

JUMPSTART ANNUAL HUDDLE

—  2022  —

Bringing together leading minds, innovators,
decision makers from the MedTech
ecosystem in one virtual space.

FOUNDING PROGRAMME LEADS



SUPPORTED BY



FOREWORD

Since its inception in 2016, JUMPstart has established a successful model of accelerating early stage medical devices (hardware and software) by working together with clinicians, scientists/researchers and engineers to develop innovative solutions that address areas of unmet need.

We have since completed 7 cohorts, supporting 34 new ventures and over 110 medtech entrepreneurs so far. Our new ventures have successfully raised close to S\$19 Mn so far with 4 of these new ventures already commercially launching products - a testament to our approach.

Today we bring to you 8 selected start-ups. We hope you enjoy their pitches and encourage you to continue the conversation with the companies today and in the future.



Visit Huddle 2022 Website:
www.jumpstartmedtech.sg/huddle2022

Shuwen Koh

**DIRECTOR
NUS ILO**

David Toh

**CEO
NTUitive**

Woon Kwong Wong

**DIRECTOR
OFFICE OF
TECHNOLOGY AND
ENTERPRISE, SUTD**



ABOUT JUMPSTART

JUMPstart (Joint University MedTech Programme) is Singapore's only university programme dedicated to supporting entrepreneurs developing regulated software or hardware Medical Device solutions. Operated by the three largest local universities, NUS, NTU and SUTD, and supported by Enterprise Singapore, we provide comprehensive support to pre-start-ups and start-ups. JUMPstart is strengthening Singapore's growing Medical and Health technology ecosystem by accelerating innovation and developing entrepreneurs to develop solutions that address unmet needs.

JUMPstart's tailored acceleration methodology is based on a core philosophy of customizing entrepreneurial support to ensure projects with clear clinical and commercial potential receive appropriate mentoring, support and essential funding. Our 24-month intensive industry-led programme delivers modular support to accelerate MedTech innovation to market.

As a collaboration driven, industry-led and outcomes focussed programme, JUMPstart has successfully leveraged resources available within the Universities and complement those with external resources such as investors and industry to develop a comprehensive ecosystem for health technology translation and commercialization through new business ventures.

Learn more about JUMPstart



www.jumpstartmedtech.sg



<https://www.linkedin.com/company/jumpstart-medtech>



FOUNDING PROGRAMME LEADS



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JUMPSTART

ANNUAL HUDDLE

—  2022  —

—  INVESTOR SHOWCASE  —

2022



Crafting New Generation Non-Toxic Bioresorbable Magnesium Implants for Trauma Fixation

Magloy Tech has developed OrthoMag, a disruptive material for developing bioresorbable magnesium implants for orthopaedics and trauma surgery that can make implant removal surgeries obsolete.

FUNDING STAGE

SEED

Raising Pre-Series A

ABOUT THE START-UP

- Magloy Tech aims to provide surgeons with highly functional absorbable implants that can reduce post-surgery complications commonly associated with permanent metallic implants used in the trauma fixation sector.
- The novel implant has been developed using a patented biocompatible, non-toxic magnesium alloy that lends it a strength equivalent to titanium to provide superior mechanical stability and bone support to facilitate the healing process.
- Implants made of OrthoMag dissolve over time to leave only natural, healthy bone tissue.

SIGNIFICANT MILESTONES

- 7 Design validation and pre-clinical trials underway
- 7 Secured NUS Graduate Research Innovation Programme (GRIP) funding of S\$100,000
- 7 Awarded Startup SG Tech Proof-of-Value grant of S\$500,000
- 7 Established partnership with Osteopore International to commercialise a first-of-its-kind fully degradable facial bone fixation solution consisting of dissolvable magnesium plates and screws coupled with Osteopore's 3D printed tissue regenerative products
- 7 Established partnership with SRS Life Sciences to develop and commercialize bioresorbable magnesium implants for orthopaedics with focus on India and South-East Asia market
- 7 Recognized by MedTech Innovator Asia Pacific as one of the 20 leading MedTech start-ups transforming the healthcare industry
- 7 Co-founders of the company, Vyasraj Manakari and Gururaj Parande were featured in Forbes 30 Under 30 Asia list 2021 under Healthcare & Science Category for their contribution towards research and Entrepreneurship

