

# **Hamilton Health Innovation Check-up: Meeting Minutes**

# September 2022

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#### **STANDING AGENDA TOPICS:**

- **Guest Speaker Discussion**: insights around the experience and expertise of an invited speaker, focusing on a subject that may be of interest to the broader community
- **Communicate**: share recent successes, upcoming events, innovation pipeline and new products, health innovation trends, etc.
- Collaborate & Accelerate: welcome new members to community, partnership opportunities, discover programming and resources available to the community, discuss market gaps and challenges, learn about potential funding opportunities, new RFPs issued, etc.

Facilitator & Note Taker Virtual Location

Alex Muggah, Director, Synapse Consortium Join Zoom Meeting: https://zoom.us/j/405351918

Dial in: +1-647-558-0588,,405351918#

Register here:

https://us02web.zoom.us/meeting/register/uZQodOyppzoiQnRwfvVuEJ

tEMUpKPUZPzg

**Next Monthly Check-up:** October 31<sup>st</sup> 9:00 – 10:00am | McMaster Innovation Park (via Zoom) Please sign up to our <u>mailing list</u> to receive meeting minutes and other important updates.

Finding collaborative partners for health companies and researchers can be difficult. Synapse has created the <u>Hamilton Health Ecosystem Directory</u> and the <u>Health Innovation Partnership Portal</u> (HIPP) to facilitate finding new partners within Canada's leading health research and educational ecosystem located in in Hamilton, Ontario.

Minutes for our monthly check-up meetings are not published and are for reference purposes only. We do our best to ensure all information is accurately portrayed, and that no privileged/private information is inappropriately disclosed. Past meeting minutes can be access through a public Dropbox, using the following <u>link</u>.

For additional information on any subject, to contact a presenter directly, or should you have an adjustment to make to the notes made here, please contact: <a href="mailto:Alex.Muggah@SynapseConsortium.com">Alex.Muggah@SynapseConsortium.com</a>. Updates will be reflected in a revised version of the monthly minutes.

As a result of the COVID-19, all in-person conferences and meetings have been cancelled. We are trying to track down events that will be held virtually and will try to keep our calendar up to date.

If you have an event that you would like listed here, please contact us at: <a href="mailto:info@synapseconsortium.com">info@synapseconsortium.com</a>

# **Hamilton Health Innovation: Calendar Highlights**

Check out Synapse's online calendar

## October

- Oct 12-13: <u>Canada's Medtech Conference</u> (Medtech Canada)
- Oct 13: Innovation Expo 2022 (Innovation Guelph)
- Oct 20: Knowledge and Networking Breakfast Forum (LSO)
- Oct 20: Networking with Inspirational Women in Science (OBIO)
- Oct 23: <u>Innovation Nation</u> (CSii)
- Oct 24-26: <u>The Medtech Conference</u> (AdvaMed)
- Oct 26-27: FHIR North (Mohawk College)
- Oct 31: <u>Hamilton Health Check-up</u> (Synapse Consortium)

### November & Beyond

- Nov 1: MedHealth Summit (TechTown Detroit)
- Nov 3: <u>Ideas to Action Life Sciences Forum</u> (LSO)
- Nov 9: <u>IP for Life Science Companies: Preparing Future Investment</u> (Innovation Factory & Haltech)
- Nov 9: Transforming Canada's biomanufacturing market (OBIO)
- Nov 10: Innovation Showcase 2022 (McMaster University)
- Nov 10-11: Clinical Trials Conference 2022 (Clinical Trials Ontario)
- Nov 28: <u>Hamilton Health Check-up</u> (Synapse Consortium)
- Dec 10: I'm Every Woman: A Concert of Greatest Hits (Hamilton Health Sciences Foundation)
- Dec 13: Solutions Showcase (Communitech)
- Feb 8-10: <u>Investment Summit</u> (OBIO)
- Mar 2024: Synapse Pitch Competition (Innovation Factory)

Looking to engage the Hamilton Health Ecosystem?



In partnership with Innovation Factory and Synapse Consortium partners, leverage up to \$100,000 to work directly with an academic or hospital partner in the Hamilton ecosystem. Funding will support collaborative projects for Ontario-based life science firms requiring

clinical/research expertise, evidence, or data to commercialize their innovation. Learn more about SOPHIE here



Leverage up to \$15,000 in funding to work directly with the Research Administration groups at Hamilton Health Sciences or The Research Institute at St. Joe's Hamilton to create the pre-trial protocols and documents required to undertake a commercialization project or

clinical trial in one of Canada's leading research hospitals. Learn more about HEALTHI <u>here</u>



## Time allotted | 30 Minutes

## Topic: Guest Speaker Discussion

Insights around the experience and expertise of an invited speaker, focusing on a subject that may be of interest to the broader community

#### **Guest Speaker Discussion**

#### Guest Speaker(s):

 Amr Abdelgawad, Founder and COO <u>NERv Technology</u> [presentation slides used]

#### Discussion

[the following is a synopsis of the discussion, and has been lightly edited for length and clarity]

#### Introduction

My name is Amr Abdelgawad and I am the Chief Operating Officer and a co-founder of NERv a medical device start-up based out of Kitchener-Waterloo. I'd like to share what we've been up to the last few years, as well as talk about opportunities that COVID has presented and some of the challenges we're seeing within our healthcare innovation ecosystem.

