

Hamilton Health Innovation Check-up: Meeting Minutes

May 2019

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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	Alex Muggah, Director, Synapse Consortium
Location	McMaster Innovation Park, 175 Longwood Dr, 9:00-10:00am

Next Monthly Check-up: June 24 | 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 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.

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):

- Bruno Paquin
Director, Business Development, Centre for Probe Discovery and Commercialization (CPDC)
- Topic: CPDC: Capacity and Capabilities
[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]

Introduction

I [joined](#) the Centre for Probe Discovery and Commercialization ([CPDC](#)) in November. CPDC was created in 2008 by John Valliant, a professor at McMaster and is headquartered in Hamilton. It was created to give access to radiopharmaceuticals to Canadians. It was meant to be a leader in the field of manufacturing and distribution of radiopharmaceuticals.

What is a Radiopharmaceutical

First, I will provide a quick background of [what is a radiopharmaceutical](#). Radiopharmaceuticals are a special class of drugs that are used for targeted therapies and imaging. They include diagnostic agents, such as molecular imaging probes, contrast agents or tracers, as well as agents that treat diseases, called radiotherapeutics.

There are a few types of radiation: alpha, gamma and beta. Drugs that have alpha penetration have high level of ionization with a very focused field. Once it gets into a cell, it kills it. It doesn't travel far, but can do a lot of damage. On the other side of the spectrum, you have Gamma – which can travels much further but doesn't do much damage – these types are good for imaging. Beta is in the middle.

A radiopharmaceutical contains a radioactive isotope that emits energy, which can be detected or used to provide an image (diagnostic agent) or is directly therapeutic within a diseased tissue. You can have small molecules, large molecules, peptides, antibodies, etc. The molecules that we use at CPDC are for the diagnosis and treatment of cancer.

About CPDC

At CPDC we manage a [network of facilities](#) including three in Ontario and one in Boston. To date, we have been funded through support from [NCE](#) as well as other agencies. The last round of funding that we received from NCE will be our last. This means that we're moving CPDC towards self-sustainability to enable the centre to keep going without being dependent on government funding.

Guest Speaker Discussion

Our mission is to bring radiopharmaceuticals to Canadians. We have become the go-to organization around the world for what we do. Our mandate is to bring new drugs to the market, and to create new companies and jobs. As part of the NCE funding, it's our plan that we spin out new companies.

What are we good at? We sum it up in three words: [Discover, Develop, Distribute](#). We can take radiopharmaceuticals research and bring it along so that it can be commercialized and distributed around the world.

When we think about distribution, it comes with a challenge – radioactive drugs decay over time – this means that we are extremely focused on the tight turnarounds in terms of scheduling related to manufacturing and delivery. For example, we have an example with a drug with a 6-day half life (after 6 days, it loses half the potency – meaning we have to inject it rapidly to be effective in a patient). This means we need the drug and/or patient to travel to an injection site. From the patient perspective, on day 1, they travel to the site (from around Ontario) and on day 2 the patient arrives and the drug is injected at 10am (in this case Lu-DOTATATE, which is very good at fighting cancer tumours).

On our side, while the patient is travelled to the site on day 1, the lutetium isotope (from which the Lu-DOTATATE is manufactured) is travelling by air in from Germany (indeed, once the radio isotopes arrive, we have already had 2 days of decay). We then take a 2-hours to develop the drug in our Hamilton laboratories, and then begin a 3-hour quality control (QC) process. Additional analysis can take up to a week, and if there is a recall we then need to work with the doctor to make sure they can support the patient.

The drug is released by 7am on Day 2 and needs to travel to be at the clinical site. The drug has to be present at the site before they start the process. As a result, the drug is often cleared through QC at the same time it arrives on site. Thus, the drug is administered within 48 hours of synthesis – meaning we are practicing “just in time manufacturing”. Given the nature of radiopharmaceuticals, we have a stringent “right the first time” approach, to ensure a positive impact on the patient – so that no glitch or problems occur because otherwise the patient doesn't receive the treatment.

Facilities & Partners

We operate four facilities, with our headquarters in Hamilton, Ontario. In Hamilton we are mostly focused on production. We have a strong relationship with the University Health Network (UHN), through a joint venture called CanProbe. We have a lot of R&D and clinical research that is supported from this joint venture. More recently, we developed an agreement with the Ottawa Heart Institute, where we manage their cyclotron to supply products. At the Boston site, we provide guidance and management in collaboration with the Dana Farber Cancer Institute. We are developing a new immuno agent that will be applied in imaging.

We also [do contract manufacturing](#). We have GMP certified facilities, the bulk of which are in Hamilton, and some additional manufacturing capabilities in Ottawa. We have contract services – and developed strong expertise in regulatory affairs related to radiopharmaceuticals (from around the world). In terms of R&D, we do most of our work at CanProbe as well as some in conjunction with Dana Farber, as well as some additional radioisotopes we are developing at McMaster University.

