

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

## October 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 link.

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: info@synapseconsortium.com

# **Hamilton Health Innovation: Calendar Highlights**

Check out Synapse's online calendar

## November

- Nov 10: <u>Innovation Showcase 2022</u> (McMaster University)
- Nov 14-15: <u>Startup Survivor 2022: Grande Finale Pitch Competition</u> (The Forge)
- Nov 16: Catalyst Forum 2022 (CENE)
- Nov 16: Future of Health Peer-to-Peer (Communitech)
- Nov 16: <u>Praxis SCI Accelerate Demo Day 2022</u> (Praxis Institute)
- Nov 22: <u>Inclusive Life Sciences Collaboration</u>: <u>Networking Reception</u> (LSO)
- Nov 22: <u>Simulating Complex Problems and Finding Elegant Solutions</u> (OBIO)
- Nov 24: <u>Cyber Security & Life Sciences</u> (LSO Webinar Series)
- Nov 28: <u>Hamilton Health Check-up</u> (Synapse Consortium)
- Nov 28-Dec 2: Biomedical Entrepreneurship Certificate Program (Ottawa Health Innovation Hub)
- Nov 29: <u>Digital Health Innovation Conference</u> (HIMSS Ontario Chapter)

## December & Beyond

- Dec 8: FemTech Canada Roundtable (Innovation Factory)
- Dec 10: I'm Every Woman: A Concert of Greatest Hits (Hamilton Health Sciences Foundation)
- Dec 13: Future of Health: Solutions Showcase (Communitech)
- Jan 30: <u>Hamilton Health Check-up</u> (Synapse Consortium)
- Feb 8-10: <u>Investment Summit 2023</u> (OBIO)
- Mar 2024: Synapse Pitch Competition (Innovation Factory)
- Apr 17-21: HIMSS Global Health Conference & Exhibition (HIMSS)
- Apr 25-26: Healthcare Investor Conference 2023 (BloomBurton)

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 here



## 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):

Andy Haigh, Founder and CEO
 Adapsyn Bioscience
 [presentation slides available from Andy upon request]

#### Discussion

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

#### Adapsyn's Formation & Partners

Founded in 2016, and spun out of <u>Professor Nathan Magarvey's lab</u> at McMaster University, Adapsyn Bioscience was set up primarily based on inbound interest from Pfizer and work that was going on at McMaster.

For many years, small molecule drug discovery was done by taking bacterial or fungal strains and fermenting them to generate crude extracts. The crude extracts would then be washed over with assays or bugs that were ultimately trying to be killed. Over successive stages, the goal would be to figure out the active molecules in the mix. A lot of the antibiotic discovery in early oncology drugs followed this pathway.

Pfizer was specifically interested in our ability to identify novel drug like metabolites from bacterial strains. They had collections of existing bacterial strains and extracts and wanted to identify the bioactive small molecules in these collections. The Pfizer collaboration was set up in August 2016 and gave us the financial support to get off the ground.

In 2017, we seeded the company with funding from Genesis Capital in Toronto, and Pfizer's Venture Capital Group. This helped us to start developing small molecules and applications for our own right, rather than in partnership with Pfizer.

More recently, in September 2022, Adapsyn <u>announced a partnership</u> with a drug development firm called the Evotech out of Germany. Then in October, we <u>announced \$700k in funding</u> from the Bill and Melinda Gates Foundation, specifically to isolate novel drugs by mining biosynthetic gene clusters associated with self-resistance genes focused on tuberculosis and malaria.

## Challenge in Identifying Novel Metabolites

Adapsyn is a chemical bioinformatics company that identifies novel drug like metabolites from bacterial strains, with expanded capability to now be able to run through fungal strains.

While the technology was initially envisioned for drug discovery purposes, we've now expanded what we can do beyond just drug discovery, such as in areas like agriculture, food and nutrition. We have done work in the microbiome <a href="mailto:supported by Genome Canada">supported by Genome Canada</a> in the past few years and decided that the microbiome is challenging, though we continue some work in the area.

Microbial metabolites have been an indispensable source of chemistry. Natural products represent up to 50% of therapeutics (including CAR-T and antibiotics) and about 8% of approved drugs. Microbial small molecules are highly influential in the contexts of anti-infectives, oncological antibiotics as well as immunosuppressive



### **Guest Speaker Discussion**

medications. These molecules have evolved over millennia to fit within biological contexts. So when screening these molecules we see that their biological activity is around 1,000 to 10,000 times more active compared to a regular combinatorial screening library.

