emmanuel Ho University of Waterloo

**Michael Jackson** University of Manitoba

**Kerry Kuluski** University of Toronto

Jasmin Lalonde University of Guelph

**Susan Law** University of Toronto

**Brenda Leung** Dalhousie University

Marian Luctkar-Flude Queen's University

**Marli MacNeil** Research Nova Scotia

Darrel Manitowabi Toronto Metropolitan University

**Linda Mann** Mount Saint Vincent University

**Paul Marcogliese** University of Manitoba

**Paola Marignani** Dalhousie University

**Craig McCormick** Dalhousie University

**Arleigh McCurdy** University of Ottawa

Alison McGuigan University of Toronto

Heather McRae University of Manitoba

Kristina Milaney University of Calgary **Jeremy Mogridge** University of Toronto

Helen Monkman University of Victoria

Alice Mui University of British Columbia

**Ally Murji** Mount Sinai Hospital

Thomas Murooka University of Manitoba

Simon Oczkowski McMaster University

**Alvaro Quevedo** Ontario Tech University

Lisa Reynolds University of Victoria

**Danielle Rodin** Princess Margaret Cancer Centre

**Deanna Santer** University of Manitoba

Marie Savundranayagam Western University

**Catharine Schiller** University of Northern British Columbia

Trisha Scribbans University of Manitoba

Jeff Smith Carleton University

Jonathon Stokes McMaster University

**Gillian Strudwick** Centre for Addiction and Mental Health

Michael Suen University of British Columbia

Thank you to all those who volunteered their time and expertise to evaluate a grant application and provide advice to a SHRF Peer Review Committee.

## 2022-23 Funding Recipients

### **CAPACITY PROGRAM**

### 2022-23 ESTABLISHMENT GRANT

#### Asmahan AbuArish

College of Medicine, University of Saskatchewan Can Good Lipids Resolve Severe Covid-19 Symptoms? \$120,000

#### Arinjay Banerjee

Vaccine and Infectious Disease Organization (VIDO), University of Saskatchewan Deciphering Molecular Interactions That Promote Disease Severity During Infection with Two Highly Pathogenic Betacoronaviruses, SARS-CoV-2 and MERS-CoV \$120.000

#### **Janine Brown**

Faculty of Nursing, University of Regina Multiple Sclerosis and Medical Assistance in Dying: A Qualitative Exploration of Patient and Family-Centered Care \$117,004

#### **Michael Chamberlain**

College of Medicine, University of Saskatchewan Development of 3D Tissue Engineered Tumour Microtissue Models for Precision Medicine \$120,000

#### Neeraj Dhar

Vaccine and Infectious Disease Organization (VIDO), University of Saskatchewan Solutions for Improving the Control of Tuberculosis by Targeting Specific Bacterial Sub-Populations That Will Shorten the Treatment Times

#### \$119,410

#### Natasha Hubbard Murdoch

Centre for Health Research Improvement and Scholarship, Saskatchewan Polytechnic A Realist Evaluation of Caring for a Community-Dwelling Significant Other: Saskatchewan Caregiver Perceptions of Belonging and the Impetus for Action

\$119,714

#### Alyson Kelvin

Vaccine and Infectious Disease Organization (VIDO), University of Saskatchewan Long COVID in Saskatchewan: Defining Long COVID Inflammation for the Development of Diagnostic Tests and the Identification of Therapeutics

#### \$120,000

#### **Angelica Lang**

College of Medicine, University of Saskatchewan How do Time and Rural Residence Affect the Progression of Chronic Shoulder Injuries? \$118,412

#### Lise Milne

Faculty of Social Work, University of Regina Exploring the Optimal Conditions for Implementing a Trauma-Focused Prenatal Group Program in Saskatchewan \$119,958

#### **Heather Nelson**

Faculty of Nursing, University of Regina Examining the Impact of a Phone Intervention on Mood and Loneliness in Older Adults Living in Assisted Living and Private Care Facilities

Funded in partnership with Saskatchewan Centre for Patient-Oriented Research (SCPOR) **\$119,277** 

#### **Peter Pioli**

College of Medicine, University of Saskatchewan To Determine if Thymus Antibody-Secreting Cells are Autoimmune and Regulate T Cell Development \$120,000

