

Hamilton Health Innovation Check-up: Meeting Minutes

March 2023

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STANDING AGENDA TOPICS:

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

Facilitator & Note Taker
Virtual Location

Alex Muggah, Director, Synapse Consortium
Join Zoom Meeting: <https://zoom.us/j/405351918>
Dial in: +1-647-558-0588,,405351918#
Register here:
<https://us02web.zoom.us/meeting/register/uZQodOyppzoiQnRwfvVuEJtEMUpKPUZPzg>

Next Monthly Check-up: February 27th 9:00 – 10:00am | McMaster Innovation Park (via Zoom)
Please sign up to our [mailing list](#) to receive meeting minutes and other important updates.

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

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

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

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

If you have an event that you would like listed here, please contact us at: info@synapseconsortium.com

Hamilton Health Innovation: Calendar Highlights

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

April

- Apr 5: [i.d.e.a. Fund Info Session](#) (Innovation Factory)
- Apr 6: [Winter 2023 Project Showcase](#) (CityLAB Hamilton)
- Apr 13: [Monthly FemTech Roundtable](#) (Femtech Canada)
- Apr 17-21: [HIMSS Global Health Conference & Exhibition](#) (HIMSS)
- Apr 21: [Waterloo Innovation Summit](#) (University of Waterloo + MaRS)
- Apr 17-18: First Annual ACT Canada Consortium Meeting (Accelerating Clinical Trials Consortium)
- Apr 18: [Scientific Research & Experimental Development in Life Sciences](#) (OBIO)
- Apr 22: [Turn the Beat Around – HHSF Gala](#) (Hamilton Health Sciences Foundation)
-  Apr 24: [Hamilton Health Check-up](#) (Synapse Consortium)
- Apr 25-26: [Healthcare Investor Conference 2023](#) (BloomBurton)

April & Beyond

- May 3-4: [Impact Health](#) (MaRS)
- May 4: [The BIGGEST Big DiF - Open House & Client Showcase](#) (Innovation Factory)
- May 11: [Mayor's Breakfast](#) (Hamilton Chamber of Commerce)
- May 17: [Life Sciences Ontario Awards Presentation](#) (LSO)
- May 28-30: [e-Health Conference & Tradeshow 2023](#) (Digital Health Canada, Canada Health Infoway)
-  May 29: [Hamilton Health Check-up](#) (Synapse Consortium)
- Jun 1: [Invetures](#) (Technology Alberta)
- Jun 5-8: [BIO International Convention](#) (Biotechnology Innovation Organization)
- Jun 13-15: [Canada SynBio Conference](#) (Ontario Genomics)
- Oct 9-11: [Medtech Conference](#) (AdvaMed)
- Oct 12-13: [5th Annual Innovations in Science of Cannabis Conference](#) (CMCR)
- Nov 13-16: [Medica Healthtech Conference 2023](#) (MEDICAlliance)

Looking to engage the Hamilton Health Ecosystem?



In partnership with Innovation Factory and Synapse Consortium partners, leverage up to \$100,000 to work directly with an academic or hospital partner in the Hamilton ecosystem. Funding will support collaborative projects for Ontario-based life science firms requiring clinical/research expertise, evidence, or data to commercialize their innovation. Learn more about SOPHIE [here](#)



Leverage up to \$15,000 in funding to work directly with the Research Administration groups at Hamilton Health Sciences or The Research Institute at St. Joe's Hamilton to create the pre-trial protocols and documents required to undertake a commercialization project or clinical trial in one of Canada's leading research hospitals. Learn more about HEALTHI [here](#)

