



Hamilton Health Innovation Check-up: Meeting Minutes

October 2021

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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/uZQodOyppzoiQnRwfvVuEJtEMUpKPUZPzg>

Next Monthly Check-up: November 29th 9:00 – 10:00am | McMaster Innovation Park (via Zoom)

Please sign up to our [mailing list](#) to receive meeting minutes and other important updates.

Finding collaborative partners for health companies and researchers can be difficult. Synapse has created the [Hamilton Health Ecosystem Directory](#) and the [Health Innovation Partnership Portal](#) (HIPP) to facilitate finding new partners within Canada's leading health research and educational ecosystem located 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 accessed 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: Alex.Muggah@SynapseConsortium.com. 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 1, 8, 15: [Health Innovation Foundations Course](#) (McMaster DeGroot HICE)
- Nov 1– 5: [Annual Policy Forum](#) (LSO)
- Nov 2: [Driving the Future of Digital Health](#) (Digital Health Canada)
- Nov 3 – 5: [Career Calling – Networking Expo](#) (Redeemer College)
- Nov 4: [Value Pricing in MedTech](#) (OBIO)
- Nov 8: [Toronto Global Forum](#) (International Economic Forum of the Americas)
- Nov 9: [Catalyst Forum 2021 The Canadian Biotech Renaissance](#) (CENE)
- Nov 9: [Bio+ech Connec+](#) (BioTech Canada)
- Nov 14: [Life Science Ontario Awards Presentation](#) (LSO)
- Nov 19: [Larger than Life Science: Peer Networking Event](#) (Innovation Factory)
- Nov 21: [Access to Capital – Exploring Public and Private Financing](#) (LSO)
- Nov 24: [Device Manufacturing Scale Up & Budgeting](#) (OBIO)
-  Nov 29: [Hamilton Health Check-up](#) (Synapse Consortium)

December & Beyond

- Feb 9-11: [2022 OBIO Investment Summit](#) (OBIO)
- Mar 22-24: [Canada SynBio Conference](#) (Ontario Genomics)
-  Mar 23: [Synapse Life Science Pitch Competition](#) (Innovation Factory)
- June 13-16: [BIO International Convention](#) (BIO)

Looking to engage the Hamilton Health Ecosystem?



innovation. Learn more about SOPHIE [here](#)

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



clinical trial in one of Canada's leading research hospitals. Learn more about HEALTHI [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

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
<p>Guest Speaker(s):</p> <ul style="list-style-type: none">• Kate Riley CEO, Eye3 Concepts Inc. <p>[presentation slides used, and are available for download from the Health Check-up website]</p>
<p>Discussion <i>[the following is a synopsis of the discussion, and has been lightly edited for length and clarity]</i></p> <p><u>Introduction & Overview</u></p> <p>Thank you everyone for introducing yourself, that was very helpful. I am Kate Riley, the CEO of Eye3Concepts Inc. and are building a next generation platform for detecting drugs of abuse in a point-of-care setting.</p> <p>I will provide a brief background of myself and the company, and then am most excited to talk about how the Hamilton life science ecosystem. I am a bit new to the Hamilton community, but I have been really impressed by the community and the real impact I am seeing it have on our company. So delighted to share a bit about ourselves and what we've been able to do with this support.</p> <p>My background was originally in chemical engineering, and then I came up through the law (clerking for Justice Rosalie Abella) and then got into management consulting at McKinsey which took me into entrepreneurship. These experiences all together has married quite nicely into what we are working on at Eye3 Concepts.</p> <p>So in January 2021, I joined as the CEO as we are in an inflection point. We've been under the radar for quite some time, but now we are ready to start looking forward to commercializing some great technology that has been developed over at McMaster and bring this product to market.</p> <p><u>Market need for Rapid and Ultra-Sensitive THC Test</u></p> <p>The market that we are addressing is screening for drugs of abuse. As I have learnt, your risk of a fatal crash increases quite dramatically when under drugs of abuse, particularly cannabis (5x) or when using cannabis combined with alcohol (40x). Half of drug-positive fatal crashes involve cannabis. The annual cost of cannabis-involved collisions in Canada is estimated at \$1.09B.</p> <p>With the change in regulatory environment in Canada (and globally), we're seeing the incidence of driving following use of cannabis growing. And this is becoming a real and growing health and public safety concern. This has created quite a significant market spend on screening for drugs of abuse. Drug impairment is a growing public safety concern, which is expected to push global spend on drug screening to over \$13B by 2027 from a \$3.83B today. This means its growing at a fast clip, of CAGR of 17.1%.</p> <p>The challenge that this market is facing, is that the market need is varied, but existing solutions in this marketplace are static and poorly suited to support operations. In Canada we screen for THC (the main psychoactive compound in cannabis) at roadside at a rate of 25 nano-grams per ML (ng/mL). In France, they are screening at 15ng/mL and trying to move to 5 ng/mL. In the USA is proposing to screen at 4 ng/mL and confirm at</p>

Guest Speaker Discussion

2 ng/ML. And there are multiple zero-tolerance jurisdictions. Thus, depending on jurisdiction and use case the screening thresholds are varied across a large range of THC concentrations. What you'll also see, is that the market is really looking for tests that can detect THC in under one minute. This saves a lot of time at roadside stops, in a clinical setting, or at a workplace that is looking for pre-access screening.