#### Jay Shavadia

College of Medicine, University of Saskatchewan Evaluation of Withdrawal of Beta-Blocker Therapy in Patients Treated with Coronary Artery Bypass Surgery \$100,923

Jessica Sheldon College of Medicine, University of Saskatchewan More Than Just Allergy: How Histamine Impacts Infection by a Multidrug Resistant Pathogen \$120,000

### **SOLUTIONS PROGRAM**

#### **2022-23 INNOVATION GRANT**

#### Mohan Babu

Faculty of Science, University of Regina Peptide Therapeutics For Cystic Fibrosis Funded in partnership with Lung Saskatchewan \$50,000

#### **Allison Cammer**

College of Pharmacy and Nutrition, University of Saskatchewan The Cognitive Kitchen: An Evidence-Based Nutrition and Socialization Program for Rural Caregiver Support \$49,509

#### **Oleg Dmitriev**

College of Medicine, University of Saskatchewan A Novel Biomarker for Personalized Chemotherapy of Lung Cancer Funded in partnership with Lung Saskatchewan \$50,000

#### Anas El-Aneed

College of Pharmacy and Nutrition, University of Saskatchewan Improved Diagnosis of Lung Diseases Using Urine Tests Funded in partnership with Lung Saskatchewan \$50,000

#### **Stacey Lovo**

College of Medicine, University of Saskatchewan Community-Directed Virtual Care Strategies for the Management of Neuropathic Pain in Remote Indigenous Communities \$49,262

#### **Darrell Mousseau**

College of Medicine, University of Saskatchewan Injecting Healthy Cells Into the Brain to Slow the Progression of Alzheimer Disease Funded in partnership with Alzheimer Society of Saskatchewan \$49,933

#### Susan Petryk

College of Medicine, University of Saskatchewan

Testing a New Way to Use Virtual (Video Based) Care for Patients Needing Consultation for Developmental and Mental Health Concerns to Decrease the Wait for Services and Brings the Specialist to the Patient's Community with the Help of a Nurse Practitioner

Funded in partnership with Mental Health Research Canada **\$49,986** 

#### Kristi Wright

Faculty of Arts, University of Regina Supporting Caregivers of Children with Cystic Fibrosis: The Development of a Online Mental Health and Wellness Prevention Program for Caregivers \$49,981

#### **2022-23 IMPACT GRANT**

#### Shauna Davies

Faculty of Nursing, University of Regina

How Well Does Virtual Reality Compare to the Use of High Fidelity Manikins: Using Virtual Reality to Examine a Paramedic's Ability to Perform Specific Tasks and Skills When Seeking Employment in Rural and Remote Areas of Saskatchewan.

\$150,000

#### **Andrew Eaton**

Faculty of Social Work, University of Regina Map Community Needles Incidence Data and Respond with Harm Reduction Interventions in Regina, Saskatchewan: A Community-Based, Mixed-Method Study

\$150,000

#### Tasha Epp

Western College of Veterinary Medicine, University of Saskatchewan A One Health Approach to Prevent and/or Respond to Dog-Related Issues, Including Aggressive Encounters in Rural and Remote Communities in Saskatchewan

\$149,914

#### **Barbara Fornssler**

College of Medicine, University of Saskatchewan Building Capacity to Reduce Substance Use Harms: Researching Effective Evaluation Standards for the Supervised Consumption Site in Saskatoon SK \$150,000

Jonathan Gamble

College of Medicine, University of Saskatchewan Making Virtual Multidisciplinary Preoperative Assessment Possible for Everyone in Saskatchewan \$147,260

#### **Arlene Kent-Wilkinson**

College of Nursing, University of Saskatchewan Dementia Screening and Diagnosis for Older Persons in Custody at the Regional Psychiatric Centre Funded in partnership with Alzheimer Society of Saskatchewan \$134,827

#### **Shelley Kirychuk**

College of Medicine, University of Saskatchewan Enhancing Wellness in our Miyo Wāskahikan \$150,000

#### **Benjamin Leis**

College of Medicine, University of Saskatchewan Community as Cure: A Multi-Disciplinary Endocarditis Clinical (MENDO) Pathway \$150,000

#### Megan O'Connell

College of Arts and Science, University of Saskatchewan Re-Imaging How Care Partner Support is Delivered by the Alzheimer Society of SK to Include Research-Supported Therapy \$148,953