CPDC [has partners across Ontario](#), to do testing and clinical research, including many hospitals. Over the years, we've become more involved in clinical research, and since our inception we have supported more than 40 trials - through supply/manufacturing.

Guest Speaker Discussion

We participate in a variety Canadian-wide programs. For example, the Neuroendocrine Imaging and Therapy study is in phase-3 and hopefully will be in the market in the next few years. We also participate in a Prostate Cancer Imaging and Therapy study, to test the PMSA protein that is highly expressed in prostate cancer cells. We are the manufacture for this initiative, and are in discussion with company in Germany that has a competing imaging agent. We have acquired rights for the molecule for the Canadian market, which will allow us to check the prostate without the image being distorted / blocked by the bladder – giving a very clear image of the cancer that can then inform patient treatment. We are also involved in a trial with Novartis – 300 patient trial, which is expected to start in the fall 2019.

For radiopharmaceuticals in general, they are usually used to treat patients when other types of treatments have failed or are not appropriate. They first image the patient to see where the cancer is. For example, in our prostate cancer patients, you can remove the prostate, but the cancer stays and might spread into the bones or throughout the body. We see a very high rate of response to the LU-177 based therapy that we're doing with Novartis.

NCE funding is coming to an end, and our mandate was to create companies to disseminate knowledge but also create jobs. We've spun out a few companies, including [Fusion Pharmaceuticals](#) (in effect we've established a company that contain the whole R&D team at CPDC), which have been quite successful. Fusion raised [\\$46M in 2017](#) and an additional [\\$105M in 2018](#). Their lead product is being tested in humans, and Fusion manufactures the molecule.

Another company is [ARTMS](#), is a joint venture between BCCA, TRIUMF, Lawson and CPDC. With their technologies they can produce more isotopes out of their cyclotrons. CanProbe – joint venture between CPDC and UHN. We're spinning out our production corp into [NuGeneris](#), that acts as a contract manufacturing organization.

In terms of manufacturing, we're a global leader for both manufacturing and distribution. We expect more products are being developed and more will come to the market. There are not enough facilities to manufacture sufficient radiopharmaceuticals to satisfy the market demand.

NuGeneris will be totally focused on manufacturing these drugs. They are building out a 24,000 sq ft facility in Hamilton to manufacture up 50,000 doses. There will be four lines of production, with each line dedicated to a single product; given the complex regulatory, patient and compliance needs. For example, to switch a line, you need to wait for the radiation to decay before you can clean the facilities – so it is often easier to stick with one product on the production line. There are likely be 150 employees at the facility – and we have secured \$14M to support construction. One client is investing in dedicating equipment. Two additional clients are in discussion to have dedicated suites. By 2021, we will commission the facility, and 2024 start to supply radiopharmaceuticals into the market.

CPDC has three commercial products that are cancer imaging – one for bone imaging. We have three products that are under development. DOTATATE can do both imaging and therapy. The PMSA product is in phase 2, and should be in the market in a few years. There is an immune-oncology program with Dana Farber – where we use T cells help get the alpha particle to the cancer. We are also trying to do imaging of the therapy, since there are few (if any) imaging agents right now.

We are also in conversation with the only supplier for Lutetium out of Germany; we are exploring with McMaster whether we can use their nuclear reactor to start supplying Lutetium ourselves. The program to explore feasibility started last September, and if everything goes well, we'll be able to incorporate this into our product portfolio

Guest Speaker Discussion

Question & Answers

Question: Can you give a sense of the average cost for therapeutic?

I cannot speak to the full cost of treatment, but in some cases the per dose cost \$300-400. But transportation costs can drive the price upwards, as well as a variety of other considerations.

Question: You mentioned that giving patients may end up receiving a drug before QC is completely finished. What does Health Canada require to allow this?

For the most part, it's the same rules. The vigilance for radiopharmaceuticals is the same as any other drug. That said, there is a lot of scrutiny and considerations on these products since QC isn't finished when the drug is administered. If something is discovered, we do a recall, but we can't take back the drug out of the patient.

Question: Can you expand on the regulatory pathways with respect to FDA and Health Canada?

We have a good relationship with both agencies. For us the most difficult challenge is that we are often not in a position to provide 100% certainty during the initial manufacture/QC process, even though we are very confident that everything is OK – so we can't clear the drug for delivery to the patient. In these cases, where we need to inject the patient in a few hours, it is important for us to have a good relationship with the regulatory agencies. In these cases, we have to explain why we think that the drug is still ok to administer, and what variances we see, why they might be there and why we feel comfortable proceeding – and then they have only a few hours to respond. However, these agencies understand that radiopharmaceuticals is a special case, and they will often get back to us within the timeframe with a go/no-go decision.