FOUNDING TEAM



Vyasraj Manakari
Chief Executive Officer



Gururaj Parande
Chief Technology Officer



Manoj Gupta
Research and Development Director



Raymond Wong
Clinical Partner



www.linkedin.com/company/magloy-tech



mbvyasraj@magloytech.com

Guiding Precision Radiotherapy with Simple to Use MicroRNA-based Tests

ProlegoMiR is creating simple and accurate biomarker tests to predict radiotherapy success and chance of relapse for cancer patients. Our tests aim to guide radiotherapy planning to improve treatment outcomes.

FUNDING STAGE

PRE-SEED

Early-stage, Product Development

ABOUT THE START-UP

- We create simple and accurate microRNA-based biomarker tests to predict radiotherapy success and chance of relapse for cancer patients.
- Our tests use standard diagnostic laboratory PCR methods and optimised reagents, coupled with our propriety biomarker panel and risk calculation software for biomarker detection.

SIGNIFICANT MILESTONES

- Filed provisional patent application for first biomarker panel
- Obtained grant funding to commence multi-centre validation studies for flagship biomarker panel
- Research agreements have been signed with local and international clinical KOLs to commence development and validation studies for biomarker panels for multiple cancers

FOUNDING TEAM



Dawn Nin
Co-Founder
(Tech and Product Development)



Yan Ting Zhang
Co-Founder
(Commercial)



A/Prof. Lih-Wen Ding
Co-Founder
(Scientific Advisor)



www.linkedin.com/company/prolegomir



dawnnin@prolegomir.com
commercial@prolegomir.com

Magnetic Mitohormesis

Brings the health & wellness benefits of exercise without physical stress or strain.

FUNDING STAGE

SEED

Raising Pre-Series A

ABOUT THE START-UP

- QuantumTX is a Medtech start-up harnessing the natural curative benefits of exercise to improve how we age. Our patented muscle-activating technology was developed at NUS (Singapore) and ETH (Zurich), and employs safe and gentle magnetic fields to activate muscle-mitochondria without physical movement or strain. Regular weekly sessions result in muscles with more energy for recovery and regeneration. Activated muscles also send signals around the body to improve bodily functions like metabolism, regeneration and inflammation.
- Hundreds have used our devices to improve their Quality of Life. Clinical trials are underway (Singapore and Hongkong) to validate our benefits for Sarcopenia and Diabetes.

SIGNIFICANT MILESTONES

- Launch of BIXEPS Fitness & Wellness Device with \$500K in Revenues
- >500 users benefitted from improved fitness, mobility and quality of life
- 3 pay-per-use centres and 5 devices with eldercare providers
- 6 pilot clinical and community studies completed with hospitals and eldercare providers showing improvements in muscle recovery and functional gains

FOUNDING TEAM



A/Prof. Alfredo
Founder
Inventor



Prof. Lee CN
Founder
Chief Advisor



Dr. Jürg Frölich
Co-Inventor
Head of Tech



Ivan Goh
Chief Executive Officer



Fann Lee
Biz Dev Director



Li Jingze
Chief Engineer



www.quantumtx.com/



ivangoh@quantumtx.com

Making Diagnostics Accurate, Accessible and Affordable

We enable pathology clinics to reach 10x more customers by converting collection centers into point of care labs. We do this through our patented lab in a box diagnostic platform.

