Hamilton Health Innovation Check-up: Meeting Minutes

April 2020

Join our mailing list!

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	Alex Muggah, Director, Synapse Consortium
Virtual Location	Join Zoom Meeting: https://zoom.us/j/405351918 Dial in: +1-647-558-0588,,405351918#

Next Monthly Check-up: May 25 | 9:00 – 10:00am | McMaster Innovation Park
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 Health Innovation Partnership Portal (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: Alex.Muggah@SynapseConsortium.com. Updates will be reflected in a revised version of the monthly minutes.

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

- 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
- Centre for Disease Control: COVID-19 Resources
- World Health Organization: COVID-19 Updates

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)

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

May & June

- April 28: Embrace the Disruption – How Agile Managers Keep Their Teams Performing (iF)
- April 28: Prototyping to Production Webinar: Considerations for Manufacturing and Compliance Testing (VentureLab)
- April 29: Innovating Under Pressure: Building an App During the COVID-19 Pandemic (HICE)
- April 30: Don't Waste a Good Crisis (VentureLab)
- April 30: Multidimensional Aspects of Healthcare Management in Times of Crisis (Health Leadership Academy)
- May 6: Regulatory Issues during COVID-19 with Bereskin & Parr (Innovation Factory)
- May 15: Medical Imaging Informatics and Teleradiology (MIIRC @ McMaster)
- May 21: Strategic Foresight, An Approach for Imaging Multiple Futures (Health Leadership Academy)
- May 25: Hamilton Health Check-up (Synapse Consortium)
- June 8-12: BIO International Convention (Virtual) (BIO)
- June 29: Hamilton Health Check-up (Synapse Consortium)

July and Beyond

- Aug 9-22: Emerging Leaders Program (Health Leadership Academy)
- Dec 7-8: Canada Regulatory MedTech Conference 2020 (Medtech Canada)

On Demand

- Coronavirus (COVID-19): Managing the impact on global supply chains (EDC)
- COVID-19: Measures to Increase Availability of Disinfectant Products on the Market (Yordas Group)
- COVID-19 Webinar Series (multiple videos) (Digital Health Canada)
- Current COVID-19 Research in Canada, featuring McMaster VPR Dr. Karen Mossman (CENE)

Time allotted | *20 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): • Jamie Harsevoort Founder and CEO, Webility Solutions Inc. • Anthony DiValentino Director of Client Relations, Lumedia • [presentation slides used, and are available for download in Health Check-up drobox folder]
[the following is a synopsis of the discussion, and has been lightly edited for length and clarity] **Discussion** Introduction Thank you for having us here. My name is Jamie, and I am the Founder and CEO of a Hamilton-based web development company called Webility, dedicated to building high quality custom web and mobile applications to help business successfully grow. I'm joined by Anthony DiValentino, the Director of Client Relations at Lumedia, another Hamilton-based company that builds software platforms to support clinical research teams conduct studies more effective. I have had a fair bit of experience at Webility working with local organizations, including hospital research groups, on different software projects over the past few months/years. As a result, when COVID-19 started to flare up – we saw that we had the opportunity to create an application that we hope will become helpful. Need for COVID-19 Community Tracking We are hoping that we will be able to help gather some basic population health data related to COVID-19 and how it affects our community. The genesis of the idea came from looking at data in the middle of March (just before countries and economies were beginning to shut down). We were looking at the progression of COVID-19 based on WHO data that was being published out of the Wuhan region and across Europe. I gathered this COVID-19 progression data, and began to map it out – and one thing that really stood out for me was that it took 7 days for a patient to go from displaying symptoms to being admitted to a hospital. This gap was obviously a concern. Up to this point, most COVID-19 related data being reported was around hospital admissions. This meant that the only way to check on community impact was where patients were in contact with front-line healthcare workers, who had presented themselves because they were showing symptoms (this will change with the introduction of rapid testing). That got us thinking about a few different ideas, and one in particular – were there any organizations/companies conducting population-based studies looking at changes in symptoms in the broader community (i.e., outside of hospital). If we could track the changes in symptoms across the community, we might be able to reliably track when we'll see an uptick in hospital admissions. This is the core idea behind what we wanted to accomplish in terms of providing assistance based on our expertise and experience.

Guest Speaker Discussion

We started to talk with doctors and other care providers, and quickly decided that tracking pre-hospital admission population data was something worth pursuing. If we looked at the reported figures, the World Health Organization (WHO) was predicting that 5% of people ended up requiring hospitalization - which meant that for every 100 people, there were up to 2,000 people who were infected didn't go into the hospital to see a doctor. This larger population pool provides a much larger data set which makes it easier (from a statistics perspective) to draw significant conclusions. We put feelers out to our partners about undertaking a data-collection approach that would focus on this population, and if was possible to do something like this in Hamilton. We received uniformly positive feedback around doing this – and so began our effort.

What evolved was the COVID Community Watch – a population-based community study which is focused on Hamilton and includes the Halton region. Our goal is to look at early trends before they affect the health care system and monitor hotspots (or clusters) where we see groups of people reporting COVID-19-related symptoms. We are also collecting basic demographic and geographic information to assist with the identification of vulnerable populations, and to help with geo-mapping the data for public health officials.

How COVID Community Watch Was Built

The story behind the development of the online and phone application is one of a diverse group of professionals collaborating in quick fashion.