#### Ivar Mendez

College of Medicine, University of Saskatchewan Enhancing Access to Ultrasound Services Using a Telerobotic Ultrasonography System in Rural Southern Saskatchewan \$149,988

#### Erika Penz

College of Medicine, University of Saskatchewan What is the Wholistic Value Produced Through Investing in Sanctum 1.5, the first HIV Prenatal Care Home in Canada? Funded in partnership with Saskatchewan Centre for Patient-Oriented Research (SCPOR) \$150,000

#### **Aneesh Thakur**

Vaccine and Infectious Disease Organization (VIDO), University of Saskatchewan Elucidating how to design vaccines that can induce protective immunity in the lungs Funded in partnership with Lung Saskatchewan \$149,824

### **CONNECTIONS PROGRAM**

#### **2022-23 ALIGN GRANT**

The following list reflects projects funded across Call 1, Call 2 and Call 3 of the 2022-23 Align Grant.

#### Amira Abdelrasoul

College of Engineering, University of Saskatchewan Advancing Hemodialysis Membrane Research Towards Improved Patient Outcomes \$9,500

#### **Holly Bardutz**

Faculty of Kinesiology and Health Studies, University of Regina Effects of a Brain Health Class on Brain and Heart Function in the Aging Population \$7,000

#### **Mohamad Baydoun**

Faculty of Nursing, University of Regina Exploring Cancer Patients' Experiences Accessing Medical, Psychological and Social Care Services in Rural Saskatchewan \$9,893

#### **Allison Cammer**

College of Pharmacy and Nutrition, University of Saskatchewan End of Life Nutrition Care in Saskatchewan Long-Term Care Homes: Evidence Review and Stakeholder Consultation \$9,963

#### Laurie Clune

Faculty of Nursing, University of Regina Creating a Path out of Hidden Homelessness: A Saskatchewan Symposium \$10,000

#### **Roslyn Compton**

College of Nursing, University of Saskatchewan Connecting, Sharing and Caring to Build Interprofessional Relationships Between Health Care Workers Caring with Older Adults \$10,000

#### Jorden Cummings

College of Arts and Science, University of Saskatchewan RESOLVing Saskatchewan Violence: Broadening and Strengthening Connections \$9,978

#### **Sarah Donkers**

College of Medicine, University of Saskatchewan Increasing Accessibility to Neurorehabilitation Services in Saskatchewan: Setting the Stage for a 'Provincial Neurorehab Strategy' \$10,000

#### **Brian Eames**

College of Medicine, University of Saskatchewan Evaluating a Molecular Mechanism Towards New Therapeutics for SK Osteoarthritis Patients \$10,000

#### **Ernesto Figueiro Filho**

College of Medicine, University of Saskatchewan Placental Growth Factor (PLGF) as a Clinical Tool to Manage High-Risk Pregnancies \$10,000

# Natasha Gallant

Faculty of Arts, University of Regina Establishing Research Priorities for Long-Term Care Residents with Mental Illness \$9,857

# **Gary Groot**

College of Medicine, University of Saskatchewan Exploring Priorities for Breast Cancer Patients and Survivors in Saskatchewan \$9,896

# Peter Hedlin

College of Medicine, University of Saskatchewan Experiences of Older Patients, Their Families, and Healthcare Providers with Delirium After Surgery: An Action Research Study to Improve Patient and Family Centered Care \$9,997

# Larissa Kiesman

College of Medicine, University of Saskatchewan One Roof: Point of Care Collaborative \$9,960

# Ramona Kyabaggu

Johnson-Shoyama Graduate School of Public Policy, University of Regina An Early Health Technology Assessment (eHTA) Stakeholder Dialogue to Accelerate Research, Development, and Commercialization of Virtual Reality for Paramedic Occupational Assessment in Saskatchewan \$10,000

# Joshua Lawson

College of Medicine, University of Saskatchewan Geographic Variation in the Under- and Over-Diagnosis of Asthma \$9,997

# Stacey Lovo

College of Medicine, University of Saskatchewan Collaborating with Indigenous Communities in the Development of Indigenous Language Rehabilitation Materials for the Management of Chronic Back Pain

\$9,912

# Akram Mahani

Johnson-Shoyama Graduate School of Public Policy, University of Regina Integration of Health into Urban Planning Policies \$10,000