I'd like to start by talking to an issue that resonates with many people, as I'm sure someone on this call has been in this position before. Specifically, you find yourself sitting next to a loved one after a surgical procedure, concerned about their recovery. You don't know if things have gone well, or if they might be suffering from complications that no one can see until it's too late. Should a complication develop following surgery, doctors typically wait for symptoms to appear before undertaking examination and diagnosis that may lead to treatment. Unfortunately, the period between a complication developing and treatment begins can mean the difference between life and death. For patients surviving a complication, their quality of life can deteriorate with costs increasing significantly. Unfortunately, our healthcare system has a delayed and reactive way of handling post-operative care.

## Resolving Anastomotic Leaks (AL) – the Bane of Intestinal Surgeries

The team at NERv has spoken with many surgeons, gone through lots of literature, and eventually decided to focus on resolving one specific complication resulting from general surgeries known as anastomotic leaks, which has been described as the "bane of intestinal surgeries" for decades.

During some general surgery procedures, typically you have a patient presenting with a tumor that wraps around the gastrointestinal (GI) tract. To remove that tumor, the surgeon needs to snip off portions before and after the tumor and then re-connect the two pieces to the patient's GI tract. Usually that connection happens via staples or sutures. Unfortunately, in some of the cases the staple line can become compromised, with content from within the GI tract leaking into the abdominal cavity. According to the literature, this problem impacts 8% of patients, with mortality rates of affected patients tending to be north of 10%. On average, there has been a documented \$50,000 increase in care delivery costs per leak incidence. It can take between two to three days for the problem to be detected.

To date, there is no device specifically designed for the detection of anastomotic leaks following various kinds of surgeries (e.g., colorectal, hepatic, biliary, esophageal, or bariatric surgeries, or weight loss procedures). As a result, today the standard of care looks like:

1. Post-operative physical examinations to assess vital signs, looking for abdominal pain, development of a fever, tachycardia, or changes in heart rates.



- 2. If patient demonstrates signs and symptoms, laboratory tests are initiated to look for specific markers that indication a leak is happening.
- 3. Patient may go to imaging, which comes back inconclusive in 25 to 30% of cases.
- 4. Positive results require intervention, which in some cases may even require another operation.

Going through these steps can sometimes take 48-72 hours, with the patient experiencing pain and discomfort. In some cases, there may be further deteriorating further, with the GI leak turning into an infection, or even sepsis. From there, the patients health can quickly get to stages that are unrecoverable.

### Meeting Need for Early Detection

The genesis of NERv was the anxiety of our CEO's mother, who was a surgeon. She was concerned about the health of her patients, and that today's healthcare system was not proactive in identifying and treating GI leaks and complications from general surgery.

We brought together a team of engineers and scientists at NERv to think about different mechanisms to solve this problem. We went through various product iterations, speaking to surgeons to determine exactly how we could design a solution for this problem. For example, we started with the idea of an implantable bio chip, but quickly realized how difficult it would be to bring this to market. This resulted in a pivot, taking our sensing solution and incorporated it into a catheter system, placing sensors at the tip of the catheter, that could then be placed inside the abdominal cavity. As a result, we can pull out the catheter and remove the sensing technology after the patient has finished their post-operative journey. However, further discussions and iterations revealed an even better way. This led us to switching our sensing technology to a smart catheter system, an inline device that attaches to existing drainage solutions. Yet, even as we did that, we continue to push ourselves to identify better ways to improve our system.

As a result, we have developed at NERv a device that works in tandem with a software solution to provide real time and continuous feedback around specific markers that can identify the presence of those GI leaks in real time. Our continuous analysis can support healthcare providers with a method of guided intervention, so that they can quickly determine if, and when, a patient is suffering from a GI leak. Our technology can also provide information about whether a patient is recovering well, which enables early discharge. Should the patient be suffering from a leak or complication, the intervention process can be started sooner, preventing deterioration and a cascade of further complications from developing.

## Stakeholder & System Benefits

Today, our Origin Smart Monitor (as we call it), is more of an enhanced system that monitors for specific markers to identify the presence of the complications.

This solution benefits all stakeholders impacted by the problem of complications. Our patients see improved outcomes in terms of early detection of anastomotic leaks, resulting in less anxiety associated with this complication, while surgeons positively impacting patients as well as surgeons.

Surgeons are able to access real time information about patients' recovery, improving surgeon's general process of monitoring patients – which can improve their personal reputation, as well as of the entire hospital network. Providers see better outcomes for their patients, and for the system overall through improved patient experience, a reduction in mortality, and even readmissions, which are important metrics for hospitals.