Hamilton Health Innovation: Calendar Highlights

Check out Synapse's [online calendar](#)

May

- May 26-29: Call for Abstracts: [e-Health Conference and Tradeshow](#) (Digital Health Canada)
- May 26-29: [eHealth Conference 2019](#): Health Canada's National Conference & Tradeshow (ICS)
- May 30: [Research EXPO Day](#) (Mohawk College)
- May 30: [Venture Creation vs. Licensing](#) (MGDII)

June

- Jun 3-6: [BIO International Convention](#) (Biotechnology Innovation Organization - BIO)
- Jun 6: Prototyping and Iterative Development (MGDII)
- Jun 11: [Capital@MIP – Speaker Series: Michael Dymont, NEXA Capital](#) (McMaster Innovation Park)
- Jun 11: [MedEdge 2.0](#) (Richmond Hill Economic Development)
- Jun 12: [Innovator Seminar: "Who Decides Which Side is Dark?"](#) (MGDII)
- Jun 12: [Top 10 Pitfalls To Avoid During New Hospital Data Analytics Initiatives](#) (Digital Health Canada)
- Jun 18: Future of Health Summit 2019 (Hamilton Health Sciences)
- Jun 19: [The eHealth Trust Model: Understanding the Patient Privacy Perspective in a Digital Health Environment](#) (Digital Health Canada)
- Jun 19-20: [TrueNorth](#) (Communitech)
- Jun 21: [Angel First Look Investor Meeting](#)
-  Jun 24: [Hamilton Health Check-up](#) (Synapse Consortium)

July / August

-  July 29: [Hamilton Health Check-up](#) (Synapse Consortium)
-  Aug 26: [Hamilton Health Check-up](#) (Synapse Consortium)

Fall 2019 and Beyond

- Sept 22-25: [AdvaMed MedTech Conference](#)
- Sept 26: [LiONs LAIR](#) (Innovation Factory)
- Oct 1: [Waterloo Innovation Summit](#) (University of Waterloo)
- Oct 4-6: [Body Peace 2019](#) (Body Brave & NIED)
- Fall: Apps for Health (Mohawk College)

TIME ALLOTTED | **20 MINUTES**

Topic: **Communicate**

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

Discussion	Presenter
<p>Juravinski Family Makes One of Canada’s Largest Donations +100M to create a New Health-Research Institute in Hamilton (Globe and Mail)</p> <p>An Ontario couple who grew up in poverty during the Great Depression and became self-made millionaires have pledged to donate the bulk of their estate, totalling more than \$100-million, to create a new health-research institute in Hamilton. The endowment from Charles and Margaret Juravinski, called the Juravinski Research Centre, will be a joint partnership between McMaster University, Hamilton Health Sciences Centre and St. Joseph’s Healthcare Hamilton. When it is up and running, the endowment fund will give \$5-million every year indefinitely to fund research projects.</p> <p>The endowment is one of the largest legacy gifts in Canadian history. Paul O’Byrne, dean and vice-president of the faculty of health sciences at McMaster, said the gift will help transform how health research is conducted and has the potential to lead to important clinical developments. “There’s no question, it will be a game changer,” Dr. O’Byrne said.</p> <p>Tom Stewart, chief executive officer of St. Joseph’s Healthcare, said the funds will help Hamilton continue to grow as a hub for health research and innovation. “This will create energy in Hamilton that will start to catapult it further forward,” he said. “It will also act as a magnet for retaining and recruiting the brightest in the world.”</p> <p>The Juravinskis, who have lived in Hamilton for most of their lives, have previously donated more than \$50-million to several organizations in the city, including the Juravinski Hospital and Cancer Centre at Hamilton Health Sciences.</p> <p>What makes the new gift different is that it won’t fund a physical structure but instead will be focused on advancing research. Mr. Juravinski said the couple is particularly interested in research projects focused on the “staples,” such as the heart, lungs and brain. But, they are placing no restrictions on research parameters.</p> <p>To read the full Globe and Mail article click here</p> <p>For other stories, click here, here, here, or here</p>	<p>Alex Muggah (Synapse)</p>
<p>McMaster Researchers Create a Better Way to Transport Life-Saving Vaccines</p> <p>Researchers at McMaster University have invented a stable, affordable way to store fragile vaccines for weeks at a time at temperatures up to 40C, opening the way for life-saving anti-viral vaccines to reach remote and impoverished regions of the world.</p> <p>The new method combines the active ingredients in existing vaccines with a sugary gel, where they remain viable for eight weeks or more, even at elevated temperatures. To apply the technology to vaccines, the engineers collaborated with health sciences colleagues across</p>	<p>Alex Muggah (Synapse)</p>

