In 2019-20, we witnessed an ever deeper rooting of Scholarship, Research and Creative Activities (SRCA) at Sheridan as we continued to navigate through a complex and ever-changing world.

We remained focused on pursuing the key objectives from our three-year SRCA Plan, which include building greater profile and visibility for research across the College, fostering a supportive environment for SRCA, and further engaging students in research projects.

Research has also been a partner in meaningful movements of change at Sheridan, most notably through our participation in a federal initiative dedicated to advancing equity, diversity and inclusion (EDI) in research, and through the mobilization of our research supports at the onset of the COVID-19 pandemic in March 2020.

Spurred on by this momentum, our research continues to grow, thrive and diversify. We hope that in reading and learning about the innovative partnerships and activities undertaken over the last year you will be inspired by the creative ingenuity in our Faculties and our Research and Incubation Centres. We are tremendously proud of the many ways in which our faculty, staff and students are making significant social and economic impacts in our communities. Thank you to all those whose contributions helped enable research, innovation and entrepreneurship at Sheridan.

Andrea England,
Vice Provost, Research

Dr. Melanie Spence-Ariemma,
Provost and Vice President, Academic

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Land Acknowledgement Statement
We would like to acknowledge that the land on which we gather has been and still is the traditional territory of several Indigenous nations, including the Anishinaabe [Ah-NEESH-ah-nah-bae], the Haudenosaunee [Hoe-dee-nah-SHOW-nee] Confederacy, the Wendat, the Métis, and the Mississaugas of the Credit First Nation. Since time immemorial, numerous Indigenous nations and Indigenous peoples have lived and passed through this territory.

We recognize this territory is covered by the Dish with One Spoon treaty and the Two Row Wampum treaty which emphasize the importance of joint stewardship, peace, and respectful relationships.

Sheridan College affirms it is our collective responsibility to honour and respect those who have gone before us, those who are here, and those who have yet to come. We are grateful for the opportunity to be working and living on this land.

Research Excellence
Sheridan delivers creative, purposeful and innovative research that matters to our faculty, staff, students and partners. We are proud of our vibrant and unique research character. In addition to individual faculty and staff participating in research, Sheridan’s six renowned Research and Incubation Centres also provide cutting edge and innovative work across a wide spectrum including entrepreneurship, musical theatre, the screen industries, advanced manufacturing, mobile technologies, and supports for our aging population. Please visit research.sheridancollege.ca for more information.
Quick Facts

$4,981,110
External Research Income

$428,111
Research partner cash contributions

$2,828,192
Research partner in-kind contributions

117
Number of externally-funded research projects supported by the Sheridan Research Office

364
Number of engagements with industry partners

283
Number of community and academic partners

333
Number of students hired to work on research projects

1,935
Number of students involved in tracked curriculum-based research

148
Number of faculty and staff involved in research

Highlights of Research Events

July 2019
Sheridan receives $1.9 million investment for SONAMI project
Sheridan was awarded up to $1.9 million in funding over the next four years from FedDev Ontario, as part of the renewed Southern Ontario Network for Advanced Manufacturing Innovation (SONAMI 2.0) project.

July 2019
Signing of Dimensions Charter
To affirm Sheridan's commitment to embedding equity, diversity and inclusion (EDI) in research practices, policies and culture, Dr. Janet Morrison, President and Vice Chancellor at Sheridan, and The Honourable Kirsty Duncan, Minister of Science and Sport, officially signed the Dimensions Charter.

August 2019
Sheridan selected to participate in Dimensions pilot program
Dimensions’ objective is to foster transformational change within the Canadian postsecondary research community by identifying and eliminating obstacles and inequities related to funding, participation and practices.

October 2019
Development of Research Guidelines with Indigenous Peoples
A collaborative effort between Sheridan Research and the Centre for Indigenous Learning and Support, this initiative was undertaken to develop a set of best practices and to support Sheridan faculty, staff and students when working with or undertaking research with Indigenous communities. The Guidelines will be formally disseminated in the Fall 2020 upon approval from Sheridan’s Indigenous Education Council.