From the payer's perspective, the NERv solution results in less time in the operating room, improved internal system processes, which can lead to reduced costs. We're optimizing the way things are run for the healthcare



system overall. From a broader perspective, when we look at the economy, we're driving reduced time off work, improved from a much bigger alphabet perspective, when we look at the economy, we're looking at reduced time off work and improved productivity, as well as better quality of life. Diving into the numbers, we can see the improvements for the healthcare system cost structure. For patients that suffer from leaks, we're seeing a \$45,000 cost reduction, and for those that don't suffer complications, early discharge and better patient management can reduce costs by roughly \$5,500 per patient.

We've been fortunate to work with multiple institutions and some key opinion leaders to validate our technology and the impact on cost avoidance. We've worked with some of the top names in care, including Hamilton Health Sciences, St. Joseph's Healthcare (Hamilton), St. Michael's (Toronto), Grand River Hospital (Kitchener), and the Cleveland Clinic in the US. We've even gone across the Atlantic to Saudi Arabia, which is one of the markets that we're planning on launching in by the end of this year.

#### **Testing Feasibility**

So far, we've been able to see some great results from our clinical trials. To date, we've been able to test the solution in more than 150 patients, from trauma to hepatic biliary to colorectal and some general surgeries. Interestingly, we've seen that anastomotic leaks tend to be a bit higher than what has been reported in the literature. We saw that anastomotic leaks impacted roughly 16% of the patient population, though obviously we recognize that there are other post operative complications that can happen.

Diving a little deeper, we looked at a sample of our patients to show how long the standard of care today can take to diagnose this problem. In the most extreme casers, it can take 21 days between our healthcare system identifying a complication and receiving care. The window of detection can be brought down from a matter of days (or even weeks) to hopefully a few hours and minutes, which is what we are targeting with our NERv system.

A case study from our clinical studies shows the potential of minimizing readmissions, which is an important quality metric that hospitals look for. The patient had a procedure and was discharged five days afterwards where it seemed like she was recovering well and on track to avoid any complications. However, by post-operative day 15, she had been readmitted to hospital with sepsis, and was then discharged on post-operative day 28. Our retrospective study demonstrated we were capable of identifying the complication on post-operative day one. Had the problem been dealt with at the hospital immediately, as it could have been, the patient would have been discharged once and not had come back to the hospital – improving the patients experience while also saving time and money for the hospital.

#### Leveraging a Supportive Ecosystem

What we have been doing over the past nine years wouldn't have been possible with the support of a strong ecosystem around us. We are fortunate to work with institutions that really care about improving healthcare outcomes and are innovative in thinking about better approaches for patient management. NERv has been supported by the federal and provincial governments, with more than \$5 million in awards that have supported our research and allowed us to achieve our current state of product maturity. As well, I must mention the partners and incubators that have provided us with advisory support, with connections and a much stronger network that has opened many doors. It is the ecosystem that has helped us get us to where we are today.

## Post COVID-19 Opportunities & Building a Bio-manufacturing Hub

I want to end the presentation by talking about some of the opportunities that still lie ahead. And some of the challenges that we will still be facing as the healthcare innovation ecosystem over here and things that we can improve on. One thing that COVID-19 brought about was more attention towards healthcare innovation, and how



we can try to build a much stronger ecosystem over here in our own backyards, which one of them was launched through the Ontario Together Fund, which provides funding to businesses over here to be able to build a much stronger bio manufacturing hub. And this is a picture actually from our own manufacturing space that is being set up over here in the Kitchener Waterloo Region. So allow us to make sure that we're building our innovation here. And we don't have to worry about procuring it from neighboring nations or internationally and be able to suffer from problems in terms of that procurement process when and if another major hopefully not, not a major pandemic happens.

#### Post COVID-19 Opportunities | Improving our healthcare system

There remain many opportunities to improve our healthcare system. In particular, issues currently plaguing our ecosystem include surgical backlogs, long wait times for operations, as well as physician burnout. These are areas that have really shown that our healthcare system can still improve and has a long way to go.

One way to address these problems is via innovation. We need to focus on aspects of care delivery related to the Quadruple Aim effect, or value-based healthcare. Across our healthcare ecosystem, we must improve patient outcomes while bringing down costs, as well as improve staff and patient experience overall. To realize this goal, we need to bring everyone who is impacted to the table, including policymakers, entrepreneurs, physicians, scientists, engineers. Together, we should be speaking collectively about the problems we're facing in order to solve these problems, and tackle opportunities coming up within our space.

In particular, I see reimbursement that remains a specific challenges facing healthcare start-ups today. While many will take several years to resolve, there is still definitely room for improvement. Looking around Ontario, we see novel technologies being developed, the right talent is being deployed leveraging productive research spaces. What is required from our clinical trials, and even regulator processes, are relatively clear and obvious from a pathway perspective.

