MEDTECH ACTUATOR

...SEED TO SERIES A IN 15 MONTHS

Foreword

Even before the pandemic, our economy was in transition – and at pace.

Traditional strengths that have served growth in the past are being overtaken by emerging technologies, sectors and industries upon which the Asia Pacific's future economic and social success will depend.

COVID-19 has laid bare the interconnection of healthcare and the economy in all kinds of ways – as we look towards a social and economic recovery, we realise that we must find new ways of plumbing the depths of our region's advantages to find new forms of value and flourishing.

And this is where the MedTech Actuator enters the stage. Through dynamic programs, deployed across the entire innovation spectrum, our mission is to transform healthcare globally. We radically smooth and de-risk the traditional innovation pathway by bringing an entire MedTech commercialisation ecosystem to startups – catalysing venture development, speed to market, and value realisation.

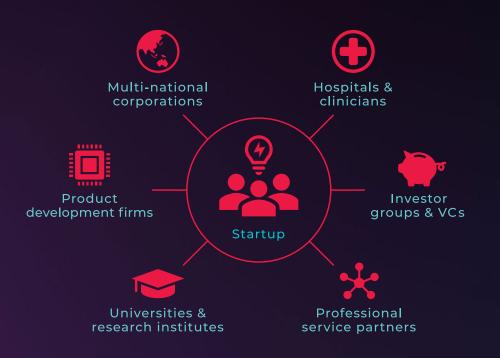
We launched the MedTech Actuator in January 2018 and in three short years, we have seen unapparelled success in our contribution to the deep-tech ecosystem within the region. In 2021, we have accepted more than 60 active startups - from Australia, Singapore and India – who have a combined market valuation of ~AUD \$250M and have released over AUD \$50M of early-stage capital from the investment ecosystem. With four companies now actively moving towards advanced manufacturing and 11 products on market, our startups are changing the face of health, across the Asia Pacific region. Shoulder to shoulder with our startups, the MedTech Actuator continues to simultaneously deliver healthcare, social and economic impact - fostering the technologies, industries and jobs of tomorrow.

The future is bright.

Dr Buzz Palmer CEO

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The MedTech Actuator™ Ecosystem Model



Bringing a MedTech, HealthTech or BioTech innovation to market is complicated and requires an industry-specific acceleration model.

> ike startups in other sectors, founders are likely to be developing software. But as a life sciences startup, they must also design and manufacture a physical product, navigate clinical trials, regulatory submissions, reimbursement models and multiple customer and stakeholder groups. This level of complexity is the reason why developing a MedTech startup up to series A can often take 3 years or more and requires access to a broad ecosystem of skills and capabilities.

Instead of founders chasing & assembling the various components of this ecosystem individually, the MedTech Actuator surrounds them with a dense network of partners – from hospitals to world-leading research institutes, from regulation, reimbursement and intellectual property experts to multinational corporations, and from product development firms to investors.

Embedded in the MedTech Actuator[™] ecosystem, startups radically advance their technology development, raise seed capital and build critical business and management skills. By the end of this intense 15-month journey, startups are road hardened, de-risked and ready to raise a successful series A round.



Origin

Turbocharging the medical and health innovations of Asia Pacific's best emerging entrepreneurs.

> he MedTech Actuator Origin international pitch competition is an industry-led pressure test for ideas to improve and save lives. MedTech, HealthTech and BioTech entrepreneurs receive 1:1 mentoring from industry experts to uncover and hone their strengths, refine their value proposition and take their idea further, faster.

Entrepreneurs go on to pitch in knock-out Rapid Fire Rounds for the chance to participate in 3 days of intensive commercialisation training. Finalists then pitch to investors, ecosystem VIPs and the largest names in global MedTech corporates at the gala finals.

Winners share in \$30K prize money and fast-tracked application to the MedTech Actuator — Asia Pacific's MedTech catalyst. MedTech Actuator Origin is supported by the REDI initiative, powered by MTPConnect.