Discussion	Presenter
<p>campus who specialize in virology and immunology. Their work is published today in the journal Scientific Reports.</p> <p>The method creates light, durable, and compact doses that would be ideal for shipping Ebola vaccine, for example, to affected regions of Africa, the researchers say. The process adds only marginal cost to preparing a vaccine and eliminates almost all the cost of transporting it - which can account for 80 per cent of the total cost of inoculation.</p> <p>Combining the vaccines and the sugars - pullulan and trehalose - is almost as simple as stirring cream and sugar into coffee, the researchers say. The storage technology was created by chemical engineers at McMaster, who had already demonstrated its effectiveness in other applications, such as an edible coating that can prolong the shelf life of fruits and vegetables.</p> <p>To read more, click here, here, or here:</p>	
<p><u>Dalriada Therapeutics Seeking Support with Web Design Project</u></p> <p>Dalriada Therapeutics is seeking support for a relatively simple web design project, and would like to explore a potential collaboration with companies with established experience doing web design. If interested, please reach out to Diana at: diana@dalriadatx.com</p>	<p>Diana Kraskouskaya (Dalriada)</p>
<p><u>Bruce Inwood</u> (Director, Brisk Synergies) a new executive-in-residence at Innovation Factory introduced himself to the community</p> <p>I've been doing quite a bit of work with NIH small business association during the last four years. They give out \$150k grants to innovators/researchers to do a commercialisation plan; I work with these doctors and experts to explore whether there is a viable opportunity to commercialize their IP. I do interviews, give feedback, and then do research around competitors, business development, including conducting a competitive search. I will often try to do some matchmaking – under an NDA, at the level of a first due-diligence meeting. The goal is to help the company along, usually in pre-clinical stage. Also give NIH sense of viability of the technology – before they can apply for the \$1m portion of the grant.</p> <p>Currently, I've been working with Glenn and the McMaster tech transfer office (MILO) and Innovation Factory to see if there are researchers / companies that are interested in doing a patent application, initial market assessment. I help by giving them some direction, and opening doors to critical connections. In most cases, many of the experts that I connect companies with often look to participate in the clinical trial.</p>	<p>Bruce Inwood (Brisk Synergies)</p>
<p><u>merq - Hamilton-company Supporting Lab Solutions and Automation</u></p> <p>David Wilson shared his experience trying to build affordable heat sinks, and identified merq, a company located in Stoney Creek that specializes in lab solutions and automation, as a great resource to support rapid prototyping.</p> <p>MERQ is able to assist with rapid lab equipment design and automation, as well as supporting custom tooling, fixtures, repairs, service, floor plans, building design and process improvement.</p> <p>To learn more, check out their website or contact David Wilson for a referral: david@eye3.com</p>	<p>David Wilson (eye3concepts)</p>

Discussion	Presenter
<p><u>Update from Velocity in KW</u></p> <p>Waterloo Innovation Summit (Oct 1) will be focused on health technologies. Speakers have all been set – with an interesting cross-section of companies and speakers from the region. While the focus is not on future of health technology, it’s more a snapshot of what’s happening today.</p> <p>At Velocity we have recently opened up a co-location space with Perkin Elmer. They have moved a number of their products into our space which will be used to support sales – but the also made available for startups to use.</p> <p>Velocity will be able to open up our own biosafety level 2 space once the paperwork has been completed – likely in a few weeks. To access the space, companies will have to be part of the Velocity program. We’re going to launch 4-5 companies within the next few months (3 of which will be out of University of Waterloo), and are open to new applications from anywhere in the region.</p> <p>To learn more about Velocity, please contact Adrien: adrien.cote@uwaterloo.ca</p>	<p>Adrien Cote (Velocity)</p>
<p><u>Updated by Patiti Ryan, CEO HealthQR</u></p> <p>Have applied for a new project to develop a medical literacy tool – in collaboration with Mount Allison.</p> <p>The new tool has been digitized to do medication reviews. For patients, they may not understand how to use complex drugs. The tool will walk patients through their med profiles, with a gamified quiz to ensure evaluation. Its an open source pharmacy tool – with data to be automatically populated. For those who wish to be manually implemented, patients can do tests online.</p> <p>Our hope is for a September roll out. We have received a research grant to validate the tool against an existing Mount Allison’s tool. By way of context, when the med assessment is done in hospital it can take 2 hours vs. a 15 minute assessment with the pharmacist using our tool. We’ve got a lot of positive feedback thus far.</p> <p>Once we get the validation done, then there will be two years left in the granting fund. We expect there will be a need to do pilot tests and roll-outs in the community.</p> <p>For more information, contact Patti Ryan: patricia@healthqr.com</p>	<p>Patti Ryan (HealthQR)</p>
<p>Call for Abstracts: e-Health Conference and Tradeshow (May 26-29)</p> <p>Digital Health Canada has put out a call for those interested in submitting an abstract for presentation at e-Health Conference and Tradeshow.</p> <p>Contact Health Program Chair Scott McMillan or Conference Coordinator Yurim Park to get more information at: events@digitalhealthcanada.com</p>	<p>Digital Health Canada</p>