# **Geoffrey Maina**

College of Nursing, University of Saskatchewan Assessing Rural Communities in Northeast Saskatchewan's Readiness to Implement Harm Reduction Interventions and Identifying Evidence-Based and Sustainable Priorities to Support Their Uptake \$9,938

# **Holly Mansell**

College of Pharmacy and Nutrition, University of Saskatchewan Co-Developing an App to Improve Patient Education \$10,000

#### **Jaime Mantesso**

Faculty of Nursing, University of Regina Prenatal Indigenous Women's Health in Four Saskatchewan First Nations Communities \$9,972

# **Elise Matthews**

Faculty of Nursing, University of Regina Evaluation and Adaptation of Supported and Shared Health Decision-Making Plain Language Tools for Self-Advocates with Disabilities and Health Care Professionals \$10,000

# **Shelley Peacock**

College of Nursing, University of Saskatchewan Championing Dementia Care Education for Acute Healthcare Professionals \$9,792

#### Juan-Nicolas Pena-Sanchez

College of Medicine, University of Saskatchewan Facilitating Conversations & Building Collaborations to Improve the Wellbeing and Retention of Healthcare Providers in Saskatchewan \$9,998

# Pammla Petrucka

College of Nursing, University of Saskatchewan Saskatchewan Awareness, Advocacy, and Knowledge Strategies (Sask-A2SKS): Addressing IPV Amongst Queer Women in Saskatchewan's 2SLBGTQ+ Communities \$9,996

# **Noelle Rohatinsky**

College of Nursing, University of Saskatchewan Enhancing Chronic Illness Care for Older Adults with Inflammatory Bowel Disease in Saskatchewan \$9,944

# Schroder Sattar

College of Nursing, University of Saskatchewan geriAtric onCology in aCtion: a nEeds assessment in Saskatchewan: The ACCESS Project \$9,770

# Schroder Sattar

College of Nursing, University of Saskatchewan Feasibility of Virtual Exercise Program for Men with Prostate Cancer: The TARGET Study \$9,780

# **Amrinderbir Singh**

College of Dentistry, University of Saskatchewan Indigenous Perspectives on Oral Healthcare Service Delivery in a Saskatchewan Urban Dental Clinic \$4,110

# **Michelle Siqueira**

College of Dentistry, University of Saskatchewan Water Quality Testing at Selected Urban and Rural Dental Clinics in Saskatchewan - Assessing Trends Over Six Months \$9,986

# Julia Totosy de Zepetnek

Faculty of Kinesiology and Health Studies, University of Regina Elexacaftor-Tezacaftor-Ivacaftor on Overall Health in Persons with Cystic Fibrosis \$10,000

# **Susan Tupper**

Clinical Excellence, Saskatchewan Health Authority Implementing Virtual Reality into Therapeutic Recreation Practice in Long-Term Care Homes in Saskatchewan \$9,939

# Hassanali Vatanparast

College of Pharmacy and Nutrition, University of Saskatchewan Working Together to Improve the Food Environment in Saskatchewan Public Recreation Facilities \$10,000

# Wen Jun (Chris) Zhang

College of Engineering, University of Saskatchewan Development of a Cell-Individualized NanoKnife Protocol for Glioma Tumours with the Least Damage of Surrounding Healthy Cells

\$10,000

# **2022-23 RESEARCH CONNECTIONS GRANT**

# The following list reflects projects funded across Call 1, Call 2 and Call 3 of the 2022-23 Research Connections Grant.

# **Amira Abdelrasoul**

College of Engineering, University of Saskatchewan Knowledge Transfer to Inform Hemodialysis Membrane Research \$7,482

# **Amira Abdelrasoul**

College of Engineering, University of Saskatchewan Establishing Connections with Indigenous Hemodialysis Patients in Saskatchewan Towards Improved Patient Outcomes

\$3,385

# **Brenna Bath**

College of Medicine, University of Saskatchewan Enhancing Access to Chronic Back Pain Care in Saskatchewan: Mobilizing Rural, Remote and Urban Perspectives \$10,000

# Jorden Cummings

College of Arts and Science, University of Saskatchewan The RESOLVing Violence Podcast: Mobilizing Prairie Research on Violence & Abuse \$10,000

# **Rachel Engler-Stringer**

College of Medicine, University of Saskatchewan Come to the Table: Exploring School Food Together \$10,000

