

Overview of The Clinic

Health Innovation Monthly Check-Up October 26, 2020

> Sarrah Lal, Milica Vukmirovic, & Leigh Wilson











Building capacity for

- Identifying what is (and what is not) a health innovation opportunity
- Navigating "idea-to-impact" processes
- Validating early-stage ideas and projects

e.g. Health Venture Program, Innovators in Scrubs, Clinical Health Innovation Program



Accelerating growth by

- Identifying commercial potential
- Matching validated projects with coaches, advisors and mentors
- Fundraising
- Company formation

e.g. The Clinic Residency Program

Creating a community of innovators



The right problem, the right solution, the right context

Problem Validation	Analytical Validation	Contextual Validation
Is there an inadequately served challenge in the population of interest?	Does your innovation correctly generate the intended value — is it accurate and reliable?	Does your innovation achieve the intended outcome <i>in and with</i> the context of interest?



CRITICAL QUESTIONS

- Is there an unmet need?
- How do I assess value?
- Does the solution provide value?
- Are there resources to support?

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CRITICAL QUESTIONS

- Is there an unmet need?
- How do Lassess value?
- Does the solution provide value?
- Are there resources to support?



CRITICAL QUESTIONS

- Do I have the right people?
- How do I build and validate this solution or protype?
- Can my innovation become a commercially viable product?
- How do I fundraise and form a company?

Offerings align with your stage and interest



Problem Validation		Analytical Validation	
Health Venture Program (13 Weeks) FALL WINTER SUMMER	Innovators in Scrubs (16 Weeks) FALL WINTER	Clinical Health Innovation Program (6-12 months) WINTER/SPRING SUMMER/FALL	
"Assess market value"	"Validate <u>new</u> opportunity"	"Explore how innovation fits into your career"	
Project Problem or Analytical Validation	Project Bi-weekly touchpoints Team	Project Team Interest in innovation	

Health Venture Program

Assess market value of an existing idea or project

13 WEEKS

Module 1 - Define Problems

Module 2 – Design Solutions

Module 3 — Activate Opportunities





- → Existing project or idea
- → Require problem, solution and/or business model **validation**

Patricia, Postdoctoral Fellow and Occupational Therapist

HVP was an excellent program to learn the steps to scale our health innovation from an idea to commercialization.





Innovators in Scrubs

Identify and validate a <u>new</u> innovation opportunity

16 WEEKS

Module 1 — Opportunity Detection

Module 2 — Eliminate Your Darlings

Module 3 – Prove the Value

Module 4 – Plead Your Case



- → No existing project or idea
- → Some experience in healthcare, business, engineering, or design that contributes to the Scrubs team







Clinical Health Innovation Program

Explore health innovation as part of your career trajectory

6-12 MONTHS

- Interactive Workshops ("Mix & Match" 5)
- Clinician-Venture "Advisory" Sessions (2)
- Virtual Industry Advisor Roundtable (1)
- Innovation Coaching & Career Discussions (2)

LAUNCHING

JAN 2021

- → No existing project or idea
- → Existing interest in innovation and entrepreneurship with desire to integrate this into a clinical career

Think Differently: Human-Centered Design & Co-Development

Improving Creativity: Rapid-Fire Solution Brainstorming

Maximizing Impact: Research Design for Innovative QI Projects

Dream Team: Recruiting the Right People

Prototyping Strategies for Innovation Design

Regulatory Considerations & Intellectual Property

Go-to-Market Strategy & Raising Capital

Effective Communications to Various
Audiences



Offerings align with your stage and interest





Problem Validation		Analytica	al Validation	Contextual Validation
Health Venture Program	Innovators in Scrubs	Clinical Health Innovation Program	Th	e Clinic Residency Program (9 Months) FALL WINTER SPRING
Problem or Analytical Validation Project	Team	Project Team Interest in innovation		Project Problem and Analytical Validation Commitment to weekly touchpoints

THE CLINIC @ MAC

The Clinic @ Mac

 New health innovation centre on McMaster University's main campus in the Health Sciences Centre Library







Progress to Date



Advancing fertility awareness-based methods as an alternative for hormonal contraception



Simplifying medical records to make them easier for patients to understand.