However, in order to get technology into the hands of physicians and surgeons, one of the biggest challenges lies ahead of us around reimbursement. Given how our healthcare system is built around a single payer ecosystem, it becomes difficult for healthcare innovations to be adopted within the Canadian system. There is a need for more creative pathways to secure reimbursement for innovative healthcare technologies, to enable local adoption, so that the care providers can benefit, patients can benefit, and optimize and strengthen the underlying structure of the broader Canadian healthcare system.

That's it from me. We're expecting many exciting announcements in the near future, so please be sure to keep track of our progress and stay tuned. Thank you for having me over here today.

#### **Questions & Answers**

Question: As you look forward, what are one or two areas where you could use additional support form a community such as ours. How can we help activate resources or infrastructure that currently isn't in your own network?

Answer: One challenges that we are facing, indeed that any innovative healthcare start-up is facing these days, is a clear pathway towards adoption here in Canada. We've got the entire ecosystem set up to support a product development pathway - from research to talent acquisition to setting up trials to regulatory. There is government funding to support various aspects of that pathway. However, the one clear obstacle that remains is ensuring adoption of these innovative technologies or solutions. Once you've secured regulatory approval, and you're good



to go, it's still very difficult to get sales in Canada. From that perspective, policymakers, innovators, hospitals and physicians all need to be sitting together to figure out creative ways to enable reimbursement that can lead to local adoption. So if there's one thing we can resolve, that would be fantastic.

Question: Apart from the evident need for a transformation of the procurement system, is there something closer to home that we might be able to assist with?

Answer: Another challenge we are facing is around scaling talent acquisition. Start-ups face a lot of competition from bigger companies around hiring. Coming up with more creative or supportive programs that can help with talent acquisition, or to attract the right talent, so that firms don't run south of the border, would be valuable. That said, this is a challenge that all start-ups face, whether within the healthcare ecosystem or outside.

Question: Can you provide a little more information on the bio space you indicated you're building in Kitchener?

Answer: We're part of the Medical Innovation Exchange (MIX) based out of Kitchener Waterloo. It is a healthcare innovation ecosystem for companies at the post-seed stage. MIX recently acquired an additional 10,000 square feet of space that will be split across multiple companies, helping to establish the space as a manufacturing hub for healthcare companies and healthcare start-ups in Kitchener-Waterloo. NERv has secured a portion of that 10,000 square foot space, and we're going to turn it into an assembly/manufacturing space for our company that can support our scale up efforts. We're using our own private capital, as well as some government funding to make this a reality.



# Time allotted | 15 Minutes

Topic: Communicate

Discussion	Presenter
Llif Healthcare and Chirp among Big Winners at at 12th Annual LiONS LAIR Awards Gala.	Jennifer
Congratulations to the 2022 LiONS LAIR winners, who collected \$50,000. Innovation Factory's LiONS LAIR event showcases the region's innovative start-up community and gives up-and-coming entrepreneurs the opportunity to pitch their business to a panel of Hamilton's top business experts and potential investors.	Gauvreau (Innovation Factory)
Second place winner Shawn Mondoux, CEO of <u>Llif Healthcare</u> received \$15,000 cash for their electronic medical record database that provides practice feedback for healthcare practitioners. Claiming the \$10,000 cash prize for third place was Justin Shorn, CEO of <u>Chirp</u> , who shared their technology solution for a wall-mounted device that remotely monitors the well-being of aging adults.	
We would like to thank our many partners, the 300 event attendees from Hamilton's business innovation community, and the Innovation Factory staff for their support in making the LiONS LAIR in-person comeback a successful and memorable evening.	
Click here to relive the night from the pitches, dinner, to the reception, awards and more!	
SOPHIE participant Lactiga Therapeutics Raises \$1.6M USD in Oversubscribed Pre-Seed Round, Secures \$350k in Research Grants	Alex Muggah (Synapse)
Lactiga Therapeutics, an early-stage biotechnology company focused on improving the quality of life of patients with primary immunodeficiency diseases, announced this week that it has oversubscribed its pre-seed financing, raising \$1.6 million in new capital including over \$350,000 in research grants. The lead investor in the financing was 1517 Fund, and other investors include several private firms with significant biotechnology experience.	
"We're thrilled to be backing the Lactiga team in their effort to use naturally produced antibodies to alleviate the pain and suffering of immunocompromised patients and consumers at large. The team understands the impact on everybody involved – donors, patients, consumers, and researchers – and I'm glad they are the ones at the forefront of this work," said Zak Slayback, a partner at 1517 Fund.	
In addition to the capital raised, the company, which is based in New Jersey and Toronto, has secured over \$350,000 in nondilutive grants and awards over the last four months, including funds from the New Jersey Commission on Science, Innovation and Technology (CSIT) and Innovation Factory's Southern Ontario Pharmaceutical and Health Innovation Ecosystem (SOPHIE) program. These funded projects further the company's preclinical studies and strengthen its intellectual property portfolio.	
"We are pleased to support Lactiga's collaborative project with McMaster University during an important phase of their commercialization journey – leading to new intellectual property, jobs, follow-on investment and pharmaceutical development. Through SOPHIE, (a program supported through the Federal Economic Development Agency for Southern Ontario) Lactiga will also have	