# Jennifer Gordon

Faculty of Arts, University of Regina Launching a Mobile App Targeting Distress Related to Infertility \$10,000

# **Peter Hedlin**

College of Medicine, University of Saskatchewan Reducing Delirium After Surgery in Saskatchewan: A Knowledge Sharing Study \$8,514

# Shela Hirani

Faculty of Nursing, University of Regina Toolkit on Strategies to Promote, Protect and Support Breastfeeding Practices of Refugee Mothers with Post-Traumatic Stress Disorder (PTSD) \$10,000

# Laura Hopkins

College of Medicine, University of Saskatchewan A Patient Decision Aid for Women with Homologous Recombination Proficient Ovarian Cancer: Treatment Options Following Completion of Surgery and Chemotherapy \$10.000

# **Paulette Hunter**

St. Thomas More College Developing a Website to Mobilize Knowledge in Support of Palliative and Continuing Care \$10,000

# Sarah Kostiuk

Saskatchewan Polytechnic Sharing Stories to Inspire and Innovate Patient-Oriented Care and Health Care Curricula in Saskatchewan \$2,000

# **Carrie LaVallie**

First Nations University of Canada Moving Across Rural and Urban Aftercare Spaces to Support Healing From Addiction Resource Documents \$10,000

# **Cameron Mang**

Faculty of Kinesiology and Health Studies, University of Regina Time for Action: Connecting People with Chronic Neurological Conditions to the Long-Term Benefits of Exercise

\$10,000

# Wanda Martin

College of Nursing, University of Saskatchewan Kisêwâtisiwin for the Home: Meeting for Change \$10,000

# **Mansfield Mela**

College of Medicine, University of Saskatchewan Developing a Mobile Application to Support Saskatchewan Clinicians Prescribing Psychotropic Medications for Fetal Alcohol Spectrum Disorder (FASD) Patients \$8,040

# Natasha Hubbard Murdoch

School of Nursing, Saskatchewan Polytechnic Encircling Older Adult Care: A Summit to Create Connections & Community for All Persons Caring with Older Adults

\$10,000

# **Nathalie Reid**

Child Trauma Research Centre, University of Regina Creating a Trauma-Integrated Practices (TIPs) Knowledge Mobilization Series for Child-Serving Sectors in Saskatchewan \$8,500

# **Stuart Skinner**

College of Medicine, University of Saskatchewan 'Wellness is Life': Wellness Wheel Medical Clinic and Touchwood Agency Tribal Council \$8,230

# **2022-23 RESEARCH CONNECTIONS, TRUTH AND ACTION GRANT**

# Laurie Clune

Faculty of Nursing, University of Regina Giving Back: Community Action in Mobilizing Knowledge About Indigenous Homelessness in Tangible Ways \$10,000

# **Amanda Froehlich-Chow**

School of Public Health, University of Saskatchewan Learning with Land: Sharing Indigenous Ways of Knowing and Being Through Art \$10,000

# **Trish Goulet**

College of Dentistry, University of Saskatchewan Co-Creating Indigenous-Specific Oral Health Education Resources in Saskatchewan \$10,000

# **Shelley Kirychuk**

College of Medicine, University of Saskatchewan Thriving in our Miyo Wāskahikan \$10,000

# Cari McIlduff

College of Medicine, University of Saskatchewan Looking Back to Plan Ahead: Two-way Knowledge Sharing In Partnered Communities \$9,950

# **Vincent Ziffle**

First Nations University of Canada Elders' Residency on Medicinal Plants and Languages: A Series of Truth and Action Workshops Connecting Knowledge Keepers and Community Through Medicinal Plant Traditions and Indigenous Languages \$9,950

# 2022-23 PARTNER-LED GRANTS

Dollar amounts listed reflect the combined contributions of SHRF and our partners.