Systemic improvements to the kidney donor clinic model at St. Joseph's Healthcare Hamilton



A smartphone application that helps patients receive immediate care from a physician when experiencing a heart attack.

Accepted 8 teams into a summer pilot program

- Students from iBioMed, HESE stream
- Students from HVP and Innovators in Scrubs
- Clinician/engineer team from HHS

Progress to Date



Simplifying the consultation request process for hospitalists to optimize workflow for specialists, decrease wait time to treatment for patients, and provide greater resource visibility to hospital management.



A computer input device for individuals with reduced motor function.







A reliable and efficient way to meet the demand for non-urgent patient transportation.



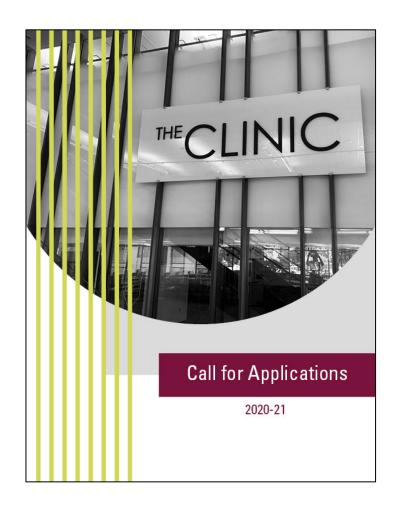
Heart failure management with an objective, reliable, non-invasive, and remote diagnostic tool.

Pilot program included:

- Hands on coaching from innovation coaches (milestones, roadmap)
- Content delivery: IP, prototyping, Q&A with start-up entrepreneurs
- Partnership with Forge
- Mentor directory access



Fall/Winter Cohort



Criteria:

- Well defined value proposition
- McMaster and/or MGDII affiliation
- Team identified, or willingness to engage team members
- Clinic capable of moving project forward

10 teams recruited

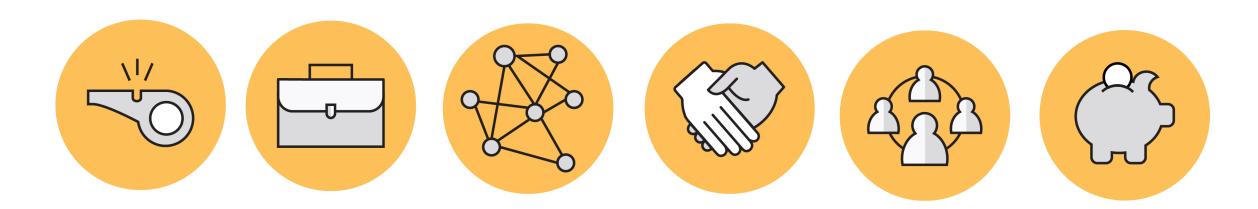
- Team Leads: iBioMed, HVP, BEng, BHSc, Clinician, McMaster faculty, Grad students
- Digital health applications, drug discovery platform, medical devices







The Clinic's Resources



- Innovation coaches
- Mentors in variety of health innovation fields
- Weekly opportunities to learn/connect
- Collaboration with The Forge on programming

- Database research resources
- Clinic @ Mac board: clinician/entrepreneurs
- Opportunity for Clinic Cash

THE CLINIC @ JOE'S

Residency at The Clinic @ Joe's

- Initial focus on the development of innovative approaches in the domain of lung, kidney, genitourinary, and mental health.
- Accepts projects that develop new drugs and innovative early stage technologies, new methods to improve the patient experience, and clinical practice.
- Given the proximity to clinicians and researchers, the location of The Clinic @ Joe's is a
 key point for the team and venture creation to develop, validate, and implement
 innovation.