February 2020
Sheridan Research hosts Innovation Information Forum
This session at the Sheridan Conference Centre brought together Government of Canada departments and agencies to present current federal innovation programs to over 40 local industry and community organizations.

February 2020
Sheridan receives Canada Foundation for Innovation funding
Funding of $995,877 will be used by Sheridan’s Screen Industries Research and Training Centre (SIRT) to advance computer-generated characters for private industry and social innovation.

March 2020
Canadian Musical Theatre Project (CMTP) producer, students help raise $41,000 for entertainers impacted by COVID-19
Places, Please, a 24-hour virtual telethon spearheaded by Michael Rubinoff, raised more than $41,000 in support of members of the entertainment industry impacted by COVID-19.
Supporting Equity, Diversity and Inclusion in Research

For Dr. Mary Louise Noce, her secondment to the role of Director of Research EDI Initiatives was an exciting opportunity to inform and engage the Sheridan community around the integration of equity, diversity and inclusion (EDI) in the College’s culture of scholarship, research and creative activities (SRCA).

“We know that greater EDI results in greater excellence in research. The chance to strengthen Sheridan’s research community and advance our institutional priorities of inclusion and equity was work I was excited to lead,” says Mary Louise.

An Associate Dean in the Faculty of Applied Health & Community Studies, Mary Louise began her secondment as Sheridan took several significant steps toward cultivating a stronger culture of community and care. In 2019, Sheridan signed on to the federal Dimensions Charter, a voluntary, symbolic commitment to prioritizing research EDI. The College was also the recipient of an Institutional Capacity-Building Grant through the Natural Sciences and Engineering Research Council (NSERC) that provided funding to advance key research EDI objectives. Lastly, Sheridan was selected as just one of 17 institutions nation-wide to participate in the Dimensions pilot program, a research EDI initiative led by the Tri-Agency – NSERC, the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR).

Building on these actions, a Research EDI Advisory Committee/Self-Assessment Team was assembled, reflecting the diversity of Sheridan’s research community. EDI in Research Working Group Committees were also created to implement key initiatives that will continue to flourish into 2020/21 – the formation of a Faculty Research Mentorship Pilot program to help create inclusive practices and enhance support for research; the launch of an Employee Diversity Self-identification Census, which will assist in the collection of quantitative data that will help us pave the way for evidence-based programs and policies; and the development of Unconscious Bias Training that examines the sources and impacts of our biases on decision-making and identifies strategies for mitigation.

“It’s been so encouraging to see momentum build towards recognizing and understanding the importance of embedding EDI in research practices,” says Mary Louise. “Engaging our research community in the identification of barriers and opportunities will improve upon what’s already been done and support the advancement of the EDI in research initiatives and a shift in our research culture.”

Addressing Senior-to-Senior Bullying

Anecdotal evidence indicates that older adults experiencing bullying in retirement and long-term care residences often feel as though they have no way to escape this behaviour. Senior-to-senior bullying in the community can further lead to isolation, as older adults can be apprehensive to access shared resources and spaces if they do not feel safe. A Sheridan research team led by Dr. Kirsten Madsen, Professor in the Faculty of Humanities & Social Sciences (FHASS), and the Centre for Elder Research, partnered with Elder Abuse Prevention Ontario to better understand and address senior-to-senior bullying in Ontario. A provincial-wide survey was carried out, and this data was used to create a toolkit with practical strategies for preventing and targeting bullying behaviours. The three-year project was funded through the Social Sciences and Humanities Research Council of Canada’s Colleges and Community Social Innovation Fund (CSSIF).

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Developing a Project Plan for a Community Partner

Designed as their capstone project, students from the Business Analysis and Process Management Certificate program in the Pilon School of Business (PSB) developed a project plan to assist The Mississauga Food Bank (TMFB) in its efforts to run more efficiently and effectively. Led by Professor Umar Minhas, the group of students enhanced TMFB’s inventory management process, reviewed and suggested improvements to better utilize volunteer and staff time, and encouraged the creation of an online orientation for food-sorting volunteers. The students involved in the project included: Zaryab Ahmad, Julie Anjos, Virginia Huynh, Wynn Therese de la Calzada, and Juliet Ijeoma Anyaoha.