# CIHR-IHSPR Catalyst Grant -Policy Research for Health System Transformation

# **Tracey Carr**

College of Medicine, University of Saskatchewan A Developmental Evaluation of Patient-Centered Measurement in a Learning Health System: Policy Implications for Saskatchewan \$148,238

# Akram Mahani

Johnson-Shoyama Graduate School of Public Policy, University of Regina Cross-Sectoral Collaboration to Improve Outcomes for Children/Youth in Vulnerable Contexts \$150,000

# CIHR-IHSPR Health System Impact Fellowship

# **Kirstian Gibson**

University of Saskatchewan Building Trust: A Realist Evaluation of an Initiative to Co-Create Partnerships in Long-Term Care \$155,000

# Ivy Myge

Client and Family Centered Care, Saskatchewan Health Authority Building a Relationship-Centered Practice Model in Long-Term Care \$50,000

# **Holly McKenzie**

College of Medicine, University of Saskatchewan 'Hope Through Strength': Using a Social-Return on Investment Analysis to Represent a Wholistic View of the Value Produced Through Investing in Sanctum 1.5. \$155,000

# Cystic Fibrosis Canada Research Fellowship

# Xiaojie Luan

College of Medicine, University of Saskatchewan Origins of Cystic Fibrosis Lung Disease: Miscoordination Among Ionocytes, Secretory Cells and Airway Submucosal Glands \$96,000

# Mental Health Research Canada(MHRC)-SHRF Mental Health Impact Scholarship

# **Coatlicue Sierra Rose**

Johnson-Shoyama Graduate School of Public Policy, University of Regina Cultural Humility Immersive Assessment (CHIA) \$15,000

# **Alexandria Pavelich**

College of Arts and Science, University of Saskatchewan Accessing Emergency Services for Concerns Related to Mental Health and Substance Use: A Qualitative Study of Therapy Dog-Handler Teams' and Patients' Supportive Interactions \$15,000



# to the Government of Saskatchewan and Innovation Saskatchewan for supporting the work of SHRF and our provincial health research community!





# FINANCIAL STATEMENTS

Saskatchewan Health Research Foundation Financial Statements For the year ended March 31, 2023

# **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.

Joe Vidal 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 the Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2023, and the statement of operations, statement of changes 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, 2023, 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.

J. Clentte Tara Clemett, CPA, CA, C

Regina, Saskatchewan June 22, 2023

Tara Clemett, CPA, CA, CISA Provincial Auditor Office of the Provincial Auditor

# STATEMENT OF FINANCIAL POSITION

As at March 31

	2023	. i-	2022
Financial assets Cash and cash equivalents (Schedule 2) \$ Accrued interest receivable Accounts receivable Short-term investments (Schedule 2)	1,727,148 72,778 109,955 4,000,000	\$	1,907,304 7,453 191,783 3,500,000
	5,909,881		5,606,540
Liabilities Deferred revenue (Note 4) Accounts payable and accrued liabilities Payroll liabilities Grants payable	10,000 10,885 19,993 5,473,603		230,886 18,200 23,810 4,675,329
	5,514,481		4,948,225
Net financial assets (Statement 3)	395,400		658,315
<b>Non-financial assets</b> Tangible capital assets (Note 3) Prepaid expenses	16,911 9,922		28,985 9,550
	26,833	-	38,535
Accumulated surplus (Statement 2) \$	422,233	\$	696,850

Contractual Rights & Contractual Obligations (Note 5)

# STATEMENT OF OPERATIONS

For the Year Ended March 31

		2023				2022
	_	Budget		Actual		Actual
		(Note 11)				
<b>Revenues</b> Innovation Saskatchewan Partnerships (Note 7) Other Revenue (Note 8) <b>Total Revenues</b>	\$	4,849,000 550,000 433,600 5,832,600	\$	4,849,000 416,936 544,998 5,810,934	\$	4,849,000 752,676 538,869 6,140,545
Total Revenues	-	5,652,000		5,610,954		
Expenses Program Expenditures Grants & Awards (Note 6) Program delivery Program support		4,675,000 608,040 445,678		4,730,199 579,948 402,502	-	4,391,605 586,362 369,523
	_	5,728,718		5,712,649	_	5,347,490
Corporate Expenses		411,583		372,902		343,958
Total Expenses (Schedule 1)		6,140,301		6,085,551	_	5,691,448
Annual surplus (deficit) (Statement 3, 4)	\$	(307,701)		(274,617)	-	449,097
Accumulated surplus, beginning of year	-			696,850	-	247,753
Accumulated surplus, end of year (Statement 1)			\$	422,233	\$	696,850