Discussion	Presenter
<p>City of Hamilton Booth @ e-Health 2019 (May 26-29)</p> <p>City of Hamilton has reserved a booth at the e-Health Conference, which includes 4 registrants at e-Health 2019 at the Beanfield Centre in Toronto. Representing Hamilton will be:</p> <ul style="list-style-type: none"> • St. Joseph’s Healthcare, Hamilton • McMaster MeHealth • Mohawk College • Synapse Consortium • Hamilton Health Sciences <p>Please reach out to Carolynn Reid (Carolynn.Reid@hamilton.ca) if you’d like more information or to participate in Hamilton’s engagement at e-Health 2019.</p>	<p>Carolynn Reid (EcDev)</p>
<p>Research EXPO Day @ Mohawk College (May 30)</p> <p>Learn, discover and engage with the broad range of research taking place across Mohawk College – from drone research and sustainability projects to student success initiatives and virtual reality studies. You’ll interact with researchers doing innovative work, hear from guest speakers about the benefits of applied research, and meet partners and researchers who work with Mohawk College.</p> <ul style="list-style-type: none"> • 1:00 pm - 4:00 pm EXPO • 4:00 pm - 7:00 pm Awards and Recognition 	<p>Natalie Shearer (Mohawk College)</p>
<p>Capital@MIP - New Speaker Series at McMaster Innovation Park (June 11)</p> <p>McMaster Innovation Park invites you to attend a new speaker series, Capital@MIP. Come listen to industry professionals speak about their adventures in seeking opportunities to invest, and what makes them say, "WOW." Learn how to make your business flourish financially by gaining insider knowledge about when to take the next step.</p> <p>Series Schedule</p> <ul style="list-style-type: none"> • June 11: Michael Dymont, NEXA Capital Following the Money to Infinity and Beyond in Aerospace • September 17: David Schincariol, Changing Tide Ventures An Unapologetically Canadian Approach to Doing Well by Doing Good • October 22: Hassan Kahn, Quantius Capital The Alchemy of Intellectual Property Funding • November 19: Matthew Johnson, Bloom Burton Capital Crossing the Chasm from Toronto to Hamilton • January 2020: Karen Grant, Angel One Where Angels Fear to Tread <p>Want to a more intimate experience? Apply to be apart of our Round Table Sessions. What are Round Table Sessions? Enjoy small group sessions with keynote speakers before the main event where you can ask your burning questions and get an inside look into the speaker's mind. Maximum 10 attendees per session.</p> <p>To learn more, email events@mcmasterinnovationpark.ca</p>	<p>Mark Stewart (MIP)</p>

Discussion	Presenter
<p>MedEdge 2.0 (June 11)</p> <p>MedEdge 2.0 is Richmond Hill's and the GTA's Premier Life Sciences Business Summit. MedEdge gives industry professionals the opportunity to meet with entrepreneurs, investors, government agencies and key partners in Ontario's health sector.</p> <p>Keynote Address – Predictions for Canadian Healthcare IT – Seeking Value</p> <ul style="list-style-type: none"> • Dr. Chris Hobson, Chief Medical Officer, Orion Health <p>Driving it home - Shattering myths and offering practical advice</p> <ul style="list-style-type: none"> • Realities of economics and how it drives decision-making in the health care system – Lisa Boreanaz, IRAP • Realities of generating revenue in the health technology industry – Angela Johnson, Medical Confidence • Realities of partnerships – Understand what potential partners are looking for and what information you need to provide. – Scott Mason, Chief of Business Development, CleanSlate UV <p>Panel – Showing value to the health care system.</p> <ul style="list-style-type: none"> • Developing a product to deliver value to the health care system - Joel Ironstone, Ironstone Product Development • Innovation procurement in healthcare - Sarah Friesen, President Friesen Concepts Inc. and founding member of the Healthcare Supply Chain Network • Integrating innovation into clinical workflow – Dr. Aviv Gladman <p>To register, click here</p>	<p>Alex Muggah (Synapse)</p>
<p>Hamilton Health Sciences hosts inaugural Future of Health Summit (June 18th)</p> <p>HHS is will host the inaugural Future of Health Summit on Tuesday, June 18th, bringing together healthcare experts, industry and innovation partners and community stakeholders in an opportunity to drive conversation about the future of health.</p> <p>With the goal to Connect, Engage and Empower our exclusive group of delegates, this event will showcase and build capacity towards the goals of proactive management of health, democratization of healthcare journey and creating stronger and healthier communities. We are looking to enhance our strategies of engagement to our broader community of people, patients, care givers, advisors, consumers and influencers. With the outcome to drive the shift towards democratization of responsibility, access and participation as we work towards our CALL TO ACTION - How to Create a more Participatory and Equitable Healthcare Experience. There is an exclusive Save the Date appended to this email.</p> <p>If you have any questions or wish to direct your invitation to another delegate on your behalf, please contact Andrea Lee, Research Development and Innovation Officer (leeand@hhsc.ca). We are very much looking forward to hosting this day and are excited at the opportunity to engage you for this remarkable summit.</p>	<p>Ted Scott (HHS)</p>