When we first came up with idea, it became apparent that there were issues we would have to overcome. For example, there were several compliance issues (e.g., which questions to ask, how data would be disclosed, how data was used, how data would be stored, etc.). Fortunately, we were able to leverage existing relationships to partner quickly with the Hamilton Academy of Medicine (representing family physicians in the city) and the McMaster Innovators in Scrubs (a Engineering collaboration with Degroote School of Business). In particular, the Academy of Medicine was able to provide oversight to make sure that medical data was collected and used appropriately in our application. The survey we used to collect information from the public was developed based on symptoms tracked by the WHO, supplemented by input from local doctors to make it relevant in the Canadian context.

On March 19 we got to work. We were fortunate that our existing client work meant that we had data collection systems in place that were compliant, and being hosted in an online environment that followed medical privacy regulations (i.e., HIPPA) – and in use with several hospitals. This meant that we could leverage these tools as the basis to develop and iterate our COVID-19 tracking application more quickly. The challenge we gave to our development team was to start onboarding community data more rapidly than we had every previously done (e.g., get this study up and running in 24-36 hours). And we did. The team managed to get the system developed, have a website (www.covid19app.ca), and build iOS and Android apps that were submitted to the relevant app stores very quickly.

By March 21, we were collecting population health data from the public. Using our networks, we shared this as broadly as we could and started to get lots of traction (e.g., social media, local news reports, etc.) – and we started to get enough participants to demonstrate statistically significant results.

Over the next few weeks we worked to enhance and refine the way in which we collect data – as well as having brought on additional public-sector stakeholders (e.g., Mohawk College, HHS, St. Joseph's Healthcare, Joseph Brant), as well as other companies in Canada and the US who are interested in doing contract tracing. We've also had some engagement from clinical research organizations. It has been rewarding to see the results of our collaboration and how much of the energy and effort came out of the Hamilton ecosystem, which allowed us to leverage the world-class research being done here.

Guest Speaker Discussion

The biggest obstacle that we've faced so far involved securing approval of the COVID-19 apps. Unlike our experience in finding many collaborators, we noticed that other companies working on COVID-19 apps were struggling with navigating the process of publishing apps (including both at Google and Apple). Very quickly they stood up special review bodies to review COVID-19 apps to prevent their platforms being flooded with low-quality applications. This meant that there were new restrictions that only universities, hospitals, and government bodies could publish COVID-19 related apps.

We kept getting rejected (12 times in total!), but persistence is what paid off. It's usually hard to get a personal contact at Apple, but we managed to get a direct line into the COVID-19 approval process, and then were able to work with them personally – in part, it was because they'd never seen so much collaboration around an application, which allowed us to get ours approved. Even though we are not a government/international body – it was on the strength of our multiple community participants and collaborators that got us a green light. Indeed, this was a great example how we can collaborate together as a community; there would be no way for a company like Webility/Lumida to successfully submit an app without the support of McMaster University, Hamilton Health Sciences, the Academy of Medicine, etc. To date, ours is the only app approved for COVID-19 that wasn't published by a government entity.

A second challenge we encountered was the evolving and changing symptoms that have been associated with COVID-19. Over time, we've seen the definitions change to reflect increased understanding of the virus. Initially the WHO said that COVID-19 resembled a flu (e.g., fever, runny nose, etc.), but many of these are now listed as secondary symptoms. This meant that initial symptoms we saw were considerably higher than what we see today, making it harder to track changes longitudinally, since the percentage reported has changed.

Our Initial Observations

We've had a few initial observations and have been reporting this out to our partners. First, we have not seen any big spikes in reported cases, with the data closely matched hospital admissions. This suggests that it looks like Ontario/Canada was shut down at the right time – had we been a few days (weeks) later, we might have seen a very different situation unfold. While we do see many people reporting symptoms (note: we're just looking at the trends in the community), there is a trendline match with hospital admissions. Fortunately, the hospitals are managing with the capacity that they have.

A second observation is around changing levels of reported compliance with self-isolation and seeking medical assistance. Over the first two weeks the data showed a major lack of compliance (e.g., reporting with fever, but still going to work and not self-isolating, recently travelled, etc.). After that we started to observe a noticeable change on a day-to-day behaviour, with individuals (and the community trends) becoming more compliant. It was quickly possible to start seeing community trends once we had collected enough information – and it was good to see that quickly the number of people reporting non-compliant behaviour dropped dramatically to close to nothing.

Finally, we observed that reported self-isolation was initially due to travel-related reasons. High risk demographics were the first group to initially rise in terms of self-isolation, but we're now seeing those numbers having peaked. For those who have gone into self-isolation, we're starting to see these numbers drop.

What's next?

Our intention is to continue the COVID-19 community tracking study for as long as it is useful. We think of ourselves as supporting data collection, relying on our healthcare partners to conduct and make use of the