Time allotted | 30 Minutes

Topic: **Guest Speaker Discussion**

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

Guest Speaker Discussion
<p>Guest Speaker(s):</p> <ul style="list-style-type: none">• Dallas Barnes, founder & CEO Reya Health• Oleksiy Zaika, co-founder Vessl Prosthetics• Kaitlyn Spivak, Events Coordinator Innovation Factory
<p>Discussion <i>[the following is a synopsis of the discussion, and has been lightly edited for length and clarity]</i></p> <p><u>What is the Synapse Life Science Competition?</u></p> <p>Innovation Factory's Synapse Competition is Ontario's premier life science pitch competition. Innovation Factory is a business accelerator providing expert training, mentorship, and strategic connection to help high-potential entrepreneurs grow successful business ventures in Hamilton.</p> <p>On Wednesday, March 22, 2023, we concluded the 10th annual Synapse Life Science Competition. It was the first time Innovation Factory hosted the event in-person since 2019. The competition assists innovators, scientists, and researchers in bringing their ideas to market, increasing revenues, leveraging intellectual property, attracting investment, and creating jobs.</p> <p>In the competition, Innovation Factory pairs companies with post-secondary school students in the life science sector. Together, they participate in a three-month training program in which they develop a commercialization plan, and investors pitch and engage in mentorship meetings, all to help grow their business. Additionally, each innovator finalist receives a \$5,000 grant and the chance to pitch and compete at the live showcase to over 150 attendees. This year, the top three finalists competed for over \$100,000 in cash and in-kind prizes. Since the Synapse Life Science Competition started in 2013, it has helped over 115 companies, and through its generous partners, it has awarded over \$820,000 in cash and in-kind prizes. Moreover, the finalists have raised over \$85 million in funding and have entered global markets.</p> <p>The Synapse Competition is a valuable bridge for early-stage life science companies to migrate out of the lab and initial discovery stage down the commercialization pathway. Innovation and commercialization are challenging.</p> <p>Companies have the opportunity to engage with mentors and who are encouraged to think about their business plan, customers, how they're going to market, and how they will position themselves tend to be more successful. Companies that have participated in the competition in the past have managed to secure market traction and are selling in Europe, Asia, and the U.S. This success is a testament to Innovation Factory but also to a network of sponsors, mentors, students, and other stakeholders within the Hamilton community that come together to help companies.</p> <p>Each year, we see increasingly impressive finalists who represent the depth and strength of the Ontario life science ecosystem.</p>

Guest Speaker Discussion

At the event this year, the top three Synapse Competition finalists were Vessl Prosthetics Inc, Reya Health, and Laetech. Vessl Prosthetics Inc. was named the grand prize winner, Reya Health took second place, and Laetech came in third place.

Today, we are joined by Dallas Barnes, founder of Reya Health and Oleksiy Zakia, the co-Founder of Vessl Prosthetics to hear a little more about their experience and journey.

Introduction to Dallas Barnes, founder of Reya Health

Good morning everyone, my name is Dallas Barnes, and I am the founder and CEO of Reya Health. I started my career in Vancouver and attended the Sauder School of Business at the University of British Columbia. Upon graduation, I worked with remote indigenous communities around British Columbia with the Chambers of Commerce and local indigenous entrepreneurs, helping them with economic development and business plans. My goal was to foster innovation and growth in remote communities.

I loved this job. However, when COVID happened, we were not doing any in-person programming. Therefore, I had free time and began mulling over a problem that I, and the people around me, experienced throughout high school and university.

The problem is that healthcare providers often mis-prescribe birth control. Approximately 75% of people who use birth control describe their experience negatively. It is also time-consuming, taking an average of two years for somebody to find a birth control method they like. Additionally, many people experience side effects, lack of support, feel dismissed by healthcare providers, or are unaware of the information and resources available.

I experienced this firsthand and wanted to do something to better the experience for others. Reya Health grew from this experience and desire. Reya health is a digital platform for personalized contraceptive counseling. We utilize smart algorithms and a human-centered design to match young people with ovaries to the best birth control options and help them track and monitor any side effects or symptoms. We also enable them with personalized insights, tools, resources, and support so they can feel confident and comfortable on their reproductive health journey.

Recently, we worked with a group of beta users to test several features and gain insight into how different people in different communities experience reproductive health problems so that we can build alongside these community members and ultimately deliver the best care possible.

Reya Health's Participation in the Synapse Life Science Competition

This year was my first time engaging in the Synapse Competition, and it was phenomenal. Innovation Factory and the community at McMaster Innovation Park were very welcoming and eager to support and amplify the work we do at Reya Health. In joining the competition, I was met with enthusiasm and encouragement. It was refreshing to meet people who are just as excited about our ideas at Reya Health and take the time to support us in developing a commercialization plan.

We've put this time to good use, having shared our commercialization plan with government organizations for grants and funding projects and pitched it to investors. We at Reya Health see how our participation in the Synapse Life Science Competition has propelled the business forward and created a clear path toward success.