“While learning real world skills in the field is always useful, having the chance to contribute to our local community while doing so was a bonus. This project was a challenge we will never forget and will guide our careers as Business Analysts.” – PSB Student Group.

An Innovative Approach to Engineering Curriculum

Colleagues in the Faculty of Applied Science & Technology’s School of Mechanical and Electrical Engineering Technology (MEET) and the Centre for Teaching and Learning (CTL) have collaborated on a peer-reviewed research paper that presents a framework for implementing an innovative and integrated approach to curriculum in engineering, primarily in the Bachelor’s of Engineering degree program. Professors Dr. Mouhamed Abdulla and Dr. Amjed Majeed from MEET along with Dr. Meagan Troop from CTL combined various courses into an Integrated Learning Block (ILB) that goes beyond traditional prerequisites and co-requisites. The ILB deliverables are based on the design of a chosen engineering system or sub-unit in a project-based learning environment supported with industry partners.

The paper was accepted to the Proceedings of the 16th International Conceive, Design, Implement, Operate (CDIO) Conference that was hosted virtually by Chalmers University of Technology in Gothenburg, Sweden.

“Although many educators see the value of applying an ILB in their engineering curriculum, very few schools have implemented this highly innovative educational approach,” said Dr. Mouhamed Abdulla. “Working with CTL was overall a great experience since they brought their extensive experience in the scholarship of teaching and learning to this collaboration.”

Studying Performance Enhancing Effects

Dr. Saro Farra, Research Project Manager in the Faculty of Applied Health & Community Studies (FAHCS), investigated the performance enhancing effects of BioSteel High-Performance Sport Drink during high-intensity exercise. Thirty minutes before each test, participants consumed one test drink: BioSteel, placebo, or water and then completed five 1 km sprints separated by 2 minutes of active recovery. While performance decreased similarly between the different drinks across the five sprint efforts, the exercise intensity participants sustained during the recovery period was higher after consuming BioSteel. These results suggest that BioSteel may not mitigate the decline in sprinting ability over time but may improve performance during lower intensity activities. This research was made possible through an internal Scholarship, Research and Creative Activities Growth Grant.
**Redesigning Lives**

Dr. Shannon Pirie, Professor in the Faculty of Applied Science & Technology, and Dr. Bethany Osborne, Professor in the Faculty of Applied Health & Community Studies, collaborated on the research project **Redesigning Lives: Learning How Space Impacts Residents in Affordable Housing Initiatives**, which was supported through a SSHRC Explore grant. The project is an intersection between the high-performance design and construction methodology known as Passive House and the delivery of quality physical spaces in the social housing development of Parkdale Landing in Hamilton. The goal is to engage students in a better understanding of Passive House and the impacts of thoughtful design on marginalized communities.

“This inter-disciplinary research is a first for our respective Faculties at Sheridan,” said Dr. Pirie. “It brings together two very different areas of expertise and finds parallels through methodology and data analysis. It has been a tremendous learning experience for our entire research team, including our seven student research assistants, and has broadened our understanding of each other’s disciplines and field of interest.”

**Lending a Hand in Creative Problem-Solving**

With the support of an NSERC College and Community Social Innovation Fund grant, Dr. Brandon McFarlane, Professor of Creativity and Creative Thinking in the Faculty of Humanities & Social Sciences (FHASS), and a research team of FHASS students and faculty members, completed a research project that applied creative problem solving to expand the Toronto Fringe Festival's Theatre Entrepreneurs’ Networking and Training (TENT) program. In addition to providing improvements to TENT’s long-term financial sustainability, the team’s research work also provided enhancements to TENT’s accessibility, diversity, and inclusivity. The program was redesigned to eliminate barriers facing equity-seeking artists and communities through tactics such as: the development of videos that engaged a more diverse audience outside of downtown Toronto; and the development and integration of training on accessibility, equity, diversity and inclusion in TENT.