Guest Speaker Discussion
analysis. We are collaborating with many stakeholders and are looking for others that we can work with. We're also trying to look forward to the next challenges – at this point, the community's attention is turning to how we can re-open the economy. In addition, we see two challenges we see an opportunity for us to provide support around Challenge #1 – thousands of non-essential clinical research projects are on hold given they are deemed to be "non-essential" work. This may lead to significant job losses as well as disruption to advancing research agendas. We believe our technology platform can support the rapid digitization of these research projects so they can resume safely. There are lots of research teams that are not able to communicate with participants – and so we're hoping that we can look at how Webility can assist them to help out with those. We continue to be happy explore those opportunities. For example, there is an we are working with the Autism Electronic Research Group to help them keep a study going. Challenge #2 – workplaces will be under significant pressure to re-open safely, managing risk for both their employees and customers. While this challenge is a little outside of healthcare delivery, these companies are going to need applications and processes that are backed and affirmed by the medical community to provide confidence for both employees and customers. The nature of opportunity for businesses to work safely may change week-to-week; so being able to assess employees and work remotely if possible will be critical – we see an opportunity there. We're also looking at a few other ideas about how we can assist companies re-open. Finally, we'd like to thank Synapse for putting this meeting together, and it's great to see so many faces from the community, including many who have helped out this process.
Question & Answers *Questions: Are you administering any sort of neuro-psych tests via your app? A recent study suggests that 32-45% of COVID-19 patients report neurological conditions that will require rehabilitation.* Answer: No, we're not. That would be a very exciting angle to collaborate on. The survey questions that we're asking can be changed at any time, and so there is flexibility to update it at any time. Would be interested in having a conversation around collaboration. *Question: Are you targeting everyone to fill this out, or simply those who think they have some of the symptoms?* A: This is an excellent question. We would love to have everyone fill this survey out, and the more people who fill out the survey the better. The ideal way is to download the mobile app. It takes 30 seconds to collect the data. The reason we want to do this is to capture percentages. If we get as many people participating as possible, we can see the changing trends in the community. *Question: What is the name of the app? How many people downloaded the app?* A: The name of the app is COVID-19 Community Watch. The easiest way is to go to the website. I do not know how many people have downloaded the app, but we've collected data on about 12,000 people. Some are through the website, and others have installed the app. *Question: How did you enrolling patients? Did you have to deal with privacy?*

Guest Speaker Discussion
A: We're not asking for identifiable information (e.g., names, etc.), the only piece of identifiable information is a postal code so that we can segment population into neighbourhoods. *Question: What is your business model? Is Lumedi a commercial venture? Will the next survey be?* A: We'll never make any money off the COVID-19 app. It was one that we wanted to do to assist the healthcare community, and a way for us to help them collect data. To get this off the ground, you don't have time to refine all the ideas behind it. There was no business plan, since we didn't have time to pull it together. The next survey will likely be related to public health data (i.e., not a commercial venture), however, there are some areas and ideas we're looking at that could be commercialized. There may be some applicable models to do organization-based surveys (e.g., private companies, sports organizations) around how they can survey their own employees about when they should show up. But we haven't made any final decisions around there. With regards to commercialization, we are still in an exploratory space about how our experience with the COVID-19 app can be used. There are great ideas being surfaced from people with different perspectives who are giving us thoughts around how we can move forward. We've talked to several HR experts about potential use cases and are exploring the hypothesis of creating a micro-community within the workplace to help employees return back to work, while maintaining trust, and the workplace safe. Initially thinking is that this could be part of a learning / development app or an employee appreciation app. We will, of course, have to manage lots of questions around privacy *Q: How would you characterize pick-up and use of the application data by public health officials (e.g., City, Province). What are the challenges in terms of getting buy-in and use by public health / hospitals / LHIN, etc.* A: There are so many organizations that are involved in COVID-19, so this is a big question. In our ecosystem, the Hamilton Academy of Medicine was the critical organization, and was also willing to jump on this project and use the data. Since then, we've started to see the medical research community start become more interested in participating. The early response from Hamilton's public health team was that they were too busy – and so we do not yet have a formal relationship with public health; though some individual doctors are highly engaged. The challenges around getting buy-in was expected and typical. There are some parts of healthcare organizations that move quickly and some parts that move more slowly – so we're seeing involvement on the individual level; rather than institutional. For example, there are several doctors at Joseph Brant who are contacting us as individual care providers interested in our data.

Time allotted | *20 Minutes*

Topic: **Communicate**

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

Discussion	Presenter
Bay Area Health Trust Working on Supporting Community Sanitization/Reprocessing of PPE Shared that BAHT has been working on an opportunity to support the immediate community and surrounding areas address a potentially pressing issues: the sanitization and reprocessing of N95 respirators and other critical PPE. While still in the midst of standing up operational processes, the intention is to create a new business unit alled SteriRight that will leverage local technology to build a mobile cleanworks facility to conduct sanitization in the community. Plan is to extend focus to additional pieces of critical equipment (e.g., likely not single-use), and have been engaging with other industries (e.g., food processing and funeral homes) to confirm market need. If you have any ideas, or would like to learn more, please contact John at: handsj@baht.ca	John Hands (BAHT)
Medical Imaging Informatics and Teleradiology (MIIT), May 15 MIIT focuses on emerging technologies and practices for acquiring, processing, managing, accessing, and sharing medical images, along with topics driving changes in relevant policies within Canada. This annual conference brings together experienced speakers to address challenging topics in the field of medical imaging informatics and provides a unique opportunity to approach the experts and find answers to questions and issues. The MIIT Conference is intended for an audience of professionals and students in engineering and computer sciences, health informatics (PACS Managers, DI Managers, IT Professionals, CIO/CTOs), health care provider (Radiologists, Technologists, Physicians), and industry roles. It will be held virtually on May 15th Follow @MIIT_Canada on Twitter for updates and important details about #MIIT20!	David Koff (MIIRC@Mac)
Masks@Mac – Working to Bring Masks to Hamilton Community We are a volunteer group around McMaster, largely around the Faculty of Engineering, working together to ensure that the frontline health workers in our region do not run out of personal protective equipment: L3 surgical masks, N95 respirators, and face shields. Separately, Suvojit runs the Computing Infrastructure Research Centre (CIRC) -- from which Masks@Mac emerged – which offers "innovation as a service". They leverage the latest technology, to offer a fee-for-service R&D team that can help develop your ideas into products, solve difficult business problems. They work across a variety of different technologies and applications areas, but core focus is in on algorithm development, image recognition, data fusion, machine learning, natural language processing and artificial intelligence. If you want to help out and volunteer, please contact Subvojit Ghosh at sghosh@mcmaster.ca	Suvojit Ghosh (McMaster CIRC)