Judges



Adrian Crouch Procept





Paul Carboon Outerspace Design



Kathy Connel

Senior Director, New Ventures, ANZ Johnson & Johnson Innovation



Shane Evans

Partner, National Head — Health & Ageing Industry Group Minter Ellison



Rod Wiebenga D+l



Andrea Ranzon IDE Group

Jeremy Lowe Cook Medical



Dan Witherington EY



John Smith Cook Medical



Malia Forner

Partner, Government Incentives, Tax | Oceania Entrepreneurship Leader EY Private



Eddie Walker

Partner, Patent Attorney (Medical Technology) FB Rice



Jason Spittle Cook Medical



Jamie Platt Medtronic



Warwick Shaw Johnson & Johnson



Kenji Taira Boston Scientific

Finalists



Dr Katherine Arenson

VeinTech The VeinWave - improving first pass cannulation success rates

Mentor: Rod Wiebenga,



Rohan Kapoor

BuzzSee

Wearable device that helps people with visual impairment to navigate using sound

Mentor: Adrian Crouch, Procept



Professor John Whitelock

Heparian A new process for the production of the anti-coagulant, heparin, in bioreactors

Mentor: Warwick Shaw, Johnson & Johnson



Sandal Kotawala

Intelligent Vision Analyser by Alfaleus Virtual Reality based solution for comprehensive eye screening and testing.



Dr Simran Singh

BheemHealth

A smart portable mattress that delivers the benefits of a hospital bed in any home for a fraction of the cost.

Mentor: Paul Carboon, Outerspace Design



Xuan Anh, Nguyen (Simon)

SurgSimTech

Intelligent system for the automated and objective assessment of surgical skills training

Mentor: Warwick Shaw, Johnson & Johnson



Sylvia Chien

OminiWell Growing organs in mini-wells for rapid drug testing of personalised medicine

Mentor: Joshua Lim, MedTech Actuator



Ritesh Warty

FESsary

Novel device for rehabilitating women's pelvic floor muscles

Mentor: Jeremy Lowe, Jason Spittle, John Smith, Cook Medical



Ethan Grooby

VECtor Medical Technologies *Preventing surgical nerve damage*

Mentor: Kenji Taira, Boston Scientific



Dr Takeo Tanaka

MediGear Saving inoperable cancer patients



Esther Lestrell

Raijin

Nanotechnology biosensor for the cost-effective and accurate point of care testing of viral infection

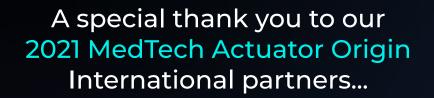
Mentor: Adrian Crouch, Procept

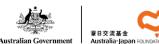


Dr Lesley Lam

Yabi Medical An innovative, accurate and automated method for monitoring and escalating surgical drain output

Mentor: Jeremy Lowe, Jason Spittle, John Smith, Cook Medical















The MedTech Actuator experience

2 month intensive

Commercialisation fundamentals Melbourne | Singapore

4 month tailored

1:1 mentoring | Team development Investor readiness

> Demo day Pitch to investors Singapore and Australia

9 month market focus

Seed round | Tailored tech & business development Prepare for series A

For life

Our networks are your networks as you scale up, prepare for exit and beyond



Improving the standard of care for paediatric patients

MedTech Actuator alumnus Navi Medical Technologies is developing the Neonav device to help clinicians deliver life-saving drugs and nutrients to millions of critically ill newborns and premature babies every year.

n an exciting development, the company is expanding their work to support older children, in partnership with the University of Melbourne, The Royal Women's Hospital and The Royal Children's Hospital – supported by a \$900K NHMRC Development Grant.

Placing thin, flexible tubes, also known as central line catheters in the veins of patients to deliver life-saving drugs and nutrients is one of the most frequent, invasive procedures performed in Neonatal Intensive Care Units. The biggest challenge for clinicians is knowing if the central line is in a safe position to use.

As many as 40 percent of central lines are misplaced, and more than half move or migrate inside the patient after the procedure.

Non-central lines can cause devastating patient complications, often requiring additional procedures and x-rays to fix.

"Currently we advance the catheter into the body without knowing into which vessel it goes, and then check with an x-ray," says Associate Professor Christiane Theda, Navi Chief Medical Officer and Neonatologist at the Royal Women's Hospital, Melbourne.

"There's just no easy way to know where the tip of the catheter is in real time – that's why we are developing the Neonav."

The Neonav ECG Tip Location System is a non-invasive medical device, designed specifically for children. It measures real-time signals through the catheter, to provide real-time tracking during and after the procedure. This reduces patient risks, improves clinical workflow, and reduces healthcare costs.

Navi recently commenced first-in-human research at the Royal Women's Hospital neonatal intensive care unit, using the clinical prototype of the Neonav ECG Tip Location System with patients for the first time. The team have also received a Victorian Medical Research Acceleration Fund grant to expand research in the Royal Women's Hospital to adjacent newborn procedures, and won funding from the US FDA-funded National Capital Consortium for Pediatric Device Innovation.

