

#### **FUNDED COMMERCIALIZATION PROJECTS REPORT**

# **SOPHIE Commercialization Project Partners**

#### **McMaster University**

AIMA Laboratories (Diagnostic Tool) Eye3 (Diagnostic Tool) Synmedix (Drug / Therapeutic)

#### **Mohawk College**

SanteSuite (Digital Health)
Tamvoes (Digital Health)
Jaide Products (Medical Device)

#### **Hamilton Health Sciences**

Hyivy Health (Medical Device) Epineuron Technologies (Medical Device) Mutuo (Digital Health)

#### The Research Institute at St. Joseph's Healthcare Hamilton

EmergConnect (Digital Health)
Insight Medbotics (Diagnostic Tool)
Sensoreal (Diagnostic Tool)





# **McMaster University**



mcmaster.ca

As Canada's most research-intensive university, McMaster University is ranked in the world's Top 75 by the Times Higher Education (THE) World University Rankings. With teaching and research strengths in Health Sciences, Engineering, Science, Business, Humanities and Social Sciences, McMaster is dedicated to advancing human and societal health and well-being.





# AIMA Laboratories (Diagnostic Tool)



aimalaboratories.com

Pelvic pain affects millions of women in North America. The duration from the onset of symptoms to diagnosis of endometriosis can take between 5 to 12 years. AIMA Laboratories Inc. is empowering women to take control of their health through the development of in-home diagnostic tools for women's health issues. AIMA Laboratories has identified clinical markers in the blood that enable the diagnosis of endometriosis without the need for surgery. AIMA Laboratories' at-home tests can reduce diagnosis time, decrease time to access safe and efficacious treatment, and provide affected women with the tools needed to actively monitor their endometriosis.

#### **Collaboration Project Information:**

In collaboration with the Faculty of Medicine at McMaster University, AIMA Labs is testing a medical device that will diagnose endometriosis in females.





# Eye3 (Diagnostic Tool)



eye3.com

Eye3 is developing a portfolio of quantitative electrochemical biosensors that meet and exceed the requirements of law enforcement drug testing globally as well as meet and exceed the needs of the fit-forduty testing marketplace. These sensors have a reporting time of less than 40 seconds compared to traditional technology, which can take as long as 10 minutes and tend to offer only qualitative results.

### **Collaboration Project Information:**

In collaboration with McMaster University, Eye3 is testing a diagnostic device that can measure THC levels in the field quicker and over a wider concentration range in comparison to current commercial devices.





# Synmedix (Drug / Therapeutic)



synmedix.ca

One of the biggest threats to modern healthcare, antibiotic resistance has reached crisis proportions and created a desperate need for new antibiotic therapies. Synmedix was founded on the discovery that bicarbonate is a spectacular enhancer of the antibacterial activity of many antibiotics and can reverse drug-resistance in bacterial pathogens. As an initial therapeutic focus, Synmedix aims to leverage this discovery with the development of a first-in-class therapy to treat diabetic foot ulcer infections, an area of huge medical need and market opportunity.

#### **Collaboration Project Information:**

In collaboration with McMaster University, Synmedix aims to test a topical pharmaceutical formulation of Azithromycin-bicarbonate for the treatment of diabetic foot ulcer infections.





# **Mohawk College**



mohawkcollege.ca

Mohawk College has been providing a quality, higher education experience to students in Hamilton and the surrounding area since 1967. As one of Canada's leading colleges for applied research, Mohawk is working collaboratively with a growing number of industry, government, and community partners to create innovative solutions to practical problems. These opportunities provide Mohawk students with valuable real-world experiences that cannot be replicated in a classroom.





# SanteSuite (Digital Health)



santesuite.com

SanteSuite Immunization Management Solution (SanteIMS) is a country-scale, proven vaccination planning and tracking solution for middle- and low-income countries that wish to digitize and automate mass vaccination clinics. The user-friendly app provides vaccine planning, scheduling, dosage/lot tracking, adverse event tracking, inventory management and more. The solution is designed to work in low-resource environments with intermittent power and connectivity.

#### **Collaboration Project Information:**

In collaboration with MEDIC at Mohawk College, SanteSuite is working to develop a commercially supported version of the SanteSuite product line that can be rapidly adopted globally.





## Tamvoes (Digital Health)



tamvoes.com

Tamvoes is a health management platform supporting the information of individuals, families and their professional team. Founded in 2019 and based in Waterloo, Ontario, Tamvoes is a women-led startup with the goal to empower individuals with their health information, giving them the ability to make more informed health care decisions.

### **Collaboration Project Information:**

In collaboration with Mohawk College, Tamvoes is testing an online, secure, virtual health platform that allows the user to track their health data and connect with healthcare providers.





# Jaide Products (Medical Device)



jaideproducts.com

Jaide Products Inc. provides a safe and reliable minimal touch sit-to-stand transfer device that easily transfers a user from one surface to another with minimal need for caregiver intervention. It allows the user to regain their dignity, trust, and muscle use, instilling a positive and dignified mindset for better overall health.