Discussion	Presenter
Communitech Helping Coordinate Kitchener COVID-19 Response Amanda Green introduced herself to the community, and spoke to how Communitech has acted as a collaborator in the Kitchener-Waterloo community. Having emerged organically from efforts on the part of Ian Klugman (CEO) to activate the community around a collaborative working group (along with Velocity and others), focused on surfacing the needs of the hospital, LHINs and community doctors against the capabilities of the business community. Have been helping them to connect to other suppliers and connect them with the needs. Areas of focus include – contact tracing, testing in the region, sourcing PPE with local companies, supporting government relations, and MDEL application writing. Have also done interviews with local doctors around issues they are facing (e.g., logistics, software for accreditation). To learn more, or to contact Amanda: amanda.green@communitech.ca	Amanda Green (Communitech)
McMaster Innovation Park Standing up New Lab Space at 44 Frid Street CBRE is working with the team at MIP to find tenants to move into 44 Frid Street (the former Hamilton spectator building) with the intention of turning it into a life science incubator hub. Notable is that there is ~250,000 square feet of space available, which can be used for office and lab space. It also has two hydro feeds that can provide a combined 15 MW – which will be great for data centres or other companies that needs lots of power. We have put out an invitation to the development community to help us retrofit the building, with the intention of develop lab space in 12-15 months (post-COVID). We're excited because there is a constraint on lab space in Ontario, and we can now offer promising startup, scaling and SMEs businesses the chance to build their companies in Canada rather than having to leave for the States or elsewhere. The model for MIP is 5-4-1 ratio, with 50% of space reserved for large tenants (>20,000 square feet), 40% for medium sized companies (require 10-20,000 square feet), and 10% for start-ups To learn more, contact Jim Wilson (CBRE) at: J.Wilson@cbre.com	Jim Wilson (CBRE)
Juravinski Research Institute funds eight research projects Thanks to the Juravinski Research Institute and the gift from Charles and Margaret Juravinski, leading experts from Hamilton Health Sciences, McMaster University and St. Joseph's Healthcare Hamilton have funding to support the following eight collaborative research projects. The projects include: • A short-term study that will determine whether N95 respirators or medical masks are the best option for health-care providers caring for COVID-19 patients. • A three-part study cataloguing the activity of Hamilton Health Sciences Emergency Departments (EDs) for the duration of the pandemic. Insights from data will inform ED staffing and prediction of infection spread among health-care workers, and will help to better identify risks to them	Alex Muggah (Synapse)

Discussion	Presenter
• A way to automate and ultimately speed up diagnostic testing protocols for SARS-CoV-2, the viral pathogen responsible for the COVID-19 pandemic, by using robotics. • CLSA is creating a COVID-19 platform to provide researchers with rapid access to a vast amount of high-quality biological, health, economic, environmental or psychosocial data, to address urgent health questions and to meet current and future health-care needs. • A biobank is a type of repository for storing human biological samples — an important resource in medical research. • The Hamilton Emerging Adult Life Transitions and Health Investigation (Project HEALTH-I) is a three-year study examining the impact of substance use on the brain development of young adults, ages 18-25. • Developing technology that can confirm the presence of a brain anomaly following mild traumatic brain injury, to identify the injury location and predict and track a patient's recovery. • The Child and Youth Mental Health Program aims to implement a smarter healthcare system, in which AI technologies guide and support treatment decisions, using data captured through patient-reported information, electronic health records and other sources of data. Read more about the studies, and see videos of researchers here	
MacEng arms the frontlines with masks: Faculty, students create protective equipment for healthcare workers McMaster engineers, physicians, students and industry partners join forces to create timely solutions to the high demand for more personal protective equipment (PPE) for frontline workers. Faculty, staff and students across McMaster Engineering have turned their focus on creating solutions to combat the shortage of personal protective equipment (PPE) for local healthcare workers. In addition to joining other faculties last week in a large donation of supplies to local hospitals, McMaster engineers are designing and testing mask prototypes which can be made locally. This comes amid a call from the federal government for homegrown solutions to increase "desperately needed" equipment in the fight against COVID-19. Overseen and coordinated by John Preston, Associate Dean of Research & External Relations and Ishwar K. Puri, Dean of Engineering, teams are working with manufacturing companies, government partners and local healthcare professionals with the goal of soon getting these prototypes to the frontlines. To read more, click here	Prathiba Harsha (HHS)
St. Joe's researchers accelerate COVID-19 testing using robotics In response to a growing demand for COVID-19 testing, researchers at St. Joe's are using robots to increase their lab's capacity to test for the virus.	Alex Muggah (Synapse)