The existing solutions don't meet that market need. This is where Eye3 is developing the a product that can meet the needs of the market today, while we move towards where the market is going tomorrow. We can offer ultra-low levels of detection per TCH in really rapid screening times. In Australia alone, for example, they will do over 500,000 drug-tests at roadside by police officers, with each an average time of 5-10m that is an enormous amount of officer hours spent at the side of the road waiting for a test to process.

Eye3 – Future of Rapid Drug Detection

We are going to solve this problem with a rapid and ultrasensitive test.

Our solution is a test for THC and alcohol simultaneously from the same saliva sample. We are aiming to bring this product to market which ultra-low levels of THC detection, below what is currently available in the market, but what the market is really asking for. We'll be able to deliver results from one sample, in under one minutes. This will set a new global standard for drug screening tests.

Our platform is based on electro-chemical biosensors, and can also be expanded to additional drugs of abuse that are currently under development with our research teams.

If it sounds impactful, our target customers would agree. We have been talking extensively with the marketplace in both roadside screening (law enforcement) and safety-sensitive workplaces. Universally, we have been getting feedback that they desperately need this type of solution.

Eye3 Inflection Point

As I mentioned earlier, we are at an inflection point where we are rapidly trying to bring this product to market. We've had some great traction over multiple fronts over the past two years. Our key highlights include fundraising successes in the last year (e.g., seed round closed in January and August, multiple grants secured) and are gearing up for a series A in Q3, 2022. Some of the grants we've secured have come from the Hamilton life sciences ecosystem. We have additional grants under way that look promising.

Our product development is coming along, as every product development cycle does (I'm sure you've all seen the memes of iteration involved in product development). We are mid-flight with our pre-alpha prototype that should arrive in mid-November that is showing really great promise in the delivery of our system. From there, we anticipate our beta prototype to be ready in April 20200. Our focus in the future is levelling up our supply chains, our manufacturing capabilities, expanding our network of contractors and services providers, and ramping up our field trials and validation studies. As many of you have found, supply chain is an interesting subject area through COVID-19, so that has been important subject area for us to predict reliability in the supply chain.

As far as our team concerned, we are growing rapidly. We have more than doubled the size of our management team, our board of directors and advisor group in the last 9 months. We are continuing to grow the corporate team and advisor group. We have a number of open roles that we are actively trying to fill right now (corporate and research team), which will nearly double the size next quarter. We are expanding our product development and regulatory capabilities as we move our prototype from pre-alpha to beta. We are in a rapid growth phase with a singular focus on hitting product development milestones ahead of marketing and commercialization activities.

Guest Speaker Discussion

Support of Hamilton's ecosystem

I really want to focus today on the support of the impact and support of the Hamilton health ecosystem. It really does take a village to raise a company. We are experiencing that firsthand. We need a financial resources, personnel and talent resources, connections to contract suppliers and problem solvers. In this life science space, every detail changes your product – and there is an expert for everything, but often it's a matter of finding them.

That is where [Synapse](#), in particular, has been really helpful. Around [the \[virtual\] table](#) right now there 50 people with diverse capabilities that they can provide to one another. Through these organizations (and contacts) we have been able to connect with the resources we need to get traction we've had thus far and move forward. It is nice to know that when Eye3 has an obscure complicated problem (you step on that landmine), that there is a group we can reach out to who can either provide insight to us, or connect us with the people who have experienced these issues before.

In terms of the types of support that we've received, I will start with McMaster University, which is where we have based most of our research. We have done a number of things with McMaster, and there wouldn't be an Eye3 without McMaster. This is where we have developed most of our technology, and where we are running a number of our validation and commercialization projects that funded by organizations like [SOPHIE](#), [OBIO](#), NSERC, OCI, etc.

We met SOPHIE through Synapse, and they are funding activities that are crucial to the commercialization of our product. We've met [RBCx](#) through Synapse, which is helping us to navigate supply chain challenges. We've met mentors and contractors through [Innovation Factory](#). We have secured research and talent through McMaster. I really can't say enough about the supports that we've received through this ecosystem in Hamilton that go into every facet of our business.

Impact of Hamilton's Life Science ecosystem.

Without these organizations, Eye3 wouldn't be where we are today. The impact that these programs reach into the greater life science community, not just our company. For Eye3 in particular, we've been able to obtain funding, mentorship, problem solving, connections, access to research facilities and talent.