Future Plans for Reya Health

Right now, our focus is to launch our digital platform. We are in the final testing stages of our mobile app. We have released various versions of the minimally viable product in the past, but this will be the first time we have a

Guest Speaker Discussion

working mobile app approved on Android and iOS app stores. It is just a matter of us testing for various bugs and conducting feasibility testing. Then we can launch the mobile app alongside forming a college partnership to run focus groups. We plan to do an initial soft launch of the product on the app stores in late May or early June. We are also conducting a focus group to follow users for several months and observe their interactions with our platform to gain insight to iterate on our product and better design and grow our platform.

Our initial go-to-market strategy is through post-secondary education institutions and student health benefit plans. We have one university contract secured and several more in the pipeline. We also have boots on the ground, with over a dozen campus ambassadors running events, holding workshops, and putting up posters. Later, we hope to expand internationally through our growing partnership with the Planned Parenthood Federation of America.

Questions & Answers - Reya Health

Question: There is some turbulence in the U.S. regarding reproductive health services and products. As you think about partnerships with organizations like Planned Parenthood that advocate for women's health, how do you plan on navigating some of the challenges in this space in the U.S.?

Answer: Our primary focus is on privacy. We want to ensure that we comply with the privacy policies in the different states. In Canada, Reya Health follows Bill 64, a Quebec privacy policy that goes above and beyond some of the best privacy policies implemented in the U.S. Therefore, we are a step ahead. However, each state has unique requirements, so entry into the U.S. will be a state-by-state endeavor. With the support of Planned Parenthood, we see that transition being a lot smoother. Unfortunately, we will have to go to the more liberal-leaning states first to ease that entry, but ultimately, we want Reya Health to be available to people in those hardest-hit locations.

Question: What have been the main obstacles in your business development efforts? Have you tried to engage with Global Affairs Canada for support to enter European markets?

Answer: Not explicitly. We have CanExport on our radar, and I am looking into some of their events. We have not engaged with Global Affairs Canada but we are looking at other English-speaking countries and markets as our first entry points to grow globally.

Introduction to Oleksiy Zaika, co-founder of Vessl Prosthetics

My co-founder, Sydney Robinson, and I started the company in an unusual and unique way. We were part of the Medical Innovation Fellowship at Western University that immerses highly talented young scientists, engineers, and clinicians into the southwestern Ontario health ecosystem. It exposes individuals to different health specialties and offers them the chance to observe the healthcare needs prevalent in various communities. Through the Medical Innovation Fellowship, Sydney and I came across the problem we are trying to solve, improving prosthetic leg sockets for amputees.

During the COVID-19 pandemic, we had trouble entering some of our local hospitals. We then accessed the Hamilton ecosystem and worked with The Mayer Institute, a diabetic foot care clinic. While there, we noticed several people would come to the clinic to get their prosthetic leg sockets refitted due to discomfort and pain. After some digging, we learned this was a big problem for amputees without a proper solution. Most amputees experience limb volume changes daily, and the static socket they got measured for weeks, months, or years ago never fits perfectly long-term, costing them lots of money and livelihoods.

Guest Speaker Discussion

After the fellowship, Sydney and I decided we wanted to start a company focused on this clinical need, and we founded Vessl Prosthetics in June of last year. It has been an incredible journey so far, going through the process of innovating and meeting business entrepreneurs.

I am a Clinical Anatomist by training, and Sydney is a Biomedical Engineer. Since we have been in academia most of our lives, we do not have industry experience. So starting Vessl Prosthetics and getting introduced to the industry side of things has been incredibly fascinating for us.

What is Vessl Prosthetics?

When someone gets an amputation, they are typically fitted with a rigid custom device onto the residual limb. As the device is molded to the limb, it is fantastic at first. However, our bodies are dynamic, fluctuating in volume and shape daily. Unfortunately, for amputees, after a couple of months, their custom rigid socket will no longer fit as their limb changes, and they experience blisters and a lot of pain inside the socket. The result is that many amputees abandon their prosthetic sockets altogether.

We want to provide amputees more comfort, so we created an adjustable prosthetic socket. At Vessl, we designed a socket with a pressure distribution system that allows the socket to maintain constant pressure levels regardless of fluctuating limb size or shape.

One of the biggest challenges we had to overcome was making the device non-bionic or without sensors or chips. Bionic systems are not reimbursed appropriately by the Canadian healthcare system or public insurance companies in the U.S., making them inaccessible to several people. So we designed a reimbursable prosthetic socket that, rather than using sensors, employs mechanical engineering tools to ensure that users can afford the product and it can be produced and sold on a mass-market scale.

