Report to the Community



MESSAGE FROM THE PRESIDENT

Saint Mary's University has experienced many unexpected challenges over the past 18 months. We have also seen many incredible achievements thanks to our students, faculty and staff and the strong support of our alumni, donors and friends.

While the COVID-19 pandemic has kept us apart physically, in true Santamarian spirit, it has also strengthened our commitment to community. We have been fortunate to create new ways to connect in a virtual environment and to extend our high quality teaching and research with the use of innovative technologies. We know, though, that nothing beats the importance of campus life and coming together as a university community.

At Saint Mary's, we are a caring community with strong values that operates the way the world should. We embrace diversity, are committed to sustainability and are tackling the issues that matter to society. We are a research institution with a rapidly expanding profile that values teaching excellence, where professors take the time to support and make personal connections with our students. It is the perfect combination – and a distinctive strength for Saint Mary's.

We promise to create the space for possibility for our students, alumni, partners, faculty and staff. We will tell our story together confidently and face the future with our commitment to be – and to contribute to – a *World without limits.*

I am delighted to share our 2021-22 Report to the Community, highlighting evidence of how we have all stayed connected: faculty and students, researchers and community partners, alumni and friends. I know you share our pride in all that we have accomplished together and I look forward to future opportunities to connect with you.

Robert Summerby-Murray, PhD President and Vice-Chancellor

VISION

Saint Mary's, building on its strong tradition of accessibility and community engagement, will be the university of choice for aspiring citizens of the world.

MISSION

To offer undergraduate, graduate and lifelong learning programs; to engage in research and disseminate its results; and to serve the community from the local to the international level.

VALUES

Pursuing academic growth Demonstrating resilience Developing intercultural competence Engaging our alumni and community Exercising ethical wisdom



Announced in 2021, Dr. Ethan Pancer is a member of the first cohort of five Sobey Professorships, part of the transformational gift by the Sobey family, Sobey Foundation and Sobeys Inc.



CONSUMER BEHAVIOUR TOP OF MIND FOR LEADING MARKETING RESEARCHER

Dr. Ethan Pancer, Marketing, Sobey School of Business

The COVID-19 pandemic has altered our way of life, changing rules and systems, shaping how we work, communicate, learn and even how we shop. As a keen observer of the world around us, Dr. Ethan Pancer is interested in the consumer psychology behind it all, and more specifically, how digital innovations and social media shape people's consumption behaviour.

"One area that has fundamentally changed since COVID-19 is that there has been a quantum leap in the adoption of digital technology. I'm interested in how this flight to digital impacts our well-being."

What trends have staying power? How can entrepreneurs and retailers be agile and adapt to be successful in the pandemic recovery? These are the questions that Dr. Pancer and his marketing students examine with partners such as the Sobey School's Community Revitalization & Prosperity Network and the David Sobey Centre for Innovation in Retailing and Services.

As the retail landscape continues to shift, innovative work such as Dr. Pancer's promises to help break down barriers for both consumers and businesses.

A PIPELINE OF POSSIBILITY FOR BIPOC YOUTH

Alfred Burgesson, Founder & CEO, Tribe Network

Quiet confidence fills the room as you meet Alfred Burgesson, an inspiring community advocate determined to make a difference in the lives of Black, Indigenous and People of Colour (BIPOC). Ask him about his new social enterprise, Tribe Network, and through a beaming smile he will tell you his plans to help create a sense of belonging to support these communities.

"When my family immigrated from Ghana to Canada, my parents sacrificed so much for me to have a decent quality of life and I think that had a major influence on my mindset. I was always told to dream big and with hard work, I could achieve anything I put my mind to. From a young age, I believed that I could be the change I wanted to see in the world."

Tribe Network's community platform enables members to access peer networks, ecosystem programming and supports. Within this, Burgesson and his team are pursuing a world where inclusion, diversity, equity and access are a reality for everyone – a *World without limits*.

"Historically, our society has neglected groups of people because of the colour of their skin or way of life. Tribe Network is creating the conditions for Black, Indigenous and People of Colour to access opportunities, resources, talent and ultimately their Tribe."

Burgesson's Tribe Network has partnered with the Saint Mary's University Entrepreneurship Centre (SMUEC) and Brilliant Labs to create the Brilliant Creators Fellowship. The Nova Scotia Government has provided \$1.3 million to support 15 Nova Scotian BIPOC youth to develop skills in computer science, technology, leadership and sustainable development. Saint Mary's is offering scholarships worth \$12,000 each to youth who complete the program and enroll at Saint Mary's in computer science or Commerce. Burgesson studied at Saint Mary's making this a natural collaboration.