That has become part of delivering an innovative product that will improve community safety, and help solve problems that have global impact. The Hamilton ecosystem has created economic impact across our value chain – we're contracting more services domestically, we're looking for manufacturing and suppliers domestically .We have hired contractors and banking institutions.

Eye3 has also been attracting international money into Canada. Our company, in particular, has been receiving a lot of interest from organizations globally (i.e., UK, Hong Kong, US), looking to invest funds back into Canada through Eye3 or become partners on exporting the product. We're attracting and retaining talent in Canada.

We are supporting product development here in Canada, including in attracting and retaining an international research team at McMaster, drawing from countries around the world. We have found specialized talent in Canada that is looking for a home that we've been able to provide. We are looking to foster and develop those capabilities domestically. Finding those people and connecting the dots is a community effort. We have been a huge beneficiary of that "village" effect that has been created by the Hamilton life sciences ecosystem.

We have lots of work ahead of us, and many interesting places to go. We are really excited where the company stands, and our near-term and future holds. We are excited about doing this in the Hamilton ecosystem.

Guest Speaker Discussion

Question & Answers

Question: Was curious about the IP around the detection process. What was the process like? Do you have a nice moat around the process that you use to detect rapidly to ensure other companies won't encroach upon your IP?

Answer: IP is everything. When it comes down to it, we have to be able to protect our solution and that has been integral to our approach. It is part of the reason why we've been flying under the radar. We've been filing patents applications since 2019. Our patents cover everything from the mechanism of detection to the speed and the levels of detection and accuracy that we can achieve. Trade secrets are a big apart of our IP strategy as well.

Detecting anything in low concentrations in oral fluid (as a saliva based test) is complicated. Saliva has a lot of compounds in it, and many of those are electroactive that can create signal noise that can be hard to interpret. A lot of our research has gone into mitigating the effects of those interfering signals, and how we can isolate our signals of interests in a rapid way. That speed is something that electrochemical sensing gives us an advantage. We're not an immunoassay. We're not an antibody based testing – or lateral flow assays – which require long periods of time (i.e., incubation, fluid flow time). We've been trying to move away from those long processes into a new technique that allows us to achieve that level of accuracy, but quickly.

Question: Did you start with the idea of the application, and then found a way to develop the technology to achieve that level of detection? Or did you have this process (i.e., developed in a research lab), and then determine that it would be good fit for this application?

Answer: It was a solution focused. So Eye3 looked at the market, and then need, and said we have to build a solution that will meet those particular requirements. Prior to my involvement, Eye3 had iterated on a number of different test solutions that would have very novel processes and deliver interesting results, but would fail to meet certain market needs (e.g., take too long, wrong cut off levels. Product-market fit is really integral to the success of any company.

You can have the most novel solution in the world, that has the most interesting chemical process, or very advanced science. But if there is no need for it in the marketplace, then it's not going to have much luck. Some people start with the solution, and believe there is a need for the invention – but the most successful companies come from identifying the need, and recognizing that in a perfect world you have a product that can do "X, Y, and Z" that would solve all my problems – and then build to that set.

Question: How are results stored and sent via your device – is it sent back to a database via a cellular communication link? Does this send information back to a database. How to build and scale the

Answer: Our MVP and final product will be very different in terms of their capabilities in that respect. We will support multiple communication protocols. Ultimately, our target is Wi-Fi based communications, with a cloud-based repository for data. It will provide real analytics capabilities for the end-user. How great if you're a police services and you can understand what roads you're having the most difficulties on, and what times you're seeing more positive or negative results. That will be valuable information. We can help with data analytics to improve efficiency dramatically through a data management system that is properly built.

One day we will become a software company. Right now, we're an R&D company, in product development mode, but we turn into a software company really soon.

Guest Speaker Discussion

Question: Can you share why you chose Hamilton as a base, over MaRS up in Toronto?

Answer: We've had great success and traction in Hamilton, and it's been a really good choice for us – not just being able to achieve certain things, but the speed with which we are able to do so. I have found that barriers are easier to overcome in Hamilton. People pick up the phone, they'll make connections for you. It's been a fantastic network.

We found that the McMaster ecosystem was more innovative and more aggressive working with startups. They are less expensive to work with – McMaster has been a dream in terms of opening up silos and bringing resources to the table. While there are resources at MaRS, they in a position to help a company like ours. They weren't interested in rapid prototyping. There seemed to be more open doors in the Hamilton ecosystem, which is why we landed in McMaster. We can bring resources from anywhere in the world to Hamilton.

Question: Some observations from my work in the industry. I dealt with controlled substance marketplace from EMR and clinical space (e.g., urine analysis based). If you can change the processes, and make it quicker and faster, it will be a game-changer. Likewise, in the ER, the application to be able to assess quickly would save lives.