Vessl Prosthetics' Participation in the Synapse Life Science Competition

We received great feedback and support during the Synapse Competition. Vessl greatly benefited from the Hamilton life science ecosystem, especially from the support at Innovation Factory and the Synapse Life Sciences Consortium, who have helped us further our research, secure feedback on financial planning and business development, and access clinical studies. We are also a part of the [HEALTHI CtO](#) program at Innovation Factory and are incredibly grateful for the opportunity.

During the Synapse Competition, we also worked with a fantastic McMaster University BDC student, Michaela Hughes-Butler. We are happy to say that she looks forward to continuing to work with Vessl Prosthetics. The Hamilton ecosystem is like family to us, and we are incredibly grateful to be a part of it and the Synapse Competition.


Future Plans for Vessl Prosthetics

We are working with a product design firm in Toronto called Inertia and look forward to developing prototypes that can be fitted on amputees so they can wear them and provide us feedback. We also want to develop our quality management system (QMS) software and are looking to hire a mechanical engineer with computer-aided design (CAD) experience.

We are also looking for personnel with 3D printing experience, specifically in composite carbon (CCF) or jet fusion technologies with a fuse and nylon, to assist in manufacturing design. We hope to enter the market, gain increased clinical access and grow our team this year.

Time allotted | 15 Minutes

Topic: **Communicate**

Discussion	Presenter
<p>Congratulations to the Winners of the 10th Annual Synapse Pitch Competition: +\$100,000 awarded in cash and prizes</p> <p>On March 22nd, Innovation Factory’s Synapse Life Science Competition, Ontario’s premier life science pitch competition, announced the winners of over \$100,000 in prizes at the 10th annual showcase event. After three years of virtual events, more than 150 people the competition in person, bringing together innovators, business students, and industry leaders in Hamilton, Ontario.</p> <p>At the event, the top three Synapse Competition finalists; Vessl Prosthetics Inc, Reya Health, and Laetech went on to deliver their pitches to the esteemed judging panel and compete for their share of over \$100,000 in cash and in-kind prizes.</p>	<p>Kaitlyn Spivak (Innovation Factory)</p> 
<p>i.d.e.a. Fund applications open. \$30k to supporting startups and a more sustainable economy</p> <p>program that fosters inclusion, diversity, environment and acceleration while contributing to a green recovery, and is delivered in partnership with the following Ontario Regional Innovation Centres (RICs): Innovation Guelph, Haltech, Innovate Niagara, WEtech Alliance, Innovation Factory and TechAlliance of Southwestern Ontario, to support a more sustainable economy while fostering an inclusive and equitable recovery in Southern Ontario.</p> <p>This program will provide specialized industry expertise to develop growth plans and related strategies in the areas such as talent attraction, raising follow-on investment, product development and quantification of product benefits/market value propositions, commercialization of intellectual property, and market diversification. Each RIC will distribute up to a maximum of \$30,000 in matching seed funding to select innovative businesses in various sectors.</p> <p>Learn more or apply here</p>	<p>Shannon Grazsat (Innovation Factory)</p>
<p>McMaster and University of Ottawa partner to prepare Canada for future pandemics</p> <p>McMaster University will take a leading role in a new federal initiative designed to protect Canadians against future pandemics and emerging threats through the Canadian Pandemic Preparedness Hub (CP2H).</p> <p>CP2H — co-led by McMaster and the University of Ottawa — is one of five major research hubs and part of a \$10 million investment announced March 2 by François-Philippe Champagne, minister of Innovation, Science and Industry, and Jean-Yves Duclos, minister of Health.</p> <p>The multidisciplinary research hubs — funded through Stage 1 of the integrated Canada Biomedical Research Fund (CBRF) and Biosciences Research Infrastructure Fund (BRIF) — will accelerate the research and development of next-generation vaccines, therapeutics and</p>	<p>Darren Lawless (McMaster)</p>