Discussion	Presenter
"The lab automation component that we've been working on is basically a machine that will be able to take directly from a patient sample and then process it with minimal hands-on time from laboratory technologists," said Dr. David Bulir, a molecular biologist at the Research Institute of St. Joe's Hamilton. The robots will work alongside human technologists to extract nucleic acid, the substance used to detect the virus. The robots both accelerate testing and, since the process is automated, leave less room for human error, Bulir said. "That process can be scaled up significantly and implemented to help with the number of tests that are being done," he said. Over the last week, the robotic system, which was first used to test for COVID-19 at the Hamilton Regional Laboratory Medicine Program (HRLMP) on April 18, has been integrated into the lab and is now operating in conjunction with more common methods. "We did about 100 tests each day over the weekend," said Dr. Marek Smieja, the interim chief of laboratory medicine at the HRLMP. These tests are in addition to the 500 to 800 tests already being conducted by lab technicians daily. Read the full Hamilton Spectator article here	
McMaster researchers rally to help Canadian company expedite new mask to meet urgent COVID-19 demand Engineering and medical researchers at McMaster University have been racing to assist Woodbridge Foam Corporation in getting a new made-in-Canada mask designed, tested and certified, as supplies of existing medical masks become less certain. Woodbridge, primarily a manufacturer of auto parts and materials, has begun manufacturing a new high-filtration mask to supply health-care workers, whose inventories have been dwindling. Premier Doug Ford toured one of the company's manufacturing sites and lauded the project on Tuesday. McMaster researchers in numerous disciplines are working urgently on COVID-19 projects, including developing tests, treatments and preventions, and improving the availability of personal protective equipment. Woodbridge, in collaboration with Canada's Automotive Parts Manufacturers' Association, turned to the university two weeks ago for help. McMaster researchers were able to expedite aspects of the design and technology and regulatory certification for the masks, which are an alternative to the masks that are in short supply due to the COVID-19 pandemic.	Alex Muggah (Synapse)
Pilot project will see ramped up COVID-19 testing at Hamilton care homes A new pilot project will see some 3,000 asymptomatic residents and staff at Hamilton and area care settings tested for COVID-19. On Monday, St. Joseph's Health System and Niagara Health announced a pilot project is underway to test all asymptomatic patients, residents and some staff in its long-term care homes, retirement homes and congregate settings, such as hospices. The goal is to gain a better understanding of how the virus spreads, how can spread be prevented and what testing strategies are most effective when the subjects are concentrated in one place, said Dr. Jack Gauldie, vice-president of research at St. Joseph's Healthcare Hamilton.	Alex Muggah (Synapse)

Discussion	Presenter
"Right now, we stand outside long-term care homes and we don't know how many people are carriers in there, how many people are affected," Gauldie said. "The earlier you catch something, the earlier you can do something about it." The announcement comes a week after the province said more people in long-term care settings would be tested for the virus. Testing of all asymptomatic staff and residents at "select homes" would take place, said Minister of Long-Term Care Merrilee Fullerton. Dr. Tom Stewart, CEO of St. Joseph's Health System, said those involved with the pilot project wanted to be ahead of the curve. Read the full Hamilton Spectator article here	
Promising COVID-19 treatment now being tested in Hamilton patients Patients in some Hamilton hospitals will start getting a potential COVID-19 treatment Tuesday as part of a study that will expand Friday to include those who are ill at home. Health Canada has approved the Anti-Coronavirus Therapies to Prevent Progression of COVID-19 Trial (ACT) led by the Population Health Research Institute (PHRI) affiliated with Hamilton Health Sciences and McMaster University. "There is no proven therapy for COVID-19, no one knows at this point what is effective," infectious disease researcher Dr. Mark Loeb said about the significance of the study when it was proposed in March. The trial will test a promising combination of two drugs — the antibiotic azithromycin taken with malaria medication chloroquine or a similar drug hydroxychloroquine. Researchers will recruit at least 500 COVID-19 patients in hospital and 1,000 at home. They'll be randomized so some get the drugs and the others get the current supportive therapy. The aim is to keep those at home out of hospital while preventing ventilation and death among in-patients. "The trial will provide definitive evidence as to whether these drugs work in treating COVID-19 or not and that's key at this point," said Dr. Emilie Belley-Côté, principal investigator, cardiologist and intensivist. "We want to know if it works, but we also want to know if it doesn't work so we can explore other therapies." A study like this normally takes 12 months to put together but PHRI did it in roughly one month, bringing together some of Hamilton's top names in clinical trials. Read the full Hamilton Spectator article here	Alex Muggah (Synapse)
Bayer partners with Population Health Research Institute (PHRI) on major global research study on COVID-19 treatments Français The Population Health Research Institute (PHRI) and Bayer Inc. announced plans to immediately launch a major clinical research program aimed at identifying potential COVID-19 treatments.	Janette Panhuis (PHRI)

Discussion	Presenter
The two studies will evaluate the safety and efficacy of different combination therapies including Bayer's chloroquine and interferon beta-1b. "Specifically, an outpatient study will evaluate the combination of chloroquine with azithromycin to see if this treatment can prevent deterioration leading to hospital admission, while a second study will evaluate the combination of chloroquine with azithromycin, as well as interferon beta-1b, to prevent admission to intensive care, mechanical ventilation and/or death to combat COVID-19," said Salim Yusuf, Executive Director of PHRI. "Our goal is to assess the value of these and other therapies rapidly so that the results can inform practice as soon as possible." Bayer will make a financial commitment of 1.5 million Canadian dollars towards the studies and will supply study drugs to support the research. This adds to the 0.5 million Canadian dollars committed by the PHRI earlier this month which enabled development of the research program. "We look forward to once again partner with the outstanding research team at PHRI," said Shurjeel Choudhri, Senior Vice-President, Medical & Scientific Affairs at Bayer Inc. "This is another great example of joining forces with partners in the fight against COVID-19. Taking bold action around the world to fight and contain COVID-19 is our goal."	
VoxNeuro: Addressing the neurological consequences of COVID-19 The world has been overwhelmed by the onslaught of the COVID-19 (a.k.a. SARS-CoV2) virus. As the number of COVID-19 cases continues to climb in Canada, VoxNeuro, like many other companies, has been able to pivot and expand its offerings to aid in the current COVID-19 pandemic. The medical community has shown conclusively that the novel virus crosses the blood-brain barrier and thus, results in neurological consequences that can continue beyond the duration of the illness. VoxNeuro's Cognitive Health Assessments (CHAs) provide an accurate, non-invasive, objective measure of an individual's cognitive function at the neurophysiological level. Read the white paper here	James Connoley (VoxNeuro)
McMaster University Launches COVID-19 Fund for Research and Student Relief McMaster is meeting the extraordinary challenges caused by the COVID-19 pandemic with a new fundraising campaign aimed at supporting our students and our researchers, who are working around the clock to bring brighter days. The McMaster COVID-19 Fund has two arms – a Student Emergency Relief Fund and a COVID-19 Research Fund. Donors are invited to support McMaster students, researchers or both. The goal of this eight-week campaign is to raise funds for immediate student relief and COVID-19 research. Funds donated to both the Student Emergency Relief Fund and the COVID-19 Research Fund will be matched to double the impact of gifts. Donors are also invited to send messages of support to students and researchers as part of this campaign.	Alex Muggah (Synapse)