Discussion	Presenter
<p>True North (June 18-19)</p> <p>Communitech is hosting a conference on living digital, including an exploration of how our healthcare is going to be affected by digital influx.</p> <p>Ticket are available on May 1. The focus of the conference is how this region has become a centre of tech innovation – in every field (e.g., not just IoT or ITC). A lot of discussion will be around tech will impact our live “Tech for Good” is a theme. We’re anticipating 4,000 people. We had 2,500 last year.</p> <p>The lineup is already set – we’ve got founder of the internet Sir Tim Berners-Lee and may others, including Hamilton’s MedStack. There is also an adjacent Hackathon that is happening at the same time as well as a festival portion in the evening / weekend. Most of the city was shut down because we had so many people coming.</p> <p>To learn more, visit the website</p>	<p>Jacob George (Communitech)</p>
<p>Angel First Look Investor Meeting (June 21)</p> <p>This year’s Angel First Look Investor Meeting are officially open. Applications are open until June 21, 2019. As a valued partner, we’re thrilled to extend an invitation to your organization to attend and share this unique opportunity with your highest-potential clients. This year brings on a couple new changes to the event format:</p> <p>High potential startups can now “self-nominate” and an approval committee will finalize the exhibiting companies</p> <p>Strategic corporate organizations will be invited to tour the tradeshow – one of the fastest ways for startups to go to market is through corporate partnerships (leveraging their established sales channels, proprietary assets and market knowledge)</p> <p>Our goal is to deliver a top-tier collision event for the local innovation community, providing the means for startups to expand their network and connect with investors and strategic corporates.</p> <p>Please contact Jennee Ravasong for more information: jennee.ravasong@riccentre.com</p>	<p>Rasavong, Jennee - RICC</p>
<p>Waterloo Innovation Summit (October 1, 2019)</p> <p>Reimagining health with technology: Global and individual health care continues to be deeply disrupted by technology. Quantum sensors improving cancer treatment, health informatics prioritizing patient care and computational models predicting better surgical outcomes are all examples of how HealthTech is transforming individual health and the delivery of medical care.</p> <p>Join global thought leaders and change agents on October 1 as we take a deep-dive into the burgeoning HealthTech boom.</p>	<p>Adrien Cote (Velocity)</p>

Discussion	Presenter
<p>Meet the disruptors: Witness for yourself the medical devices, pharma care solutions, digital technologies and data systems that will shift your perspective on health and make the delivery of care faster, cost effective and more accurate.</p> <p>See the future of HealthTech: Hear from HealthTech startups and scale-ups on how to successfully navigate growth. Discover the secrets of world-class innovators who have transformed original ideas into real-world solutions. And see what's on the horizon.</p> <p>Build connections: The day will include opportunities to network with industry leaders, policymakers and influential inventors in Engineering 7, our new state-of-the art training ground for engineers of the future. Share and hear thought-provoking ideas that anticipate trends and transform the world and find partners for your future.</p> <p>Experience a pitch competition: You will get a chance to participate alongside investors as they judge HealthTech startups from the University of Waterloo's Velocity, Canada's most productive startup incubator, as they complete in a real-time pitch competition for cash prizes.</p>	
<p>Next Great Big Ideas is now scheduled to take place in mid-September, and will be held in Burlington. We've got a great line-up (Stryker, GE, JLABs). Will be putting together the organizing committee. Those interested should reach out to Jim Wilson (J.Wilson@CBRE.com)</p>	<p>Jim Wilson (CBRE)</p>
<p><u>Space available at Hamilton Technology Centre (HTC)</u></p> <p>Rob McCann has shared that there is space (between 700sqft to 1600 sqft) now available at the Hamilton Technology Centre (HTC) for rent for . Additionally, a data centre is being built, and will be available by the end of summer 2019. The Hamilton Technology Centre is a private innovation hub located in Canada's Innovation Triangle owned and operated by Clearcable. HTC opened its doors in 1993 and is currently striving to foster the development of technology companies by providing space and community to new and accelerating companies who choose the Hamilton area as their home. HTC would like to encourage ongoing cooperation with the region's other innovation spaces.</p> <p>For more information, contact Rob at: robm@clearcable.ca</p>	<p>Rob McCann (HTC)</p>