Typical natural product discovery has always presented with certain challenges along its pathway, most notably the painstaking process of figuring out the small molecules. Historically, this has been done using a process called bioactivity guided fractionation, which has a few inherent problems.

On the one hand, you often identify the most overt toxin or the most active molecule that that bugs ultimately producing. So you end up missing a lot of things. And on the other hand, you end up with a really high rate of rediscovery. As a result, this type of chemistry was largely de-prioritized in the early to mid 2000s, in favor of DNA encoded libraries and heterologous gene expression techniques. These techniques however continued to fall out of favour due to their inefficiencies.

## Adapsyn's Innovative Approach

Adapsyn doesn't rely on these technologies. The explosion in sequencing data and from looking at the biosynthetic machinery in these genomes. At Adapsyn, we know that there are high numbers of bioactive small molecules that exist essentially waiting to be discovered, and Adapsyn has the platform to be able to go out and discover them. Our approach includes four major steps, including:

- 1. Prioritize On the front end, we pick microbial strains that we want to work with and go one of two different ways. If we have the biological materials to work with, we can run them through a metabolomic pipeline and identify novel small molecules in those bugs. If we don't biological materials to work with, we look through databases of genomes for hints in the form of biosynthetic gene clusters that suggest if those bugs are producing anything new.
- 2. Grow Once we pick a bug we want to work with, we bring those in house and ferment them at small scale in different media conditions, to harvest our crude extracts. We have a microbiology lab at McMaster children's hospital and grow them in small scale coaxing bugs into producing small molecules that we're interested in.
- 3. Analyze We run the crude extracts through our metabolomic pipelines where we go through stages of subtractive filtration and end up with a series of small molecules that are the potential secondary metabolites that we are interested in. This is what differentiates us from anyone else out there.

We can pick out the novel small molecules that the bugs are producing. We'll take a crude extract and run it through our LCMS platform. At a first pass, we're hoping to identify every feature that is relevant (vs. noise that doesn't represent a small molecule). We've written algorithms to help with that. We compare returns against every run we've ever done in the past. We then figure out which molecules are known (rediscovery) and which are novel.

We've built a database with 60,000 natural products and we do mass/fragment models that can match against predicted and real. If we see a match, we'd conclude that it will likely be the structure / molecule. That allows us to get rid of molecules that we're not interested in. All of this work has been built into a web application – and is integrated with our analytical chemistry lab at McMaster.

4. Assay – The pipeline is hooked up to a fraction collector that directly picks up the individual small molecules and drops them into a 96 well plate which then goes on to get assayed.



### **Guest Speaker Discussion**

Once a compound of interest is identified, its production is then scaled up and purified. The process can go end to end in about 6 weeks.

## **Driving Results from our Collaborations**

With Pfizer, we profiled series bacterial strains using the platform, detected 372 novel candidates in ~9% of strains profiled and scaled up 14 novel compounds. ~96% accuracy in calling a compound novel.

Now, Evotech is taking a copy of Adapsyn's screening library and screening it both in internal and client projects for custom assay development. This allows Adapsyn access to clients and projects that they would otherwise not have access to.

Finally, with the Bill and Melinda Gates Foundation, we received funding specifically to address tuberculosis, working in collaboration with Rockefeller, Cornell and the University of Illinois (Chicago). The project is focusing on using a newly developed targeting methodology to generate small molecule libraries around specific targets. The academic partners are assaying the molecules and analyzing the results.

The foundation is showing willingness to expand beyond the scope of the original project and to continue funding future endeavors. The Gates foundation is very effective in comparison to non-dilutive funding programs in Canada, specifically regarding efficiency and relationship building capacities.

### **Questions & Answers**

Question: Many years ago, there was a company in Vancouver looking at non-culturable bacteria which comprises about 99% of all species. Looking at genomics data, do you think there could be insights to be derived?

Answer: I'm familiar with the non-culturable bacteria argument especially relating to the silent bystander gene clusters. I don't buy that as a rationale for pursuing heterologous gene expression.

On one hand, it is hard to culture these bugs, the microbiome is difficult and anaerobic bugs can be challenging. You can brute force a certain number of these things. On the other hand, we see novel chemistry in about 8% of the bugs we profile and there will certainly be things that are hard to get turned on or hard to produce. However, the chemistry is there if you know what you're looking for.