"I'm really excited about the Brilliant Creators Fellowship because it will allow BIPOC students to develop skills in sustainable development, technology and leadership before enrolling in post-secondary education. With the help and support of Saint Mary's and the SMUEC, this program will have a positive impact on the development of these BIPOC students by connecting them to mentors, industry experts and job opportunities throughout their university experience."





"Research can be very challenging because you're trying to come up with answers to questions that no one has asked before and no one really knows the answers to. Having a supportive team of individuals and supervisors in your corner to help you work through problems has been so beneficial in my learning experience." — Kaleigh McLeod BSc'21

ADDRESSING GLOBAL PANDEMIC NEEDS THROUGH COMMUNITY-BASED RESEARCH

Dr. Christa Brosseau, Canada Research Chair in Sustainable Chemistry and Materials, Faculty of Science

> Can pulp mills produce medical-grade pulp for use in personal protective equipment (PPE) such as N95 respirator masks? This was the question Dr. Christa Brosseau and her research team asked themselves early on in the pandemic, and as it turns out, they can!

"It was important to us that we shift our research to help support the needs of frontline healthcare workers while also exploring new potential for the Nova Scotia pulp and paper industry."

Saint Mary's University is committed to providing students with opportunities to make a difference in the community while gaining hands-on research experience and skills. In keeping with the university's history of building strong, community partnerships, Dr. Brosseau, Dr. Robert Singer and their team worked collaboratively with Port Hawkesbury Paper to analyze 13 different pulp samples. They determined that thermomechanical pulp is the correct fiber diameter and morphology for potential use in non-woven textiles, such as those used in surgical masks and garments. The project also investigated the use of thermomechanical pulp as a material to produce an all-wood pulp N95 respirator mask. Typically made from synthetic polymer materials such as polypropylene and polyester, an all-wood N95 mask would be an environmentally friendly alternative.

This partnership with Port Hawkesbury Paper shows promise for new and sustainable ways to protect frontline medical workers. As a respected leader in the STEM (science, technology, engineering and mathematics) field, Dr. Brosseau will continue to push past limits, creating the space for possibility and working towards a better society for years to come.

RESILIENCE WHEN "HOME" IS OUT OF REACH

Crystal Witter BA'20

When the global pandemic struck halfway through the winter 2020 term, international students were faced with an impossible decision: return home immediately without knowing when they could return to Halifax or stay put for the foreseeable future. Crystal Witter BA'20 was in the home stretch of her Bachelor of Arts degree. With the immediate transition of all of her courses to remote instruction, a first in Saint Mary's 219-year history, Witter was also dealing with major challenges outside of her studies. Due to public health restrictions, she was forced to close the doors of the small business she worked hard to establish, meaning she was now unemployed. All the while, she was needed back home in Jamaica for support with two family emergencies. These burdens might have led any student to quit university and end their studies. And for a moment, that's exactly what Witter came close to doing.

"I needed to redefine what resilience meant to me. I quickly learned that I couldn't be resilient without the help of others. For the first time, I realized resilience was about community. I needed people more than I ever thought."

As a determined young woman, Witter took stock of her challenges, and one by one, addressed each of them head-on. Through the generous support of the Saint Mary's community, she received an emergency bursary, which enabled her to continue her studies while she returned to her family in Jamaica. Along with the financial assistance she received, advice and guidance from faculty and staff made a crucial difference. She also credits her academic advisers for helping her complete her degree, earning the John and Heather Fitzpatrick Valedictorian Award, and the Saint Mary's University Entrepreneurship Centre for helping her "COVID-proof" her business.

"Thanks to my time at Saint Mary's, I envision a world that is inclusive, equitable and sustainable — a society that empowers people regardless of their race, ethnicity, gender and sexual orientation. This also means having the mindset of abundance, having big dreams and an understanding that I can't become what I can't see."



As a university destination of choice for students from over 111 countries, Saint Mary's University is a vibrant global community of students who left their home countries to find their *World without limits* in Halifax. "People haven't paid attention to these works because they were viewed as boring government films, when in reality, if we reframe these films as artworks and documentaries, we create the opportunity and obligation to learn from them."

CREATING A WORLD WITHOUT LIMITS THROUGH TELEVISION AND FILM

Dr. Jennifer VanderBurgh, Film and Media Studies, Faculty of Arts

Dr. Jennifer VanderBurgh believes we can use movies and television shows to reflect on the past and learn how to make the future better. She helps students, industry leaders and fellow researchers explore media as a vital tool for archiving and understanding ways of life at any given moment. She sees her research as a form of activism and empowers our community to see beyond the clever one-liners or dramatic monologues to look deeper into what these documents say about the past while thinking critically and inventively about their relevance today.