"As a Paediatric Vascular Access Nurse, I have been waiting for this solution for years," says Stephanie Pitts RN, MedTech industry senior executive and Navi board member. "I am proud to be a part of this team, changing and improving the standard of care for paediatric patients around the world."

www.navitechnologies.com

The industry representatives become friends and contacts that help build out a strong professional network in the MedTech industry. This is very valuable and would be much harder — and take longer — to develop outside the MedTech Actuator.

Alex Newton

Navi CEO

SAFEGUARDING FRONTLINE AND ESSENTIAL WORKERS FROM COVID-19

H

MedTech Actuator startup Soterius is scaling its COVID-19 biosensor to help protect frontline workers, essential workers, and the wider community from the devastating health, social and economic impacts of future pandemics.

Photo courtesy of RMIT University: Soterius sensors being prepared at RMIT University's Micro Nano Research Facility for advanced manufacturing of cutting-edge electronics. he reliable, accurate and noninvasive Soterius biosensor delivers immediate results – informing whether an individual is required to test for infection and self-isolate or providing the all-clear to enter the work environment. The Soterius biosensor will initially be delivered to hospitals, with future applications in other frontline and essential worker settings including quarantine hotels, airports, and schools.

Emerging environmental viral sensors are bulky, energy intensive and specific to one virus. In contrast, the Soterius biosensor is so small that it fits on a personal fob card and is now scaling to detect other respiratory illnesses. Importantly, the biosensor is easy to use: individuals just swipe their card over a reader at checkpoints.

Prototype tests revealed that the biosensor detects SARS-CoV-2 spike protein in the picomolar range with impressive accuracy and reliability. SARS-CoV-2 is the virus responsible for COVID-19. This indicates that Soterius could be a top performing diagnostic for respiratory illnesses by immediately detecting the lowest presence of viral load.

Founded by Dr Alasdair Wood and Dr Chih Wei Teng, the Soterius biosensor is being developed in collaboration with the Burnet Institute, RMIT University, D+I and Vestech.

"In 2019, when the terms 'social distancing' and 'stage 4 lockdown restrictions' were unheard of, we observed inherent weaknesses in the world's ability to protect itself against respiratory infection," recalls Alasdair. Alasdair and Chih Wei joined the MedTech Actuator – Asia Pacific's MedTech catalyst – in 2019 to validate their ideas, connect with product designers and partners, and build the skills necessary for scaling their company.

For Alasdair, the camaraderie and friendship amongst startup founders has also been a highlight.

"Peer learning is great – we went through highs and lows together in a safe environment. I also love the people that populate the MedTech Actuator. The team is great and the people they bring in are amazing. Our new connections with peers, mentors and the wider ecosystem persist beyond the program," says Alasdair.

"The MedTech Actuator provides the tools and connections to make ideas a reality, which is a very exciting proposition — but be ready to sprint!" Alasdair Wood, Soterius Co-Founder

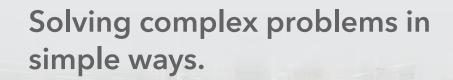
"The MedTech Actuator is a complete package. You're bound to learn and gain new perspectives, no matter how experienced you are," says Chih Wei.



We blend Heart, Science, and Ingenuity to profoundly change the trajectory of health for humanity.







There are common themes across every medical specialty we support: patients want to get better and doctors want simpler, more effective options. That's why we work hard to improve our minimally invasive medical devices and the way they're delivered to hospitals and doctors around the world. Being a family-owned business allows us to do what's best for patients.

Cook Medical Australia has more than 600 employees in manufacturing, distribution, engineering and technical specialties. The company exports more than 90% of its locally manufactured products to medical providers worldwide with devices across two product families: endovascular grafts for the treatment of vascular disease and in vitro fertilisation to assist those trying to conceive a child.





CONNECT

SHINE

Inspiration begins with a spark. At MinterEllison, we're proud to support MedTech Actuator in their work transforming inspiration into life-changing health innovation.

INSPIRE

°outerspace

let's talk

We'd love to hear about your product idea. Let's discuss your best path to launch.

MinterEllison.

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outerspace is a continued and proud supporter of the Medtech Actuator Origin Program

gabriel

Making it possible for seniors to live better longer

MedTech Actuator alumnus Gabriel is developing technology that delivers more proactive and integrated care to the elderly at home, hospitals and

aged care facilities by helping family, clinicians and carers to be in the right place, at the right time, with the right support.

"We founded our family startup together as Dad is getting older, and didn't want to be a burden on us as he ages," says Gabriel Co-Founder and Chief Marketing Officer, Maria Crews.