Answer: One of the things we're offering is a semi-quantitative solution. So you don't just get a positive/negative for the presence of the drugs, but you may be able to get a sense of how much is present. So you would know whether they are under a dangerous amount of compounds, or just a minor amount that might be a legacy of prior use.

Question: Where are you at with testing? How is that coming along?

Answer: We have been enough success to take us this far. Testing is very important, and we have a lot to do – especially as we change anything in our product we have to do extensive testing. We have done a bit of interference testing, which has shown us great results. For example, our alcohol sensor is very robust. We haven't had to do much problem solving, as it doesn't suffer from interference from acetone (what you'd find in typical breathalyzers that would cause false positive).

On the THC side of things we are working on making a more reliable tests that doesn't give as many false positives from CBC interference that you would see in other tests on the marketplace. We are optimizing our sensitivity and specificity and have had great results, and we are north of 95% in a number of different cut-off levels that we're interested in. We will have ongoing testing – there is never a point you can say it's done.

Question: I can see this as a massive market, what other channels do you see for this technology?

Answer: There is a huge B2C as well as the B2B market that we've been focused on. The B2B customers are the ones that have been putting their hands up and saying "these are the things we need from the testing programs, can you build it for us!" That's what we've been addressing first, but there is an extensive market in drugs of abuse in therapy and rehabilitation that we expect we will be able to serve.

Guest Speaker Discussion

Question: I saw the presentation you have a beta plan for April 2022. When do you expect a saleable product?

Answer: It depends on the market that we're selling into, as there are a number of unregulated markets in the United States for workplace testing space. There are certain safety-sensitive businesses that are unregulated, or don't have specific criteria around their drug testing platforms or programs. These customers would be able to purchase a product from us before we clear FDA and Health Canada approval. That market could be saleable within 6 months of our beta.

The roadside testing markets have their own regulation processes – they aren't medical devices. For instance, in Canada it's the Attorney General who will approve the technology. We'll be time-limited by the regulatory process in Canada, the United States, and other jurisdictions for that market. It is thus hard to put a timeframe on securing regulatory approval, but we're hoping to have that within a year of having our beta. Within a year to 18 months of beta, we would hope to have regulator approval from Health Canada and FDA to access the regulated workplace testing market.

What's really unique about this device is that there is an unregulated market that we can access. It's treated as an unregulated device in most use cases. It's smaller, but there is a very interested market that doesn't require regulatory approval, opening up access to an earlier revenue stream for Eye3. As a result, our go-to-market strategy is diverse, and we're planning multiple distribution channels. We may address them more sequentially than we're currently mapping them out, but it may be the regulatory bodies that force us into that sequencing.


Question: Are you envisioning this product being in the hands of cannabis users before they drive – will it be a solution that will be affordable for people to have in the home?

Answer: We haven't explored that market yet, and I would say it will depend on the priorities of the user. It would be available for use in the home once we have the proper health Canada approval. I don't expect the price point is such that an individual user would want to use it every day or on a frequent basis. However, it will be in the range of reasonable for semi-frequent use. It won't be \$100/test, and we're making disposable cartridges. However, it won't be like a glucose sensor that can be used for \$1/each at home. However, it will be less expensive than the regulated markets that need multiple panels.

Time allotted | 15 Minutes

Topic: Communicate

Recent successes, upcoming events, innovation pipeline, new products, health innovation trends, etc.

Discussion	Presenter
<p>Synapse Life Science Pitch Competition Applications Due Nov 7th</p> <p>Apply to join Ontario’s premier life science pitch competition by November 7th. This year the prizes are event bigger, with each participant receive training, mentorship, and a \$5,000 grant, along with the chance to pitch and compete for up to \$50,000 in prizes</p> <p>The Synapse Competition is dedicated to fostering the commercialization of innovation in the life science sector. Since 2013, the competition has been delivered by Innovation Factory, in collaboration with the Synapse Consortium, this competition assists innovators, scientists and researchers to bring their ideas to market, increase revenues, leverage intellectual property attract, investment and create jobs.</p> <p>Questions about the competition? Email Kaitlyn Spivak at kaitlyn.spivak@innovationfactory.ca</p>	<p>Richard Brownsden (Innovation Factory)</p> 
<p>Healthtech company EmergConnect wins Lion’s Lair</p> <p>LiONS LAIR has concluded its 11th year with over 500 registrations and awards a whopping \$45,000 in cash prizes to winners. EmergConnect, a start-up that uses cutting-edge AI and ML to improve patient waits, enhance patient care, increase ER efficiency and save hospitals money, took home the top prize of \$30,000.</p> <p>EmergConnect is redefining the ER experience through a first of it’s kind mobile ‘front door’ for same-day care, allowing patients to register, triage and even wait at home before going to the ER. “For us at EmergConnect the win at Lions Lair 2021 will no doubt make a big difference in the future growth of our company.” Said Ron Galaev, Founder and CEO of EmergConnect “Lions Lair has been a phenomenal and unique experience from which we have received great value, connections, and amazing feedback.”</p> <p>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.</p>	<p>Jennifer Gauvreau (Innovation Factory)</p>
<p>Mohawk College mHealth & eHealth centre renewed as national Technology Access Centre in Digital Health</p> <p>Federal grant of \$1.75 million will support innovation, adoption and commercialization of digital technology in the healthcare sector</p> <p>Over the next five years, funding from the Natural Sciences and Engineering Research Council of Canada (NSERC) will be used to support hundreds of applied research projects and partnerships with Canadian companies, driving innovation in digital health, virtual care, interoperability and software development.</p> <p>“We are grateful to NSERC and its College and Community Innovation program for this funding,” said Alison Horton, Mohawk College Vice President, Academic, who announced the funding to digital healthcare specialists during the college’s annual Fast</p>	<p>Jeff McIsaac (Mohawk College)</p>