Discussion	Presenter
<p>diagnostics and their commercialization, while supporting training to expand the pipeline of skilled talent.</p> <p>CP2H brings together more than 45 strategic partners from academia, industry, non-profit and governmental agencies from across the country to ensure Canadian discoveries are turned into the medicines of tomorrow in a cost-effective and timely fashion.</p> <p>McMaster is on the leading-edge of pandemic-related research at Canada's Global Nexus for Pandemics and Biological Threats, said Karen Mossman, McMaster's vice-president, research, adding that Hamilton — driven, in part, by the McMaster Innovation Park — is one of the country's fastest growing life sciences clusters.</p> <p>The government also announced the launch of Stage 2 — a national competition that includes \$570M of funding for cutting-edge research, talent development and research infrastructure projects associated with the new research hubs.</p>	
<p>Able Innovations strikes deal with Ottawa hospital for robotic patient transfer tech</p> <p>Robotic medical device startup Able Innovations has secured a procurement deal with an Ottawa hospital. Bruyère, a geriatric and rehab hospital, will use Able Innovations' devices to help with the complicated issues of transferring patients in beds.</p> <p>Founded in 2018 by CEO Jayiesh Singh and CTO Philip Chang, Able Innovations' device automates the patient transfer process, enabling a single caregiver to move an immobile patient between surfaces like a bed or stretcher.</p> <p>The Toronto-based startup has raised around \$7.5 million CAD to date, and earlier this year received funding from the Government of Canada to help it acquire advanced manufacturing equipment to bring its patient transfer platform to market.</p> <p>Read the full article here</p>	<p>Alex Muggah (Synapse)</p>
<p>Bay Area Health Trust hosts regional Ministers to celebrate the opening of their newly expanded state-of-the-art facility</p> <p>Bay Area Health Trust (BAHT) President & CEO, Peter Kalra, local elected officials, and representatives of Hamilton's vibrant innovation and life sciences eco-system celebrated the completed renovation and move to BAHT's new, state-of-the-art facility at a ribbon-cutting event on March 17.</p> <p>Once fully operational, the facility will enable BAHT to accelerate execution of its growth strategy, create jobs, and provide both current and future clients cutting-edge equipment, clean rooms, and inventory management systems.</p> <p>"We have invested over \$2 million in this project, because we see the demand and want to ensure we continue providing 110 per cent for the people of Hamilton, Ontario, and Canada," said Peter Kalra. "Moving to this location allows Bay Area Health Trust to support more studies. Whether it is storage in a temperature-controlled environment or preparing study medications to be sent to sites across Canada, North America or to international destinations."</p>	<p>John Hands (BAHT)</p>

Discussion	Presenter
<p>ImaginAble Solutions: Reigniting lost passions like painting with Guided Hands</p> <p>At 19, Lianne Genovese, then a student of Biomedical and Mechanical Engineering at McMaster University in Hamilton, founded her own startup, ImaginAble Solutions, with the goal of developing and bringing Guided Handsto market.</p> <p>Today, Guided Hands is an international award-winning product that enables anyone experiencing limited hand mobility to write, paint, draw and access technology through touch screen devices. It has a unique sliding system that promotes controlled and guided hand movements as a user holds a hand piece tailored to their level of hand impairment.</p> <p>Guided Handshas been tested by more than 350 physicians, occupational therapists, neurologists and people living with limited hand mobility across North America, including those with arthritis, ALS, Huntington’s disease and recovering from spinal cord injuries and stroke.</p>	<p>Alex Muggah (Synapse)</p>
<p>Hamilton entrepreneur Althea Therapy wins Black Pitch Contest 25k grand prize</p> <p>Micheline Khan, A black entrepreneur from Hamilton, Ont., has won the nationwide Black Pitch Contest. Micheline Khan’s company, Althea Therapy, helps people get access to culturally responsive mental health professionals and resources, with a goal of destigmatizing therapy and improving mental health outcomes for underserved communities.</p> <p>Khan says she is grateful for the opportunity and the funds will be used to “grow and scale” her business. She was one of five Black finalists from across Canada vying for the \$25,000 grand prize, which is funded by the non-profit Black Entrepreneurs and Businesses of Canada Society.</p>	<p>Humera Saud (Innovation Factory)</p>
<p>CANHealth Network to serve all of Canada with Québec, northern territories expansion</p> <p>In its goal to expedite healthtech procurement in Canada, the Coordinated Accessible National (CAN) Health Network is making its program available across all of Canada. Backed by \$30 million in federal funding from Budget 2022, CAN Health announced earlier this month that it is expanding into Québec, the territories (the Northwest Territories, Yukon, Nunavut), and remote communities.</p> <p>The CAN Health Network provides an integrated market to connect businesses with hospitals and healthcare providers with the ultimate aim of delivering new medical technologies to help patients. Through the CAN Health Network, healthtech entrepreneurs can test their innovations, connect with the government procurement process, and access other opportunities meant to help them scale.</p> <p>With funding from the federal government, CAN Health operates through a regional model that allows the organization to work across regional boundaries to identify shared problems and priorities, and connect health operators across the country interested in similar tech solutions.</p>	<p>Gary Ryan (CANHealth)</p>
<p>Toronto venture funding saw a “return to sanity” in 2022 (Betakit)</p> <p>Toronto’s venture funding in 2022 may have dipped from a record-breaking 2021, but still far surpassed 2020 and 2019, signalling a “return to sanity” for the city’s tech sector.</p> <p>According to a recent report from briefed.in, Toronto tech startups raised a collective \$3.7 billion through 154 deals in 2022. Venture funding decreased by 33 percent from 2021, but still vastly outpaced the level of funding briefed.in tracked across 2019 and 2020. In fact, Toronto’s</p>	<p>Alex Muggah (Synapse)</p>