This 99% argument has been the historic justification for this idea of heterologous gene expression, and in our experience, it just doesn't hold water.

Question: Can you speak more to your experience with the Gates Foundation funding process and how it might different from Canadian funding sources, such as IRAP?

Answer: My comment there was around efficiency and process. There is expertise at IRAP and the organization has a broader mandate. My submission of a concept document to the Gates Foundation was turned around within days and they publicly state that if your document passes, the rest of it is only a box checking exercise. So essentially you know you're 85-90% of the way there within days. On the other hands, some funding institutions can have turn around times for that are over a year for a non-dilutive funding application in Canada. For a small his is challenging.



## **Guest Speaker Discussion**

Question: The LCMS platform appears to be where the majority of your IP resides. Are there risks around that, for example is it something that one of your larger competitors might be able to pull apart?

Answer: This is something that we think about from a filing perspective, especially about how much we want to disclose on that side. There is a process around how we do this where fundamentally it is backed up by all the data that we generate in the background.

Without access to this standardized data, you're not able to interrelate all of those things and make this work. There are a lot of groups who have tried to make something similar work in an open-source context and haven't been able to get there.

There is a lot that goes into this beyond the patents with the fine tuning and a lot of metadata is generated and ultimately without some of these trade secrets, folks would have a really hard time recreating it.



# Time allotted | 15 Minutes

Topic: Communicate

Discussion	Presenter
Minister Tassi visits Hamilton to highlights SOPHIE and how the Government of Canada is	Jen Gauvreau
helping create jobs, growth and an economy that works for everyone	(Innovation Factory)
When we invest in Canadians, we invest in a future that benefits everyone. The Government of Canada continues to make targeted investments to support affordability, create good jobs and grow an economy that will make Canada more sustainable and prosperous for generations to come.	ractory)
Today, the Honourable Filomena Tassi, Minister responsible for the Federal Economic Development Agency for Southern Ontario (FedDev Ontario), along with MP Lisa Hepfner, MP Arielle Kayabaga, and MP Peter Fragiskatos, visited FedDev Ontario funding recipients, small business owners and leaders in Hamilton and London. While there she highlighted the federal government's commitment to support Canadians and initiatives that are creating new goodpaying jobs, growing our economy and fostering innovation in southern Ontario.	
While in Hamilton, the Minister attended the annual "Invest in Hamilton Partnership Meeting" at McMaster Innovation Park. Toured the Park to see the Government's investments in action, including Innovaiton Factory and The Forge, which previously received a \$1-million investment from FedDev Ontario to create a 10,000-square-foot makerspace which provides local entrepreneurs and access to equipment and business services. The Forge shares a space with the business accelerator, Innovation Factory.	
Last year, Innovation Factory received a \$6-million investment from FedDev Ontario to launch the Southern Ontario Pharmaceutical and Health Innovation Ecosystem (SOPHIE). SOPHIE helps businesses in the lifesciences sector access support, allow them to perform tests, develop innovative products and grow their companies. Minister Tassi met with businesses supported through the project and learned about the 30 collaborations and 24 commercialization projects that have taken place to date. She concluded her time in Hamilton with a roundtable with local stakeholders where they discussed the region's strengths, opportunities and how Hamilton can help make Canada a leader in the industries of tomorrow.	
Read more about Minister Tassi's visit <u>here</u> , <u>here</u> and <u>here</u>	
McMaster Seed Fund invests \$1.27 million in three startup companies  Three McMaster startups – AIMA Laboratories, LLIF Healthcare and 20/20 OptimEyes	Andy Knight (McMaster University)
Technologies – have received a combined \$1.27 million in the second round of McMaster Seed Fund investments.	
AIMA Laboratories is a biotech company co-founded by Lauren Foster, professor emeritus in the department of obstetrics and gynecology, and postdoctoral fellow Jocelyn Wessels. The company received \$468,500 to advance its blood-testing technology that can be used for athome screening of endometriosis.	
LLIF Healthcare received \$381,500 to further its cloud-based platform which provides doctors and hospitals with data to improve patient care and reduce healthcare costs. Co-founded by associate professor of medicine Shawn Mondoux and clinicians David Hamilton and Charlie	