#### **Collaboration Project Information:**

In collaboration with Mohawk College, Jaide Products Inc. will evaluate its Roturner, a sit-to-stand transfer aid by executing field trials in home, clinic, and transportation settings to determine the benefits of the Roturner to both user and caregiver when transferring from one surface to another.





# **Hamilton Health Sciences**



hamiltonhealthsciences.ca

Hamilton Health Sciences is a world-renowned hospital for healthcare research, focused daily on improving the quality of care for patients through innovation and evidence-based practices.





## Hyivy Health (Medical Device)



hyivy.com

Hyivy Health creates a patent pending, intelligent pelvic rehabilitation device for the one in three women worldwide who will experience a pelvic health complication in their lifetime. The device provides the first quantifiable data set on the pelvic floor and three different therapies from multiple sensors and mechanical functions to help keep track of progress, adapt treatment plans, and provide more effective, comfortable rehab experiences from home.

#### **Collaboration Project Information:**

In partnership with Hamilton Health Sciences, Hyivy Health is currently working to create the first-ever holistic pelvic rehabilitation system with remote patient.





## Chirp (Medical Device)



mychirp.com

Traditional medical alert devices can be inconvenient and uncomfortable to wear on a daily basis, especially at home. That's why they're often out of reach when needed. Meet Chirp. A cloud-connected sensor that is unobtrusive and easy-to-use. No cameras, wearables, or buttons to push.

#### **Collaboration Project Information:**

In collaboration with the GERAS institute for aging at Hamilton Health Sciences, Chirp is testing its remote patient monitoring system that identifies falls, length of time in rooms within the home, and time sleeping without using a camera.





## Mutuo (Digital Health)



mutuohealth.com

AutoScribe is an Al-powered digital scribe tool. The software uses hands-free speech recognition to automatically transcribe patient-clinician dialogue and generate real-time personalized medical notes, lab test orders and patient reminder handouts. Autoscribe helps reduce time-consuming manual clinical documentation and burnout; supports more engaged and efficient doctor-patient visits and improves patients' adherence to clinical recommendations.

#### **Collaboration Project Information:**

With the support of Hamilton Health Sciences, Mutuo is finalizing AutoScribe's cybersecurity protocols, improving key technical features and drafting the required legal documents prior to commercialization.





# The Research Institute at St. Joseph's Healthcare Hamilton





research.stjoes.ca

The Research Institute of St. Joe's Hamilton is an academic and research community focused on improving the quality of life for our patients and community members, as well as those diagnosed with a diverse range of medical conditions around the world.





# EmergConnect (Digital Health)

# E M E R G © O N N E C T

emergconnect.ca

EmergConnect has created a patient-facing mobile platform that acts as a digital 'front door' for patients seeking same-day care. EmergConnect lets patients register, triage, get an individualized prediction of wait time (so they can even wait at home) and then directs them to the facility that best suits their needs. EmergConnect can also be used by patients already in the waiting room, providing in-waiting room registration, wait time prediction and triage reassessment. EmergConnect uses research-developed machine learning to conduct triage and predict individualized wait times.

#### **Collaboration Project Information:**

EmergConnect's goal is to pilot the remote intake, triage, site-specific clinical direction, and individualized wait time system as a time-limited local pilot project, which will lead to both improved patient satisfaction and increased efficiency. Feasibility, efficacy, and safety (including adverse events) will be evaluated and patient and provider feedback will be considered before full implementation.





# **Insight Medbotics (Diagnostic Tool)**

# Medbotics

insightmedbotics.com

MRI is widely-regarded as the superior diagnostic imaging modality for monitoring and diagnosing women with a heightened genomic and phenomic risk for breast cancer. Insight Medbotics is applying proprietary IP and clinical excellence to identify, biopsy and optimally treat early-stage breast cancer. Image-Guided Automated Robot (IGAR) is the only clinically-tested (Health Canada-ITA trail in 2018 in Quebec City) MR-enabled breast biopsy platform. Using MRI as a real-time guidance technology, IGAR is offering highly accurate and precise breast cancer lesion location and biopsy via real-time in-bore robotics.

#### **Collaboration Project Information:**

In collaboration with St. Joseph's Healthcare, Insight Medbotics will be validating its technology using MRI to collect data that will be used to support its US FDA submission.





## Sensoreal (Diagnostic Tool)



sensoreal.com

Using a robust yet easily modifiable microfluidics system, Sensoreal is developing affordable, rapid and quantitative diagnostic solutions with a multitude of market applications. Using passive capillary action, Sensoreal's diagnostic devices are able to provide lab-grade precision with minimal hands-on time required. Using innovative, patent-protected microfluidics-based technology, the devices are able to provide the necessary tools for diagnosis at the point of care.

#### **Collaboration Project Information:**

In collaboration with the D3 team at St. Joseph's Healthcare Hamilton, Sensoreal is focused on validating and optimizing the diagnostic devices' application of differentiate between bacterial vs viral infections. This will help to regulate the unnecessary prescription of antibiotics.