#### STATEMENT OF CHANGE IN NET FINANCIAL ASSETS

For the Year Ended March 31

	_	2023				2022
		Budget Actual				Actual
		(Note 11)				
Annual surplus (deficit) (Statement 2)	\$	(307,701)	\$	(274,617) \$	\$	449,097
Acquisition of tangible capital assets Disposal of capital assets		-		(17,926)		(7,538)
Amortization of tangible capital assets		25,425		30,000	-	24,034
		25,425		12,074		16,496
Acquisiton of prepaid expense Use of prepaid expense		-		(10,630) 10,258		(8,758) 10,412
		-		(372)	-	1,654
Increase (decrease) in net financial assets		(282,276)		(262,915)		467,247
Net financial assets, beginning of year		658,315	-	658,315	_	191,068
Net financial assets, end of year (Statement 1)	\$	376,039	\$	395,400	₿.	658,315

# STATEMENT 4

### SASKATCHEWAN HEALTH RESEARCH FOUNDATION

#### STATEMENT OF CASH FLOWS

For the Year Ended March 31

	-	2023	2022
Operating transactions			
Annual surplus (deficit) (Statement 2) Non-cash items included in annual surplus:	\$	(274,617)	\$ 449,097
Amortization of tangible capital assets Net change in non-cash working capital items:		30,000	24,034
Accrued interest receivable Accounts receivable Prepaid expenses Deferred revenue Accounts payable and accrued liabilities Payroll liabilities Grants payable	-	(65,325) 81,828 (372) (220,886) (7,315) (3,817) 798,274	1,433 (55,824) 1,654 45,976 (16,135) (13,200) 96,106
Cash provided by (used in) operating transactions		337,770	533,141
Capital transactions			
Cash (used) to acquire tangible capital assets	-	(17,926)	(7,538)
Cash applied to capital transactions	-	(17,926)	(7,538)
Investing transactions			
Purchase of investments Proceeds from disposal and redemption of investments	_	(4,000,000) 3,500,000	(3,500,000) 4,000,000
Cash provided by (used in) investing transactions		(500,000)	500,000
Increase (Decrease) in cash and cash equivalents Cash and cash equivalents, beginning of year		(180,156) 1,907,304	1,025,603 881,701
Cash and cash equivalents, end of year	- \$	1,727,148	\$ 1,907,304

#### SASKATCHEWAN HEALTH RESEARCH FOUNDATION NOTES TO THE FINANCIAL STATEMENTS MARCH 31, 2023

#### 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 Statement 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.

#### f) New Accounting Standards

PS 3280 Asset Retirement Obligation - (effective April 1, 2022).

The Foundation has considered this new standard and determined there is no impact for the period indicated above.

The foundation is still assessing the impact of future accounting policies to come in effect April 1, 2023. PS 3400 Revenue – April 1, 2023

PS 3160 Public Private Partnerships – April 1, 2023 PSG-8 Purchased Intangibles – April 1, 2023

#### 3. Tangible Capital Assets

	Furniture and Equipment	Leasehold Improvements	2023 Totals	2022 Totals
Opening cost	\$ 246,651	\$ 13,007	\$ 259,658	\$ 266,814
Additions during the year	17,926	-	17,926	7,538
Disposals during the year	4,361	-	4,361	14,694
Closing cost	\$ 260,216	\$ 13,007	\$ 273,223	\$ 259,658
Opening accumulated amortization	217,666	13,007	230,673	221,333
Amortization for the year	30,000	-	30,000	24,034
Disposals during the year	4,361	-	4,361	14,694
Closing accumulated amortization	\$ 243,305	\$ 13,007	\$ 256,312	\$ 230,673
Net book value of tangible capital assets	\$ 16,911	\$ -	\$ 16,911	\$ 28,985

# 4. Deferred Revenue

The Foundation is holding \$10,000 from the Heart & Stroke Foundation of Saskatchewan to be used for future eligible research projects.

# 5. Contracting Rights & Obligations

At March 31, 2023, the Foundation has a funding agreement in place with Innovation Saskatchewan for three years extending from April 1, 2022 until March 31, 2025.

This contractual right results in the following economic resources being transferred to SHRF in future years:

	2023-24	2024-25
Innovation Saskatchewan	\$4,849,000	\$4,849,000

At March 31, 2023, the Foundation had the following contractual obligation with Innovation Place (now Innovation Saskatchewan) for office lease:

	2023-24	2024-25	2025-26
Office Lease*	\$101,754	\$101,754	\$69,887

\*This office lease agreement is effective April 1, 2021 and expires November 30, 2025.