Discussion	Presenter
access to an extensive strategic health innovation ecosystem, further enabling their market potential for success," said David Carter, Executive Director at Innovation Factory.	
Read the full press release <u>here</u>	
McMaster University collaborating with Verv Technologies to advance blood testing technology, leveraging \$314k grant from NSERC	Marty Gurbin (Verv Technologies)
Verv Technologies and McMaster University announced a new collaboration that will further develop Verv's technology to improve at-home healthcare. A \$314,000 investment from the Natural Sciences and Engineering Research Council of Canada is allowing the partners to work together to develop a series of blood tests that have the potential to change how individuals manage their own healthcare. Leyla Soleymani, an engineering physics professor at McMaster University, is leading the McMaster team.	
The affordable, high-quality blood analyzer Verv is developing for home use can help transform access to timely blood testing for all Canadians, regardless of whether they live in an urban, rural or remote setting. The disposable test chips will be easy to use and aim to measure a wide range of important analytes, such as prostate-specific antigen, vitamin levels, cholesterol, glucose and hormones.	
"McMaster University is home to some of the world's leading developers of diagnostic devices and has strong research infrastructure for building and testing these new diagnostics"	
The NSERC funding will see the pre-clinical evaluation of a host of technologies that will allow the McMaster research team to validate and de-risk the technologies, which is a critical step in the commercialization process. "McMaster's world-renowned biomaterials and sensor research makes it perfectly positioned to house this infrastructure and take on this important project," Gurbin noted.	
Read the full article here	
VoxNeuro Announces Collaboration with Boston University and Launch of Clinical Studies  Focusing on Concussion and Alzheimer's Disease	Douglas Martin (VoxNeuro)
Hamilton-baseed VoxNeuro Inc., a commercial stage Software-as-a-Medical-Device (SaMD) brain health company that analyzes brain biomarkers to assess cognitive function, announced a new partnership with Boston University ("BU"), a world-class institution and private research university at the forefront of neuroscience and neurotechnology.	(1000300)
In partnership with BU, VoxNeuro has launched two studies that will evaluate its cognitive health assessment platform in an outpatient setting to assess diagnostic accuracy. The studies will focus on patients suffering from mild-Traumatic Brain Injury (mTBI)/Concussion and Alzheimer's disease, respectively.	
On a combined basis, mTBI/Concussion and Alzheimer's disease affect over ten million Americans annually, and the inefficiencies of current behavior-based screening methodologies results in considerable excess cost and time to patients, clinicians and the healthcare system. VoxNeuro's cognitive health software is expected to provide additive diagnostic information to improve clinical management beyond traditional testing methods. This represents a significant	



Discussion	Presenter
step forward for brain health as VoxNeuro provides for better identification and management strategies.	
VoxNeuro anticipates that this will continue to enhance its market awareness and will improve the ability of clinicians to accurately diagnose, treat, and aid in the management of patients suffering from mTBI/Concussion and Alzheimer's disease. The Company also anticipates that this work may support new regulatory filings with the FDA and Health Canada.	
Read the full press release <u>here</u>	
metaMe Health partners with Launchit Ventures to market Regulora	Jamie
metaMe Health licenses rights to commercialization of Regulora in Canada to Launchit Ventures, Inc. to expedite the availability of Regulora to Irritable Bowel Syndrome (IBS) patients	Harsevoort (Launchit)
Launchit Ventures, Inc., a HealthTech solutions provider and global commercialization partner developing new technology-led business solutions faster and with less risk, and metaMe Health, Inc., a Prescription Digital Therapeutics (PDT) company and developer of Regulora, today announced a global partnership to bring Regulora to the Canadian market for the treatment of abdominal pain due to IBS.	
metaMe Health's Regulora is the first U.S. FDA-authorized PDT specifically for abdominal pain associated with IBS in adults. It provides self-administered Gut-Directed Hypnotherapy (GDH) through a convenient iOS and Android app that can be used at home along with other IBS treatments. Until now, the availability of GDH has been limited, as it required in-person administration by specialized therapists. Launchit Ventures will work to obtain regulatory authorization in Canada and will develop a commercialization strategy and execution plan to make Regulora available to patients with IBS in Canada markets.	
Jamie Harsevoort, CEO at Launchit Ventures, adds, "We are excited to further enable metaMe Health's mission to provide an innovative treatment option to patients with abdominal pain due to IBS. With an estimated 5 to 7.5 million IBS patients in Canada, we have a tremendous opportunity to make a difference in patients' lives by providing a proven therapy that they can access easily at home."	
Adapsyn Bioscience enters into strategic collaboration with Evotec	Shannon
Adapsyn Bioscience Inc., a chemical bioinformatics company that discovers novel drug-like small molecules, today announced a strategic collaboration with Evotec SE. Under the collaboration, Evotec will have the opportunity to evaluate small molecules developed by Adapsyn as potential therapeutic candidates in proprietary and partnered drug discovery projects.	Graszat (Innovation Factory)
The Adapsyn platform uses artificial intelligence and machine learning to identify and isolate novel drug-like metabolites from microbes for downstream assay and development. Evotec has extensive biochemical, cellular, and phenotypic screening capabilities, and particular expertise in natural product drug discovery and development. The multi-year collaboration will provide Evotec with libraries of bioactive small molecules to screen against high value targets of interest to Evotec and its partners. Adapsyn will be responsible for library generation and compound production efforts.	