**Lessons from Denmark**

With the support of a SRCA Growth Grant in 2019, Monica Lysack, Professor, Early Childhood Leadership Degree program in the Faculty of Applied Health & Community Studies (FAHCS), embarked on a research project dealing with early childhood education policy that brought her to a rural community in Denmark. Lysack researched how strong policy can influence Canada’s Early Childhood Education status and began working with her Danish colleagues to better understand how different levels of government manage and fund a more successful childcare system in Denmark.

“We’ve heard it over and over again that our governments value children and families, but it’s not always reflected in policy and resources. We need to take bold steps to make this true,” said Lysack. Since the completion of her grant, she has spoken about her initial findings with government policy makers. Lysack is also exploring further opportunities for knowledge-sharing with her Danish hosts, including bringing them to Ontario to share their innovative approach to monitoring quality in ECE centres with Peel region. Building on the success of the SRCA Growth grant, Lysack now hopes to secure external grant funding to continue the work and further explore childcare policy in Canada.

Excerpts taken from story featured on the Sheridan Curiosities Blog: curiosities.sheridancollege.ca.

**Research in Mathematics**

2019-20 was a productive year for Dr. Susanna Spektor, Professor of Mathematics and Statistics in the Pilon School of Business (PSB). Her research paper related to the study of the Moment Estimate of Sum of Weakly Dependent Random Variables Using Simple Random Walk on Graph, was accepted for publication by the *North-Western European Journal of Mathematics*. Other research activities include conducting a mathematics literature review for the *Journal of American Mathematics* and presenting at the “Aspects of Time Frequency Analysis” conference in Turin, Italy and “Explorations in Harmonic Analysis and other Realms” in Rehovot, Israel. She also supervised a student’s research thesis project “The Unexpected Virtue of Brexit in the Investment Banking Industry,” which has since been published on Sheridan’s SOURCE: source.sheridancollege.ca.

Dr. Brandon McFarlane

Collaborative collages were an important part of the study’s Research-Creation process

Professor Monica Lysack

Photo by Riziero Vertolli

Dr. Susanna Spektor
SRCA Growth Grants

The SRCA Growth Grants program is intended to support SRCA at Sheridan by providing more opportunities for faculty members to pursue their scholarly, research and creative passions. In February, Sheridan announced the recipients of the 2020 SRCA Growth Grants and the SSHRC Explore Grant.

*“Strategies to Support Post-Secondary Students with Autism in the Classroom: A Canadian Case Study”*
Suzuyo Suman Chisambi Bavi (Wellness and Counselling) and Janice Galloway (Accessible Learning)

*“Cooking Memories: The Sheridan College Community Cookbook”*
Dr. Jessica Carey (FHASS)

*“Domestic Violence in Immigrant Communities: Case Studies”*
Dr. Ferzana Chaze (FAHCS), and Dr. Bethany Osborne (Centre for Teaching & Learning [CTL] and FAHCS)

*“Influence of a BCAA and Carbohydrate Sport Drink on Cycling Time-trial Performance”*
Dr. Trevor Cottrell (FAHCS), Dr. Saro Farra (FAHCS), and Dr. Tanya Holloway (FAHCS)

*“Digitizing the Dead: Using Three-Dimensional Imaging to Virtualize, Educate and Preserve”*
Dr. Jaime Ginter (FHASS), Rafael Goldchain (FAAD), and Song Ho Ahn (CTL)

*“Smart and Green Irrigation Monitoring System”*
Dan Hammond (FAST) and Dr. David Bradley (FHASS)

*“Visions 2020 Interactive Mural Project”*
Steve Hudzik (FAAD) and Ted Zourntos (FAAD)

*“Reclaiming Critical Theory”*
Dr. Brandon McFarlane (FHASS), Marco Gibola (FAAD), Dr. Catherine Hale (Creative Campus), Dr. Alexander Hollenberg (FHASS), and Hyein Lee (FAAD)

*“International Student Success: How Employment and Housing Experiences Affect the Short-term and Long-term Goals of International Students at Sheridan”*
Dr. Jessica Meroli (FHASS) and Dr. Lisa Droogendyk (FHASS)