#### 6. Grants and awards expenses

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

SHRF holds annual funding competitions through which applications are adjudicated by experts based on excellence and relevance. Terms vary and are sometimes multi-year. For 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 and increase funding available through SHRF funding programs. Also, 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 provincial support. In this scenario, SHRF's partner administers the funding competition and, if a grant is authorized by the partner, SHRF provides 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.

Grants and awards expense for the year ended March 31, 2023 is composed of the following:

Capacity	
Establishment Grants	\$1,534,698
Descende Deutsenskins	
Research Partnerships	
Alzheimer - Solutions Grants	\$184,760
Lung Saskatchewan - Solutions Grants	\$299,824
Mental Health Research Canada - Solutions Grants	\$49,986
Rural & Remote - Solutions Grants	\$599,902
SCPOR - Solutions Grants	\$150,000
Partner Led Grants	
CIHR THINC* Policy Grants	\$100,000
Cystic Fibrosis Canada	\$20,000
Mental Health Research Canada	\$30,000
Jim Pattison Children's Hospital Foundation	\$199,563
CIHR HSI** Fellowship	\$108,000
	\$1,742,035
Solutions	
Addictions Impact Grants	\$450,000
Virtual Care Innovation & Impact Grants	\$444,965
	\$894,965
Commentioner	
Connections	\$558,501
	\$4,730,199
	<u> </u>

\*Canadian Institutes of Health Research: Transforming Health with Integrated Care \*\*Canadian Institutes of Health Research: Health System Impact

### 7. Revenues from Partnerships

In 2022-23, revenues generated by the Foundation through its partnerships were as follows:

Alzheimer's Society of Saskatchewan	\$92,380
Jim Pattison Children's Hospital Foundation	\$199,563
Lung Saskatchewan	\$100,000
Mental Health Research Canada	\$24,993
	\$416,936

#### 8. Other Revenue

In 2022-23, other revenue generated by the Foundation were as follows:

Bequest*	\$220,886
Recoveries	\$156,416
Interest	\$135,128
Review Services	\$30,000
Sponsorships	\$1,000
Gain on Sale of Capital Assets	\$900
Miscellaneous	\$668
	\$544,998

\*Bequest was received in 2018-19 and was reserved for future research projects. The bequest was invested in Rural & Remote solutions grants in 2022-23.

#### 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 and accrued liabilities, 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 and accrued liabilities Grants payable Payroll liabilities

#### 11. Budget

The operating budget was approved by the Foundation's Board on March 24, 2022.

#### 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 \$69,894 (in 2021-22, they were \$68,753).

#### 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.

## SCHEDULE OF EXPENSES BY OBJECT

For the Year Ended March 31

	2023				2022
	Budget		Actual		Actual
	(Note 11)				
Grants and awards Salaries & Benefits Goods & Services Amortization Board Travel	\$ 4,675,000 1,153,946 261,430 25,425 15,000 9,500	\$	4,730,199 1,080,702 227,908 30,000 10,108 6,634	\$	4,391,605 1,053,962 210,470 24,034 10,358 1,019
	\$ 6,140,301	\$	6,085,551	\$	5,691,448

### SCHEDULE 2

#### SASKATCHEWAN HEALTH RESEARCH FOUNDATION

#### SCHEDULE OF INVESTMENTS

As at March 31, 2023

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
<b>Cash and cash equivalents</b> (Statement 1) Cash TD Waterhouse - Investment Savings Accour	s nt	5 778,132 949,016 1,727,148	4.05%
<b>Short-term investments</b> (Statement 1) TD BK GIC TD BK GIC	11-Oct-2023 28-Nov-2023	1,400,000 2,600,000 4,000,000	4.35% 5.05%
	9	5,727,148	

## SCHEDULE 3

## SASKATCHEWAN HEALTH RESEARCH FOUNDATION

# SCHEDULE OF FUTURE FUNDING CASH COMMITMENTS

As at March 31, 2023

YEAR	SASKATCHEWAN HEALTH RESEARCH FOUNDATION PROGRAMS		
2024 2025 2026 2027 2028	\$	3,662,739 1,606,930 203,934 - -	
	\$	5,473,603	





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