Discussion	Presenter
Dr Andy Haigh, President and CEO of Adapsyn Bioscience, said: "This exciting collaboration will allow Adapsyn to benefit from the breadth and depth of Evotec's natural product development expertise and provides a mechanism to evaluate our chemistry against an expanded range of targets and screening modalities. We are thrilled to partner with Evotec and we look forward to a productive relationship that builds on our collective strengths."	
For the full press release, please click <u>here</u>	
IMPACT clinical trials program is coming to Hamilton	Jonathan Hunt (MIP)
Conducting clinical trials, although necessary for the health of patients, can often be a lengthy and expensive process for startups looking to make a difference. However, the University of Calgary's Integrated Management Platform to Accelerate Clinical Trials (IMPACT) program has created an efficient and cost-effective program to help startups conduct their clinical trials and meet Canada's regulatory requirements.	
McMaster Innovation Park (MIP) is happy to announce this new partnership with IMPACT to help ventures take this next step.	
We are pleased to announce the Trade Commissioner Service's (TCS) <u>participation</u> in the 25th edition of the <u>Bengaluru Tech Summit</u> (BTS) in Bengaluru, India from November 15 to 18, 2022.	Kenneth Wong (TCS)
We would greatly appreciate if you could promote this event throughout your network to help recruit interested companies from across Canada who operate in the health technology space to be part of the business delegation. Specifically, we are looking for biotechnology, digital health, telehealth, AI in healthcare, and other emerging technology companies looking to expand internationally and would like to explore the extensive opportunities available through India.	
The TCS is organizing an additional business program for registrants and has secured complimentary all-access passes for Canadian participants, including a presence at the Canada Pavilion.	
For more info, contact Debjani Pal or Cassandre Marcelin: <u>baglr.events@international.gc.ca</u>	
\$50-million gift to create 'leadership' college at McMaster University	Alex Muggah (Synapse)
A former McMaster University executive, who spent 50 years in public service and private industry, is set to gift the institution \$50 million for a leadership and civic engagement college.	
The donation from Lynton (Red) Wilson and his foundation will establish the Wilson College of Leadership, a curriculum with a goal of developing young leaders "committed to strengthening our societies," the university said in a release.	
A portion of the \$50 million will also create the Wilson Chair in Leadership and Civic Studies – an entity that will lead a team of researchers and visiting fellows from the public and private sectors. Wilson's \$50-million investment also creates the Wilson Chair in Leadership and Civic Studies, who will lead a team of researchers and visiting fellows from the public and private sectors.	
The college is the latest in a series of investments Wilson has made in McMaster, including a \$5-million gift in 2020 that launched McMaster's Future of Canada Project. The project's goal is to	



Discussion	Presenter
better understand the issues and opportunities facing Canada, and brings together Canadian leaders like Samantha Nutt, who chairs the advisory council.	
Things are gearing up for the MedTech Innovator (MTI) Showcase. As one of the top 50 selected	Sergio Aguirre
companies, I need the help of my network to rise to the top – please watch our video & like it on	(Epineuron)
YouTube to vote for us to win the \$10K <u>#MedTechInnovator</u> Best Video Award. And, share with your network of course!	
Epineuron is commercializing the first therapy to accelerate regeneration of damaged nerves	
and minimize the impact of complications like numbness, loss of movement, and pain in the	
extremities. We're bringing a new standard of care to #NerveRepair.	
Future of Health 2022 Call for Solutions	Lisa Cashmore (Communtiec
This is your chance to solve challenges identified by Canada's top health care challenges. These	h)
challenges range from systems design and interoperability, to equity and prevention. Founders who participate in the program enter our online community and:	,
Gather insights from health care professionals and clinicians	
Learn about buyer pains and opportunities	
Receive feedback and support from startup advisors and clinicians	
Meet and engage with potential buyers  Build a naturally and make connections in the health care industry.	
<ul> <li>Build a network and make connections in the health care industry</li> <li>Pitch and piloting opportunities</li> </ul>	
Them and phothing apportunities	
The Future of Health Call for Solutions is open from September 19 to October 10, 2022.	
See the challenges and apply by October 10, 2022	
<u>Transforming Canada's biomanufacturing market. Join bioprocessing experts for an educational</u>	Mary Argent–
symposium.(Nov 9)	Katwala (OBIO)
We're excited to bring together top industry experts — in person — to discuss the future of biopharmaceutical processing and biomanufacturing in Canada. Check out the details below, but keep in mind that additional speakers are still being finalized, so there's even more exciting content to look forward to.	
Learn from industry experts and network with your peers at our upcoming Biopharmaceutical Symposium hosted by 3M Canada in collaboration with Life Sciences Ontario (LSO) and Ontario Bioscience Innovation Organization (OBIO). Join us in the heart of Toronto's Discovery District for educational exploration and opportunity to make new connections.	
IP for Life Science Companies: Preparing for Future Investment	Greta Black
This workshop will explore the protection and strategic use of intellectual property (IP) for building a company with a competitive advantage.	(Innovation Factory)
Understanding and developing an IP strategy is essential for all companies seeking to compete in an environment where obtaining investment and commercial success is becoming increasingly competitive.	