FUNDING STAGE

SEED

Raising Pre-Series A

ABOUT THE START-UP

- QuikPath is a women led company with a mission to improve healthcare access for 3 billion people in LMIC geographies. We envision a new status quo, by building technology that is customized for distributed settings, we will lower the barrier to entry for every healthcare practitioner to provide on-site, robust and actionable results from their own dedicated testing centers.
- Our solution is an open diagnostic platform for infectious disease and precision medicine diagnostics. The solution consists of a molecular testing cartridge that can run a gold standard PCR test in any environment and a digital record generating device.
- We have partnered with 2 companies to bring various tests onto our platform including a respiratory panel, mosquito borne disease panel and a food testing panel.
- QuikPath is the only technology in the market that is specifically designed according to WHO's ASSURED guidelines that can run a batch workflow. This has opened up a new market catering to the 1000's of underused testing centers in LMIC countries that do not have the CapEx and manpower to expand their product offerings.

SIGNIFICANT MILESTONES

- Mass manufacturing established
- Revenue from pilots in 5 countries
- 2 Clinical trials underway
- ISO 13485 Certification obtained
- Obtained Letter of Intent for 50,000 tests/month
- Secured MOU with Pan-India diagnostic chain
- Provisional regulatory approval in Singapore

FOUNDING TEAM



Dr. Anansa Ahmed
Co-Founder
Managing Director



Ishita Dhamani
Commercial Lead



Dr. Aarti Ozarkar
Research and
Development Lead



Alex David
Vice President of
Engineering



[www.linkedin.com/company/
quikpath-rapid-testing/](https://www.linkedin.com/company/quikpath-rapid-testing/)



anansa@quikpath.sg



The World's First Clinically Proven Scar Prevention Technology

Scarless' topical siRNA microneedle patch is the world's first effective and clinically proven scar prevention solution to overcome the severe physical, mental and socio-economical burdens suffered by millions of scar patients.

FUNDING STAGE

SEED

Seeking Seed Funding

ABOUT THE START-UP

- Scarless has developed a topical microneedle patch loaded with scar tissue-silencing siRNA nanoplexes to provide a scar prevention solution that is effective, safe and easy to use. The microneedle patch functions like an adhesive plaster which can be easily and topically on the skin by patients themselves, providing effective prevention of post-surgical and traumatic scars.
- The design of the Scarless' dissolvable microneedle overcomes 3 main bottlenecks to achieve transdermal siRNA silencing: (1) Delivery across skin barrier, (2) long-lasting, and (3) cell-targeting siRNA nanoplex into the skin. Scarless' dissolvable siRNA microneedle is also a platform technology that can be customized with specific siRNAs to target the skin's inflammatory and immunology pathways to treat a wide range of skin health or medical conditions.

SIGNIFICANT MILESTONES

- Improved product prototype with TRL 6-7
- Patent filled in Singapore (PCT/SG2022/050027)
- Product was certified under ISO 10993 standards (Biological safety evaluation of medical devices)
- Clinical trial is on-going at Singapore National Skin Centre
- Secured Licensing Agreement for China

FOUNDING TEAM



Prof. Timothy Tan
Chief Executive Officer
Chief Investigator
Inventor



Prof. Tey Hong ZLiang
Clinical Investigator
Co-Inventor



Dr. Chun Yong Yao
Research Scientist
Co-inventor



www.linkedin.com/company/scarless/



tytan@ntu.edu.sg



Test At Home

Enabling Simple, Accurate and Convenient Home-Based Healthcare

Research and Development of 'Lollipop-like' oral cavity sample stimulation, extraction and detection kit technology for home-based health biomarker screening and testing of conditions including COVID, TB, etc.

FUNDING STAGE

PRE-SEED

Bridge Before Seed

ABOUT THE START-UP

- Test At Home is a Singapore-based biomedical technology company supported by Antler Singapore, and National University of Singapore. It is developing and further iterating a clinically proven do-it-yourself stimulated oral fluid collection 'Lollipop-like' kit along with its associated technologies with stabilization and transport medium for point-of-care testing of health conditions.
- The 'Lollipop-like' technology optimizes ease of collection and provides superior samples with proven performance for those requiring high-quality biological samples for diagnostics. The 'Lollipop-like' kit can be applied for Infectious Diseases, STIs and others. The company is founded by a doctor, a biomedical engineer - scientist, and a healthcare business expert.