Discussion	Presenter
<p>tech startups raised twice the amount of money in 2022 compared to 2019, and more than triple that of 2020.</p> <p>Silicon Valley Bank’s Collapse Causes Start-Up Chaos (New York Times)</p> <p>The fallout continues to spread across the start-up ecosystem from the failure of Silicon Valley Bank. Entrepreneurs raced to get loans to make payroll because their money was frozen at the bank. Investors doled out and asked for advice in memos and on emergency conference calls. Lines formed outside the bank’s branches.</p> <p>The implosion rattled a start-up industry already on edge. Hurt by rising interest rates and an economic slowdown over the past year, start-up funding — which had been supercharged by low interest rates for years — has shriveled, resulting in mass layoffs at many young companies, cost-cutting and slashed valuations. Investments in U.S. start-ups dropped 31 percent last year to \$238 billion, according to PitchBook.</p> <p>Silicon Valley Bank was also a bank to more than 2,500 venture capital firms, including Lightspeed, Bain Capital and Insight Partners. It managed the personal wealth of many tech executives and was a stalwart sponsor of Silicon Valley tech conferences, parties, dinners and media outlets.</p>	
<p>Swiss cheese and spice: McMaster lab combats antibiotic resistance with AI</p> <p>Antibiotic resistance is rapidly becoming a pandemic-sized problem. It’s a problem that could have been avoided, says Stokes.</p> <p>“Bacteria are evolving ways to overcome existing antibiotics faster than we can invent new ones,” says Jon Stokes, assistant professor of biochemistry and biomedical sciences. “As a result, we end up seeing more and more patients with drug-resistant bacterial infections that we can’t treat, which significantly increases illness and death.”</p> <p>Enter artificial intelligence (AI). Stokes and his research team are using AI and machine learning to explore new options to combat antibiotic resistance.</p> <p>And not a moment too soon. Roughly 4.95 million people died of causes associated with antibiotic resistance in 2019. By 2050, it’s estimated this number will approach 10 million per year.</p> <p>But it takes a tremendous amount of time and resources to develop new antibiotics using the two traditional forms of discovery – natural product discovery and synthetically produced small molecules. That’s what led Stokes and his research team to take a novel approach. It’s time to use smart tech to outsmart bacteria.</p> <p>“Through the application of AI and machine learning specifically,” explains Gary Liu, graduate student and emerging machine learning expert in Stokes’ lab, “we can rapidly find and explore untapped chemical spaces where we can potentially find new and clinically useful antibiotics.”</p> <p>Read the full article here</p>	<p>Alex Muggah (Synapse)</p>