Eligible Projects

- Formulated proof of concept study
- Supported with preliminary results
- Clear intellectual property position (MILO)
- Student/postdoc led project with high commitment from principal investigator
- Previous support via Health Venture Program or similar educational modules

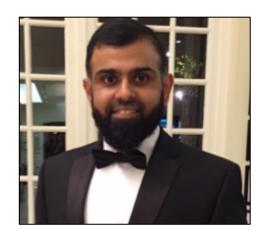
The Clinic @ Joe's Model

Provide access to networks, mentors, and events hosted by The Clinic @ Mac and The Clinic @ DeGroote. Support interaction with the McMaster Industry Liaison Office (MILO), tech transfer office and two local innovation hubs, The Forge and Innovation Factory.

- Market assessment
- Intellectual property strategy
- Regulatory strategy
- Building the minimal viable product and prototyping
- Commercialization of invention
- Fundraising

The MaCough Monitor

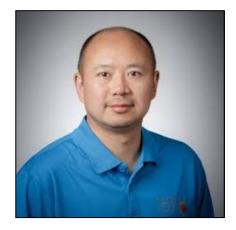
Solution to cough monitoring



Dr. Imran Satia
Assistant Professor,
Division of Respiratory,
Department of Medicine,
McMaster University



Dr. Paul O'Byrne
Professor, Department of Medicine
Dean & VP,
Faculty of Health Sciences,
McMaster University



Dr. Qiyin Fang
Professor,
Department of Engineering
Physics, McMaster University,
Canada Research Chair in
Biophotonics



The Forge Startup School Student

BSc, McMaster University







Personalized and Predictive COVID-19 Diagnostics



Jeremy Hirota, PhD
Canada Research Chair
Respiratory Mucosal Immunology
Assistant Professor McMaster University
Adjunct Professor University of Waterloo
Affiliate Professor UBC
Co-Founder — CEO



Andrew Doxey, PhD
Associate Professor, University of Waterloo
Adjunct Professor, McMaster University
Co-Founder – CTO



Milica Vukmirovic, PhD
MGDII Health Innovation
Fellow, McMaster University
Coach – The Clinic @ Joe's



Shin Wang
BEng
MBA Intern









∞infinotype

Novel Treatment For Diabetic Kidney Disease



Joan Krepinksy, PhD, MD Professor, McMaster University St. Joseph's Healthcare



Jackie Trink
PhD Student
McMaster University



Anthony Rullo, PhD
Assistant Professor
Pathology and Molecular
Medicine



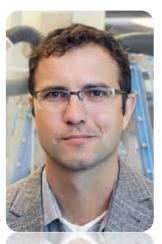




Systemic Therapeutics to treat High Cholesterol and Non-Alcoholic Fatty Liver disease (NAFLD)



Richard C.
Austin, PhD
Professor, Medicine
Amgen Canada
Research Chair
in Nephrology



Jakob Magolan,
PhD
Associate Professor,
Biochemistry
Boris Family Chair in
Drug Discovery



MD, MSc, FRCPC Professor, Pathology and Molecular Medicine

Guillaume Paré,



Paul Lebeau,
PhD
Post Doc
Austin Lab



Jae Hyun Byun,
MSc
Graduate Student
Austin Lab



Paul Saliba Graduate Student Magolan Lab



Matthew
Sguazzin
Graduate Student
Magolan Lab





The Research Institute of St. Joe's Hamilton

The Clinic @ Joe's Commercialization Team



Milica Vukmirovic, PhD
MGDII Health Innovation
Fellow, McMaster University
Coach – The Clinic @ Joe's



Shin Wang BEng MBA Candidate MITACS Fellow







Expand Resources and Capacity with The Clinics in Hamilton

















How Can You Help?

- Introduction to professionals who can serve as mentors / advisors
- Introduction to investors and commercialization funding agencies
- Introduction to C-suite level executives







Anna Korol, PhD

Education @ The Clinic Innovators in Scrubs

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Sarrah Lal, MBA

Education @ The Clinic HVP, Innovators in Scrubs, CHIP

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