Maria, her brother, and father looked around the world and found that there was no complete, reliable system that would provide the level of care and protection that they wanted for their father, and that he wanted for himself.

"So we set out to create the ultimate solution," says Maria. Gabriel helps to prevent serious complications experienced by the elderly including falls, bedsores and eloping from buildings.

In one trial, Gabriel found that an aged care resident had spent two hours alone on the bathroom floor after a fall and eventually managed to return to bed.

"When we spoke to the site, they had no record of that fall having occurred — but now we can provide real-time tools to understand and respond with the care that is required."

Dad didn't want to be a burden on us as he ages. "

. gabriel

Maria recognises that people can be hesitant to ask for help and that the elderly are no exception, fearing that it may lead to life in an aged care home.

"That's why everything that we do is not only proactive, it's also passive. The person doesn't have to do anything, nor do their family, clinicians and carers – we do it all for them. And we're doing it in a way that protects and preserves their dignity."

This inspired the name, Gabriel.

"It's like having a guardian angel looking out for you. The system keeps an eye on you or your loved one, patient or resident, and looks after everything for you."

> Maria's MedTech Actuator experience and networks are helping to bring Gabriel's technology to people around the world faster.

"The MedTech Actuator built our understanding of navigating the MedTech landscape – from regulatory environments, to rules of engagement, networks, key players and the right people to talk to," says Maria.

www.ourgabriel.com

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Rachel Hooke

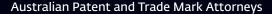
Partner Patent Attorney (Medical Technology)

Tel: +61 2 8231 1000 Email: rhooke@fbrice.com.au

Eddie Walker

Partner Patent Attorney (Medical Technology)

Tel: +61 2 8231 1027 Email: ewalker@fbrice.com.au





The Menzies Foundation & MedTech Actuator partnership

The MedTech Actuator and Menzies Foundation are unlocking the potential of Australia's world-class research.

The MedTech Actuator Menzies Fellowship and Scholarship programs support the scientific community by facilitating knowledge transfer between researchers and industry. By providing high potential researchers with tailored access to the MedTech Actuator, mentoring, and industry networking, the MedTech Actuator Menzies partnership is building the region's commercialisation capacity.

"We hope that our MedTech Actuator Menzies Fellows and Scholars will take what they have learnt, and the contacts they have made, back to their organisation. It is by developing these connections that we'll build the technologies, jobs and economy of tomorrow," Menzies Foundation CEO Liz Gillies said.

Fellows

A/Prof Jeremy Crook

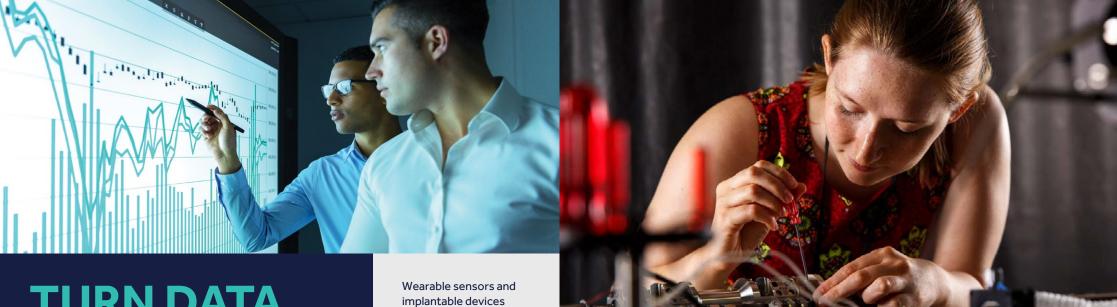
MedTech Actuator Menzies Fellow Associate Professor Jeremy Crook is developing a world-first neural repair medical technology. The technology will improve the lives of people living with neural tissue damage as a result of trauma, stroke, tumour or other illnesses that often result in long-lasting or lifelong physical and personal challenges.

Jeremy's work with his team has now progressed to an advanced proprietary electrostimulation platform for 3D bench-top tissue building and within-body tissue repair.

Dr Chris McCarthy

MedTech Actuator Menzies Fellow and CueSleeve co-founder Dr Chris McCarthy is working to make it easier for people living with low vision and neurocognitive disorders to live their life the way they choose.

CueSleeve is a therapeutic rehabilitation and assistive aid that helps users to identify, move towards, look at more closely, touch and pick up objects in their everyday life – whether at home, on public transport, dining and more. FELLOWS



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Medtronic Further, Together

Scholars

Infertility is often a silent struggle and those experiencing it face stress, anxiety and depression. With the number of couples needing treatment for infertility increasing every year, it is imperative we continue to research and develop methods to improve treatments and aid proper diagnosis. I am incredibly excited to come together with other junior scientists who are also working to improve patient outcomes and to learn and grow with them.