Discussion	Presenter
<p>Healthcare Interoperability Resource (FHIR) North virtual conference. “This renewal allows the talented MEDIC team to continue providing the digital health sector with world-class applied research support. At the same time, it offers dozens of student researchers the opportunity to apply their keen, innovative perspectives to pressing digital challenges and to gain hands-on experience in the field.”</p> <p>Established as an applied research innovation centre in 2009, MEDIC was first recognized by the federal government as a Technology Access Centre in 2016. Since then MEDIC has completed over 1,100 applied research projects, and training contracts, partnering with health IT start-ups, leading Canadian digital health companies and global NGOs.</p>	
<p>Hamilton Companies take top prizes at AGE-WELL National Impact Challenge</p> <p>Hamilton companies (Forge & Innovation Factory clients) Hyivy Health, Imaginable Solutions and Prova Innovations were finalists in the AGE-WELL National Impact Challenge held virtually on October 7, 2021. The challenge supports and recognizes top startups in Canada’s technology and aging sector. Six finalists were asked to pitch and answer questions from an expert judging panel on how their technology-based solution can positively impact older Canadians and / or caregivers.</p> <p>Rachel Bartholomew, founder and CEO of Hyivy Health developing a connected smart rehabilitation device for women who have pelvic health complications, won the grand prize at the challenge and took home \$25,000 in cash toward her startup plus in-kind prizes. The device provides a quantifiable data set on the pelvic floor and three different therapies from multiple sensors and mechanical functions to help keep track of progress and provide more effective, comfortable rehab experiences from home. The cash prize will support Hyivy Health to expedite its research and trials on menopausal women and the effects of aging on their pelvic health.</p> <p>ImaginAble Solutions, led by Lianna Genovese, a biomedical and mechanical engineering student in her final year at McMaster University, received the runner-up prize of \$10,000 and an intellectual property services prize from Bereskin & Parr. Imaginable Solutions pitched a device called Guided Hands™, which enables people with limited fine motor skills to paint, draw, write, and use a tablet or computer.</p> <p>Also pitching in the final round of the challenge was Matthew Rosato, the founder and president of Prova Innovations that specializes in wearable technology solutions for in-home GAIT training and rehabilitation. PROVA’s focus is to help patients with a brain injury, neurological disorder, degenerative disease, or mobility issue regain function through the promotion of neuroplasticity and neuromotor recovery.</p> <p>Read the CVision article here and Forge press release here</p>	<p>Riley Moynes (The Forge)</p>
<p>Edtech companies (including Hamilton’s Altus Assessments) seeing record demand for their software innovations</p>	<p>Alex Muggah (Synapse)</p>