Discussion	Presenter
The different forms of IP protection available will be described with a particular emphasis on the Life Sciences sector. Further, the workshop will cover how these forms of IP protection can be used to develop an IP strategy that will strengthen and safe-guard your company and help you prepare for future investment opportunities.	
\$3.1 million CIHR grant funds major McMaster study on pandemic's impact on child health	Alex Muggah
A McMaster-led interdisciplinary team of researchers, policy and community partners is launching a major investigation into the pandemic's impact on Canadian children and youth.	(Synapse)
The study of almost 27,000 children and youth ages five to 21 is being supported by a \$3.1 million grant from the Canadian Institutes of Health Research (CIHR) announced Thursday by Filomena Tassi, MP for Hamilton West – Ancaster – Dundas, on behalf of Minister of Health Jean-Yves Duclos.	
The project is led by professor Kathy Georgiades and a team of researchers from the Offord Centre for Child Studies, a multidisciplinary research institute of the university and Hamilton Health Sciences' McMaster Children's Hospital. "Results from this study will help public officials make better decisions about health and intervention strategies." Said Prof. Georgiades.	
Georgiades will collaborate with principal investigators at the Centre for Addiction and Mental Health, the Hospital for Sick Children, and the Children's Health Policy Centre at Simon Fraser University.	
Read the full Brighter World article <u>here</u>	
Innovation Parks, Clinical Infrastructure and Supportive Networks are three ways smart site selection is helping life sciences companies turn innovation into commercialisation	Asmaa Al- Hashimi (EcDev, City of
Making a smart site selection could drive the commercialisation of your intellectual property. Here are three examples that are helping to make Hamilton, Ontario, the next leader in life sciences research and commercialisation. Three areas in particular, are making site selection easier: innovation parks, clinical infrastructure and supportive networks.	Hamilton)
Business location is a massive factor in the success of a company and its various subsidiaries, with the local talent pool, transportation infrastructure and business conditions all playing important parts. For innovative companies looking to be at the top of their game, business location can also be a hugely influential factor in how quickly and competitively they are able to ideate, develop, test and commercialise new products.	
When accelerating R&D and bringing a complex product to market, location matters. <u>Learn</u> more about three examples from Hamilton, Ontario – Canada's emerging leader in life sciences research and commercialisation.	
McMaster Innovation Showcase – November 10	Leigh Wilson (MILO)
A reminding about the McMaster Innovation Showcase event on November 10. We expect about 200 guests, with keynote speaker Lisa Tam, an entrepreneur named one of the top 40 female entrepreneurs in Canada last year. And she's a McMaster alumni.	(WILO)
We will be showing off many McMaster start-ups who are doing quite well, as well as some interesting research coming out of McMaster that has real commercial / knowledge translation	



Discussion	Presenter
potential. We'll have panel discussions about entrepreneurship and resources that those aspiring to start a company should know about. There will be profiles of successful partnerships between industry and academia We also have a poster competition. We're collecting abstracts right now there's \$1,000 to be won by anybody in McMaster or Hamilton area who wants to present a poster on a project with interesting commercial potential can sign up.	
A full day of events, capped off with an award ceremony and a cocktail party. So we look forward to you joining us	



# Time allotted | 15 Minutes

# Topic: Collaborate & Accelerate

Partnership opportunities, programming and resources available to the community, market gaps and challenges, learn about potential funding opportunities, discuss new RFPs issued, etc.