*“Hearing their Voices: A Qualitative Exploration of Human Trafficking Survivors in Canada”*
Dr. Marlene Santin (FAHCS) and Dr. Julie Dempsey (FHASS)

*“Authentic Relating as a Well-Being Modality for Men and Women in Conflict with the Law”*
Dr. Michelle Szabo (FH433) and Dr. Julie Dempsey (FAHCS)

*“Collections Research”*
Gordon Thompson (FAAD), Peter Fleming (FAAD), Scot Laughton (FAAD), Laura Kukkee (FAAD), Rachel Miller (FAAD), and Koen Vanderstukken (FAAD)

*“Integrated Magnetic Design and Analysis in High-Efficiency and High-Power-Density Power Electronics Systems”*
Dr. Ning Zhu (FAST)

Canadian Music Theatre Project

The Canadian Music Theatre Project (CMTP) is an incubator for the development of musical theatre works by Canadian and international composers, lyricists and book-writers. cmtp.sheridancollege.ca

Research and Incubation Centre

Life Imitates Art

It was a case of life imitating art, as In Real Life’s story of a future world where school takes place online and communication is exclusively through screens, came to life with the COVID-19 pandemic in March 2020. Third and fourth-year Sheridan Musical Theatre Performance students and the creative teams they were working with were less than a week into rehearsals for the new musical when the pandemic forced the College to move to remote work activities. Eager to proceed in an alternate direction, they were able to quickly adapt to an online environment and incorporated various tools to allow them to execute a full performance of the piece online, which included the development of a standalone music video. The piece captures and combines the exploration of music theatre with technology and features human-created sounds to mimic the sound of technology.

"Being a part of this project was one of the highlights during my time at Sheridan,” said Daniel Allain, who played the lead character Max in In Real Life. “If there is any lesson I can take from my experience developing a new musical online, it’s that anything is truly possible. The collaboration between the creative team and cast felt like we were more than ‘physically’ together at times.”

The 2019 Festival of New Musicals

The 2019 Festival of New Musicals represented a culmination of the 2019 CMTP capstone project. Three staged readings of each project were held at Sheridan and at the Winter Garden Theatre in Toronto. All three productions feature prestigious collaborations with Canadian and international partners. The three projects involved in the 2019 CMTP capstone project were: Grow, Hoarding: A Musical, and Pump up the Volume.
Research and Incubation Centre

Centre for Advanced Manufacturing and Design Technologies

The Centre for Advanced Manufacturing and Design Technologies (CAMDT) connects industry, curriculum and applied research at Sheridan, and provides innovation support to accelerate the adoption of advanced manufacturing technologies. camdt.sheridancollege.ca.

Advanced Manufacturing Meets Vision-Guided Robotics

A CAMDT research team led by Dr. Andy Alubaidy, Professor in the School of Mechanical and Electrical Engineering Technology in the Faculty of Applied Science & Technology, has collaborated with industry partner, Rex Power Magnetics, on process improvements to a specific step of their transformer assembly. Transformers have a stacked core, which is made up of laminations of thin silicon steel. The process of arranging the laminations into the core shape is a labour-intensive process that slows down overall production rates and lead to quality issues.

A dual vision-guided robotic system was developed to automate the process of their transformer assembly. The system detects and localizes the sheets and sends this information to the robots to pick the sheets and stack them together to assemble the transformer core. The two robots continuously communicate with each other to synchronize the assembling process. A specifically designed tooling for both robots was designed and fabricated in order to perform the pick and place operation. This research was supported through an Ontario Centres of Excellence - Voucher for Innovation Operation. This research was supported through an Ontario Centres of Excellence - Voucher for Innovation Operation.

Providing a Pelvic Prolapse Solution

As part of the Southern Ontario Network for Advanced Manufacturing and Innovation (SONAMI), a research team led by Principal Investigator Dr. John Phillips investigated the feasibility of using 3D printing at CAMDT to produce custom medical grade silicone models of pessary devices, which provide support to vaginal tissues displaced by pelvic organ prolapse. Pessaries date back to the time of the Egyptians and have not advanced much, with prosthetics coming in many shapes and sizes that fit by trial and error. This project evaluated manufacturing processes with additive manufacturing to create custom pessaries that will improve the quality of life for women with Pelvic Organ Prolapse.