"If we think of television shows and films as more than just entertainment, we begin to understand their incredible importance as artworks that document moments in time. Films and TV shows are inadvertent archives that recorded how things looked and sounded in a place and time, as well as the way that people thought about and expressed themselves about ideas and issues."

Creating her own *World without limits*, Dr. VanderBurgh time travels through media artifacts to understand the connections between past and present issues.

"Research should bring different disciplines and sectors together to communicate and understand each other in ways they haven't before. My work moves beyond the classroom, bringing academic research outside of the university into community conversation. This includes work with film festivals, archives, policymakers and government so that there is greater visibility for these underappreciated resources, allowing us to learn together and affect real change."

Recently, she partnered with the Nova Scotia Public Archives to focus on the work of government filmmaker Margaret Perry, who in 1945, created more than 50 films that characterized Nova Scotia as a prosperous and industrious province and a good place to work, do business and visit.

This partnership will have Perry's films digitized and made available for learning, offering incredible records of how Nova Scotia looked, sounded and articulated itself at that moment in time. This aligns well with Dr. VanderBurgh's goal to conduct research with impact, activating and creating collections and drawing attention to them so we can learn from and appreciate their artistic offerings, historical importance and cultural memory.

WICKED PROBLEMS OF FOOD INSECURITY

Dr. Mathew Novak, Geography and Environmental Studies, Faculty of Arts

How can Geographic Information Systems (GIS) help support people experiencing food insecurity across Nova Scotia? Made possible by gifts from the Windsor Foundation, the Hewitt Foundation and alumnus Dr. Daniel McCarthy, the lab is a hub where faculty and students collaborate on solving issues using geospatial software. Partnering with the province's largest food assistance organization, the Wicked Problems Lab at Saint Mary's University is bringing a world of expertise to facilitate data-driven food distribution.

"Food insecurity is a crisis in our province," says Nick Jennery, executive director of Feed Nova Scotia. "While we advocate for much-needed change to address systemic issues, we need to ensure people have food today and that they can access that food in a dignified way. An important piece in making food support more accessible is understanding where gaps exist in our current food distribution program."

In September 2020, Feed Nova Scotia began working with the lab to better understand food accessibility. Led by Dr. Mathew Novak, an expert in retail geography and GIS, the lab mapped out current food bank locations and paired them with regional census data to predict where demand for services is high. The result? The data clearly identified locations that could benefit from greater food distribution.

"Our research allowed us to make recommendations for more effective distribution of resources," says Dr. Novak. "For instance, we found areas of suburban Halifax with high potential demand but limited access to food banks and other food support programs. GIS allows us to combine a variety of data sources and perform sophisticated analysis to reveal spatial patterns that may have otherwise remained hidden."

Feed Nova Scotia distributes more than 2 million kilograms of food to 140 food banks and meal programs each year.

"We're excited to see where this project will take us, knowing that good data is a critical factor that contributes to better decision making," says Jennery.

Recently, Dr. Novak made presentations to Feed Nova Scotia's leadership and community connections teams, outlining the first findings of the analysis. Moving forward, more analysis will be performed on the organization's needs and distribution locations. This continuation opens the door to endless possibility, with opportunities to partner with other not-for-profit organizations to better match needs and resources.





A community food room has recently been upgraded on campus at the O'Donnell-Hennessey Student Centre. It is a joint partnership of the university and the Saint Mary's University Students' Association. To support Saint Mary's students who are struggling with food insecurity, please visit https://www.smu.ca/foodroom. During Saint Mary's University's Homecoming 2020, Clayton joined Dr. Rachel Zellars, Delvina Bernard BComm'82 and Andre Anderson (Economics major) for a SMU in Action: Black Lives Matter Nova Scotia panel. This event provided historical context to current times and included practical takeaways to help people become better allies to the social justice movement.

> GameChangers902 has been a leading voice on a range of social justice issues including leading conversations on police treatment of African Nova Scotians and hosting workshops on anti-racism, anti-oppression and black mental health education. Clayton also uses his platform as an opportunity to educate non-black people and allies on how they can support and empower Black and African Nova Scotian communities.