Discussion	Presenter
Farkas, LLIF is bringing to market their MD Dashboard, which extracts physician practice data from electronic medical records and provides a practice and improvement feedback strategy to doctors.	
20/20 OptimEyes Technologies – a spin-out from the Sheardown Lab at McMaster and cofounded by Frances Lasowski and Heather Sheardown – received \$428,000 to de-risk their patented mucoadhesive micelle nanoparticle (MNP) technology, initially targeted for the treatment of glaucoma.	
Read the full Brighter World article <u>here</u>	
Ontario Genomics Launches BioCreate Program – Hamilton to play a key role in new \$5.6 million genomics program	Britney Hess (Ontario Genomics)
Ontario Genomics' BioCreate program is open to small- and medium-sized enterprises (SMEs) in southern Ontario seeking to commercialize genomics and engineering biology enabled products and/or technologies in the health, food and agriculture, and cleantech sectors at a Technology Readiness Level (TRL) of 4+. BioCreate will provide funding, access to mentorship and business support to enable companies to raise additional financing to achieve commercial outcomes.	,
The multi-phase BioCreate program will include:	
<ul> <li>direct, non-repayable funding of \$150,000 that will be matched by an additional \$100,000 (minimum) from participating companies to a total project size of \$250,000 or more.</li> <li>Funded companies will have access to 18-months of intensive business mentorship and</li> </ul>	
<ul> <li>access to critical infrastructure provided by Ontario Genomics' (OG's) strategic sectoral and regional partnerships.</li> <li>Each cohort will conclude with an investor showcase, giving the companies an opportunity to pitch to investors and potential partners.</li> </ul>	
BioCreate will support up to 32 high-potential companies over five years with seven total cohorts (rolling intake with funding decisions twice per year).	
Learn more about the BioCreate program here and here	
OCI Announces \$15 million Life Sciences Innovation Fund	Michael Jones (OCI)
The Ontario Government has announced the launch of the Life Science Innovation Fund (LSIF). This initiative will support early stage life sciences companies in obtaining investment to grow and commercialize their technologies. This is a \$15 million fund to support 30 high potential life science companies, which will be deployed through the Ontario Centre of Innovation.	(OCI)
Eligible companies will receive up to \$500,000 in early stage risk capital to scale their made-in- Ontario health solution both at home and in global markets. This will further grow the sector and strengthen its competitiveness in key areas such as cancer treatment, regenerative medicine, neuroscience and medical technologies.	
Learn more about the LSIF <u>here</u> and <u>here</u>	



Discussion	Presenter
VoxNeuro closes \$4 million to help diagnose concussions and Alzheimer's disease (BetaKit)	Alex Muggah (Synapse)
Backed by over 30 years of peer-reviewed research, VoxNeuro hopes to provide an objective answer to that elusive question using software and electroencephalogram (EEG) electrodes. Armed with \$4 million CAD in fresh funding, the addition of an experienced healthtech exec in Jason Flowerday at the helm, and new clinical studies in the works with Boston University and the Canadian Armed Forces (CAF), VoxNeuro has set its sights on commercializing its software and expanding it for use in more targeted applications for concussions and Alzheimer's disease.	(Synapse)
The Hamilton-based healthtech startup launched its Food and Drug Administration-registered and Health Canada-cleared software platform last year. The platform assesses patients' cognitive function based on EEG data gathered as they complete a series of neuropsychological tests on a computer.	
VoxNeuro's latest funding came in the form of a simple agreement for future equity (SAFE) round, which closed last month. It is an extension to the company's previously unannounced \$2 million seed round in late 2021. This capital was provided by a group of investors that includes an undisclosed family office, friends and family of VoxNeuro's founders, and Toronto-based Klick. It brings VoxNeuro's total venture funding to about \$8 million.	
VoxNeuro has also secured an additional \$8 million in non-dilutive funding from a variety of sources and has another \$11 million worth of grant applications outstanding. "There's a lot of people that helped us out along the way doing the science of this," said Connolly.	
Drone delivery project will deliver medical isotopes	Alex Muggah (Synapse)
McMaster University is partnering with Halton Healthcare, Drone Delivery Canada (DDC), Air Canada Cargo and DSV Canada to develop a drone delivery system that will revolutionize how medical goods – including medical isotopes made at McMaster – reach hospitals and patients across Halton Region.	(Synapse)
The first of its kind in Canada, the Care by Air project will assess the use of an autonomous drone delivery system as a safe, reliable and efficient method for transporting medical supplies and products directly to hospitals.	
The project launched Oct. 13 with a test flight demonstration at DSV Global Transport and Logistics in Milton. Using DDC's Sparrow drone, its DroneSpot takeoff and landing zones and its proprietary FLYTE software, the technology will transport healthcare goods, including medical isotopes, to Halton Healthcare's Oakville Trafalgar Memorial Hospital for on-site patient diagnosis and treatment.	
McMaster is one the world's leading suppliers of iodine-125 — a medical isotope made at the McMaster Nuclear Reactor and used to treat prostate cancer. McMaster's medical isotopes provide cancer treatments for more than 70,000 patients each year.	
McMaster Industry Liaison Office (MILO) issues 2022 Annual Report	Gay Yuyitung (McMaster
McMaster University ranks as one of Canada's most research-intensive universities. These research efforts and the impacts they have extend well beyond our campus grounds. McMaster faculty and students are helping transform innovative ideas into solutions that grow our	Industry Liaison Office)