Discussion	Presenter
Donations to the Student Emergency Relief Fund are being used for necessities like food and shelter and mental health support. Funding also supports the continued costs of repatriating students from international research assignments or field-work locations and helping them make it home. The COVID-19 Research Fund provides immediate additional funding to accelerate the work McMaster research teams are doing in looking for new drugs and effective anti-virals for treatment, creating new diagnosis techniques and rapid testing, as well as collaborating across Faculties to work on projects related to masks, ventilators, face shields, data analytics, medical coatings and sensors.	
Researchers at McMaster University developing 30-minute home test for COVID-19 A team of Ontario researchers say they're working on a 30-minute home-based COVID-19 test that could hit the market soon. John Brennan, director of the biointerfaces institute and professor at McMaster University, says the concept is to come up with something new that offers an alternative to current lab-based tests that take days to get results. "Because all of the tests require sample collection, followed by sending it to a central lab, there are delays of up to 10 days to get answers back," said Brennan. The new test uses a different method of identifying infection than the current nasopharyngeal swab kits which require the subject to endure a swab through to the back of their nose, according to researchers. The kits McMaster is developing would have two vials of reagents and a test strip that looks similar to those used in a pregnancy test. The strip simply needs a small sample of mucus which would then be inserted into a small vial of liquid which would break samples of the virus apart, says Brennan. Read the full Global News article here	Alex Muggah (Synapse)
Canadian clinical trial tests 'old' plasma therapy for COVID-19 Can those who survive COVID-19 provide blood to treat others hospitalized by the disease? That's the question driving a Canadian consortium that has launched one of the world's largest clinical trials of a potential treatment for COVID-19 —one that goes as far back as the Spanish flu a century ago. The treatment involves taking blood plasma — which contains antibodies — from people who have recovered from COVID-19 infection, and giving it to patients who are sick enough to be hospitalized with the same disease. The proposed Convalescent Plasma for COVID-19 Research (CONCOR) trial is a collaboration between the Canadian Transfusion Research Network, the McMaster Centre for Transfusion Research, Canadian Blood Services, Héma-Québec and academic partners across the country. The study is expected to be carried out in every province, and likely each territory. The initial number of people involved is approximately 1,000 patients. Read the full article here	Alex Muggah (Synapse)

Discussion	Presenter
100k in Cash Prizes Awarded in The Forge Student Startup Competition The COVID-19 pandemic did not curb the enthusiasm, talent and ambition of The Forge Student Startup Competition Finalists. The Forge moved its Student Startup Competition into a virtual event that took place on March 30, showcasing 12 finalists pitching to a panel of esteemed judges. All the startups had a unique and innovative tech-based business idea or early stage startup. Each year, The Forge pitch competition awards up to $100,000 in cash prizes as well as a guaranteed spot in The Forge Summer Startup Academy. We are proud of all the finalists that pitched in the competition and want to congratulate the following grand prize winners: Faculty of Engineering SummerTech Entrepreneur Fellowship winner ($15,000) Doren Singh, founder and CEO of Pharmasonica; First Place ($15,000) Dawson Lucier, co-founder of PULSE Lifesaving; Second Place ($11,000): Lianna Genovese, founder, CEO and inventor of ImaginAble Solutions; Third Place ($9,000): William Douglas, CheckUp! To read more click here.	Mariya Leslie (The Forge)
Health Leadership Academy – Survey of Students Impacted by COVID As we all grapple with the implications of this global pandemic, know that we are thinking about you. We hope you are all safe and healthy. It is precisely these sorts of crisis situations in which the strong leadership skills you have developed over the course of your education and in your work experience are so vital. We at the Health Leadership Academy and its Emerging Leaders Program Team want to know how we can support you during these tumultuous times. Please complete this short 2 minute anonymous survey to draw on your experiences. As events unfold and as we look to produce valuable and interesting programs, tools, and activities, we will continue to engage you and support you during your leadership journey.	Amanda Calzolaio (Health Leadership Academy)
Innovation Solutions Canada Launches COVID-19 Challenge The Innovative Solutions Canada program (ISC) is working with many government departments to launch COVID-19-related Challenges through which SMEs can receive significant financial support to develop prototypes that could lead to government procurement. Funding levels have been increased for COVID-19 related challenges and Phase 1 funding (Proof of Concept) is now up to $300K and Phase 2 funding (Prototype Development) has been increased up to $2M. There are currently 18 open calls for proposal, amongst which three are COVID-19 related (see links below). ISC anticipates adding to the list of challenges weekly and so it would be advantageous for the interested SMEs to register to receive regular updates. • Made in Canada filtration material for the manufacture of N95 respirators and surgical masks • Point of Care and Home Diagnostic Kit for COVID-19 • Low-cost sensor system for COVID-19 patient monitoring Register here to receive email notifications of new challenges	Joon Kim (NRC-IRAP)