Discussion	Presenter
<p>Opportunity to Join the Ontario Trade Mission to Participate in the BIO Business Partnering and Conference at BIO 2023, June 5-8, 2023</p> <p>Further to my recent email, I am enclosing the registration information and application for the Ontario Trade Mission to BIO 2023. This program will accommodate one person per company. Please note that once you have registered, and should you chose to withdraw, unless a replacement can be identified, refunds will not be possible and the Province will invoice your company for the full amount of the registration fee paid by Ontario minus the registration fee you paid to us. Although the deadline for registration has been set at March 28, 2023, I would urge you to register as soon as possible. I anticipate strong demand for the spaces we have available. So please don't wait. Here are the registration links:</p> <p>For additional information, please visit the BIO website at: www.bio.org. If you are planning to attend, you will want to reserve your hotel accommodation and flights in order to obtain the best pricing and choice.</p> <p>Patricia Cosgrove Area Director, Health Industries/USA patricia.cosgrove@ontario.ca</p>	<p>Patricia Cosgrove (MEDJCT)</p>
<p>BioTalent Canada is happy to announce that 2023-2024 Student Work Placement Program (SWPP) funding is now available and accepting applications.</p> <p>The program's wage subsidies help knock down cost barriers, by covering the cost of a student's salary by 50% up to a maximum of \$5,000 and 70% up to a maximum of \$7,000 for first-year students and under-represented.</p> <p>Employers can submit their applications through BioTalent Canada's online application system – which has been significantly improved thanks to the valuable feedback we've received from you since launching in 2022.</p>	<p>Shannon Grazsat (Innovation Factory)</p>
<p>Applications for Cohort Two of i.d.e.a. Fund are now open!</p> <p>Building on the momentum of the inaugural i.d.e.a. Fund cohort, applications for Cohort 2 are now open; paving the way for a new group of forward-thinking companies looking to commercialize innovative technologies that will help continue Canada's transition to a green economy.</p> <p>Are you scaling a high-potential business and are committed to reducing its impact on the environment by redesigning or developing new products, services, processes, and technologies?</p> <p>Apply now to the i.d.e.a Fund now and unlock up to \$30,000 in matching seed funds and up to 40 hours of expert mentorship from our Venture Growth team.</p> <p>Applications are open until April 17th, 2023.</p>	<p>Shannon Grazsat (Innovation Factory)</p>
<p>Founders Fast Track: Sprint to Success (Apply by April 9th)</p> <p>Founders Fast Track culminates in a speed pitching event where your company will have the opportunity to connect and pitch to a minimum of three angel or preseed/seed stage investors. Who: Founders who are ready/nearing the stage of their first pre-seed investment. They likely have early traction and, if life-sci, are doing their first pilots.</p>	<p>Andrea Guest (Innovation Factory)</p>


Discussion	Presenter
<p>A cohort-based 6-week interactive training program for startups and growing businesses, who are selected via an application process. The program will culminate in an investor speed pitching day, with the top 10 finalists proceeding to the LiONS LAIR Gala.</p> <p>The course is largely virtual although there are a few in-person events at the Innovation Factory office. Applications open March 16th and close April 9th. The program runs from the first week of May into June. The Lion's Lair Gala will remain in September.</p> <p>For more information please check out the website here</p>	
<p>adMare Academy: BioInnovation Scientist (BIS) Program: Foundations (application due April 18)</p> <p>The adMare Academy is proud to launch the BioInnovation Scientist (BIS) Program: Foundations. This online, cohort-based program will provide early-career scientists with fundamental knowledge in therapeutics development while simultaneously building their professional skills to succeed in the Canadian life sciences industry.</p> <p>This national program will bring trainees together as a cohort, enhancing participant experience and facilitating peer network building. The 8-week online program is structured into four modules that introduce early-career science professionals to the world of therapeutics discovery, development, and commercialization. The program covers important topics such as intellectual property, the high risk/high reward nature of the industry, and the importance of incorporating inclusion, diversity, equity, and accessibility principles into therapeutics development.</p> <p>Learners will benefit from live online discussion sessions with industry experts and "real world" practical activities that enable participants to reinforce and deepen their learning from the online modules as well as develop and strengthen their business acumen and professional skills.</p> <p>The BIS Program: Foundations is open to scientists possessing at least a BSc. or equivalent degree who are either newly employed in industry or working/training in academia, with a view to transition to commercial organizations. Applicants must reside in Canada and apply before the April 18th deadline using this link.</p>	<p>Ann Meyer (BIS Program, adMare Academy)</p>