STUDENT LEADER ADVOCATES FOR SOCIAL JUSTICE AND COMMUNITY CHANGE

Trayvone Clayton, Criminology Student, Faculty of Arts

Trayvone Clayton knows the importance of feeling like you belong while also experiencing the hurt of feeling like an outsider. As an African Nova Scotian, attitudes of oppression, frustration and anger are all too familiar. It became apparent that in order to create the world he needed to see — a *World without limits* — he had to advocate for change. And that's exactly what he did.

Sharing similar lived experiences, Clayton was joined by fellow community activists to create GameChangersg02. Their mission is clear: centralize the African Nova Scotian experience, culture and history and affect social change so that young African Nova Scotians will have the same advantages and opportunities as their peers from any background.

"We are putting the onus on society to reflect on what they can do to reduce bias against African Nova Scotians and become stronger allies. We need to work together on this because our community cannot be living these experiences and also be given the responsibility to come up with solutions. It needs to be a collaborative effort."

With an eye towards what's possible, Clayton is passionate about supporting youth in his community of Uniacke Square. He and his team encourage and inspire them to pursue their passions and work towards changing the systems that have stood in their way. As a student, Clayton applies what he learns in the classroom to enrich the experiences of those in his local community.

"Being a young community leader has given me the confidence to work hard at my academic studies. I want to show people in my community that we belong here, that we do have something to say and that our voice matters."

WHAT'S POSSIBLE IN THE WORLD OF 3D TECHNOLOGY

Dr. Jiju Poovvancheri, Mathematics and Computing Science, Faculty of Science

How often have you typed an address into Google and within seconds you have a first-person view of your destination? Google Street View has allowed us to experience locations around the world before we arrive. Working with a team of student researchers, Dr. Jiju Poovvancheri is conducting projects with industry partners, using innovations in three-dimensional (3D) sensing and virtual and augmented reality. While Google Street View is a sophisticated platform, is there a way to make similar technologies less data-heavy behind the scenes? Dr. Poovvancheri and his ground-breaking research suggest the answer is yes.

"Typically, large-scale urban point clouds are acquired using Light Detection and Ranging (LiDAR) sensors attached to aircraft or mounted on cars," says Dr. Poovvancheri. "Using urban reconstruction algorithms, the LiDAR scans are converted to triangular meshes for real-world application. But the meshes contain hundreds of millions of triangles, putting a huge burden on rendering, data transfer and storage."

To make this technology more accessible, Dr. Poovvancheri investigates 3D deep learning models, geometric algorithms and tools to reduce the complexity. His goal is to make large-scale meshes "lightweight" without compromising the detail.

Putting research into action, Dr. Poovvancheri's team has recently been working with local, award-winning 3D modeling and software development company, Modest Tree, who are excited by the potential.

"We are proud to be working with leading researchers and graduate students on 3D object recognition and applying this to industrial applications and immersive reality solutions," says Emily Smits, chief operating officer at Modest Tree.

Another direction of his research includes the reconstruction of large-scale cities into "lightweight" 3D models. This could be a game-changer for city planning, emergency response training, assessment of solar energy potential and robotic navigation. On the cutting edge of what's possible in the digital environment, Dr. Poovvancheri is a shining example of how Saint Mary's continues to offer valuable contributions on both local and global scales.





Dr. Poovvancheri is training and mentoring the computing science researchers of tomorrow. Each student takes an active role in maintaining research partnerships, giving them real-world experience to take with them into future careers. With an interdisciplinary perspective, Dr. MacDonald is empowering Saint Mary's student-athletes to excel in a *World without limits* by having the right tools to overcome adversity.

WHEN NON-ROUTINE BECOMES THE NEW ROUTINE

Dr. Cheryl MacDonald BA'10, Criminology and Sociology, Faculty of Arts and Centre for the Study of Sport & Health

Picture this: a 6:00 am alarm. You gear up and head out the door to train before heading to classes and a part-time job. Your day ends with another workout, dinner preparation, studying and then falling asleep watching your favourite show. The next day, you wake up and do it all over again. Anyone who has played a varsity sport knows this jam-packed schedule all too well.

This experience of balancing the demands of studying and training is what propels Saint Mary's University's student-athletes to push beyond their limits and strive for a world where, with hard work, anything is possible. But what happens to student-athletes when their everyday routine is disrupted? Dr. Cheryl MacDonald was keen to find out.

After COVID-19 pressed pause on Dr. MacDonald's research, her focus shifted to the impacts that the pandemic was having on student-athletes who could no longer study and train as conditioned.

"Student-athletes have several demands placed on them. My research will give them more tools to manage including extra mental health training, increased leadership, socialization opportunities and better plans for academic success."