Discussion	Presenter
Want to Connect with your Ecosystem: Check out the Synapse Health Ecosystem Directory	Alex Muggah (Synapse)
Synapse has created a Director of +200 private- and public-sector organizations in the Hamilton (and regional) health innovation ecosystem which work alongside the Synapse Consortium to support of the commercialization of health innovation. Learn more about what others are up to, and identify potential collaborative partners at:  www.synapseconsortium.com/directory	(:)
Engaging Mohawk College's IDEAWORKS	Andrea Johnson
<ul> <li>IDEAWORKS projects in general (of which, MEDIC is one area) which was provided and may help with identifying if Mohawk College can support our companies with projects. This might be a refresher for some or all of us, but highlighting nonetheless:</li> <li>Tips for Innovation Factory Referrals to IDEAWORKS</li> <li>Our four innovation centres (MEDIC for Digital Health, AMIC for 3D printing, EPIC for energy efficiency related projects and MTIC for Medical Technologies related challenges) are active during this time- but note that due to existing commitments, are often looking at projects one month to three months in the future.</li> <li>Other areas of expertise are on a case by case basis, especially this year, with a number of our faculty committed to teaching and revamping courses</li> <li>The ideal applied research partner is one that is in the scaling stage; they have some revenue and can meet a lot of the funding agencies criteria for funding or want to self-fund a research project. Typically what we look for is 2+2; two years in business with two employees</li> <li>We recommend working with us on projects that aren't mission critical but can help the company explore an innovative idea.</li> <li>What about start-ups?</li> <li>If they require a few tips or advice, we can normally chat with them (or if there is a critical mass -like five or six companies in a space-, we can do a webinar type discussion).</li> <li>They can see about the availability of capstone projects, where students generally work on projects for a four month period, for free, in order to get course credit. It may help with MVPs.</li> </ul>	(Mohawk College)
Contact Andrea Johnson for more information: andrea.johnson4@mohawkcollege.ca  The CONNECTION - McMaster University Online Partnerships Portall	Gay Vuyitung
The Connection is a new program offered by McMaster's Office of Community Engagement (OCE) designed to facilitate online, mutually beneficial partnerships between campus and local Hamilton community organizations. As communities look for ways to adapt and rebuild in response to COVID-19 The Connection will make the process of addressing Hamilton community and University identified needs easier by providing online tools and resources. It's a way for everyone who sees themselves as part of a collective community-campus effort to connect and respond to COVID-19 locally	Gay Yuyitung (MILO)



Discussion	Presenter
Collaborating with McMaster Institute for Infectious Disease Research (New Intake Form)	Gay Yuyitung (MILO)
In addition to our ongoing COVID-19 research initiatives at McMaster, the Michael G. DeGroote Institute for Infectious Disease Research is mobilizing its strong research community to assist Canadian researchers and businesses in their attempts to find solutions to the international crisis. The IIDR teams have the capacity to assist with the testing of antiviral compounds and products, as well as the testing of products or devices aimed at sterilization. This includes new methods for sterilizing personal protective equipment. They are able to offer services in the following areas:	(WILO)
<ul> <li>BSL2 cell culture infection with representative human coronaviruses;</li> <li>Testing of methods or products that are designed to inactivate the virus;</li> <li>Biochemical/enzyme studies with anti-viral agents.</li> </ul>	
Cell culture and small animal models of SARS-CoV-2 infection can be performed in McMaster's secure biosafety level 3 facility. Availability for BSL3 testing is very limited, and projects requiring this type of work will be screened and prioritized by an internal committee.	
If you have a product or innovation that you are interested in pursuing further and feel that we could be of assistance to you, please <u>reach out to us through the online form</u> . Each project will be evaluated to determine if McMaster has the capabilities and capacity to perform the required testing.	
Hamilton-based technologies available for licensing	Glen Crossley (MILO)
Each year researchers at McMaster, <u>Hamilton Health Sciences</u> , and <u>St. Joseph's Healthcare Hamilton</u> make new discoveries that lead to new products, services, or process improvements to help companies expand their pipeline or increase their productivity. The business development team at <u>MILO</u> is here to help you tap into and access these discoveries as efficiently as possible. MILO's objective is to support effective transfer of these technologies to companies for social and economic benefit and enable the continued growth of research excellence at the institutions.	
Please contact Glen Crossley, Associate Director, Business Development and IP or search the list to see some of the technologies currently available for licensing or further R&D	
Hamilton Innovation Partnership Portal	Alex Muggah (Synapse)
Synapse has created the <u>Hamilton Innovation Partnership Portal (HIPP)</u> to make the process simpler and more streamlined to find new partners within Canada's leading health research and educational ecosystem. It is a way for companies to interact with the Hamilton community. A streamlined approach, to have Synapse represent everyone. We've set up an intake form for companies to direct request to the portal. Portal is online through the Synapse website: <a href="http://synapseconsortium.com/partner/">http://synapseconsortium.com/partner/</a>	
Submit Community Events on the Innovation Factory Calendar Our calendar is home to Innovation Factory workshops and networking events as well as events from the community which help support our local entrepreneurs and businesses. If you have an event which may a fit, please submit it and we will review it within five business days.	Annie Horton (Innovation Factory)