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
<p>Synapse engages companies and organizations from outside the region that may be interested in engaging with the Hamilton ecosystem – including those that are seeking to establish a presence in Hamilton or that wish to partner with Hamilton resources and capabilities.</p> <p>For more information about upcoming engagement, or for assistance in hosting inbound visits that may be of interest to the broader community, please contact Alex Muggah: Alex.Muggah@SynapseConsortium.com</p> <p>Recent visits to/from Hamilton:</p> <ul style="list-style-type: none"> • <u>Recent: Stanford BioDesign & Company Meetings (May 7-9)</u>: Synapse took part in a delegation including representatives from Hamilton Health Sciences, the McMaster Innovation Park and McMaster University visiting the Bay Area. The visit included two days of visits with the Stanford BioDesign program, as well as several meetings with industry and organizations representing the region’s life science cluster • <u>Recent: Ontario Genome (May 17)</u>: Vice President of Strategic Partnerships & Resource Development visited with Synapse, Innovation Factory and the McMaster Industry Liaison Office (MILO) to talk about strategic partnerships - including their ideas around future applications for federal funding (e.g., FedDev, SIF) where they may be seeking academic partners. • <u>Recent: Buffalo Delegation Site Visit (May 28)</u>: a delegation from Buffalo, including Buffalo Manufacturing Works, Cimanelli Real Estate, as well as two VC firms. The visit included a presentation by the City of Hamilton’s EcDev, as well as tours of CanMET, Automotive Research Centre (MARC), Manufacturing Research Institute (MMRI) and the McMaster Innovation Park (MIP) <p>Upcoming site visits to/from Hamilton</p> <ul style="list-style-type: none"> • <u>Upcoming: Jiangsu Provincial Government Science and Tech department (June 17-18, MILO lead)</u>: coming from New York, where they are attending the SAPA 2019 Healthcare Investment Forum and Roadshow. They have asked to visit McMaster University, the Innovation Park, and Innovation Factory (iF) with particular interest in setting up subsidiaries in Ontario. • <u>Upcoming: Nordic Companies Site Visit to Hamilton (June)</u>: Innovation Norway and their Nordic partners are expected to bring 6-12 Nordic companies, as part of a visit to Ontario, looking to explore potential collaboration opportunities. This builds on existing commercialization project between Aply Medical and the GERAS centre • <u>Upcoming: Switzerland - Neuchâtel region site visit (June)</u>: companies and representatives from the Neuchâtel health cluster will be in Ontario, and are looking to explore potential collaboration opportunities. 	<p>Alex Muggah (Synapse)</p> 

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<p><u>Health Canada new e-Learning tool: premarket regulatory requirements for medical devices</u></p> <p>Under the Regulatory Review of Drugs and Devices initiative, Health Canada is increasing the efficiency of the regulatory system and supporting timely access to therapeutic products. As part of this initiative, Health Canada is pleased to announce the launch of the e-Learning tool, Understanding How Medical Devices are Regulated in Canada – Premarket Regulation.</p> <p>This web-based tool, designed as an interactive learning platform, offers an overview of Health Canada’s premarket regulatory requirements for medical devices. It also provides targeted guidance to enable greater consistency in the understanding, interpretation and application of the Food and Drugs Act, the Medical Devices Regulations and their related policies and guidelines.</p> <p>The tool serves as a valuable, comprehensive, and organized source of premarket regulatory information for various medical device stakeholder groups, including manufacturers, importers, distributors, consultants, healthcare groups, and academia. By providing e-Learning content to manufacturers and other relevant stakeholders, it is expected that the completeness and quality of Medical Device Licence applications will improve, thereby resulting in more positive, and more timely, regulatory decisions.</p> <p>Health Canada encourages and invites stakeholders to utilize and benefit from this new educational tool.</p> <p>Questions or concerns regarding this notice or the e-Learning tool should be directed to the Medical Devices Bureau at hc.mdb.enquiries-enquetes.bmm.sc@canada.ca</p>	<p>Joon Kim (NRC-IRAP)</p>
<p><u>LiON’S LAIR Applications are Open</u> (Deadline May 12)</p> <p>LiON’S LAIR is an annual competition presented by Innovation Factory and the Hamilton Chamber of Commerce, which brings together the entrepreneurship and innovation community in Hamilton. The competition gives 10 companies the opportunity to pitch their ideas to a panel of our city’s top business experts – the “Lions” – for a chance to win over \$100,000 in cash and in-kind resources!</p> <p>The first annual competition took place in 2011, and has significantly grown – in application volumes, gala attendees, prizing and buzz – year after year.</p> <p>Apply here</p>	<p>Riley Moynes (Innovation Factory)</p>
<p><u>Market Research Available to Innovation Factory Companies</u></p> <p>Innovation Factory noted it is possible for companies to take advantage of free market research (available via MaRS), which can be tailored to each ventures specific needs and turned around in two weeks. The market research is quite high value – with an average value of \$5,000 – but is available to Innovation Factory clients for free. In addition, the regional innovation centre network also offers consulting hours that can be accessed via Innovation Factory.</p> <p>To learn more, contact Riley Moynes: riley.moynes@innovationfactory.ca</p>	<p>Riley Moynes (Innovation Factory)</p>