Discussion	Presenter
<p>As well as allowing current students to learn from anywhere, online and hybrid options can open up post-secondary education to more people — including those who live in rural areas, or students who are unable to relocate due to jobs or family.</p> <p>That inclusiveness can start right at the beginning: with admission. Altus Assessments, which launched in 2014 [out of McMaster University, in Hamilton Ontario], provides online questionnaires and automated video interviews in order to include a personality-related data point when sifting through applicants to a program. During the pandemic, without the ability to conduct in-person interviews, dozens of institutions started using Altus’s solutions.</p> <p>But even when things go back to normal, CEO Rich Emrich thinks those who came on board will still see the value of an initial online screening. “If you’re more confident with the people that are coming to interview, you can potentially ask fewer of them to come in,” he explains, adding that this saves university resources while simultaneously showing respect for applicants’ time.</p> <p>Read the full article here</p>	
<p>Hamilton’s AgeRate named Top Pick by Best Startup Canada and Top Graduate by Next AI</p> <p>AgeRate, has been selected as the Top 101 pick by Best Startup Canada for two categories, Health Diagnostic Companies and Personal Health Companies in Canada and has graduated in the top of its cohort within the NextAI program. The Forge client is an Ontario-based startup offering an at-home blood test and a mobile app that helps track aging in real-time, enabling users to make smarter lifestyle choices.</p> <p>The startups named by Best Startup Canada have shown exceptional performance in innovation (having an innovative idea, route to market or product), growth, management, or societal impact.</p> <p>In September, AgeRate also graduated from the NextAI program and was named one of the Top 10 Graduates within the cohort. Next AI is an accelerator and founder development program for artificial intelligence-based ventures, delivered in Montreal and Toronto. Next AI identifies talented ideas or early-stage teams with ambitious solutions and leverage Canada’s leadership position in AI to provide them with the capital, mentorship, education and network to disrupt industries. AgeRate received \$25,000 in non-dilutive funding and hands-on support during the program to help build out their AI models.</p> <p>Recently, AgeRate had a beta launch of their product to the market. In the beta launch, users can choose between a baseline test or two tests at either end of a three-month window to monitor the impact their lifestyle changes have had on their test results.</p>	<p>Riley Moynes (The Forge)</p>
<p>PHRI’s researchers work with CloudDX to demonstrate impact of Remote Patient Monitoring</p> <p>A national medical study using Cloud DX’s Connected Health™ platform, led by P.J. Devereaux and Michael McGillion (pictured) of the Population Health Research Institute, proves remote patient monitoring (RPM) improves patient outcomes. Results show post-surgical RPM provides greater detection and correction of drug errors,</p>	<p>Alex Muggah (Synapse)</p>


Discussion	Presenter
<p>reduces patient pain, and could reduce hospital re-admissions and emergency room visits.</p> <p>The study, called “Post discharge after surgery Virtual Care with Remote Automated Monitoring technology-1” (PVC-RAM 1), included over 900 patients at nine hospitals. Scientists sought to evaluate if RPM, when used for 30 days post-surgery, improved patient outcomes compared to standard care (where the onus is on the patient to seek healthcare support). Patients using Cloud DX’s Connected Health Kit had their vital signs monitored at home: heart rate, blood pressure, oxygen saturation, respiration rate, body temperature, and weight. Patients could also send nurses photos of surgical wounds and virtually access a nurse or doctor 24 hours a day.</p> <p>The PVC-RAM-1 study served as the foundation for the new surgical transitions program at HHS and St. Joseph’s Healthcare Hamilton. It features a joint command centre to monitor patients remotely as they recover from surgery at home.</p>	
<p>McMaster’s Children’s Hospital Ranked Amongst Best in World</p> <p>Hamilton is home to one of the best children’s hospitals in the world.</p> <p>McMaster Children’s Hospital (MCH) was ranked in Newsweek’s top 100 pediatric hospitals list. Mac Children’s ranked 48th in the world, fourth in Canada, and second in Ontario behind Toronto’s SickKids — which was ranked number one in the world.</p> <p>“We’re incredibly proud, humbled and honoured to be recognized on this distinguished list of elite pediatric health centres,” says Bruce Squires, President of McMaster Children’s Hospital (MCH), and VP of Women’s and Children’s Health at Hamilton Health Sciences (HHS).</p> <p>“This acknowledgement is a direct reflection of the talented, compassionate and expert teams across McMaster Children’s Hospital who work tirelessly to provide the highest-quality patient and family-centred care to our community every day. MCH has a long history of providing the most innovative, specialized and comprehensive care for critically ill children, youth and mothers, and we’re privileged to continue carrying this legacy forward.”</p> <p>MCH has been providing care to children from across the region since 1988. It’s home to one of Canada’s most advanced neonatal intensive care units and offers a range of programs and clinics with expertise in a number of areas, including children’s cancer, digestive diseases, and mental health.</p>	<p>Alex Muggah (Synapse)</p>
<p>OBIO Talent Network launches Job Board</p> <p>OBIO Job Board is home to rapidly growing companies that are currently hiring and eager to connect with qualified talent. Increase your visibility with these hiring companies by creating an e-profile on the OBIO Talent Network where you can showcase your education, skills and experience. By joining the OBIO Talent Network, you will also receive exclusive resources and opportunities to propel your career to the next level, including an invitation to apply for the OBIO Health to Business Bridge (H2BB) Program.</p> <p>Sign up now to take advantage of this opportunity available to you at no cost!</p>	<p>Namra Ali (OBIO)</p>