Discussion	Presenter
economy and improve the lives of those around us. MILO is excited to continue providing support for researchers and promoting partnerships and collaborations with other institutions and government bodies to help bring our innovative solutions to the world.	
Read the full report <u>here</u>	
Ontario Trade Mission to the Biotech Showcase, January 9-11, 2023, San Francisco, California  Several of you have expressed in participating in the Ontario Trade Mission to the Biotech Showcase in San Francisco, California. I am just finishing up the registration details which should go out to you next week. In the meantime, I thought it would be helpful to let you know that the registration fee for R&D companies will be C\$ \$850, and the fee for service providers will be C\$ 1,700. If you are interested in attending, the registration deadline is set for November 14, 2022. In closing, I hope this information will be helpful to you. To learn more about the Biotech Showcase, please visit: https://informaconnect.com/biotech-showcase/	Patricia Cosgrove (MEDJCT)
Please get in touch with Patricia Cosgrove (Patricia.Cosgrove@ontario.ca) to learn more	
PROVA Innovations Ltd. selected by Creative Destruction Labs - Residency @ The Clinic Alumnus Matthew Rosato's company, PROVA Innovations Ltd., was selected by Creative Destruction Labs (CDL-Rockies) to join the 2022-2023 prime stream cohort. This is a key milestone achievement	Matthew Rosato (Prova)
for PROVA.	
Proteus Innovation Competition Launch – November 16  The Proteus Innovation Competition is a four-month long pitch competition that challenges you to create a commercialization plan for 1 of 5 technologies developed out of southwestern Ontario's top research institutions. Successful teams have the chance to win 1 of 5 prizes of \$5000!	Andrea Guest (Innovation Factory)
Learn more about the competition and technologies at the Proteus Launch:	
Date: Wednesday, November 16, 2022 Time: 3:00 p.m. to 5:00 p.m.	
Location: Live Zoom Webinar	
McMaster Innovation Showcase a success with +200 Attendees  McMaster Innovation Showcase event on November 10 saw 200 guests, with keynote speaker Lisa Tam, an entrepreneur named one of the top 40 female entrepreneurs in Canada last year.	Leigh Wilson (MILO)
The Lifetime Innovator award, which recognizes career-spanning achievements in research innovation, went to Ali Emadi, Chair of McMaster's CERC@MARC program – one of the world's leading academic research programs in transportation electrification and smart mobility. Emadi is also founder, president and CEO of Enedym Inc. and Menlolab Inc. – two McMaster spin-off companies. Enedym is powering a new paradigm in the electric motor industry through novel switched reluctance motor (SRM) drive technologies and MenloLab is connecting engineers across the globe through secure Cloud data sharing.	
We showed off many McMaster start-ups who are doing quite well, as well as some interesting research coming out of McMaster that has commercial / knowledge translation potential. There	



Discussion	Presenter
were panel discussions about entrepreneurship and resources that those aspiring to start a company should know about and profiles of successful partnerships between industry and academia. We also had a poster competition, with \$1,000 prize won	
A full day of events, capped off with an award ceremony and a cocktail party. We appreciated your 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  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:  Tips for Innovation Factory Referrals to IDEAWORKS  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.  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  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  We recommend working with us on projects that aren't mission critical but can help the company explore an innovative idea.  What about start-ups?  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).  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	Andrea Johnson (Mohawk College)
may help with MVPs. Contact Andrea Johnson for more information: <a href="mailto:andrea.johnson4@mohawkcollege.ca">andrea.johnson4@mohawkcollege.ca</a>	
The CONNECTION - McMaster University Online Partnerships Portal!	Gay Yuyitung (MILO)
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	



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 anti-viral 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)