SIGNIFICANT MILESTONES

- Initial fund-raise from Antler Singapore
- Research collaboration with National University of Singapore - Life Sciences Institute and University of Strathclyde, UK
- Provisional patent application filed for the device
- Completed a registered clinical trial on concordance between our 'Lollipop-like' kit and conventional nasal swabs for COVID 19 with an accuracy of 95% and identified more positive cases than conventional nasal swab
- Manufacturing and regulatory strategy formulated with strong partnerships from leading agencies around the world
- Strong technology roadmap and partnerships for future medical and clinical use cases including TB, Food sensitivity, oral microbiome, etc

FOUNDING TEAM



Kanu Batra
Chief Executive Officer



Dr. Vivek Manoharan
Chief Technology Officer



Dr. Terence Tan
Chief Medical Advisor



www.linkedin.com/company/test-at-home-ptltd/



vivek@testathome.co



Rapid, Definitive and POC diagnosis of Respiratory Infections

Revolutionizing respiratory infections diagnosis with THz sensing and machine learning to optimize patient workflow, saving \$4B in healthcare costs.

FUNDING STAGE

SEED

Seeking Seed Funding

ABOUT THE START-UP

- TeraM is spin off tech from Centre for Disruptive Photonics Technology (CDPT), Nanyang Technological University (NTU). We are developing a novel sensing technique based on terahertz technology to detect respiratory biomarkers in exhaled breath. Benefits of this technique includes real-time detection, non-invasive, multiplexing, accurate and compact solution suitable for point of care application.
- As the first respiratory use case, we focus on influenza which is a serious global health threat, responsible for over 650,000 deaths annually. Misdiagnosis of flu in primary health care is very common, resulting in more severe cases, prescription of billions of unnecessary antibiotics courses translating to more than US\$4Bn healthcare cost annually. Our technology aims to disrupt the workflow for diagnosis of respiratory infections by providing an accurate and definitive diagnosis for better treatment decisions and antibiotic stewardship.

SIGNIFICANT MILESTONES

- Completed functional prototype
- Received offer for US\$ 250k pre-seed investment from leading hardware accelerator.
- Pending S\$250k Proof of Concept grant from NTUitive
- Expected filing provisional patent application for hardware in Q3-2022
- In active discussion with collaborators and interest manufacturers, channels and healthcare provider from Australia and United States
- Planned Clinical trial in Q4-2022

FOUNDING TEAM



Majid P. Fard
Chief Executive Officer
Co-Founder



Prof. Ranjan Singh
Chief Technology Officer
Co-Founder



www.linkedin.com/company/terameds/



majid2@e.ntu.edu.sg

Improving the Quality of Life for Dialysis Patients

UpperMed brings modern technology and service to all Peritoneal Dialysis patients to automate the setup of the heavy dialysate, data logging, and infection control in one package.

FUNDING STAGE

SEED

Seeking Seed Funding

ABOUT THE START-UP

- UpperMed is dedicated to improving the quality of life for dialysis patients. Their product is a portable solution for those on PD with easy accessibility to dialysis procedure – PD Care™, which includes a portable device and companion mobile application for data management.
- Their data management platform intends to enable medical staff to achieve real-time access to patients' dialysis status and adjust the prescription accordingly.

SIGNIFICANT MILESTONES

- Workable prototype, prepare for mass production
- First-in-human IRB has been approved, plan to recruit ~10 patients for study by Q3, 2022
- Partner with 4 hospitals across Singapore & Taiwan for the clinical investigation of device and infection detection
- Signed a letter of intent partnering with Omron for body weight & blood pressure data integration on PD Care App
- Medtech Innovator APAC 2021 Cohort

FOUNDING TEAM



Yi Chih-Cheng
Chief Executive Officer



Zi Yan Lin
Chief Technology Officer



Yan-You Lee
Research and Development Director



www.uppermed.com.sg/



jacky.cheng@uppermed.com.sg



Commercialization

Collaborations

Investments



<https://www.linkedin.com/company/jumpstart-medtech>



hello@jumpstart.com.sg