"The 3D printing manufacturing and design expertise at Sheridan's CAMDT helped us to achieve quality and design goals to move towards clinical studies for our custom medical device," says Derek Sham, CEO of Cosm Medical. "We're grateful for their contribution on our mission for Personal Pelvic Health."

Intergenerational Jamboree

Dr. Kate Dupuis, Schlegel Innovation Leader in Arts and Aging with the Centre for Elder Research, has been involved in a research study with the University of Waterloo exploring intergenerational music therapy in long-term care homes, working closely with long-standing Sheridan partner Schlegel Villages in Guelph, Ontario. Dr. Dupuis’ goal with the research project is to determine if there is a quantifiable difference in communication, interaction, and engagement among older adults who participate in the music therapy program with young children, as opposed to those who take part in the program without children.

"The Jamboree is an exciting opportunity for researchers to work directly with care team members to examine the benefits of intergenerational music therapy in long-term care," says Josie d’Avernas, Executive Director of the Schlegel-UWaterloo Research Institute for Aging. "The impact this has had on the residents and staff caregivers is tremendous as they’re excited to participate in the music therapy program with young children, as opposed to those who take part in the program without children."

"The Jamboree was an exciting experience for everyone involved, connecting our residents and staff with young children. The interaction between the generations was truly remarkable. The impact of the Jamboree on the residents and staff caregivers was profound, as they were excited to engage with the children and see the benefits of intergenerational music therapy." says Dr. Kate Dupuis. "We are grateful for the opportunity to engage in a session and look forward to interacting with the children."

Research and Incubation Centre

Centre for Elder Research

The Centre for Elder Research conducts leading-edge research in the field of aging by examining innovative ways to enhance the well-being of older adults and the environments that support them. elderresearch.sheridancollege.ca.

Redesigning Quiet Spaces

Dr. Leigh Hayden, Project Coordinator with the Centre for Elder Research, along with a team of students from Sheridan’s Social Service Worker-Gerontology, Interaction Design, and Interior Design programs, partnered with Seasons Retirement Communities to explore the use of technology in design for a new and improved ‘den’ – a quiet space for relaxation, reminiscence, and social connection – specifically for residents with dementia or other cognitive impairments living in specialized memory care areas within the homes. This project was funded through an Ontario Centres of Excellence (OCE) College Voucher for Technology Adoption (CVTA).

Their research showed that residents connected best with themes that were familiar – notably, a cozy family basement with sounds of classic radio or a quiet cabin with a crackling fire and the scent of hot chocolate.
Dr. El Sayed Mahmoud, Professor in the School of Applied Computing in FAST, and four student researchers, has collaborated with industry partner mHealth Solutions to identify and develop mobile computing services to benefit patients and physicians, while improving health outcomes and reducing healthcare costs. The team is developing a healthcare-focused video-conferencing platform that enables online doctor’s appointments and nursing at distance. This secure custom video conferencing system promotes ease of use, facilitates exchanging data with Electronic Medical Records (EMR), and preserves privacy. The system also includes a novel machine learning module that assists the physician with diagnosis based on video snippets or images taken during the call. This research was supported through NSERC’s Innovation Enhancement grant program.

Managing Medications for the Elderly

Medication errors are linked with adverse drug events, especially among the elderly population. For Dr. Rachel Jiang, Professor in the School of Applied Science & Technology (FAST), the idea to create a mobile-based solution was born out of her experience as a caregiver to her mother. A CMI research team led by Dr. Jiang and two research students, in collaboration with Quanser, a robotics company, have designed an app to assist the elderly in managing their medications.

The app consists of three components: automatic pop-up notifications and voice reminders to take medication daily; the ability to video-call a healthcare professional, if consultation is necessary; and the recognition and identification of pills based on a patient-provided prescription. Next steps for the project include further testing and investigating the potential use of robot automatic medication delivery to the individual. This project was funded through an Ontario Centres of Excellence College Voucher for Technology Adoption grant.