Hope Newman MedTech Actuator Menzie

Ned rech Actuator Menzies Scholar

I am determined to provide surgeons with state-of-the-art digital models and 3D-printed, personalised surgical guides to optimise patient outcomes. By increasing my commercialisation focus through the scholarship, I hope to accelerate the benefits of virtual surgical planning and precise surgical execution.

SCHOLARS

Martina Barzan MedTech Actuator Menzies Scholar

Smart Health

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If you're ready to bring your idea to life, contact us at: info@procept.com.au



PACIFIC'S MEDTECH CATALYST

MEDTECH O ACTUATOR

Asia Pacific's MedTech Catalyst

JAPAN SINGAPORE INDIA AUSTRALIA

43

Al technology reducing discomfort for c-section patients

A traumatic childbirth drives MedTech Actuator alumna, Cailin Ng – CEO and Co-Founder of HiCura Medical – to advance an Al-powered technology that can significantly reduce discomfort and risks for women around the world.

> During c-sections women often endure painful repeated needles for spinal anaesthesia, and risk complications such as nerve injury – and in rare cases – paralysis.

> > HiCura's artificial intelligence-powered imaging assistant, uSINE reduces pain and risks by delivering spinal anaesthesia in the right location, at the right angle, the first time.

> > > One study revealed that doctors were able to achieve a first attempt success rate of 92 per cent using uSINE, far higher than the global first attempt success rate of 50 to 60 per cent.

"Women all over the world choose epidural to relieve their pain during childbirth. I truly hope my technology will ensure they do not have the experience I had," says Cailin.

www.hicuramedical.com



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Australia's National Digital Health Initiative



International VC investment advancing non-invasive bionic ear

MedTech Actuator alumnus Augmented Bionics has raised \$650K in a round led by UK-based VC fund IP Group — supported by MedTech Actuator partner Artesian — to advance a groundbreaking, noninvasive, bionic ear for people with severe to profound hearing loss.

to profound hearing loss – the vast majority of whom receive no hearing support or only have access to technology that does not meet their needs.

Augmented Bionics will make it possible for individuals around the world to access safer, more affordable, and easy to use hearing support without the need for surgery.

Fitted by a hearing audiologist, the noninvasive bionic ear is worn just like headphones and activates the auditory nerve through magnetic waves from outside the body. This will make it possible for individuals with profound to severe hearing loss to hear and comprehend speech, and to hear sounds from their environment.

This life-changing support is currently only possible through costly surgical alternatives that only a handful of the world's population can access and afford.

"The MedTech Actuator's support on all aspects of medical device commercialisation and the access to investors has been extremely useful."

Viraj Agnihotri Augmented Bionics CEO Founder and CEO Viraj Agnihotri moved from India to Australia to study technology and innovation, and to connect with Australia's biotech industry and hearing implant network – and went on to participate in the MedTech Actuator.

An initial investment in 2018 through the MedTech Actuator, backed by Artesian, provided seed capital for this groundbreaking technology. Augmented Bionics used this funding to develop their first prototype, file a PCT patent, and develop clinical trials and regulatory and reimbursement strategies for their hearing device.

Augmented Bionics' recent proof-of-concept investment round – and an additional US\$30K award from Tokyo-based Astellas Pharma Inc – will enable the team to demonstrate pre-clinical and first-in-human proof of concept, with support from researchers at Macquarie University and the University of New South Wales.







Want to build a better future with us?

IDE GROUP

At IDE we **love working together to build better futures**. We have successfully grown over 100 Medtech organisations by being an entrepreneurial partner that discovers and develops meaningful offerings that businesses can be built around.

We work with our partner organisations to find and assess business opportunities, conduct research, create and implement commercial strategy, gain access to funding, develop new technology, and **create successful Medtech ventures**.

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There are many startups with passionate and knowledgeable founders, all of whom become part of your network through the MedTech Actuator. That instant plug-in to knowledge is like expanding your own team far more rapidly than would normally be possible. **J**

Matthew Hoskin Nirtek Director and CEO The MedTech Actuator gave us the foundation to develop and launch our business and ultimately change the face of neonatal intensive care. With the support of the MedTech Actuator we have raised \$1.25M to date including a recent investment backed by the Walker Group...

Amy Yu Ventora CTO

medtechactuator.com

- E medtechactuator@medtechactuator.com
- 🥑 @medtechactuator
- in @medtechactuator