Discussion	Presenter
<p>Open Innovation Challenge arranged by Asahi Kasei Pharma</p> <p>Asahi Kasei Pharma is publicly calling for new proposals related to drug discovery research as part of its efforts for open innovation, to promote pharmaceutical research and development through enhanced cooperation with universities, research institutes, and enterprises around the world. The application period begins at 5:00 a.m. GMT on January 6, 2022, and ends at 8:00 a.m. GMT on February 28, 2022.</p> <p>Proposals are solicited concerning new drug seeds (drug target and drug candidate) and technologies in the therapeutic fields of autoimmune disease, critical care medicine, neurodegenerative disease, pain and neuropathy, bone disease, and drug discovery platform technology. Submissions will be assessed for their potential for collaborative research.</p>	<p>Jackie O'Connor (City of Mississauga)</p>
<p>Health Innovation Foundations Course</p> <p>Fascinated by the world of health innovation? Dreaming of bite-sized educational offerings to figure out what it's all about? Health Ventures Nano is four days (3 hours each), of engaging and interactive courses. All the basics you need to know to kick-start your journey.</p> <p>As scientists and engineers, we imagine new possibilities. Now is the time to turn these possibilities into reality to enhance the world around us. Health Innovation Foundations is a four-part workshop that explores how you could contribute to the diagnosis, treatment, and enhancement of the human condition. During this workshop you will hear stories from biotech entrepreneurs and dive into discussions about innovation ecosystems, value creation, business case development, intellectual property, venture capital, technology mobilization, and more.</p> <p>Sessions are Oct 25, Nov 1, Nov 8, and Nov 15 from 9:00am-12:00pm.</p>	<p>Sarrah Lal (McMaster University)</p>
<p>Catalyst Forum 2021 – The Canadian Biotech Renaissance</p> <p>Canadian Entrepreneurs in New England, is holding the third edition of the Catalyst Forum, where they will look at the trends, deals, and biotechnology innovation that's turning people's attention and funding North of the border. From venture to private equity, investors are increasingly looking to Canadian research and innovation as the next frontier for biotech. At the same time, large pharma is looking to Canada for its strategic pipeline investments. During this program, they'll be showcasing some of Canada's most promising life sciences start-ups and holding Mainstage Sessions. The sessions run from 1-5:30 pm, with your registration you are welcome to attend as many as you would like.</p> <p>Register today and learn more about this event on their website.</p>	<p>Lindsay Aldworth (CENE)</p>
<p>MGD-HICE Educational Webinars & DevTank Meetings</p> <p>Operating out of the Michael G. DeGroote School of Medicine at McMaster University, the Michael G. DeGroote Health Innovation, Commercialization & Entrepreneurship (MGD-HICE) aims to accelerate the exploration of health innovation opportunities and creation of socioeconomic impact.</p> <p>Check out the full suite of programming here</p>	<p>Sarrah Lal (MGD-HICE)</p>

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
<p>Want to Connect with your Ecosystem: Check out the Synapse Health Ecosystem Directory</p> <p>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</p>	<p>Alex Muggah (Synapse)</p> 
<p><u>Engaging Mohawk College's IDEAWORKS</u></p> <p>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:</p> <p>Tips for Innovation Factory Referrals to IDEAWORKS</p> <ul style="list-style-type: none"> • 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. <p>What about start-ups?</p> <ul style="list-style-type: none"> • 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 may help with MVPs. <p>Contact Andrea Johnson for more information: andrea.johnson4@mohawkcollege.ca</p>	<p>Andrea Johnson (Mohawk College)</p>
<p>The CONNECTION - McMaster University Online Partnerships Portal!</p> <p>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</p>	<p>Gay Yuyitung (MILO)</p>

Discussion	Presenter
<p>Collaborating with McMaster Institute for Infectious Disease Research (New Intake Form)</p> <p>In addition to our ongoing COVID-19 research initiatives at McMaster, the Michael G. DeGroot 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:</p> <ul style="list-style-type: none"> • BSL2 cell culture infection with representative human coronaviruses; • Testing of methods or products that are designed to inactivate the virus; • Biochemical/enzyme studies with anti-viral agents. <p>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.</p> <p>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 reach out to us through the online form. Each project will be evaluated to determine if McMaster has the capabilities and capacity to perform the required testing.</p>	<p>Gay Yuyitung (MILO)</p>
<p>Hamilton-based technologies available for licensing</p> <p>Each year researchers at McMaster, Hamilton Health Sciences, and St. Joseph’s Healthcare Hamilton 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 MILO 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.</p> <p>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</p>	<p>Glen Crossley (MILO)</p>
<p>Hamilton Innovation Partnership Portal</p> <p>Synapse has created the Hamilton Innovation Partnership Portal (HIPP) 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: http://synapseconsortium.com/partner/</p>	<p>Michael Jones (Synapse)</p> 
<p>Submit Community Events on the Innovation Factory Calendar</p> <p>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.</p>	<p>Annie Horton (Innovation Factory)</p>