“We wanted to build a system that would help this vulnerable population manage life independently,” said Dr. Jiang. “This app can help reduce caregiver burden and put more power into the hands of the elderly.”

Social Enterprise Partnerships

EDGE’s influential work in social enterprise has led to its participation in the Brant-Halton-Peel Regional Partnership to administer the Government of Canada’s Investment Readiness Program (IRP) in this region. The Regional Partnership includes six Community Foundations – Oakville, Mississauga, Brampton and Caledon, Halton North, Burlington and Brant – along with EDGE. EDGE also acts as an expert service provider, providing support to applicants and recipients as they shape and implement their projects.

The IRP is a new $50 million fund that aims to help social purpose organizations (charities, non-profits, social enterprises, for-profits with a social purpose and co-operatives) build their capacity to participate in Canada’s growing social finance market. This innovation funding will also assist successful recipients in their COVID-19 recovery and next steps.

“EDGE is home to a growing network of entrepreneurial social purpose organizations. We’re thrilled to work alongside the Community Foundations to support organizations doing such important work in this region,” said Renee Devereaux, Director, Entrepreneurship and Changemaking, EDGE.

EDGE is a hub for entrepreneurs and changemakers whose ventures make a positive impact on society. EDGE supports founders with training, mentorship, funding and access to co-working space.

EDGE Recipients of IRP Funding

Afro Caribbean Business Network (ACBN) helps increase the business capacity of entrepreneurs of African and Caribbean heritage, by connecting them to experts, resources and funding opportunities. Over the past year, ACBN launched a Business Grant program. Recently, they also launched a MiroLoan Fund in partnership with Alterna Saving, Empowered 4x, SETSI and Dream Legacy Foundation to provide loans from $500 to $25,000 to underrepresented entrepreneurs.

LinkMentalHealth connects people to mental health supports that are accessible to everyone, regardless of their economic status. The team has achieved recent successes including: winning the first-place prize at Health Bound 2020, a competition organized by St. Michael’s Hospital and Ryerson University in February 2020; and receiving the prestigious CEMEX TEC Award, a global social enterprise prize. They were the only Canadian venture selected from among 750 applicants from 67 countries.

Through IRP funding, LinkMentalHealth will continue expanding their business to a larger audience.
In pursuit of developing efficient and cost-effective digital avatars at scale, external partner Cream, a film and TV production company, partnered with SIRT as part of the Ontario Centres of Excellence (OCE) Colleges Applied Research and Development Fund (CARDF) virtual humans cluster. The project focused on taking the traditionally labour-intensive process of animating a virtual human face and scaled it down by recording a facial performance using multiple cameras.

“We were able to unwrap that face and re-project everything back onto a UV map, which is a way of combining 2D elements with 3D models. This way, when you go into a game engine, you can throw a video texture onto your character, and it will save time and money because you will not have to animate every movement in each frame,” said Stephan Kozak, SIRT’s visual effects and computer graphics research lead.

Cream has commercialized the technology as “Dynamic Digital Humans” and a digital avatar of actor Dominic Monaghan is already in use in the development of a virtual reality game “Be Curious” that features the actor.
Sheridan Research would like to thank the funding agencies whose vital financial support has helped us build and shape a culture of innovation across Sheridan. We would also like to extend our gratitude to the many businesses and community organizations who provided funding support for collaborative research initiatives.

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National Research Council  
Natural Sciences and Engineering Research Council of Canada  
Ontario Centres of Excellence  
Social Sciences and Humanities Research Council of Canada

COVID-19

The COVID-19 pandemic hit at the tail-end of Sheridan’s 19-20 fiscal year. Services and activities across the College, including research, experienced impacts from pandemic measures. Sheridan Research thanks our Principal Investigators, research students and funders as they adapted their research work quickly and effectively in unprecedented circumstances and rallied to respond to the challenges of the pandemic. Stories about our COVID-19 related research activities and projects will be featured in our 2020-21 Research Annual Report.
Looking to partner with Sheridan Research on your innovation?
The Sheridan Research Office helps support new and experienced researchers throughout the research process and connects external organizations to innovation supports on our campuses.

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