Discussion	Presenter
ISC Testing Stream (formerly BCIP) Posted Requests for Proposals We are calling on innovators across the country who have an innovative solution ready to be tested by the federal government and its provincial, territorial and municipal partners to submit a proposal. You could land a sale of up to $550K, and if your innovation is deemed to be a game changer in the fight against COVID-19, under exceptional circumstances we may provide additional funding to test your innovation. Any SMEs with near-to-market products can apply for support under this program Please send any questions on ISC challenges should be directed to solutions@canada.ca. • Medical Theme 1: Prevention & Protection: Includes, but is not limited to Personal Protective Equipment & Sanitization • Medical Theme 2: Testing & Diagnostics • Medical Theme 3: Patient Monitoring, Tracking & Wellness • Non-Medical Theme 1: Surveillance, Tracking, Situational Awareness & Critical Response • Non-Medical Theme 2: Sanitization	Joon Kim (NRC-IRAP)
OCE Programming and Support for Innovative Companies Tackling COVID-19 With our partners, OCE launched the COVID-19 Collaboration Platform to identify innovative technologies, small to mid-sized enterprises and experts from across the province to help fill the current product and service gaps related to COVID-19. OCE is helping Ontario innovators come together, as we respond to COVID-19 by leveraging existing funding support through the Voucher for Innovation and Productivity and the Market Readiness Investment Fund. Through these programs, we are supporting innovative COVID-19 solutions that leverage all emerging technologies. In support of this initiative, the government has launched a $50 million Ontario Together Fund to help businesses provide innovative solutions or retool their operations in order to manufacture essential medical supplies and equipment. This new Fund, announced by Premier Doug Ford, Minister Vic Fedeli, and Minister Christine Elliott will support the development of proposals submitted by businesses and individuals through the Ontario Together web portal. If you have a complete solution and are able to meet the current product or service gaps of the Ontario government, please visit the Ontario Together website by clicking below:	Padraic Foley (OCE)
Ontario Ministry of Economic Development Tracking Global Survey on Startups The Ontario Ministry of Economic Development, Job Creation and Trade has been looking at results of large survey conducted by StartupGenome to gain insights on COVID19 impacts in startup ecosystems and policy/program/response effectiveness in Canada and across the United States. While there has been good pickup from start-ups in Alberta and Quebec, MEDJCT is looking for more traction from Ontario startups. They are calling on Ontario startups / entrepreneurs to participate in the survey.	Alexander Bosika (MEDJTC)

Discussion	Presenter
Initial results from the global startup founder survey. A couple of highlights: • 42 percent of startups globally have 3 months or fewer of runway • 58 percent of startups have had to terminate full-time employees See more here. We will publish deeper findings next week. Otherwise there is still time and it takes only 2 to 5 min. If you closed your startup permanently click here, otherwise if you have a startup and are still working at it click here. Next step is to put survey results against policy action to save startups and give arguments for more government action everywhere.	
Innovating Under Pressure: Building an App During the COVID-19 Pandemic (April 29) Community Watch is an app that collects data from potential COVID-19 cases to support resource planning efforts in Hamilton, Ontario. In this one-hour webinar, you will learn how Innovators in Scrubs, an interdisciplinary team of students from business, engineering and medicine, teamed up with Hamilton-based clinical software company Lumedi to develop a tool to help the community track symptoms, ready the healthcare system, and help employers prepare for the return to work. Download the app in advance: https://covid19app.ca/ Moderator: • Sarrah Lal, MBA, Assistant Professor of Medicine Special Guests: • Jamie Harsevoort, Founder & CEO, Webility Solutions & Lumedi • Anthony Valentino, Director of Client Relations, Lumedi • Sarah Abdel-Rahman, Integrated Biomedical Engineering Student • Mitch White, Business Student	Jamie Harsevoort (Webility Solutions)
JLABs Events Going Virtual (various) Cybersecurity: Good Data Hygiene 101 for Life Sciences (Apr 30): Cyberattacks can crash networks, embed malware and cripple business, leaving life sciences organizations unable to operate. Cybersecurity expert Christine Vanderpool offers a high-level understanding of how to prevent attacks, protect your organization, and how to respond if your organization is data-breached. Sell Your Science: Developing a Non-Confidential Pitch for in Person and Virtual Presentations (May 5): Learn tricks in preparing a non-confidential pitch deck along with tips that are aimed to help you sell your science at in person meetings or virtually. Impacting Public Health: How Can My Idea Be A Part of the Solution? (MAY 6): Bring together experts from federal agencies to discuss their views on strategies for getting your product through the right agencies for approval and funding opportunities, as well as insight from industry leaders who have already navigated this course.	Amanda Raponi (JLABS)