Discussion	Presenter
<p><u>Government Call for Innovative Solutions</u></p> <ul style="list-style-type: none"> • Call for Suppliers (Federal): In support of the Government of Canada’s whole-of-government response to Coronavirus disease (COVID-19), they are asking suppliers about their ability to provide a variety of products and services. • Call for Suppliers (Ontario): request for information from companies able to supply emergency products to help fight Coronavirus • Federal Government Call to Action for Canadian Manufacturers to support businesses to rapidly scale up production or re-tool their manufacturing lines to develop products made in Canada that will help in the fight against COVID-19. Please refer to the product specifications and requirements for Canada’s medical supply needs. • Health Canada will facilitate earlier access to a vaccine, or therapeutic product for COVID-19 to expedite the review of COVID-19 related health product submissions and applications. • Government of Canada is speeding up the importation and sale of medical devices used to diagnose, treat or prevent COVID-19. Here is information about expediting access and authorization for diagnostic devices for use against coronavirus (COVID-19). • Government of Canada will launch specific challenges through the Innovative Solutions Canada (ISC) program and will rapidly select the best projects to accelerate development and testing of promising innovations that can have a direct impact on our health care response. Also use the ISC Testing Stream to become the first customer of these innovative products. • The National Research Council of Canada (NRC) will organize an NRC COVID-19 Challenge Program, composed of teams of government, academic and private sector partners to address a range of medium term PHAC and HC needs, including personal protective equipment, sanitization, diagnostic and testing, therapeutics, and disease tracking technology. The most promising solutions will be selected for procurement, working with Innovative Solutions Canada. • DISRUPT COVID-19, a Government of Canada virtual forum that will include representatives from the National Research Council (NRC), the Industrial Research Assistance Program (NRC IRAP), Health Canada, the Public Health Agency of Canada (PHAC) and Innovation and Science, Economic Development (ISED), is being organised as a pilot initiative with the goal of getting technologies on the ground helping patients and health care professionals as fast as possible. • Next Generation Manufacturing (NGen) will invest \$50 million in Supercluster funding to support companies as they rapidly respond to the COVID-19 pandemic by building a Canadian supply of essential equipment, products, and therapeutics. For more information on NGen’s COVID-19 Response Program, see the full bulletin, review the project guide, and share your capabilities in the form below. • Ontario Website for PPE Suppliers to Post Products for Sale: Review a list of companies that sell personal protective equipment (PPE) and other supplies to keep your employees and customers safe from COVID-19. Apply to be added to the workplace PPE supplier directory <p>The Digital Technology Supercluster has launched the COVID-19 Program is focused on unlocking solutions to protect the health and safety of all Canadians and our economy through the development, deployment, and scaling of digital technologies.</p>	<p>Innovation Factory & Synapse Consortium</p>

Our Synapse Consortium partners are at the forefront of addressing COVID-19 in the City of Hamilton, and across Ontario: doctors and nurses caring for patients, public health officials coordinating city-wide responses, conducting epidemiological research at Canada's leading research hospitals, and innovative companies developing products to provide needed supplies and services.

Throughout all of this, Synapse remains committed to our core goal of facilitating connections across the Hamilton health ecosystem, bringing public- and private-sector actors together to enable innovation and resolve pressing health challenges. While Synapse staff are not in the office, we're still providing support virtually – so please continue to reach out and find out how we can help!

If you want to get in touch, please contact [Alex Muggah](#), Director of the Synapse Consortium. Separately, we've assembled links to information that has been compiled by organizations across Ontario (and Canada) to assist you with navigating the COVID-19 pandemic.

Learn More About COVID-19: Online Resources

Synapse Consortium partners have put together a significant amount of information and updates on the status and activities related to containing and addressing COVID-19 for both businesses and citizens in the region:

Hospitals and Research Centres

- Hamilton Health Sciences: [COVID-19 Updates](#)
- St. Joseph's Healthcare: [Research Institute](#) and [Hospital](#) Update
- McMaster Institute for Infectious Disease Research: [News and Updates](#)
- McMaster University: [COVID-19 Update](#)
- Mohawk College: [COVID-19 Update](#)

Hamilton Community Partners

- Mohawk College [Collaboration Landing Page](#)
- McMaster University [Collaboration Landing Page](#)
- City of Hamilton: [City Response and Resources](#)
- Hamilton Public Health: [Learn more about COVID-19](#)
- Innovation Factory: [COVID-19 Info Centre](#)
- Hamilton Chamber of Commerce: [Resources for businesses](#)
- Hamilton Spectator: [What you Need to Know in Hamilton](#)
- Buy-Local (Hamilton): [Hometown Hub](#)

Government and Agencies

- Health Canada: [COVID-19 Information and Resources](#)
- OCE: [Collaboration Platform](#)
- Government of Ontario: [COVID-19 Information for Ontarians](#)
- Government of Canada: [Business Support](#)

For Companies Making COVID-19 Related Medical Products

- [Call for Suppliers](#) (Ontario)
- [Call for Suppliers](#) (Canada)
- Health Canada: [Expedited Review of Health Product Submissions and Applications for COVID-19](#)
- Health Canada: [Applications for medical devices under the Interim Order for COVID-19 use](#)
- Health Canada: [Expedited Access and Authorization to make COVID-19 personal protective equipment](#)
- Health Canada: [Diagnostic devices for use against coronavirus \(COVID-19\)](#)