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<p><u>MedTech Canada Support to attend AdvaMed MedTech Conference in Boston (Sept 22-25th)</u></p> <p>Medtech Canada (formerly MEDEC) received support from Global Affairs Canada (via the Global Opportunities for Associations Initiative) to provide an opportunity for Canadian medtech companies to participate at the</p> <p>Ten (10) Canadian medtech companies can receive financial support from Medtech Canada (up to 75% of eligible expenses) to attend the conference.</p> <p>Please forward this information to any Canadian medtech companies that could benefit from this opportunity. Thank you.</p> <p>If you have questions, please contact Stephen Dibert: stephen@dibert.ca</p>	<p>Stephen Dibert (MedTech Canada)</p>
<p><u>ITAC Health - HIMSS Europe Conference - GOA funding for Canadian Companies Available (June 11 – 13)</u></p> <p>ITAC Health has been granted GOA funding to assist participating members in the costs for attending and participating in the HIMSS and Health 2.0 Conference in Helsinki, Finland from June 11 – 13, 2019. For June 10th, we have been able to secure a meeting with the Canadian Consulate in Finland in the morning and they will be arranging for a virtual meeting at their office with the other Canadian Consulates from across Europe. In the afternoon of June 10th, ITAC has organized a site visit to the Helsinki University Hospital, which will provide further valuable insight to participating companies into the typical Health IT infrastructure, regional future initiatives intel, procurement processes, etc. in Finland, Scandinavia and Europe.</p> <p>GOA funding is available for any Canadian company and will cover up to 75% of travel costs (air flight, meals, hotel, taxi/shuttle transportation and conference registration) for one person per company. Other company representatives from the company can also participate, however, the funding is only available for one person per company.</p> <p>With the conference less than 2 months away, plans will need to come together quickly and space is limited, ITAC will need to know who will be participating as soon as possible. If you know of another Canadian company that might be interested, please feel free to connect them with Elaine Husing at ehusing@itac.ca</p>	<p>Nijusha Barmala (ITAC)</p>
<p><u>HIEC Focus on Growth Program: Connecting Employers with Co-Op Programs</u></p> <p>Have you ever considered bringing on a college level co-op student? There are many benefits to hiring college students – including potential tax incentives and a funnel of future candidates. Specifically, the project has created a framework for partnership between businesses and colleges, with HIEC as a key connector centering on two education partners – Mohawk and Sheridan colleges in areas of growth and need, including advanced manufacturing, artificial intelligence, cyber security and medical technology.</p> <p>As part of the project, HIEC can help you:</p> <ul style="list-style-type: none"> • Map out specific college programs that align to skills and roles you are looking for • Navigate the college system to determine the right fit and alignment to roles • Provide sample job description templates to assist in defining the roles you need 	<p>Debra Thompson (HIEC)</p>

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<ul style="list-style-type: none"> Connect you directly with the college coop coordinators to finalize job postings and coop placements <p>HIEC welcomes the opportunity share more information about this opportunity with any of your member employers and learn about interest in hiring coop students and provide our support in assisting you with the process.</p> <p>To learn more, contact Debra Thompson, Communications Manager: dthompson@hiec.on.ca</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.</p> <p>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, and have asked companies to direct them to the portal. Synapse is working with HHS to test it out with companies right now, including getting the approach/questions right. This will be a sense of who wants to interact with the community, and then triage companies to relevant stakeholders within Hamilton.</p> <p>Portal is online through the Synapse website: http://synapseconsortium.com/partner/</p>	<p>Andrea Lee (HHS)</p>
<p><u>MGDII Educational Webinars</u></p> <p>Operating out of the Michael G. DeGroote School of Medicine at McMaster University, the Michael G. DeGroote Health Innovation, Commercialization & Entrepreneurship (MGDII) aims to accelerate the exploration of health innovation opportunities and creation of socioeconomic impact. Some of the upcoming webinars include:</p> <ul style="list-style-type: none"> Venture Creation vs. Licensing May 30 12 - 1 PM Register here Prototyping and Iterative Development June 6 12 - 1 PM Register here Innovator Seminar: "Who Decides Which Side is Dark?" June 12 12 - 1 PM Register here 	<p>Sarrah Lal (MGDII)</p>
<p><u>Digital Health Canada: Webinar Wednesdays</u> (May 1)</p> <p>Listen and learn every Wednesday from noon to 1pm EST. Each webinar features a presenter from the public or private sector sharing details of a successful project, innovative idea, or new practice. Members share valuable info and insights every week</p> <ul style="list-style-type: none"> Top 10 Pitfalls To Avoid During New Hospital Data Analytics Initiatives (June 12) Richard Obubowich, 3terra The eHealth Trust Model: Understanding the Patient Privacy Perspective in a Digital Health Environment (June 19) Nelson Shen PhD 	<p>Digital Health Canada</p>

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<p>3i Ontario</p> <p>Looking for resources to support your great idea for improving health and healthcare? This page lists a range of opportunities available to Ontario innovators and innovation champions, as well as recently published information and thinking related to health innovation. We focus on health technology, including digital health solutions, innovative medical devices, and more.</p>	<p>Alex Muggah (Synapse)</p>
<p>Accenture: Medavie HealthTech Innovation Challenge</p> <p>This innovation Challenge encourages participants to submit ideas for digital solutions to unmet health and wellness needs of Canadians. Accenture is seeking solutions that:</p> <ul style="list-style-type: none"> • Minimize common challenges faced by elderly citizens and those living with chronic health conditions while improving their level of independence and quality of daily life • Encourage wellness and lifestyle improvement among Canadians • Make health, wellness and caregiving services more accessible and consumer centric • Align to or leverage industry related trends such as “Gig Economy” and “Personalization <p>It’s an opportunity to potentially win \$2,500, meet and pitch to senior executives, and run a 6-week proof of concept with Medavie. Entries can be submitted from this link: Medavie HealthTech Innovation Challenge</p>	<p>Alex Muggah (Synapse)</p>