Discussion	Presenter
Cracking the Commercialization Code (May 7): From understanding your market and regulatory needs to payor reimbursement and clinical adoption, this webinar aims to provide an aerial view to help define your pathway through the commercialization maze. To learn more about upcoming JLABs events, click here	
Collaboratorium Speaker Series: Strategic Foresight, An Approach for Imaging Multiple Futures (May 21) Introducing foresight and future thinking into curriculum; its purpose, methodologies and benefits Moderated by: Dr. Sean Park (Assistant Professor, Department of Medicine, Innovation and Education, McMaster University) Michael G. DeGroote Health Leadership Academy Collaboratorium Speaker Series serves as a forum for faculty, administrators, students and industry professionals to share innovations in teaching leadership content, pedagogy and practices developed at McMaster University. In person attendance and networking reception are by invitation only. To attend online via livestream, please email us at hlainfo@mcmaster.ca	Health Leadership Academy
Donations of Personal Protective Equipment (PPE) & Sales to Hamilton's Hospitals Hamilton Health Sciences: working to ensure donations meet national standards for PPE use in a health care setting, and align this equipment to our current products. Anyone looking to donate or supply products (PPE and otherwise, including baby monitors and food/drink), please email PPEdonations@hhsc.ca and provide: 1. Product description 2. Product code (if applicable) 3. Identify if the boxes are opened or sealed (if applicable) 4. Contact name, email and phone number St. Joseph's Healthcare: has established a method for that to happen, and are encouraging anyone wanting to give supplies to send us a note to donations@stjoes.ca. You can also find more information on the Foundation's website: www.stjoesfoundation.ca/supplydrive	Prathiba Harsha (HHS)
Government Calls for Innovative Solutions • 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.	Innovation Factory & Synapse Consortium

Discussion	Presenter
• 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. 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.	

Time allotted | *20 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
NSERC Alliance, $50,000 COVID-19 grants In response to the COVID-19 pandemic, NSERC is leveraging the expertise of researchers in natural science and engineering and their partners across Canada to address this unprecedented crisis. NSERC is providing up to $15 million in total support to stimulate collaborations between academic researchers and the public and not-for-profit sectors, and industry to address pandemic-related research and technical challenges. Support for up to $50,000 for one-year projects is being made available immediately. NSERC will process these applications in an accelerated fashion. Partners do not need to provide cash contributions to participate, but must be engaged throughout the research process, from input in design to using the expertise and/or the research results.	Alex Muggah (Synapse)
AGE-WELL Emerging Entrepreneur Award in Technology and Aging COVID-19 Countermeasures The 2020 Emerging Entrepreneur Award is part of AGE-WELL's effort to address the public health challenges associated with the novel coronavirus pandemic. The rapid spread of COVID-19 has highlighted especially the vulnerability of Canada's older adults and the potential impact of technological innovations to mitigate the spread of disease and minimize its disruptive impact on health and fulfillment of psychosocial needs. This $25,000 award is designed to give a new entrepreneur the financial resources to focus on making their ideas viable and rapidly deployable in service to our stakeholders. Applicants to this call of the AGE-WELL Emerging Entrepreneur Award must clearly communicate their innovation's relevance as a COVID-19 countermeasure. For example, but not limited to: • Social isolation solutions for older adults and caregivers • Telehealth or remote care and relevant digital health innovations (e.g. tools that assist caregivers and/or the overall circle of care with remote care) • Solutions related to in-home rehabilitation or physical fitness • Serious games • Smart homes and home monitoring	Alex Muggah (Synapse)
Ontario Genomics + SynBio Landing Pad Program The Ontario Genomics Landing Pad Program seeks to provide financial and in-kind support to start and scale genomics and engineering biology companies in Ontario. Ontario Genomics is partnering with Ontario's leading incubators and support organizations, such as Velocity and	Britney Hess (Ontario Genomics)

Discussion	Presenter
Synapse, as well as the international accelerator IndieBio (San Francisco, USA), which is backed by global venture capital firm SOSV. Through this program, successful teams will be awarded $100,000 CAD from Ontario Genomics in addition to lab space and mentorship through our incubator partners in Ontario. This support is dependant upon successful acceptance and completion of the IndieBio program. The intent of the program is to provide genomics and engineering biology companies with an incentive to return to Ontario after attending a world-renowned international accelerator program. Ontario Genomics will leverage our broad network within the Ontario innovation ecosystem, internal expertise and an external network of advisors where appropriate to support you. Contact Britney Hess, bhess@ontariogenomics.ca, for more information on how to apply	
Ontario Genomics Applications Partnership Program (deadline, May 7) The Genomic Applications Partnership Program funds downstream research and development projects that address real world opportunities and challenges. The GAPP aims to: • Accelerate the application of Canadian genomics-derived solutions from academia to real-world opportunities and challenges defined by industry, not-for-profit and public-sector Receptors. • Channel Canada's genomics capacity into sustainable innovations that benefit Canadians. • Enhance the value of Canadian genomics technologies by de-risking and incentivizing follow-on investment from industry and other partners. • Foster mutually beneficial collaboration and knowledge exchange between Canadian academia and technology receptors. • Total project size: $300,000 to $6 million. • Co-Funding: Up to 1/3 investment from Genome Canada; Receptor co-funding (cash and/or in-kind) that is equal to or greater than Genome Canada's contribution; and any remaining co-funding from other eligible sources. • Project term: 2 – 3 years. Shorter or longer terms will be considered only if strong rationale is provided. • Project stage: Small-scale proof-of-concept / pilot projects through to large-scale projects will be accepted. Projects should not be in discovery phase.	Ontario Genomics
Hamilton Innovation Partnership Portal 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/	Andrea Lee (HHS)

Discussion	Presenter
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.	Riley Moynes (Innovation Factory)
MGD-HICE Educational Webinars & DevTank Meetings 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. Check out the full suite of programming here	Sarrah Lal (MGD-HICE)