Time allotted | 15 Minutes

Topic: Collaborate & Accelerate

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

Discussion	Presenter
<p>Want to Connect with your Ecosystem: Check out the Synapse Health Ecosystem Directory</p> <p>Synapse has created a Director of +200 private- and public-sector organizations in the Hamilton (and regional) health innovation ecosystem which work alongside the Synapse Consortium to support of the commercialization of health innovation. Learn more about what others are up to, and identify potential collaborative partners at: www.synapseconsortium.com/directory</p>	<p>Alex Muggah (Synapse)</p> 
<p><u>Engaging Mohawk College's IDEAWORKS</u></p> <p>IDEAWORKS projects in general (of which, MEDIC is one area) which was provided and may help with identifying if Mohawk College can support our companies with projects. This might be a refresher for some or all of us, but highlighting nonetheless:</p> <p>Tips for Innovation Factory Referrals to IDEAWORKS</p> <ul style="list-style-type: none"> • Our four innovation centres (MEDIC for Digital Health, AMIC for 3D printing, EPIC for energy efficiency related projects and MTIC for Medical Technologies related challenges) are active during this time- but note that due to existing commitments, are often looking at projects one month to three months in the future. • Other areas of expertise are on a case by case basis, especially this year, with a number of our faculty committed to teaching and revamping courses • The ideal applied research partner is one that is in the scaling stage; they have some revenue and can meet a lot of the funding agencies criteria for funding or want to self-fund a research project. Typically what we look for is 2+2; two years in business with two employees • We recommend working with us on projects that aren't mission critical but can help the company explore an innovative idea. <p>What about start-ups?</p> <ul style="list-style-type: none"> • If they require a few tips or advice, we can normally chat with them (or if there is a critical mass -like five or six companies in a space-, we can do a webinar type discussion). • They can see about the availability of capstone projects, where students generally work on projects for a four month period, for free, in order to get course credit. It may help with MVPs. <p>Contact Andrea Johnson for more information: andrea.johnson4@mohawkcollege.ca</p>	<p>Andrea Johnson (Mohawk College)</p>
<p>The CONNECTION - McMaster University Online Partnerships Portal!</p> <p>The Connection is a new program offered by McMaster's Office of Community Engagement (OCE) designed to facilitate online, mutually beneficial partnerships between campus and local Hamilton community organizations. As communities look for ways to adapt and rebuild in response to COVID-19 The Connection will make the process of addressing Hamilton community and University identified needs easier by providing online tools and resources. It's a way for everyone who sees themselves as part of a collective community-campus effort to connect and respond to COVID-19 locally</p>	<p>Gay Yuyitung (MILO)</p>

Discussion	Presenter
<p>Collaborating with McMaster Institute for Infectious Disease Research (New Intake Form)</p> <p>In addition to our ongoing COVID-19 research initiatives at McMaster, the Michael G. DeGroot Institute for Infectious Disease Research is mobilizing its strong research community to assist Canadian researchers and businesses in their attempts to find solutions to the international crisis. The IIDR teams have the capacity to assist with the testing of anti-viral compounds and products, as well as the testing of products or devices aimed at sterilization. This includes new methods for sterilizing personal protective equipment. They are able to offer services in the following areas:</p> <ul style="list-style-type: none"> • BSL2 cell culture infection with representative human coronaviruses; • Testing of methods or products that are designed to inactivate the virus; • Biochemical/enzyme studies with anti-viral agents. <p>Cell culture and small animal models of SARS-CoV-2 infection can be performed in McMaster’s secure biosafety level 3 facility. Availability for BSL3 testing is very limited, and projects requiring this type of work will be screened and prioritized by an internal committee.</p> <p>If you have a product or innovation that you are interested in pursuing further and feel that we could be of assistance to you, please reach out to us through the online form. Each project will be evaluated to determine if McMaster has the capabilities and capacity to perform the required testing.</p>	<p>Gay Yuyitung (MILO)</p>
<p>Hamilton-based technologies available for licensing</p> <p>Each year researchers at McMaster, Hamilton Health Sciences, and St. Joseph’s Healthcare Hamilton make new discoveries that lead to new products, services, or process improvements to help companies expand their pipeline or increase their productivity. The business development team at MILO is here to help you tap into and access these discoveries as efficiently as possible. MILO’s objective is to support effective transfer of these technologies to companies for social and economic benefit and enable the continued growth of research excellence at the institutions.</p> <p>Please contact Glen Crossley, Associate Director, Business Development and IP or search the list to see some of the technologies currently available for licensing or further R&D</p>	<p>Glen Crossley (MILO)</p>
<p>Hamilton Innovation Partnership Portal</p> <p>Synapse has created the Hamilton Innovation Partnership Portal (HIPP) to make the process simpler and more streamlined to find new partners within Canada’s leading health research and educational ecosystem. It is a way for companies to interact with the Hamilton community. A streamlined approach, to have Synapse represent everyone. We’ve set up an intake form for companies to direct request to the portal. Portal is online through the Synapse website: http://synapseconsortium.com/partner/</p>	<p>Alex Muggah (Synapse)</p> 
<p>Submit Community Events on the Innovation Factory Calendar</p> <p>Our calendar is home to Innovation Factory workshops and networking events as well as events from the community which help support our local entrepreneurs and businesses. If you have an event which may a fit, please submit it and we will review it within five business days.</p>	<p>Annie Horton (Innovation Factory)</p>