In true Huskies tradition, the community of student-athletes is a close-knit family but participating in sport comes with both benefits and challenges. Dr. MacDonald wants to empower university athletic departments to make sports more inclusive and enjoyable for every student-athlete.

"Together we can transcend borders and help student-athletes move forward with the tools they need for success."

ESTABLISHING NOVA SCOTIA AS A WORLD WITHOUT LIMITS FOR NEWCOMERS

Dr. Ather Akbari, Economics, Sobey School of Business

Who immigrates to Nova Scotia? Who stays? Who leaves? These questions are the cornerstone of Dr. Ather Akbari's current research into immigration. Aiming to analyze the impact of economic immigration programs in Canada, Dr. Akbari assesses the effect of provincially administered programs such as the Provincial Nominee Program designed to bolster immigration, the economy and government revenue.

"This research is timely because of the continuing demographic shift in Canadian provinces, especially the smaller ones. My hope is that our findings will help public policymakers build informed decisions while creating greater awareness of the benefits of immigration for rural regions and smaller towns."

Dr. Akbari's research also looks at the economic and demographic profiles of immigrants, addressing the importance of regionalization of immigration in Canada to help increase populations in smaller provinces. As one of Canada's universities with the highest percentage of international students, Saint Mary's University is a key player in showcasing Nova Scotia as a place of limitless possibilities while also being a great place to build a life post-graduation.

In a recently completed survey-based study, *Who comes, who stays, who leaves Nova Scotia and why?*, Dr. Akbari analyzed mobility motivations of immigrants who came to Canada declaring Nova Scotia as their intended destination and are currently either living in the province or have left to live in other Canadian provinces. The study's findings have attracted the attention of provincial and federal immigration policymakers who found the study instructive. In true Saint Mary's fashion, not only is this research timely, but it also has a real-world impact by creating a *World without limits* for future newcomers.



"To me, a *World without limits* opens up the opportunity to make a difference in any area of public policy, including right here at home."

SAINT MARY'S BY THE NUMBERS

SUPPORTING STUDENTS

- Scholarships, fellowships and bursaries: \$8.9 million
- Philanthropic support: \$6.2 million
- **\$9.6 million** for technology to create a seamless experience for students
- 953 student bursaries were awarded more than double than the previous the amount given out in 2019-20

ENGAGED ALUMNI

- 2nd highest alumni engagement level in the country
- 53,000 alumni worldwide

RESEARCH LEADERSHIP

- Total external funding to support research: \$10.6 million
- Home to 8 Canada Research Chairs
- 97 industry-sponsored projects, per year at \$5.7 million
- Sponsored 31 undergraduate research awards valued at \$186,000 for internship positions in Science, Arts and Business
- Graduate student scholarships and fellowships: \$4.6 million
- 32+ research projects related to the COVID-19 pandemic

SERVICE LEARNING

Service learning continued throughout the pandemic providing rich learning experiences for students and valuable assistance to community partners.

- Student participants: 218
- Service Learning Hours: 8,500+
- Community Partners: 37

STUDENT-ATHLETE EXCELLENCE

- **102** Academic All Canadians
- **1000**+ practices or training sessions across **11** sports (2000+ hours)
- 25⁺ exhibition games
- NHL sized-ice surface at the new Dauphinee Centre
- 85* Husky Home Games expected on campus this year
- E-Sports coming soon!

POINTS OF PRIDE

- Ranked 4th among undergraduate universities in Canada (Maclean's magazine)
- Only Canadian university to offer a B.A. in Entrepreneurship • Founded in 1802, we are the **2nd largest university** in Nova
- Scotia
- Home to the most powerful telescope in Atlantic Canada and the only Twitter-controlled telescope in the world (@smubgobs)
- Only Forensic Science program east of Ontario
- The Sobey School of Business is among the Top 6 Business Schools in Canada respected by American employers
- Houses the Fred Smithers Centre of Support for Students with Disabilities with more than 40 years removing educational barriers. Helped **505** students this year alone





FAST FACTS

- 6119 full-time and part-time students
- **529** full-time and part-time faculty
- 595 full-time and part-time staff
- **111** countries represented by students
- **1500+** degrees and diplomas awarded annually
- 83.6 % average entering grade

STUDENT DEMOGRAPHICS

29%

71%

INTERNATIONAL

CANADIAN

BOARD OF GOVERNORS

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Cover photo: Dr. Danika van Proosdij's pioneering work is combatting coastal erosion and helped restore more than 75 hectares of salt marsh habitats in the Bay of Fundy.

